

**CONTRACT OF  
MANAGEMENT AND OF ROAD MAINTENANCE BY LEVELS OF SERVICE ( GENIS-RT )**

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**SUMMARY**

In most of the African countries, the very big majority of the contracts for road maintenance at present in execution, is the type " in same prices ", the Company being paid according to the really executed quantities of works. This system is binding for several reasons : it implies the settling of an annual programming of works by the Administration, requiring a detailed knowledge of the network, based on frequent movements. Then, the Company executes received program, without any initiative which could contribute to a better result. Finally, roads in ground undergo damages in rainy season aggravated by the inferior quality of grounds supports. It is often impossible to foresee these damages exactly 12 months in advance, where from the lapsing of the program well before the term.

These constraints brought certain financiers of whom the world Bank, to think about a new system for the road maintenance, to arrive at a better quality of roads, while freeing itself from aforesaid difficulties. These reflections led Chad to implement a contract in " Levels of Service ", in which one asks a company to maintain a road network, in good pre-established conditions, and for the payment of a periodic fixed payment, defined by contract.

In Chad and considering the specificity of the contract which applies to roads in ground, the accent is put on the obligation of durability of the transit for the concerned axes. The levels of service retained for the experimental project were classified in four categories and concern:

- The feasible character of the road, which translates the possibility of circulating on axes almost permanently (except rainy season).
- The conditions of transit, which takes into account the criterion of average speed of route which it is possible to realize by axis
- The comfort of the user, estimated by the importance of the corrugated iron, the depth of cart tracks, the number of punctual damages, and the presence of road signs on the route.
- The perpetuity of the road, which has to allow the routes to be and to remain operational throughout the contract.

The company assignee of the market has the obligation to realize several types of performances:

- Initial organizations on certain sections which are defined in the contract and which allow the company to have after their realization, a healthy infrastructure to be maintained.

-Management and maintenance of axes, including the management of rainy barriers and the control of loads in the axle. On roads in ground, bad weather often causes disorders. The repair of these seasonal damages falls to the Company, until a certain dimension. Beyond, administration takes care of them

-Urgent works which must be recognized as such by the boss of work to be feasible. In this only case, the payment for these " exceptional works " or "immediately" makes on the basis of a list of fixed same prices.

The entrepreneur is paid on the basis of a monthly kilometric fixed price which takes into account the initial alteration work, as well as the management and the maintenance of axes. Only possible urgent works are paid to realized quantities. In case where certain limits are reached, daily penalties are applied on the fixed price until the re-establishment of the level of service.

This type of contract requires a new approach for the building supervision. A bigger part is granted to the empowerment of the Company, which has contractually the duty to set up an internal cell of auto-control, charged to hold the company informed permanently about the state of the network, and to control the Levels of Service herself. For this contract, a mission of control proceeds to checks. From the infringement of all the Levels of Service on the set of the maintained shelf space, the performances of the Mission of Control limit themselves to the periodic check of the respect for these Levels of Service. The Mission of control is free to test the state of the network when it wishes it. However, the contradictory control of the Levels of Service is necessary with the aim of the monthly payments for the company. In that case, the mission of control defines the zones which will carry contradictory checks, according to the own observations of the ground.

The role of the mission of control is also to make sure of the respect for the calendar and for the methods of work of the entrepreneur, to administer the administrative and financial aspects of the contract, to establish the reports of promotion, to receive works with the boss of work, and to train the staff of the administration in the field of the contracts for maintenance by levels of service.

A year after the starting up of this project, first evaluations are very positive and the differences of this type of contract with the classic contracts are considerable. It is however still difficult to make economic comparisons with contracts for classic maintenance, in the sense where these new contracts take into account at the same moment works of rehabilitation and maintenance. It will be also desirable to analyze how companies echo risk on the proposed all-inclusive price.

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## **TEXT**

The notion of road maintenance based on contracts for management rather than on contracts for execution of works, is object of a particular interest for the World Bank, because it could result in new types of markets, applicable in numerous countries possessing a network not dressed in a big economic importance.

### **1 Introduction**

Traditionally, the biggest part of the road maintenance was executed by the Administration responsible for the road sector. Tendency introduced for some years consists in confiding these activities to Private companies, by means of annual or multi-annual contracts. Maintenance won at it in efficiency, and Administration was able to concentrate on the exercise of the mastery of work and the mastery of work, namely to prepare and to administer contracts, to define the policy of the sector, to plan and to oversee works.

Generally, for identical results on the ground, costs resulting from contracts in the Company are lower than they were in being executed in state control by the Administration.

### **2 Presentation of the envisaged reform**

The very big majority of the contracts for road maintenance at present in execution, are of the type " in same prices ", the Company being paid according to the really executed quantities of works. This system implies the settling of an annual programming of works by the Administration, followed by a permanent presence of an organ of control, to make sure that scheduled quantities are effectively realized on the ground, and that besides, the rules of the art are respected.

This system is binding for several reasons. First of all for the Administration, because it has to establish (or to approve) a program of works every year, what supposes a detailed knowledge of the network, based on frequent entailing movements: mobilization of the staff and the vehicles, cost of missions, etc. Then, because the Company executes received program, without any initiative which could contribute to a better result. Finally, because in the Sahelian countries where there is only a rainy season a year, roads in ground undergo damages which it is often impossible to know exactly 12 months in advance, where from the lapsing of the program quite before the term.

These constraints brought certain financiers to be thought about a new system for the road maintenance, to arrive at more economy and at a better quality of roads, while freeing itself from aforesaid difficulties. The result of reflections lies in the notion of preservation of a road network by a Company, in good pre-established conditions (Levels of Service), for the payment of a periodic fixed payment, defined by contract.

Principle is so to put back one or several routes to a Company chosen after call for tender, by charging it to administer these axes, so that maintenance is assured there during all the duration of the Market. It is up to the Company to define actions to be led to reach this objective. Administration contents with verifying that the transit is possible continuously, and that certain conditions relative to the state of roads (Levels of Service) are also performed.

For these performances, which are similar more to a service offered to the users than in a work executed on instructions of the Administration, the Company does not receive a payment corresponding to the executed quantities of works, estimated on the basis of same prices, but a monthly fixed price. It constitutes a good instigation to be planned and to be realized maintenance in the best possible cost, by having appeal to new bases for this management, and possibly, to new technologies. It is so appealed to the qualities of economic planning, construction and innovation of private sector.

The system of current maintenance must be completely rethought, by introducing new types of contracts, based, either only on the respect for the orders of the Administration and the technical specifications, but on the respect for criteria of performances minima.

The Company becomes only responsible for the definition of the type, the quantities, the place and the mode of execution of works to be executed. It has to select techniques to be used, materials to be implemented, and the methods of management and maintenance to apply.

This new approach supposes a risk-taking superior to the case of the classic contracts on behalf of the Company, but it can lead to more interesting profit margins, if the methods of management and execution, as well as the used techniques are successful and bring to a reduction of expenses to be engaged to reach the stipulated Levels of Service.

For some years, this system is applied for roads dressed to the satisfaction of the financiers in various countries (in Latin America, Australia, etc.).

### **3 Precision on the new system of maintenance**

In the new system of maintenance, Administration emphasizes the obligation of durability of the transit for axes under contract. Considering this imperative, a Company left completely free of its actions, could decide of profiler infinitely on roads, without ever reloading them. Now at the end of contract, Administration hears getting back "its" routes in a correct state, by limiting the risks to see their residual value reduced to zero. That is why it is not possible to restrict its requirements to the only criterion of transit.

In particular, it is important that a level of minimum organization of the road axes is defined in the contract, to serve of reference during the control of the performances of the Company. That is why, on the basis of the current state of routes, Administration foresees in the Market, that recharging and other organizations of purification are realized by the

Company at the beginning of the contract, then preserved till its end. In this way, one avoids the stumbling block evoked above.

Because of the monthly fixed mode of payment for the Company, one can not require from it that it proceeds to these organizations for the too short delays, which would impose the mobilization of important liquid assets. The contract foresees rather the spreading of these works on about twenty month, reducing so necessities to finance initial.

In the end of this period of organizations, roads are in a state of acceptable perpetuity for the Administration, which state must be now at least preserved by the Company, until the term of the Market (the duration of the experimental project is fixed to 48 months).

Another approach of payment would have been able to consist in foreseeing in the Market, a first phase of works entitled "*initial renovation*", during which the Company would have proceeded on every road, to alteration work for the shorter delay. It would have been necessary for it that the payment for these initial works makes on the basis of same prices, applied to realized quantities. Such a variant was not retained for our experimental project, because the solution of an unique monthly fixed price during all the contract, presents the advantage to maintain the Company interested in its Market from the beginning to the end. Indeed, payment on same prices during a first phase of the contract, could incite Companies, at the stage of submissions, to exaggerate voluntarily the total cost of this phase, to have quickly liquid assets, with the risk in corollary, that the second phase of maintenance is not considered any more rather lucrative by the Company, and leads to incapacities of performances which it would be necessary to sanction.

Our experimental project will be so executed without distinction of phases of works.

The success of the experience is strictly connected to qualities and of private sector's reliability, to adoption of suited criteria and not subject to interpretation, to measure the state in which must be maintained routes, as well as in the strict supervision of the performances of the Company.

#### **4 Peculiarities of ground roads**

As we mentioned it above, the experimental project realized in Chad concerns ground roads. The vulnerability of these roads infers supplementary difficulties with regard to a network of dressed roads.

First of all, experiences made a success this day by road maintenance by Levels of Service, concern only the dressed roads. There is no tried definition, for ground roads, for the Levels of Service to be required for Companies. It constitutes a first difficulty justifying the implementation of an experimental project on reduced shelf spaces, so as to test method.

Then, contrary to the dressed roads, bad weather has a direct influence on the state of roads, and often causes disorders. The repair of these seasonal damages falls to the Company, but the question which arises is to know, which takes care of them. We consider that the cost of repairs must be supported by the Company until a certain dimension of disorders fixed to the Market, then by the Administration beyond.

Besides damages connected directly to the erosion due to the streaming in rainy season, ground roads are also sensitive to the passage of vehicles when roads are still diluted. To limit the possible causes of complaints on behalf of the Company in this domain, it is planned to confide in the implementation and the management of rainy barriers on routes under contract, as well as control of loads to the axle. The Entrepreneur has to respect the statutory texts in the subject, with in our case, the support of the police forces.

The cost of these performances is included in the monthly fixed price.

In spite of these precautionary measures of protection, one can not exclude that vehicles or heavy goods vehicles cross rainy barriers, without the responsibility of the Company is engaged, and without damages result from it. In that case, it returns in the Administration to take care of the repair of caused damages.

Finally, the road of a ground road undergoes a permanent wear (due to the traffic, to the meteorology and to the reprofilages of maintenance which requires periodic recharging, without which the road would arrive forward, to take with regard to the natural ground. To avoid this risk inherent to ground roads, it is foreseen a regular control of the level of altitude indicator of the road, by referring to the state of axes after initial organizations.

In every case recognized where Administration has to take care of the costs of restoration of the road, the payment for these " *exceptional works* " or "*immediately*" makes on the basis of a list of fixed same prices, imposed by the Administration from the call for tender. To help the tenderers to prepare their offers, it is clarified in the DAO that the Administration envisages that the amount estimated by this type of works, represents about 10 % of the amount of the contract.

## **5 Definition of the Levels of Service**

The Levels of Service retained for the experimental project were classified in four categories]. They concern:

- The feasible character of the road,
- The conditions of transit,
- The comfort of the user,
- The perpetuity of the road.

### **A) Feasible Character of the road**

This criterion translates the possibility of circulating on axes under maintenance. Except the times of drying of roads in rainy season, the transit must be possible permanently on all the route.

### **B) Conditions of transit**

This criterion relates to the average speed of route which it is possible to realize by axis. It can vary according to routes. The respect for the Traffic rules is compulsory during the measure of the speed. Unforeseen pauses without direct relation with the state of the road are deducted from global time (case of mechanical breakdown or flat for example). The required speed varies in the time to take into account periods necessary for the

realization of initial organizations. A maximum speed except conglomeration is imposed and is fixed to 80 k/ph, to avoid that slowing down due to the bad state of the road are compensated with speeds exaggerated in the correct sections.

In the same order of idea, a speed minimum except conglomeration is imposed in the file, so that are not tolerated the strongly degraded punctual zones, requiring too much marked slowing down.

C) Comfort of the user

Possibility for the users to go from a point to other one of the network under contract, in a permanent way and to a reasonable speed, comes along with a requirement bound to the comfort hanging the route. The quality of the surface of road plays an important role in this domain, and influences the conditions of exploitation of vehicles. The more the road is regular, the less vehicles and users suffer.

The comfort of the user is estimated by the importance of the corrugated iron, the depth of cart tracks, the number of punctual damages, and the presence of road signs on the route. This last criterion justifying itself by the existence of numerous beds on the axes of the experimental project, which it is necessary absolutely to indicate.

D) Perpetuity of the road

The Level of Service concerning the perpetuity of the road, takes into account the elements which have to allow the routes to be and to remain operational throughout the Market. In particular, it is in this frame that are defined the criteria which allow the Administration to make sure that at the end of Market, the treated axes will be returned in an acceptable state.

These criteria concern:

- ➔ The existence of vegetation in the influence of the road, which has to limit itself to maximal heights.
- ➔ The respect for a loosened size of 4m50 over the road, to obtain by pruning of the branches of trees.
- ➔ The width of useful road for the traffic, which does not have to narrow in the course of time because of erosions on bank, which makes impracticable and dangerous the outside edges of the road.
- ➔ The altitude indicator of the axis of the road which the Company has to reach at the conclusion of initial organizations, then to preserve till the end of the Market. It supposes that there is a profile in long "project" for each of the routes, that we chose to realize by the Company at the beginning of Market, under the supervision of the Mission of control.
- ➔ The neatness of the devices of purification of the road such as ditches, divergent, frames, works of art, works under road, releases and ponds of keeping back. Their feature must be complete in rainy season.

## 6 Supervision of the project and payments

### A) Principles of supervision

The reform of the road maintenance comes along with a new approach of the supervision. A bigger part is granted to the empowerment of the Company, which has contractually the duty to set up an internal cell of auto-control, charged to hold the Company informed permanently about the state of the network, and to control the Levels of Service itself, before the Mission of control proceeds to these checks.

During initial organizations realized in first part of the contract (which concern essentially the perpetuity of roads), the interventions of the Mission of Control are relatively classic. This period is that where different approvals must be given to the Company (installations, materials, establishment of profiles in long "project", etc.). Alteration work is controlled in continuous, with liberation of receptions in view of compactness and altimeters reached for example. On the other hand, to avoid having to verify systematically the quality of materials implemented in recharging, it is intended to approve a list of loans at the beginning of construction site (leave to complete it in the course of Market), and to ask the Company to undertake in writing to use only these materials during works. In this way, only the implemented of recharging gives place to a control.

From the obtaining of all the Levels of Service on the set of the maintained shelf space, the performances of the Mission of Control limit themselves to the periodic check of the respect for these Levels of Service. The Mission of control is free to test the state of the network when she wishes it, but the contradictory control of the Levels of Service with the aim of the monthly payments can make only after the intervention of the internal cell of the Company. This last one has to put back to the Mission of control a monthly report of state of the Levels of Service, which clarifies the possible zones where criteria are not reached.

Eventually, and by taking place in the hypothesis where a reliable climate settled down between the Company and control, purpose of this document is to unburden the Mission of control of a part of monthly checks. At first however, it belongs to the Mission to define the zones which will carry contradictory checks, according to the own observations of the ground.

### B) Principles of payment of the Entrepreneur

The results of made controls can be satisfactory or unsatisfactory. If all the Levels of Service are reached on shelf spaces imposed in the Market (NB: during the first months, thresholds are compulsory only on percentages of the total shelf space under contract), the Company receives the totality of the monthly fixed price.

On the other hand, so certain thresholds are not reached, the Mission of Control has to give a period to the Company to allow it to satisfy criteria. At the conclusion of the second examination of control, if the Level of Service is restored, the monthly fixed price is paid in its entirety. Otherwise, daily fines are applied to the fixed price, until the restoring of the Level of Service [*to see appendix*].

To avoid any laxness on behalf of the Company in the restoring of the Levels of Service having been the object of a negative report, fines applied at fixed rate monthly are



not simply a function of the number of days of observation of the defect. It is foreseen that the daily rate of penalization is multiplied every month by a factor increasing in the course of days. The holder of the contract is then incited not to let drag situations which after all, are harmful to the user.

C) Specificity of the Mission of control

Experimental project is scheduled for a duration of four years. The performances of the Company are activities of maintenance, sharply less expensive than new works. It means that if one wants to set up a Mission of classic control, and to maintain it such which during four years, ratio: (cost of the supervision / cost of works) will exceed by far usually allowed percentages (between 5 and 10 %).

To reduce the cost of the supervision, one can:

- Or choose the most competitive same prices (resort to a national Consultant),
- Or to decrease at most the actual of the Mission (to the detriment of the quality),
- Or to limit the duration of intervention of the experts to high cost, by bringing in as soon as possible of the national staff.

Involving an experimental project, of which Administration and financier wish to benefit of precise and reliable educations for the future, it's better to have appeal to a Consultant having a recognized experience. This constraint can represent a handicap for the national Consultants of certain countries.

To trim the work force at most of the Mission of control, risk to influence the seriousness of realized controls, what goes the expectations of the Administration.

Administration wishes to encourage the Consultant to integrate into its team, of the national staff experimented in key posts.

## **7 Area of the responsibility of the Company**

From a contractual point of view, the Company holder of the contract is responsible for the preservation of the traffic on the concerned axes, in normal conditions of transit, by eliminating any cause of disturbance or danger. A priori, the traffic can not be interrupted in dry season.

The complete coverage of road axes by a Company during four years, can incite certain users to try to obtain from the holder a compensation in the event of an accident, while they would have never thought of making it in the former system against the Ministry. It is important so to define exactly the limits of responsibility of the Company, as for the consequences of possible accidents taking place on a route under contract.

Except the cases of accidents provoked by very works (bad road marking, fault of a machine, dangerous abnormalities, etc.), for whom an assurance was signed by the Company within the framework of the Market, it must be clear that the holder can not have for responsible (financially and penally) for accidents, for the only reason that he possesses a contract for management on the route.

## 8 Area of the experimental project

Within the framework of the Project of Support for the National Program of Transport (PAProNaT), an experimental project is being executed on 441 km of ground roads (Bokoro - Arboutchatak - Mongo: 202 km, and Mongo - Oum Hadjer: 239 km), constituting an unique prize. Two routes are situated in Sahelian zone, on an important axis of the permanent network of the country. The region is relatively privileged in materials, compared with the other very poor zones in materials of qualitative road.

The contract for Management and for maintenance by Levels of Service was called " contract GENiS-RT ", in a concern of simplification. A unique prize was retained to return the more attractive contract, and deal with a Company having the sufficient financial means. We saw indeed that the mode of payment for performances implied appeal to liquid assets during certain stages of the contract. Better to control the range of the potential tenderers, a pre-selection was decided and realized.

## 9 Main contractual aspects

The main administrative characteristics of the contract GENiS-RT are the following ones:

Pledge of good execution	-10 % of the amount of the contract except TVA+DE -To supply from the coming into force, -Freed(released) in 50 % when the criteria of Perpetuity are reached on all the axes Without fine, -Pay released in the reception (at the end of contract)
Retention money	-10 % of the amount of only works there Concrete built in conformance with <i>works Immediately,</i>
Advance of starting up	-20 % of the amount of the contract, -Paid off in 24 months from the 13-th Month of execution of the market.
Revision of prices	-Applicable from the 13-th month according to Deadline of validity of offers.
Program of execution of works	-Cover a period of six months, -Passed on as information.
Receptions	-No reception for the maintenance, -Unique reception for <i>works Immediately,</i> -Temporary and definitive reception for them Decorate with purification constructed.

Payments to the Entrepreneur make on a monthly base. The estimate of the Market appears only a single price, which is the monthly kilometric fixed price ( FKM), applicable to all the routes administered by the holder. It is enough to multiply mileage maintained according to the Levels of Service, by the FKM (possibly reduced by contractual fines) to obtain monthly deposit to be paid.

For the payment for *urgent works*, a list of fixed same prices is imposed by the Administration and included in the Market. It is possible that tasks accepted by the Boss of work in conformance with these urgent works, make appeal to prices not mentioned in the list. That is why the Market also contains a list of elementary prices, imposed by the Administration at the time of the call for tender, from which it would be possible to recompose same prices if necessary.

The Market foresees explicitly that if a tenderer finds imposed prices in these two lists, too much raised(brought up) or too much low, he has to take into account it in the establishment of his price offered for the FKM. This precaution is necessary to prevent the risks of complaint of the holder of the Market.

## 10 Regime of fines

By feigning the application of fines foreseen for the experimental project, in a monthly kilometric fixed price fixed arbitrarily to 100 000 FCFA, one obtains the amounts of fines in case of disregard of criteria.

-Interruption of the transit on an axis of 200 km:	200 000 F.CFA / day
>-Average amplitude of the corrugated iron 3 cm:	10 000 F.CFA / day / km
>-Depth averages cart tracks 3 cm:	10 000 F.CFA / day / km
>-Surface accumulated by punctual damages 60m <sup>2</sup> :	10 000 F.CFA / day / km
>-Height averages vegetation 10 cm:	10 000 F.CFA / day / km
<-Width of useful road for the traffic Lthéo-20:	10 000 F.CFA / day / km
-Neatness of the side ditches and of divergent insufficient:	10 000 F.CFA / day / km
>-Maximal amplitude of the corrugated iron 4 cm:	50 000 F.CFA / day
>-Maximal depth of cart tracks 5 cm:	50 000 F.CFA / day
>-Unitarian surface of punctual damages 1 m <sup>2</sup> :	50 000 F.CFA / day
-Road sign goes away:	50 000 F.CFA / day
>-Maximal height of the vegetation 20 cm:	50 000 F.CFA / day
<-Free height under the branches of trees 4,50 m:	50 000 F.CFA / day
-Insufficient neatness of a work:	50 000 F.CFA / day
-Not respected average speed:	100 000 F.CFA / day / edge of 5 k/ph
<-altimeter of the road 3 cm:	3 000 F.CFA / day / km / edge of 3cm

The criteria of practicability and speed of transit applying systematically to the set of the route, the amounts of fines are there the strongest. This logic is dictated by the requirement of the respect for these criteria, in a imperative way.

The amounts of fines relative come then to criteria concerning the maximal values of defects. They result from the fixed application of the rate in a kilometer, what requires a rate important to avoid that the Company neglects repairs. By concern of simplification, a

corrugated iron of 5 cm or 10 cm of amplitude is punished in the same way. Effect in a vehicle of these two being amplitudes the same, it is necessary to punish strongly any overtaking of the even light, compulsory threshold, so that the Company is not tried to let deteriorate(aggravate) problems isolated and scattered on the route.

It is likely that the mean values of noticed defects will reveal incapacities concerning consequent shelf spaces. The amount of fines being direct function of the concerned mileage, it is necessary to keep for the spirit that it will be multiplied by the number of defective kilometers.

As regards the altimeter indicator of the road, if the Company put back all the route to level according to the profile in long "*project*", and if it maintains the altimeter indicator periodically, there is not enough chance that criterion is not respected on big lengths. Punctual problems must be able to settle quickly. That is why the amount of fines seems modest. However, the system of penalization takes all its sense if the Company does not reload from time to time the road, and contents itself with its initial work of discount for level. In that case, the level of service " altimeter indicator " will not be respected on big sections of road and during several weeks. Therefore the number of concerned kilometers will come to multiply the amount of the fine, and will make it dissuasive.

The altimeter indicator of the road being an essential criterion for the perpetuity of the axis, it will be necessary to follow closely the possible incapacities of the Company in this domain, and not to let drag a situation of penalization before canceling the contract, because the costs of following restoration of the road would put a problem in the Administration.

The set of aspects explained this before well shows the originality of the new system to be experimented, with regard to the classic multi-annual contracts for maintenance, at present current. The educations which will be taken from the conclusion of the experimental project, will allow to achieve advantages and inconveniences of this notion, standing out the perfectible domains of the file, if experience must be spread to a more important network.

The results of the pre-selection launched in 2000, show that only Companies already knowing the country were interested in the project. No Company outside Chad put handed a file of candidature. This can explain itself by the relatively weak amount of performances (estimated at 7 billions CFA FRANCS) to achieve in 4 years, and by uncertainties concerning the real possibilities of limitation of the traffic in rainy season, for an Entrepreneur not knowing national customs. Three preset companies handed their offers on January 05, 2001, and the analysis started immediately in support of an independent Consultant, specially recruited.

As regards the supervision, consultation restricted to 6 desks was scheduled for a delivery of folds on November 30, 2000. The analysis took place in December and January, 2001, and led(drove) to the choice of a Consultant.

## 11 Contracts GENIS-RT

### Works

-Amount of the Market: 10,3 billion FCFA

-Company: DTP excavation (Begun French)

-Financing: World Bank

-Works began since June 5, 2002 and take place to the satisfaction of the users and the administration.

The duration is of four ( 4 ) years

-Contract for control

-Amount of the contract: 700 million FCFA

-Research department: SADEG ( Cameroonian Research department)

-Financing: World Bank

### Execution of Contracts

Two years after the starting up of this project, the first evaluations of ground are very positive and the differences of this type of contract with the classic contracts are considerable. It is however still difficult to make economic comparisons with contracts for classic maintenance, in the measure or these new contracts take into account at the same moment works of rehabilitation and maintenance. It will be also desirable to analyze how companies echo risk on the proposed all-inclusive price.

Inquiries led with the road users reveal besides that these are very satisfied with conditions of practicability and transit of the section concerned by the project.

These first results are so very encouraging. If they confirm, this experimental project should be spread to the other sections and certainly to the other countries in Africa.

### Conflicts arisen from the execution of the project

The execution of the project on the ground makes to the satisfaction of the users but to the desk, to the ministry of Civil engineering and especially to the headquarter of the company; this climate is far from satisfying the staff.

A) on one hand, the company estimates that she supported supplementary costs during the execution of works because of motives expressed in it report and she asks for the payment of it by the Owner ;

The company presented complaints amounting as follows :

#### 1 - Period June, 2001 in December, 2002

A - Additional cost of studies of the zones of natural ground ... .. 61 160 000 Fcfa

B - Additional cost linked to the preservation of the traffic

On TN's zones

848 901 000 Fcfa

C - Additional cost bound to the intensification

of the cell of control DTP	229 350 000	Fcfa
D - Additional cost bound to the increase of the frequency of maintenances	736 953 750	Fcfa
E - Costs bound to km not paid realities ... ..	61 832 460	Fcfa
F - Interest charges bound to the delay in payments leaves in CFA FRANC	<u>59 107 346</u>	Fcfa
Total 1 ... ..	1 997 304 556	Fcfa

2 - Period January, 2003 in June, 2005

A - Additional cost bound to the preservation of the traffic on TN's zones	2 829 670 000	Fcfa
B - Additional cost bound to the intensification of cell of control ... .	439 060 000	Fcfa
C - Additional cost bound to the increase of the frequency of maintenances ...	<u>1 424 777 250</u>	Fcfa
Total 2 .....	4 695 507 250	F cfa
Total 1 + 2 =	6 690 811 806	F cfa

B) On the other hand, the Boss of work considers that technical specifications and methods of assessment of the levels of service are contractually mentioned in the N market . Involving a market of works based on obligations of result defined by the levels of service, the Boss of work considers that the mission of control strictly respected the terms of the aforesaid market and that any modification should not be made to the detriment of the interests of the Owner.

**Intervention of the conciliator**

It is advisable first of all to remind that the role of the Conciliator consists in finding the meeting places of parts at the level of their need and of their economic stakes, then to make understand them that they have common stakes.

- Conciliation supposes that parts resolve their dispute with the cooperation of a person of experience themselves and the solution of the dispute, remaining finally the work of parts, has to take the shape of an amicable settlement based on the principle of concessions and mutual desolutions.
- In case of failure of the conciliation, contentious procedure mentioned in the article 50.3 of the CCAG foresees that dispute will be cut definitively according to the regulation of arbitration of the International Chamber of Commerce of Paris. In this hypothesis, two parts subject their dispute to the judgment of an authority decision of which will have an enforceable and compulsory effect for parts.

In the original interest of the pursuit and the completion of the GENIS-RT project, the Conciliator invites insistently two parts to apply the principle of reality in front of the situation noticed after two years by realization. Disputes and disputes must be so settled definitively in the good faith of parts so that each finds serenity necessary for the implementation of the new approach of the road maintenance.

It is advisable indeed to return in the original principle of the concept GENIS-RT such as defined in the foreword of the file of call for tender handed to the preset companies: "The Entrepreneur assures a service aiming to allow the traffic to circulate permanently, with certain limitations in rainy season, on the administered routes, in acceptable conditions of comfort, without for it to put in danger the perpetuity of these roads."

-the Conciliator proposes that parts agree to proceed to adaptations and to amendments in the definition of organizations to be realized and in prescriptions relative to the thresholds of levels of service with in corollary the optimization of the fines of disregard of the aforesaid thresholds.

- -The propositions of love rule of disputes are expressed as follows:

**A. - Period from February, 2003 till June, 2005 (end of the construction site)**

- The DTP-TERRASSEMENT company has to abandon altogether its demands of supplementary payment estimated at 4.695.507.250 FCFA.

- To assure the pursuit of the project in a serene and constructive environment, the Boss of work has to agree to modulate certain clauses of the market bound(connected) to the constraints of levels of service and notably:

- The Exercise book of Technical Specifications ( CPT) :

- Qualitative thresholds or levels of service mentioned in the article 9 and methods of assessment mentioned in the article 14 are amended according to specifications indicated in the table closes in appendix 1 to the Draft agreement.

- The chronology of the due date of the levels of service mentioned in the article 13 is amended according to modalities indicated in the table closes in appendix 2 to the Draft agreement.

- According to parts and mission of control, it is possible to save a part of the resources that the company planned to allocate to the realization of the organizations of purification described in the article 8b. The reduction of organizations remaining to realize is mentioned in the appendix 3 of the Draft agreement. It leads to an economy estimated at 140.250.000 FCFA HTVA.

- The same exercise can be made on the realization of environmental measures foreseen in the article 8c. The reduction of organizations is mentioned in the appendix 4 of the Draft agreement. She(it) leads(drives) to an economy estimated(esteemed) at 52.200.000 FCFA.

-The Exercise book of the General Administrative Clauses ( CCAG) :

- The fines of disregard of the levels of service mentioned in the article 23 are amended according to modalities indicated in the table closes in appendix 5 to the Draft agreement.

-The company has to, by amendment of the article 6, agree to extend the validity of the pledge of good execution until the completion of the Market in the month 48.

-The quantitative and quantitative detail ( DQE):

- Reserve for urgent works, not used this day, is reduced to an amount of 231.637.680 FCFA HTVA corresponding to 3 % of the amount of the Market.

- The total shelf space of the road axis to be maintained by levels of service is fixed as follows:

\* Section BOKORO - MONGO : 202 km

\* Section MONGO - OUM HADJER : 239 km

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TOTAL : 441 km

- It is been advisable to execute comfortable works on the section SARAF - OUM HADJER to improve the level of organization on the totality of sections in natural ground before requiring the completeness of the maintenance by levels of service. The mission of control and the company established collectively the preliminary estimate of these works, joined in appendix 6 to the Draft agreement, amounting to 753.688.771 FCFA HTVA.
- - On a total shelf space accumulated with 52 km, works ? aforesaid concern notably realization:
  - of excavations in elevation (70.000m3),
  - of application of a coat(layer) of movement in laterite on 10 cm in thickness (40.000 m3)
  - of construction to radiate in concrete (100ml).
- These works will be financed on resulting resources:
  - a) Of the remainder (7 %) of the reserve for urgent works, or 540.487.920 FCFA,
  - b) Of the neutralization of performances GENIS-RT on 75 km of natural ground during the next rainy seasons, or 167.175.000 F (CFA FRANC) ,
  - c) Of the reduction of alteration work, purification and protection estimated(esteemed) at 140.250.000 F(CFA FRANC),
  - d) Of the reduction of environmental measures.

## **B. - Period of June, 2001 to the end of January, 2003.**

- The Conciliator obtained the monthly summary statements of use of the material and the presence of the exiled staff established contradictorily by the mission of control and the company, then verified by the Conciliator by sounding with data mentioned in the monthly reports of activity of the mission of control. These states are joined in appendix to the present report of mission.
- To estimate objectively the positive and negative variations of use of the material and the presence of the exiled staff, were established two states comparing means foreseen in the offer of submission and the means noticed monthly on construction site in the end of January, 2003.
- For lack of under detail of same prices in the offer of submission GENIS-RT, the valuation of variations was established on the basis of sub- details of price for the offer DTP for the intensification of the network dressed in Chad. Obtained results are indicated in the comparative states joined in appendix 7 to the Draft agreement.
- The Conciliator estimates that it is just and fair to consider that the additional amounts of material and staff can be split into three equal parts, as follows:
  - First one third representative an additional amount in conformance with the underestimate turned out the offer of submission of the company;



- Second one third representative an additional amount in conformance with the implemented over thickness of laterite, its own leader, for the layer of movement on the axis BOKORO-MONGO-MANGALME;
  - Third one third representative an additional amount in conformance with constraints and unforeseen of construction site which were able to arise because of motives explained in the report of the company.
  - Considering that the first two thirds stay chargeable to the company, it is proposed that the Owner accepts the coverage by the project of the third (third party) amounting to 312.380.591 FCFA HTVA (cf annex 7) and representative, in transactional title, the partial compensation of supplementary costs asked by DTP-Terrassement in his financial report.
  - The aforesaid amount will be paid in three equivalent payments, spread out until 31/12/2004 to allow the Owner better to master the management of its resources.
  - In the first monthly discount following the signature of the Draft agreement, the Owner will pay to the company the payment for the supplementary shelf space of 8 km of the maintained road axis, is 59.440.000 FCFA HTVA.
- After check and link of the calculations of suspended interests by the accounting services of the Cell of Coordination, the Owner accepts the consideration of suspended interests amounting to 56.970.345 FCFA for delays in payments noticed in 31/01/2003 for discounts 1 - 19.
- Finally, to put a definitive term in the disputes which set them, is recommended to the parts to prefix, to the transactional title, a global and fixed amount with effect extinctive irrevocable of the contentious procedure mentioned in the article 50.3 of the CCAG. The Conciliator estimates the aforesaid transactional amount at the sum 150.000.000 F (CFA FRANC).
  - The Conciliator proposes below a project of Draft agreement of conciliation and his eight appendices terms of which have to allow the parts to terminate definitively disputes and disputes arisen during the execution of the N market / DR / 01.

The intervention of the conciliator allowed the two parts to get around a draft agreement which foresees a compensation of the company but also a revision of certain capacities of the conditions of contract.

The draft agreement signed between two parts after endorsement is joined in appendix.

### **Endorsement to the initial contract**

The signature of the amicable settlement brought two parts signed an endorsement to the amount of 843 384 103 FCFA to the initial market.

The new amount of the market is finally of : 11,166 billion FCFA

Period remained unchanged : 48 months

### **References**

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