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# Cultural barriers to bicycle use in Western African cities: The case of Bamako and Ouagadougou

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#### **Abstract**

This paper deals with the use and perception of bicycles in two Western African capital towns, Ouagadougou and Bamako. It presents the results of two household surveys and semi-directive interviews held in these two cities.

After a brief presentation of the travel patterns in the two cities, we specify the social characteristics of bicycle users, and show the interest of developing bicycle use in order to reduce difficulties of daily trips and transport cost. The bicycle is used more for daily travel in Ouagadougou than in Bamako (10% to 2% of trips). But in the two cities, compared with other modes of transport, the bicycle is deemed dangerous in traffic, less efficient, and most of all, is perceived as the transport mode of the poor. These cultural barriers appear to be determinant in the non-utilization of bicycles.

We propose, in conclusion, some guidelines for a policy promoting cycling. A clear engagement from the local and national authorities is necessary to adapt road networks in favour of cyclists, in order to improve road safety. But these measures are not enough to change the unfavourable cultural environment. Changing the negative attitude towards this kind of transport should be considered a as a priority. A voluntarist and long term promoting policy is needed. It must be defined locally, in relation with the local cultural environment, and would differ significantly from country to country, even from city to city.

### **Key words**

Urban mobility, Bicycle, Attitude, Safe cycling, Promotion policy

#### Introduction

In large towns of Sub-Saharan Africa the situation of the poor regarding daily trip problems appears to be more and more difficult. Being unable to afford, or to cope with running costs of a motorised vehicle the majority of the population have but the choice of between public transport and walking. Public transport is expensive for city dwellers and because of insufficient investments, it is more and more difficult to supply a suitable service in rapidly urban sprawl. Consequently, poor urban dwellers make most of their trips on foot even for distances over many kilometres. In this context, the bicycle could be a solution to make easier daily mobility for underprivileged urban dwellers. Much cheaper in use than motorised transport, it is also much faster and less hard than walking.

However, contrary to China, Vietnam, India and most Asian countries<sup>1</sup>, the bicycle remains underutilized in African cities with few rare exceptions such as Ouagadougou or the towns north of Ghana such as Tamale<sup>2</sup>. Generally speaking in Africa, bicycles are used more in rural areas than in cities. Different hindrances explain this weak distribution of bicycles in African cities. The problems of road safety, and the difficulty of moving in four wheeled traffic are frequently mentioned<sup>3</sup>, similarly the purchase price is too high for those with very limited incomes and low saving potential<sup>4</sup>.

Cultural barriers are also alluded to in certain contexts, as for example in Uganda<sup>5</sup> or Ghana. In Accra, the poor coming from the North of Ghana have a favourable attitude toward bicycles whereas urban poor from coastal areas are very hostile to this mode of transport, mainly regarding its use by children. Even if the transport culture of one ethnic group is different from that of the other, in all cases the general attitude - shared by non-cyclist women - is not favourable to female use of the bicycle in this city. The reasons put forward are the risks of accident and the absence of decent clothing suited to this transport mode<sup>6</sup>.

Two research programmes were carried out in Ouagadougou, where the use of bicycle remains significant and in Bamako, where it is much more marginal. They lead to a better understanding of the interest bicycles could hold for the urban poor but also the barriers which the development of its use could meet. One of the principal findings of these surveys is the negative social image of the bicycle. In spite of some objective advantages connected to the bicycle (low running costs, convenient) it is considered as the mode of transport for the poor. In this context, political incentives to use the bicycle should not only lie in a reorientation of road infrastructure investments favouring non-motorised vehicles, but it must also take into account, and attempt to change, this unfavourable cultural environment. Before putting

forward a bicycle promotion policy, an analysis of its usefulness for mobility and of the cultural hindrances related to its use is presented.

#### 1. Survey data used

The data used in this paper are from two household surveys carried out in Ouagadougou (1992) and in Bamako (1993). The sample is larger in Ouagadougou (754 households) than in Bamako (251 households), the questionnaire is largely similar in both surveys, even if specific information was gathered only in one city (income and spending on transport in Ouagadougou, specific questions on the bicycle in Bamako). Information was thus found on:

- households characteristics: socio-demographic composition, housing characteristics, owned vehicles:
- all persons over thirteen years old in these households: socio-economic characteristics, access to household vehicles, opinions on different urban transport modes;
- characteristics of trips made the day before the survey by each person interviewed: motive for trip, departure and arrival times, mode of transport used, place of departure and arrival.

In Ouagadougou, 3682 persons over the age of 13 were surveyed. They made 13659 urban trips the day before the survey. In Bamako, the sample was 1666 persons, who made 4802 trips the day before.

In each of the two cities, these surveys where completed by some thirty more detailed interviews on the perception of modes of transport by users, authorities in charge of transport policies and leaders of opinion<sup>7</sup>.

#### 2. Mobility patterns in Ouagadougou and in Bamako

Bamako, the capital of Mali and Ouagadougou, the capital of Burkina Faso, are of similar surface size, topography and population (700 000 to 800 000 inhabitants in 1993) but differ greatly regarding transport systems.

Ouagadougou is well known as being the two wheeled capital in West Africa (for bicycles and above all for mopeds and motorcycles). In 1992 for 100 households, 153 two wheeled motors, 80 bicycles and 22 cars were counted. 55% of households own at least one bicycle and 21% of persons over the age of 13 can have access to this mode occasionally or daily (table 1). In the 80s, to facilitate cycling in the city, bicycle lanes were laid along five main major roads (i.e. some 20 kilometres in all) but they are frequently invaded by street vendors or by other road users.

In Bamako, two wheeler vehicles are also quite present, but less so than in Ouagadougou. Among these vehicles, bicycles are very much in the minority. For 100 households, 86 mopeds or motorcycles, 22 bicycles and 29 cars were counted. Only 18% of households own at least one bicycle and only 4% of the persons aged over 13 can have access (table1). In this town bicycles are used above all to carry goods. These professional trips are not surveyed in the households. With the exception of two bridges over the Niger river, reserved lanes for two non-motorised vehicles are virtually non-existent. On the other hand public transport is relatively developed in Bamako whereas it is marginal in Ouagadougou. The only common point between the two cities is that owning a car is a privilege for the minority (see table 1).

Table 1: Proportion of individuals aged over 13 who can use a household vehicle (%)

	Ouagadougou	Bamako
No access at all	36	62
Bicycle, daily	11	2
Bicycle occasionally	10	2
Moped or Motorcycle, daily	29	13
Moped or Motorcycle, occasionally	15	11
Car	4	10
Total	105*	100

<sup>\*</sup> Percentage exceeds 100 as individuals can use several types of vehicles (bicycle and moped, or bicycle and motorcycle)

Mobility levels measured as the number of daily trips per person over the age of 13 is contrasting in the two capitals. Average mobility in Ouagadougou is 3.7 trips and 2.1 mechanised trips, it is clearly higher to that of Bamako where the figures are 2.8 and 1.2 trips respectively. This difference can be explained partly by the high proportion of households owning vehicles in Ouagadougou.

Modal split of urban trips (weekends not included) is also quite different (table 2). In Ouagadougou one out of two trips is made by a two wheeled vehicle and one out of six by bicycle which shows that walking is less practised than in Bamako. In the later city, more than half the total trips are made on foot. 10% of all trips are long trips on foot (half an hour or more) as opposed to only 7% in Ouagadougou. The much more frequent access to two wheeled vehicles explains how urban dwellers from Ouagadougou are less often brought to walk long distances.

Table 2: Modal split

	Ouagadougou	Bamako		
Walk	42	57		
Bicycle	10	2		
Moped & Motorcycle	39	15		
Car	6	9		
Public Transport	3	17		
Total	100	100		

#### 3. Non-motorised transport users in Ouagadougou and Bamako

In Ouagadougou, the socio-demographic profile of persons having used the bicycle in the day before the survey is as follows:

- 71% are men. Compared to other African contexts women users are therefore relatively numerous.
- 52% of male cyclists and 60% of female cyclist are pupils or students.
- amongst male cyclists, 29% are working in the informal sector (small traders, craftsmen and other self-employed persons, journeymen, apprentices...). The bicycle is used less and less as income rises. Nearly one out of four members of the working population earning less than 60 000 FCFA<sup>8</sup> per month has a bicycle, against 6% of earners of more than this sum<sup>9</sup>.

In Bamako, given the small size of the sample of the group of cyclists, their characteristics cannot be assessed with precision. However, the high numbers of pupils and poor members of the working population among bicycle users appear here too. The main difference between the two cities lies in the fact that women do not use the bicycle in Bamako at all. The negative attitude towards women and cycling has deep roots in Bamako society since only one woman in two can ride a bicycle as opposed to 95% of men. The strength of these social norms relating to gender can be explained by the predominance of the Muslim religion in this city, but also by the ever present traditional lifestyles which limit the daily space of women to their home and the immediate neighbourhood.

In Bamako, the profile of those persons brought to making long daily trips on foot should be pointed out. 55% of men and 45% of women are found. 60% are under 24 years old, one third are pupils, 35% are working in the informal sector.

The socio-economic profile of Bamako "long distance walkers" is similar as that of cyclists in Ouagadougou. For these urban dwellers a more widespread use of the bicycle in town would

improve mobility conditions by avoiding a number of long trips on foot. In Ouagadougou, compared to pedestrians and public transport users, bicycle users have a higher daily mobility of nearly 20% (4.1 daily trips to 3.3 trips on average). On the other hand, their mobility is lower by 15% to that of motorcycle or car users (4.8 daily trips). But in the case of bicycle use this mobility incurs an incomparably lower cost compared to other types of vehicles including public transport. Expenditures on each transport mode, as were declared in Ouagadougou, show the bicycle as being the cheapest mode to operate (table 3). On the other hand, the purchase price of bicycles, three to four times the minimum wage, is too expensive for many households.

Table 3: Purchase price and monthly operating costs for regular users of different modes of transport, in Ouagadougou

	Purchase price	Operating cost per
		month
Car	2 115 000	37 000
Moped or motorcycle	247 000	10 000
Mass transit	-	3100
Bicycle	38 500	1000

100 FCFA = 0.35 US. Minimum wage = (approximately) 15000 FCFA; Median Wage in the survey: 35000 FCFA

#### 4. Urban dwellers opinions on bicycle and other transport modes

#### Converging diagnostic: bicycle's bad image

The questions asked being identical, the surveys in Ouagadougou and Bamako allow a cross city comparison of how bicycle caters to the needs as a mode of transport. Firstly the interviewees were asked to choose three characteristics out of a total of eight which they considered to be what they most expected from a mode of transport in general. These eight characteristics were defined in order to take into account the different dimensions of the modal choice:

- Spending little
- Saving a maximum of time
- Being able to go anywhere
- Moving accompanied by others
- Feeling protected from accidents and thefts

- Being free to come and go as one pleases
- Being sheltered from the wind and dust
- Being seen by others

The results are presented in table 4.

In Ouagadougou five characteristics came to the surface: being free to come and go as one pleases, spending little, being able to go anywhere, feeling protected from accidents and thefts, saving a maximum of time.

In Bamako the same five characteristics were found but in a different order: saving a maximum of time, spending little, being able to go anywhere, feeling protected from accidents and thefts, being free to come and go as one pleases. Another asset was rather often quoted, the possibility to take trips accompanied by others. But in this city, among these characteristics, only the first three were significantly higher than the average proportion (table 4).

Table 4: Characteristics expected from a mode of transport in general (%)

	Ouagadougou	Bamako
Being free to come and go as one pleases	57*	33
Spending little	48*	47*
Being able to go anywhere	46*	44*
Feeling protected from accidents and thefts	45*	34
Saving a maximum of time	41*	61*
Being sheltered from the wind and dust	29	27
Moving accompanied by others	19	35
Being seen by others	9	10

<sup>\*</sup> proportion significantly higher than the theoretical proportion (3/8), at the 5% level.

Secondly interviewees were asked if each of the transport modes matched the eight characteristics offered.

By comparing these two judgements for each individual, the degree to which the different modes of transport satisfy his requirements about daily mobility can be measured. For a given individual, marks for each mode of transport can be 0, 1, 2 or 3, if this mode is satisfying respectively 0, 1, 2 or 3 of the initially selected characteristics. By adding individual

responses, an average mark is given which provides a preference scale for the different modes. These marks are presented in table 5.

This assessment confirms that the bicycle is little appreciated by urban dwellers. It is found in last position slightly behind walking in Bamako whereas it is just ahead of the bus in Ouagadougou. In the later city, a gross lack in public transport explains this bad mark.

Its sole advantage over motorised modes is its cheapness (recognised by 96% of interviewees from Ouagadougou and 82% from Bamako). In Bamako where individuals were also asked for their opinion about walking it is recognised that cycling has two advantages over walking: it saves time and offers greater individual autonomy. However, they also consider that walking allows them to travel accompanied and in safety, whereas this is not the case at all with bicycle.

Table 5: Mean marks of different modes of transport

	Ouagadougou	Bamako		
Car	2,3	*		
Walk	*	1,4		
Bicycle	1,4	1,3		
Motorcycle	1,7	1,6		
Mass transit	1,3	1,8		

<sup>\*</sup> Information not available

#### The importance of social situation in attitudes towards the modes of transport

To which degree different modes of transport are appreciated varies quite similarly in the two capitals as a function of gender, social status, age and daily or occasional access to household vehicles.

Bicycle is appreciated more by men than by women. Generally speaking the former prefer mopeds and motorbikes to public transport and bicycle to walking whereas these preference orders are reversed for women. The differences between the two genders are however less obvious in Ouagadougou where, as opposed to Bamako, women have access to bicycles. In Bamako the attitude towards bicycles is even more negative when one doesn't know how to ride one.

Bicycles appear a little less belittled by the poor, informal sector workers, farmers, and pupils than by the employees and executives. Conversely, the higher the social level is, the more motorised vehicles are preferred: mopeds, motorcycles and, above all cars (at least in Ouagadougou where this mode was surveyed<sup>10</sup>).

In the two capitals highest marks given to the bicycle were obtained before the age of 18 after which interest in the bicycle drops dramatically with the coming of adult age. Also as one gets older the bicycle is less appreciated both for men and women. Social status also plays a role with young people by access to school. In Bamako as in Ouagadougou at the same age young schoolchildren like the bicycle relatively less than those who do not go to school. In Ouagadougou these gaps tend to widen as one becomes a student. Grants received are often used to buy a moped and the bicycle is therefore more and more belittled.

Finally, in the two cities, marks on different modes of transport show that people prefer those modes that they use most frequently (table 6). This remains true for bicycle users. But it must be noted that bicycle users (particularly adolescents) value mopeds and motorcycles even more. The attitudes of the young thus appear ambiguous since it is they who use the bicycle the most, but it is they who aspire most to two wheeled motorised vehicles for the boys and public transport for the girls.

Table 6: Mean marks of different modes of transport according to the access to household vehicles

	Walk		Bicycle		Motorcycle		Mass Transit	
	O	В	O	В	O	В	O	В
No access to a vehicle	*	1,40	1,49	1,32	1,72	1,60	1,43	1,90
Bicycle	*	1,39	1,66	1,90	1,79	1,92	1,37	1,72
Moped or motorcycle	*	1,31	1,22	1,27	1,76	1,67	1,25	1,63
Car	*	1,11	0,73	0,73	1,39	1,36	1,41	1,76

Information not available O: Ouagadougou, B: Bamako

Example of reading: on average, in Ouagadougou, individuals who can access to a household bicycle daily or occasionally, consider that the bicycle meet 1,66 of the 3 most important characteristics of a mode of transport. This mark shows that, on average, they prefer the bicycle to mass transit (1,37), but not to the motorcycle (1,79).

All these findings show that in the best of cases (Ouagadougou), the bicycle appears as a mode of transition for the young or for people of low income while awaiting better. In a situation which is less favourable to the bicycle (Bamako) for one's personal prestige it is better to be seen walking than pedalling as a Bamako student indicates while on the subject of trips to visit friends: "If you come on a bicycle, you are poor, whereas if you come on foot it doesn't say anything about your income, you may have another mode of transport at home". It

seems that historically speaking the movement is more towards the decline in the use of the bicycle in the two study cities and not towards its development. Ouagadougou is however behind Bamako in this process of decline in the bicycle. The free interviews carried out in the two cities leads to explanations for this negative attitude.

#### 5. The reasons for this negative attitude

Certain criteria coming into play in the choice of modes of transport, like cultural barriers and the perception of road safety, are not very visible in the surveys based on questionnaires. They are however well underlined in interviews with users.

#### "Using a bicycle is village-like"

Throughout the quantitative survey in Bamako only 20% of those surveyed consider that the bicycle is right for urban trips. Only the youngest, the under 16s, think the contrary by a majority. Inversely it is tightly associated to rural life. In Bamako the fact that this means of transport is often used by seasonal migrants for working in the carrying of goods reinforces its image of rural transport. This reproach to the bicycle comes to the fore very clearly in free interviews: to use the bicycle is "village-like". The rural character of the bicycle is often connected, by the older people, to the fact that the bicycle was used proportionally more during the colonial period than now as an old Imam questioned in Bamako declared: "Each moment brings about its own changes and the young prefer mopeds. Peasants can use the bicycle, but in town it's the moped".

#### "If you have a bicycle it means you don't have the means"

The social distinction by the ostentatious use of certain modes of transport seems determining in the procedure of choice of a mode of transport. The different individual modes of transport are all vectors of social differentiation. In particular it seems clear that the bicycle catalogues its user as poor, both in Ouagadougou and Bamako. The equation bicycle = poor is much more deeply anchored in the minds in these two cities than in Europe or Asia. This finding comes out very clearly in qualitative interviews of young school students. Comments such as "There are some who have complexes about coming to school by bike" were often heard in Bamako, and sometimes in Ouagadougou. To explain their refusal to use the bicycle, those surveyed invoked the importance of social groups and family circles. Either it is the boy/girlfriend who would find something against its use or it would be the family background,

colleagues at work, or school friends. In Africa urban societies, peer pressure weighs heavily on individual decisions. This contributes to the establishment of a tight relationship between social hierarchy and that of transport modes. So an executive who would like to use a bicycle would not be understood, would even be looked down on by the people he knows. "He would be said to be playing, that he was making fun of the poor. That God would give him his just rewards in that he would become poor!", as a district leader pointed out when being surveyed in Ouagadougou.

However within this logic of social differentiation, among the population, not all feelings regarding the bicycle are negative. According to the interviews, contrary to the traditional bicycle, the mountain bike appears fashionable among the young in both cities, including young girls. It is perceived as an elegant means of transport, comfortable, modern and up market and therefore a certain social status symbol for those who use it. But this result is provided by a small sample<sup>11</sup>. To be established more surely it needs to be confirmed by a larger survey.

## "I'm afraid of falling off in traffic"

The risk of accident is frequently put forward to justify the non-use of the bicycle and this feeling of insecurity deepens with age and social status. But accident risks are perceived as strongly for mopeds and motorcycles, which does not prevent them from being used. Furthermore, Bamako and Ouagadougou accident statistics show that, proportional to their participation in overall traffic, bicycles are subject to just about as many accidents as the average. There is therefore a discrepancy between the real and perceived risk of accident as far as bicycles are concerned. This discrepancy can also be explained by the social status that is linked to the bicycle. Objective and perceived unsafety must be linked to the general unfavourable attitude towards bicycles if it is to be understood<sup>12</sup>. In answers given, unsafety and accident risk are often linked to a lack of respect and to second class citizen status reserved to cyclists. This was made obvious a number of times during qualitative interviews in Bamako. "You're not respected in traffic when you're on a bike", "If you have an accident the car wouldn't stop. And you can be sure that the passers-by will take the side of the car even if it's in the wrong". Large vehicles have de facto priority over smaller ones. Insecurity when riding is often linked to implicit modal and social hierarchy on the road. This looking down on the bicycle in traffic appears to be fundamental, so much so that the bicycle seems to have lost its legitimate place on the road.

#### 6. Local authorities' perception of the bicycle

Those leaders of urban policy that were met, whether in Mali or Burkina Faso, are quite sceptical if not downright against the development of the bicycle in cities. This project appears as being in contradiction with the idea they have of urban transport systems. In particular, the development of public transport into structured companies corresponds much better to their will to develop and modernise their city. Most of them consider that the bicycle belongs to the past, and that city dwellers would not accept to go back to this mode of transport. They also insist on safety problems that would be posed by the development of the bicycle. This attitude is not African capital specific as it can be found with local authorities in Vietnam and China<sup>13</sup>. The attitude of the transport authorities has evolved towards a less unfavourable position during the course of this study.

#### 7. What promotion policy for bicycle use?

In the cities of the developing countries road infrastructure investment benefits those who have motorised vehicles and not urban poor. It is therefore legitimate to look for a way to promote the use of the bicycle, in an attempt to sway this tendency. The presentation of barriers to the development of this mode of transport in West African cities must not result in the belief that nothing can or should be done to promote its use. Indeed, on the contrary, faced with these obstacles which are not only technical or economic, but above all cultural, a global long term policy must be put in place. A policy which limits itself to improving objective conditions of bicycle use runs the risk of being less successful as it would not lead to the overcoming of cultural obstacles by itself.

Four types of measures can be debated in this promotion policy: economic measures, the attractiveness of the bicycle as a product, bicycle promotion campaigns and the improvement of its brand image, and finally road network improvements.

Managing to convince local authorities of the interest in developing bicycle use must precede any promotion strategy in cities. To do this, it is necessary to insist on the fact that the development of the bicycle use does not aim at replacing public transport but, on the contrary, is part of a multi-modal policy<sup>14</sup>. Both modes can coexist perfectly well as transport needs which are not catered for are numerous. To add to this, bicycle and public transport can be complementary in many cases. In particular when short trips in low density areas are mostly made by bicycles, this could avoid high costs of special bus services inside peripheral zones for public transport operators. For the moment in many west African towns, the integration of

non-motorised transport and particularly the bicycle in an inter-modal policy, is hindered by poor co-ordination of those institutions in charge of urban trip policy. The same reproach can be made to financial and development institutions whose investment projects are often sector orientated.

#### Bicycle buying possibilities

To render the bicycle more affordable to poor city dwellers, a number of measures can be considered, but their impact and start-up are difficult. First and foremost bicycle production costs should be lowered. Two options are possible. The first is to develop local bicycle industries. It implies the opening up of West African markets, an understanding between present manufacturers on the division of labour and on grouped supplying from distributors. The second, although risky for local industry, would be to open borders to bicycles from South Asia and the South East Asia.

A cut in bicycle prices could also be reached by a reduction in bicycle taxes, compensated for or not by an increase of those on motorised two wheeled vehicles. Finally, access to more flexible forms of credit for those who have been excluded or encouraging forms of collective saving could lead to the envisaging of this spending. However any action which is too obviously financial aid in bicycle buying risks to reinforce the image of poverty linked to it. More generally, for these reasons, a bicycle promotion policy which would only highlight its cheapness risks to end up being counter productive.

#### Bicycle attractiveness

The example of the mountain bike seems to show that adapting and diversifying the bicycle as product is necessary if it is to become attractive again in the eyes of urban dwellers. This comes through a widening of the range of bicycles currently offered in African towns. A widened range should lead to a certain social differentiation between models: a cheap model, one or more for women, one which is adapted to carrying luggage, a range of city bikes, of mountain bikes....

#### Promotion and fresh promotion of the bicycle

Improving the bicycle's image should be managed by local authorities and as a function of the inherent contexts city by city, the proposals offered here are by no means an exhaustive list.

In our opinion, the choice of pilot groups in awareness campaigns will create chain reactions with the rest of the population. The ideal point of view would be that the bicycle comes back into fashion for executives, but the bicycle is so poorly seen in this category that this seems difficult to do indeed. On the other hand the young, particularly schoolchildren, seem to constitute a group worth working on for a number of reasons.

It is a high number group. Nearly 60% of the urban population of Africa is under 20. Furthermore, behaviour patterns are less routed than those of adults. For the young, in particular, in big African towns there is always great interest in new products coming from the West, as it seems to be with the mountain bike. It is far from certain that youth loyalty to this form of transport can be maintained as they reach adulthood but broadly revamping the bicycle image in the eyes of the poorer members of society having little access to transport, and without stigmatising them, remains the main objective of a promotion policy. Using high-school children is a way to reach and heighten awareness for women, who are still often more reluctant than men to the use of bicycles.

These promotion policies could use different means, i.e. the organisation of events inciting the use of the bicycle for leisure at first, promotion campaigns in schools, parent awareness campaigns concerning road safety problems etc. These campaigns can only be carried out if progress is simultaneously made in the conditions of travel and road safety.

#### Investments in transport infrastructure

This promotion policy is, in our opinion, inseparable from an investment policy favouring non-motorised modes and notably the bicycle. These measures are, of course, the laying of bicycle tracks along main thoroughfares (and simultaneously creating place for other road-users such as street vendors, for which reserved roads are to be respected), and the solving of main safety black spots (selective adjustments of dangerous cross-roads). But what has been carried out in Ouagadougou also shows that parking problems and thefts must not be neglected. In this city, guarded bicycle and motorcycle parks at areas which generate traffic have been installed, which gives bicycle users a feeling of security regarding thefts and make its use more practical. In the same way, bus terminal feeder car parks could be envisaged to favour inter-modality.

The road improvement policy could have positive effects on two levels. Regarding trip condition objectives it would lead to less complicated and safer manoeuvring of bicycles in

traffic. Regarding symbols, it would show all road users that the powers at be are committing themselves to giving back a legitimate place to the bicycle in the city.

Most African capitals are neither people-friendly, bicycle-friendly nor environment-friendly<sup>15</sup>. It is one of the reasons why bicycles use in African cities has decreased significantly from thirty years ago, even for a city as Ouagadougou. One way to accommodate and encourage cycling might be a bicycle lanes network, park and bike facilities as well as traffic calming in residential districts. But cultural barriers have to be overcome with a voluntarist and long term promoting policy which would differ significantly from country to country, even from city to city.

#### Notes

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