

Pilot actions and fundamental lessons



Djibouti, 1988.

Here we present a “selection” of pilot actions conducted in the context of the program, touching on three of its aspects. These are: national co-operation or the institutional component, accident databases, and the “educational continuum”. This last aspect may be very closely linked with the problem of regulations. All of these aspects can be used to tackle the broader problem of developing local skills.

Senegal was the first, as a pilot country, to adopt the approach of national co-operation to define, develop, implement, and evaluate priority actions to improve road safety.

Since then, several countries in the sub-region have followed in its footsteps - Burkina Faso in 1995, Mali in 1996, Guinea in 1997, Benin in 1998 - with some global actions, as in Senegal, and others more tightly focused and specific. This was the case in the Ivory Coast, which implemented a pilot action for “youth” accident prevention, with the objective of making young people, whether in school or not, aware of the dangers of road traffic (please note: Ivory Coast has taken other actions which are within a national context and beyond the program of pilot actions discussed here).

■ National co-operation among the players

National co-operation involves taking account of what is at stake in the region. Some measures, by their nature and their regional scope, cannot be taken in isolation. This means that one must systematically wonder about the regional import of a given measure. For example, most African countries are currently working to reform their highway codes. This is clearly a subject that deserves to be dealt with in close co-operation with the other countries in the sub-region, from the earliest possible stage. For the countries of West Africa, the UEMOA provides a good setting for handling these issues³.

A global approach associated with co-operation

Accidents are multi-factorial. It is therefore important to consider all of the factors, in a global approach.

- Taking all components of road safety into consideration simultaneously, in all their complexity and diversity, sends a very strong signal: it declares an unmistakable political determination, and is thereby clearer to the population and encourages better mobilisation of the stakeholders.
- Such an approach is intrinsically linked to the co-operative approach. In effect, if all the players are involved with the approach, it is essential that each type of player mobilised should not feel alone in being called on for a contribution, nor, on the contrary, feel that his/her domain (national education, health, etc.) is neglected. The global approach in fact exerts a veritable bandwagon effect, encourages a degree of emulation and is an undeniable factor in the success of the policy so defined.

→ AN EXAMPLE...

The recrudescence of accidents involving pedestrians often leads the countries concerned to conduct specific campaigns aimed at pedestrians, reminding them of the rules of prudence. However, this measure alone is not enough. There must be complementary actions aimed at motorists, possibly accompanied by campaigns of police inspections, even improvements to road-signs, work on infrastructure, organising emergency services, first aid, etc. The problem must be dealt with as a whole for a significant effect to be achieved.

A participatory approach based on national co-operation

Road safety involves a great variety of players and factors. But even just identifying these players takes time and the difficulty of doing so is often greatly underestimated in Africa. Similarly, since the players do not have, spontaneously and naturally, an “objective” understanding of an accident, they sometimes identify only one factor, and regard that as sufficient, while others take refuge behind the term “fate”.



Pikine, Senegal, 1999.

³ UEMOA report, “Road safety diagnosis and proposals for a harmonised road safety policy in UEMOA countries”, March 2000, Isted/Inrets/Sitras.

Dialogue between the players contributes to learning the complexity of accidentology, insofar as it is an initial step towards a mutual understanding of one another's constraints and of the environments in which each other evolves.

"Co-operation" is truly the key word for the pilot actions taken in the context of the DTT group, insofar as they are based on national co-operation and emphasise partnerships with key players at local level, such as ministries and state technical agencies, local communities, professional organisations from the formal sector to the most artisan, associations, etc. In effect, it must be understood that if new regulations are imposed without co-operation or prior information, they will be poorly perceived, poorly understood, and sometimes even rather irrelevant: their implementation will be very likely to run into major difficulties. Dialogue, on the other hand, can create a more solid basis on which to establish the planned policy: if the measures are explained, they will be better understood and so more acceptable. In addition, dialogue with the parties concerned will sometimes lead to adjusting the measures that have been planned, or to a more gradual approach to their implementation, making them more acceptable because they more accurately reflect local realities and the constraints on each party.

A simultaneous confrontation of all players invariably produces the same effects, something observed since the first national road safety and urban transport seminars (in the years from 1992 to 1996):

A pedagogical effect

Before entering into dialogue, each of those involved is sure he has "the" solution: the land transport administration relies on regulations (often without even thinking about how to apply them, much less their acceptability), the policeman favours enforcement while at the same time carriers frequently interpret the introduction of a new regulatory measure as a "hostile" signal from the authorities and give highest priority to renewing the fleet of vehicles, maintaining that mechanical failures are a predominant factor in accidents.

After dialogue, carriers have a better understanding of the whys of this or that regulation and the land transport administration a better understanding of the difficulties police forces have applying regulations and of the various constraints (financial, economic, etc.) drivers and carriers must deal with. Each player thus leaves with a more complete and more objective vision of the problems. The ignorance or relative neglect, for several years, of the profession of "self-employed" carriers (sometimes called informal), often "tolerated" but not officially recognised, created a gulf between them and the other players, which can be bridged only through a continuous process of co-operation. The compartmentalisation of the professions is such that genuine

DAKAR: FROM DIALOGUE...TO RESPECT AND MUTUAL UNDERSTANDING

This effort at co-operation, which began in Senegal in 1992, in urban transport as well as in road safety, is today bearing fruit. One sign in particular is a "recycling" of professional drivers (more than 5,000 drivers in the self-employed sector), organised by the Cetud, that included experienced drivers from the self-employed sector among the instructors. This can be taken as a sign of recognition by the authorities of the professionalism of this sector, and of the mutual respect of those involved. This was obviously not unrelated to the success of this training or to its impact.

→ AS AN EXAMPLE...

The technical inspection of vehicles in Mali is a good example of how information and negotiation - concerning the adoption of regulatory measures - increase their acceptability. A first initiative that led to a strike by carriers was superseded by a new, more cooperative approach. Initially this allowed a technical inspection with modest requirements to be introduced, which is destined to become very gradually more stringent. Carriers then accepted these new "rules of the game".



Technical inspection in Bamako, Mali, 2001.

dialogue may take some time to become established, just as the climate of mutual distrust takes some time to yield to a new and more co-operative state of mind.

Greater acceptability of the measures taken

It is easy to understand why the measures taken are more acceptable when they issue from a dialogue, even a negotiation, and have been explained and understood.

Agreeing in principles, then carrying out the actions

Dialogue favours a stronger commitment, by those involved, to the measures taken and in some develops an even more active attitude, a veritable assimilation of these actions, which they take over as their own. They then really put a lot of effort into implementing them.

An overall vision of the actions

Responsibilities in the field of road safety are varied, so are the sources of funds. The actions taken are sometimes scattered, occasionally coming from initiatives that are practically individual, so much so that, in a given country, nobody has a true picture of all the actions taken, nor of how they fit together. Expanded co-operation can help create the missing overall national vision, which is precious for the whole process and also for new stakeholders in the sector.

The program places co-operation at the heart of the process of defining a road safety policy, and of formalising it through the creation of an ad hoc instrument of co-operation. The first step in the program takes the form of a national seminar, the first “signal” of the stakeholders’ involvement.

→ CONCERNING DAKAR, WE MAY MENTION:

- the participation of self-employed drivers in road safety radio broadcasts,
- the commitment of the police to accident prevention operations in schools, etc.

■ Accident statistics

These are among the countries’ primary concerns and are the object of the second stage of the program, just after the national seminar. In effect, accident databases are essential to defining a road safety policy, insofar as a solid knowledge of accidentology is the only possible basis of an appropriate, relevant policy. Setting up a computerised tool to collect and analyse accidents is one way to acquire the means of subsequently evaluating the measures taken and making the necessary adjustments or questioning what has been done. This action accounts for a significant share of the program (major investment in design and in training users), given that the stakes are large enough because of the regional interest aroused.

→ AN EXAMPLE...

1st pilot action in 1993, the National Road Safety Seminar at Saly Portudal (Senegal)

This seminar brought together, for four days, all players in road safety in Senegal, together with a few observers from nearby countries, from the group of DTTs. The Senegalese participants included in particular, representatives from the federations of carriers and drivers from the “self-employed” sector, namely the sector of “fast buses” and taxis. They found themselves together for the first time to compare their analyses and state their demands, their suggestions, and their particular constraints.

The objective fixed, namely to define together a plan of priority actions on which consensus could be reached, was attained; the actions selected at that time were:

- setting up an accident database
- reforming the driving test
- driver training
- technical inspections
- accident prevention and communication campaigns

The implementation of these actions has since then been steered by the permanent road safety committee, a consultative body, revitalised on this occasion, made up of representatives of all players (land transport department, carriers, drivers’ union, etc.).

In 1996, the action was duplicated in Mali when a national seminar was held aimed at defining guidelines for a road safety policy in the country.

The national seminar: the first step towards the emergence of a plan of priority actions that is as consensual as possible



Dakar, Senegal, 2001.

THE BAAC PROJECT, INTRODUCED IN SENEGAL IN 1994

The project, which bears by extension the name of the form (see appendix 1) which has been developed for the accident survey, called BAAC for "bulletin d'analyse des accidents corporels de la circulation routière" (Road traffic accident injury analysis form), is a global accident survey project, not limited to the software, but covering the whole data collection, entry, processing, and analysis procedure.

A better knowledge of accidentology: essential for preparing and evaluating policy, plans, and projects

First step in the project: creating a Senegalese ad hoc steering committee, including the land transport Department, the Ministry of the Interior, the Armed Forces Ministry, the public works department, the Ministry of Health, the Ministry of the Economy, Finance, and the Plan, and the Senegalese road safety authority. This

committee's task was to generate the accident survey and analysis tool and also to follow up the project (analyse the data, use it as a decision tool, etc.).

2nd step: in Senegal, the content was fixed under the following constraints: take account of local particularities, be relatively easy to fill out, while providing useful and reliable quantitative and qualitative information. There were training campaigns on how to fill out the form, essential to the success of the project.

3rd step: the committee fixed the accident survey circuit by distributing an information document to the heads of the

departments concerned and defined the training needs of the supervisory personnel of the forces of order (state and local police) responsible for filling out the BAACs. The circuit is the following: the forces of law and order are charged with filling out the BAACs by hand, the BAACs are then centralised at DTT level for computer entry. The DTT then processes and analyses the data and distributes it so that it can be used as a decision making tool.

The forms (BAAC) were computerised and the data processing software designed with the following constraints: an inexpensive tool, easy to use, and open enough to be able to evolve without major changes. Given this context, it was decided that Access software would be used, which is relatively simple to use and readily available on the market. The system is designed to allow statistical processing at the level of accidents, of vehicles, and of summaries. To ensure that this project would have a lasting impact, two Senegalese engineers were given the appropriate computer training; one was from the DTT in Senegal, the other from the private sector (a Senegalese information-processing firm), selected to maintain the software in the longer term.

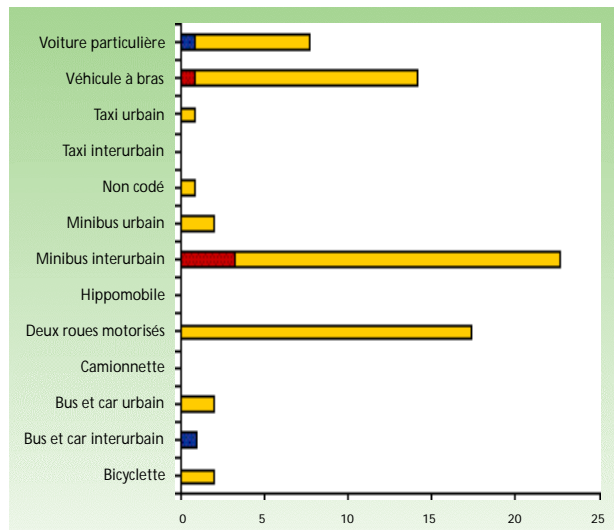
In 1994, a computer entry system for the BAACs was created; the data processing system was installed in 1995 (see Senegal summary sheet in appendix 2 p.29).

The emphasis today is on publishing and disseminating the statistical analyses and on motivating the police forces in charge of the accident surveys. The latter is accomplished in particular by returning the information to the police after entry and processing; in the long term, they will have access to the database and be able to submit their own queries.

ILLUSTRATION OF DATA PROCESSED BY THE BAAC SOFTWARE (FICTITIOUS DATA)

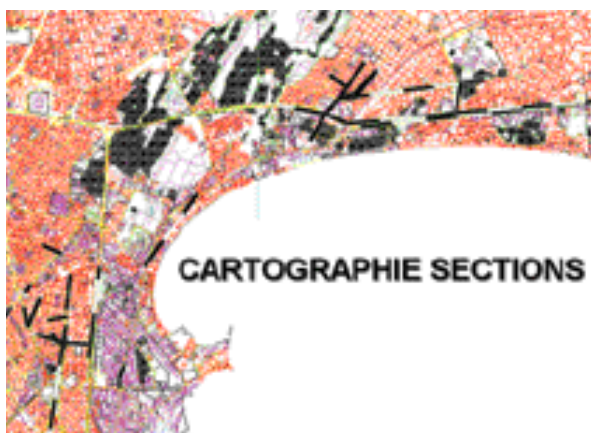
Genres des véhicules

	Véhicules	Tués	Blessés graves	Blessés légers	Pietons tués	Pietons blessés graves	Pietons blessés légers
Non codé	10 3%	0 0%	0 0%	1 2%	0 # Nomb	0 # Nomb	0 # Nomb
Bicyclette	6 2%	0 0%	0 0%	2 3%	0 # Nomb	0 # Nomb	0 # Nomb
Hippomobile	1 0%	0 0%	0 0%	0 0%	0 # Nomb	0 # Nomb	0 # Nomb
Véhicule à bras	22 6%	0 0%	1 25%	13 20%	0 # Nomb	0 # Nomb	0 # Nomb
Deux roues motorisé	87 23%	0 0%	0 0%	17 26%	0 # Nomb	0 # Nomb	0 # Nomb
Voiture particulière	135 35%	1 50%	0 0%	8 12%	0 # Nomb	0 # Nomb	0 # Nomb
Taxi urbain	8 2%	0 0%	0 0%	1 2%	0 # Nomb	0 # Nomb	0 # Nomb
Taxi interurbain	2 1%	0 0%	0 0%	0 0%	0 # Nomb	0 # Nomb	0 # Nomb
Minibus urbain	10 3%	0 0%	0 0%	2 3%	0 # Nomb	0 # Nomb	0 # Nomb
Minibus interurbain	79 21%	0 0%	3 75%	19 29%	0 # Nomb	0 # Nomb	0 # Nomb
Bus et car urbain	22 5%	0 0%	0 0%	3 5%	0 # Nomb	0 # Nomb	0 # Nomb
Bus et car interurbain	2 1%	1 50%	0 0%	0 0%	0 # Nomb	0 # Nomb	0 # Nomb
Camionnette	2 1%	0 0%	0 0%	0 0%	0 # Nomb	0 # Nomb	0 # Nomb
Total	384 100%	2 100%	4 100%	66 100%	0 100%	0 100%	0 100%



CETUD PROJECT

In the context of a Cetud project (Dakar Urban Transport Executive Committee), there was a cartographic development in the software on the city of Dakar with the support of the Senegalese company associated with the project from the start. It serves in particular to identify accident black spots.



Simulated example of a section of road which is a hotspot for accidents in Dakar, Senegal (indicated by black lines)

The BAAC has now been introduced in 5 African countries and there have been enquiries from most of the other countries. It is being updated to create a 2001 version that will be totally standardised at sub-region level, more user-friendly, and lighter (in capacity required). A specific methodological guide and a user guide for the software will then be prepared for the project.

The first published statistics show that the human factor has priority; to be sure, that can be discussed, insofar as the environment and the infrastructure are decisive factors in motoring behavior. However, action aimed directly at behaviour patterns seems inevitable; we have taken the option of touching on it by an “educational continuum” approach.

■ The educational continuum in Senegal

The notion of “educational continuum” means thinking in terms of the individual, taking an interest in each stage of his/her life, and applying an approach suited to each of them:

- from early childhood, through “youth” accident prevention (whether in school or not), with the individual then positioned in particular as a “pedestrian or cyclist”....
- ...through adolescence, the age of driving two-wheeled motor vehicles....
- ...then the age of learning to drive a car....
- ...and the particular step of the driving test....
- ...and finally over a whole life as driver or pedestrian, in the form of “continuous education” or of follow-up, often through targeted media campaigns, or again by specific treatment to drivers who commit violations (interviews, training, etc.).

Accident prevention and educating the young

Making young people who are not in school aware: new vectors must be identified

The option of targeting the action on training for teachers and school directors, in a few pilot schools, was chosen as a first step. The issue of young people not in school remains to be dealt with, because these children, who often hang about in the streets, are the most

exposed to traffic and therefore the most vulnerable. This point is the aim of a thinking process which began in the Ivory Coast. This first led to the need to identify or design new information and training tools. In effect, it involves finding or inventing media which is better suited to communicating with the young people concerned, who are often illiterate. This education should have recourse to new vectors: associations, clubs, religious schools, radio stations, music, etc.

Driver training and evaluation

Chronologically, the project considered the conditions of learning to drive, giving priority to literate populations that go through driving schools and which are easy to teach. A steering committee, with the support of experts, drew up the following assessment of the training offered, of the practices of the driving schools, and of the conditions under which the driving examination is held:

- heterogeneity of the training provided and of the training aids (French and Senegalese codes, slides, signs, copies, etc.)
- lack of road safety training of the instructors
- mismatch between the training provided in the driving schools and the questions asked in the driving examination
- lack of road safety training of the examiners
- lack of resources: rooms, testing documents, dual-control vehicles
- lack of transparency of the driving examinations.

→ AN EXAMPLE...

The Senegalese pilot action in schools for accident prevention

This was conducted in the context of a steering and follow-up committee for accident prevention actions in schools, made up of representatives:

- of pre-school and elementary education officials,
- of the departmental elementary education inspectorates of *Grand Dakar* and *Dakar Ville* and school officials in their jurisdictions,
- of the land transport department,
- of the national police academy,
- of the professional organisation of driver training schools,
- of the Senegalese road accident prevention authority,
- of the state police,
- of the department for public safety,
- of the State's judicial office.

Training teachers in road safety: the key to heightened awareness of road safety

In the pilot schools, road education is introduced in the school program as a transversal pedagogical activity. The pedagogical approaches and methodologies were studied during a training seminar for teachers and school officials.

An expert in teaching helped steer the methodological approach of the instruction in road safety. Guides and manuals for teachers were created.

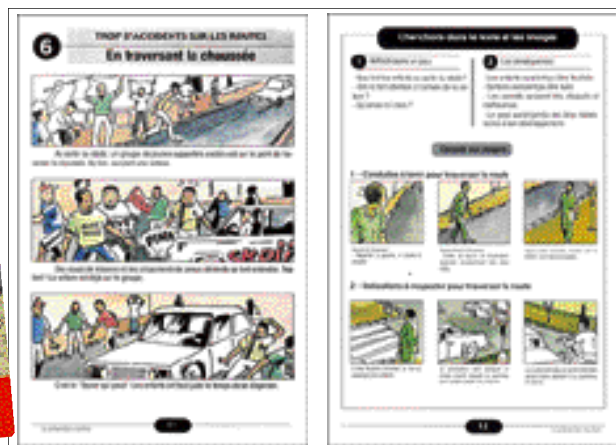
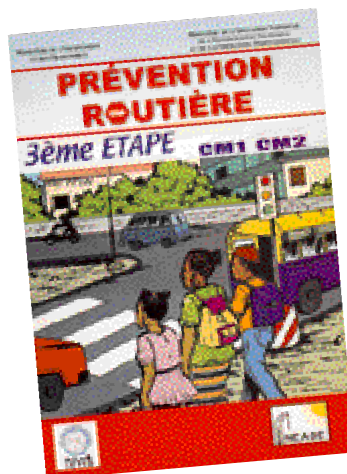
Awareness and training seminars for the teaching personnel, then seminars for extension to other districts and regions, were held. Cetud recently provided support for creating the guide illustrated below.



Dakar, Senegal, 2001.

In this context a first effort was made to train driving school instructors and driving examiners, using courses set up in 1994, in Senegal. These seminars helped these two professions get to know each other better and become more complementary. In the context of the practical exercises assigned to the trainees, a driver training program was created and procedures for a new driving examination for the literate populations was agreed. This restoration of credibility of the examination seems to be a constant priority for our African partners.

The methodological difficulty of designing tests for illiterate populations leads to taking a deeper interest in the conditions under which these populations learn to drive, rather than concentrating solely on the examination. Social and economic constraints and tradition make the driving school a relatively rare and under-utilised way of learning how to drive (even in countries where going through a driving school is mandatory, because, generally, no minimum number of sessions is imposed). Thus, the duration of learning in driving schools is very short because of its cost, so adequate quality is not ensured for these populations. For this reason, the option of working on learning by accompanied driving (practised in particular in the self-employed or informal sector) was chosen, to transform it into a recognised and accepted way of learning, while attempting to improve its quality.



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→ AN EXAMPLE...

Reform of driving test in Senegal

After an experimental stage, the reform was adopted in January 1997. The new test includes, for literate French-speaking applicants, a written test with a question booklet and a driving test (driving in traffic and manoeuvring). For other applicants, the old test is being retained for the moment.

- **For testing knowledge of theory:** the documentation has been improved; they are booklets including questions with supporting photographs and marking grids. These booklets can be used to question about fifteen applicants at a time and ensure fairer scoring.
- **For the driving test:** circuits, situations, driving behaviours, and evaluation criteria have been defined.

Prospects:

- It may be possible to make further improvements to this test, with a view to a more effective contribution to accident reduction, when the data from the BAAC make it possible to identify the behaviours that are the leading causes of accidents. The test questionnaires could then be revised to include questions better targeted on these behaviours. Improvements should also be made periodically, as significant changes in behaviour and in accident characteristics are revealed by the BAAC.
- Better meet the needs of the illiterate populations⁴, by designing appropriate supports, or devising a new test containing a bare minimum of questions requiring a written support (signs, etc.) and shifting the rest of the questions to the context of a realistic driving test. This would eliminate the difficulty for the illiterate of acting out a real-life situation based on a written support, which is currently a major handicap in the test. In effect, this difficulty of entering into an imaginary situation has a substantial impact on how long this test takes them - an additional handicap because it is also hard for them to concentrate long on a written support. The whole difficulty for the examiner lies in distinguishing between evaluating their knowledge of the highway code (the actual object of the test) and evaluating their capacity to understand the question using the support (a bias often introduced by the method).

AN INVESTIGATION OF LEARNING CONDITIONS IN THE "SELF-EMPLOYED" SECTOR IN SENEGAL

This is an ongoing project; a preliminary survey has already been conducted.

The framework of the action begins with a study on how to identify the population concerned (socio-economic profile, private car or professional driver) and a survey of forms of learning, of the content of this learning process, and also of its quality: this is the object of an in-depth evaluation of a "sample" of a few independent applicants.

A first objective is to gradually qualify and upgrade this learning process, accompanying it with complementary incentive and pedagogical measures aimed at correcting its deficiencies, once they have been identified.

This action is closely linked to the regulatory part, because one of the objectives is to initiate an approach of gradual recognition of the value of learning alongside an accomplished driver, which might lead to regulating it, in other words to defining the broad outlines of this accompanied driving in the highway code.

Accordingly, work is being done on the highway code to establish a regulatory context that will make it possible to supervise the learning process. The few approaches identified so far concern:

- Setting a minimum age for the learners
- the conditions imposed on the "instructor": hold a license of the required category, for a duration to be determined (doubtless at least 5 years, to guarantee some experience)
- the conditions under which the learner may drive: be in the presence of the qualified driver, with no passengers or goods, etc.
- determining the format of the highway code test (obligation to take the theoretical test, particular duration of validity for taking the road test beyond the time allowed other applicants). All this is done in close co-operation with the profession, insurers, etc.



Driving licence examination (theoretical part) in Dakar, Senegal, 2001.

⁴ The reader may refer to the Isted transport department report: "Evaluation and reform of the theoretical driving examination for illiterate applicants in Senegal", January 1999, Françoise Châtenet (Inrets).

■ Developing a network of African experts

All of these actions are accompanied by targeted training, appropriate to the context, with as much emphasis on exchanges as on improvement of knowledge. In two consecutive weeks, African experts in charge of road safety in all countries of the sub-region gathered for specific workshops, one in Dakar on accident databases, the other in Paris on basic road safety concepts..

From all these actions, a few fundamental lessons may be drawn, namely:

- A participatory approach, founded on national co-operation,
- A global approach, founded on a complete diagnosis,
- Allowance for regional issues,
- The development of a “road safety culture” through training and qualification.

WORKSHOP FOR ROAD SAFETY OFFICIALS, PARIS, FROM 27 TO 30 NOVEMBER 2000

This workshop, which lasted a week, had 3 main objectives:

- strengthen basic road safety knowledge
- use and build on African road safety experience
- consolidate a “pool” of African road safety skills.

It brought together about thirty participants from 14 French-speaking African countries, most of them officials from government land transport agencies (DTTs, etc.) or road safety organisations, but there were also representatives from the medical profession (a surgeon specialising in traumatology), a policeman, representatives from road accident prevention associations, people in charge of urban transport, researchers, and independent African consultants.

The presentations focused in turn on:

- accident prevention campaigns,
- methods and tools for creating national and local road safety programs,
- the notion of “educational continuum”,
- regional road safety policy (standardisation).

Ample time was set aside for exchanges of experience.

BAAC REGIONAL WORKSHOP, DAKAR, FROM 20 TO 24 NOVEMBER 2000

This brought together managers and users (actual or potential) of accident databases from the French-speaking countries of sub-Saharan Africa.

There were 25 participants from 12 French-speaking African countries, from government departments in charge of land transport, and also representatives of police forces, insurers, and associations, academics, and independent consultants.

The meeting set five objectives:

- Exchanges, feedback, and building on experience between experts, managers, and users of accident databases, in particular of the BAAC project since 1994,
- Identifying ways to improve the product (software),
- Improving knowledge,
- Strengthening the project’s regional dimension,
- Consolidating a “network” of African experts on the BAAC.

For the first time since 1994, the technicians in charge of the BAAC in their countries had an opportunity to compare their experience and difficulties on a regional scale.

At the end of the practical exercises, a certain number of very practical modifications and improvements to the software were identified; they have now led to a reform in the BAAC (release a new product available early 2002 and provided free of charge like its predecessor).



Classroom for training session in Dakar, Senegal, 2000.