

I

(Information)

COURT OF AUDITORS

SPECIAL REPORT No 8/2003

concerning the execution of infrastructure work financed by the EDF, together with the Commission's replies*(presented pursuant to Article 248(4), second subparagraph, EC)*

(2003/C 181/01)

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ABBREVIATIONS AND TERMINOLOGY USED**Abbreviations**

- ACP: the African, Caribbean and Pacific States that are signatories of the Lomé Convention
- EDF: European Development Fund

Terminology

- Administrative order: instruction issued by the contract supervisor regarding changes to the works provided for in the contract.
- Contracting authority: government department of the ACP country concluding the contract.
- Contract supervisor: government department or other agent which the contracting authority has made responsible for directing and monitoring the execution of the works.
- General conditions: Decision No 3/90 of the ACP-EEC Council of Ministers, of 29 March 1990, adopted in the form of five Annexes:
- general regulations governing the preparation and award of contracts financed by the EDF (Annex I);
 - general conditions governing the performance of works contracts (Annex II), supply contracts (Annex III) and service contracts (Annex IV) financed by the EDF;
 - rules governing the conciliation and arbitration procedures applicable to such contracts (Annex V).
- Supervisor's representative: consultant, consultancy, supervisory office or other agent to which the contract supervisor delegates part of the responsibility for directing and monitoring the execution of the works.

SUMMARY

I. The construction and renewal of infrastructure — mainly in the transport sector — are important aspects of EDF-financed development cooperation. At the end of 2002 Commission payments against such contracts represented 16 % of the total sixth, seventh and eighth EDF payments and approximately 3 200 million euro.

II. The objective of the Court's audit was to examine the performance of infrastructure work financed by the EDF. The audit mainly covered 30 contracts representing 13 % of the total works contracts financed by the sixth, seventh and eighth EDFs, selected on the basis of risk criteria and concluded between 1987 and 2000 by seven ACP countries. This selection procedure was used with the aim of carrying out a sound analysis of the problems encountered during the performance of the work in order to help remedy them. Most of these contracts concerned road construction or repair. They were performed in accordance with the general conditions decided in March 1990 by the ACP-EEC Council and are still applicable in support of the implementation of the Cotonou Agreement (see paragraphs 1 to 7).

III. Most of the works examined formed part of the implementation of national or regional sectoral strategies supported by the community of funding bodies. Shortcomings and errors in the design and implementation studies were the source of many of the implementation problems found, and the absence of any quality control of these studies meant that too many contracts were based on partly incorrect or unrealistic terms and conditions. As a result, changes were made during implementation, affecting the scope, nature and duration of the works, as well as their cost (see paragraphs 13 to 20). In many cases the necessary changes were neither decided nor formalised with the requisite rigour (see paragraph 21). This added to the difficulty of preventing and containing disputes and claims that accompanied implementation (see paragraphs 23 to 24). The strategy of calling on technical assistance to reinforce the implementation framework was not always equal to requirements (see paragraph 34). In some cases insufficient monitoring of divergences between contracts and results allowed contractors to escape their responsibilities or to ignore the conditions that resulted from competitive tendering (see paragraphs 21 to 24). The implementation framework that had been put in place to deal with normal situations proved to be insufficient in such cases (see paragraphs 25 to 33).

IV. The weaknesses found in the various areas mentioned above usually had an excessive impact on the cost of works, and sometimes even their sustainability (see paragraphs 8 to 12). Many of the implementation problems encountered recurred from one contract and one country to another, but the accumulation of experience did not result in build-up of sectoral expertise that could be applied for the benefit of all public works contracts financed by the EDF. This deprived the Commission's central departments' intervention of part of its added value (see paragraphs 26 and 28).

V. The European Union and the ACP States must improve supervision of the implementation of works contracts financed by the EDF and, in particular, must reduce the extent of the divergences that were found between contracts and their actual implementation. It would therefore be appropriate for the Commission to reinforce the support that it provides to ACP countries at the stage where contracts are being drawn up, and subsequently at the stage where their execution is being monitored. In order to do that, it should:

- (a) provide a more definite framework for the studies that form the basis on which contracts are concluded, introduce effective quality control at that stage, and increase consultants' accountability (see paragraph 38);
- (b) place more emphasis on the justification for any changes made while works are in progress, and should attach greater importance to the repercussions of such changes on the cost and quality of the works; it should also emphasise the importance of identifying and resolving rapidly any problems or claims that arise during implementation (see paragraphs 39 to 40);
- (c) reorganise its departments so as to provide the delegations and ACP countries with back-up and sectoral expertise commensurate with the management responsibilities which it is transferring to the delegations as part of decentralisation (paragraphs 41 to 43).

INTRODUCTION

Works contracts financed by the EDF

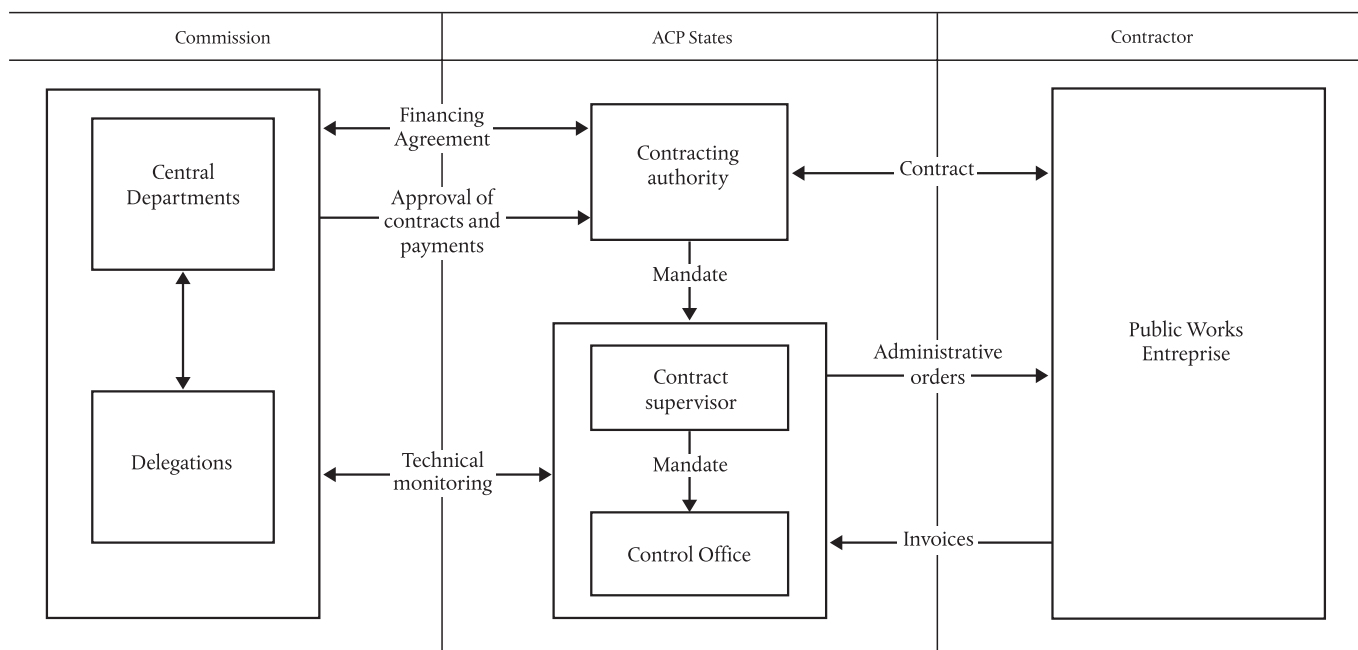
1. Infrastructure construction and renewal are important aspects of EDF-financed development cooperation ⁽¹⁾. At the end of September 2002 Commission payments against such contracts amounted to 3,2 thousand million euro, representing 16 % of total sixth, seventh and eighth EDF payments (see *Annex 1*). The highways sector absorbed most of this investment. In the strategies that have been developed with each ACP State for implementation of the Cotonou Agreement infrastructure continues to be for many countries one of the sectors in which financial aid is concentrated.

2. These projects are mainly implemented through works contracts placed with European contractors or contractors from ACP countries following international calls for tenders. Competitive tendering is based on unit prices applicable to the estimates of quantities and processes produced by the studies taken as the basis for preparing the tender dossier. The unit prices may vary in accordance with price revision clauses laid down in the contract. The quantities invoiced are measured during implementation. Changes in quantities and processes may be ordered during

implementation, if that is necessary for the works to be carried out satisfactorily. However, if the variation is too substantial, the contractor is entitled to contest the unit prices that were initially agreed, because the conditions under which the contract is being executed are no longer those specified in the call for tenders. It is therefore normal for the final cost of the works to differ from the initial contract price, but if the financial management of projects is sound, the extent of such variations will be kept under control.

3. Article 222 of the Fourth Lomé Convention gives the ACP States responsibility for project execution and management. It gives the ACP States and the Community joint responsibility for ensuring that projects are carried out properly, promptly and efficiently and then for monitoring and evaluating their impact and results. In this context Article 317 of the Convention requires the Commission delegate to ensure that projects are properly executed from the financial and technical viewpoints, to make regular checks on them and to check regularly that they are progressing in accordance with the advance timetable. Although the contract supervisor takes the decisions that are necessary for the proper performance of the contracts concluded between the ACP contracting authority and the enterprise to which the contract was awarded, it is the Commission that judges the advisability of having the EDF bear the financial consequences of the decisions, when the latter result in overruns of the initial contract price. *Table 1* is

Table 1
General system for carrying out works contracts financed by the EDF



Source: Court of Auditors.

⁽¹⁾ At the end of 2002 three EDFs were in operation: the sixth EDF accompanying the Third Lomé Convention, and the seventh and eighth EDFs which accompany the Fourth Lomé Convention. The ninth EDF will accompany implementation of the Cotonou Agreement, beginning in 2003.

a diagram of the general implementing system, as governed by the general conditions drawn up in March 1990 ⁽¹⁾.

4. As support for the execution of works contracts, EDF infrastructure projects also provide finance for technical assistance with the supervision of works. Government departments in beneficiary countries rely on this technical assistance to fulfil their responsibilities as contract supervisors. The budgets provided for that purpose usually allow calls on experts when necessary to provide clarification for the contract supervisor on specialised technical problems. In addition the government departments acting as contracting authority or contract supervisor may receive back-up from various projects financed by the EDF to enable them to reinforce or expand their capacity as regards management of contracts or technical aspects at the level of contracts, projects, or sectors of operation. In drawing up its performance programme, ensuring that it is properly carried out and helping to resolve the problems that accompany implementation, the contractor carrying out the work plays an important role as an initiator in the administratively and technically complex partnership that characterises implementation.

The Court's audit

5. The audit objective was to assess whether the system for carrying out works contracts financed by the EDF ensured that the inevitable differences (see paragraph 2) between the contracts concluded and the actual end result were limited as far as possible. Four areas of difference were examined:

- (a) the substance, i.e. the nature, quantity and quality of the works;
- (b) the length of time taken to carry out the work;
- (c) the cost;
- (d) maintenance and accompanying measures having a direct impact on the sustainability of the works and the efficient use of them.

⁽¹⁾ Decision No 2/2002 of the ACP-EC Council of Ministers of 7 October 2002 regarding the implementation of Articles 28, 29 and 30 of Annex IV to the Cotonou Agreement (OJ L 320, 23.11.2002). The Decision amended the general regulations for the preparation and award of contracts and renewed in identical terms the general conditions of March 1990 concerning the implementation of contracts and conciliation and arbitration procedures.

6. The Court's appraisal was mainly based on review of 30 contracts selected in terms of risk criteria. The choice of country and, within each country, of contracts reviewed sought, above all, to give satisfactory geographical and value coverage of the works contracts financed by the EDF. Recently concluded contracts, or those at an advanced stage of implementation, were selected in preference to others. During the selection of projects, the existence of known problems was taken into account. Some low-value contracts were also selected. There was thus sufficient material to identify and analyse the main implementation problems. The 30 contracts reviewed were concluded by seven beneficiary countries between 1987 and 2000 and recorded in the accounts at the end of September 2002 for 521 million euro, i.e. 13 % of the 3 882 million euro recorded as of the same date for all works contracts financed by the sixth, seventh and eighth EDFs. The seven countries selected accounted for 27 % of total works contracts financed by the sixth, seventh and eighth EDFs and the contracts examined represented 49 % of the total works contracts recorded for these seven countries (see *Annex II*).

7. The review focused on supervision of the execution phase of the contracts. Audits at Commission headquarters were supplemented by site visits and checks on the premises of delegations, government departments, contractors carrying out works and consultants responsible for supervising contracts on the spot ⁽²⁾. Examining whether the choice of projects was justified by their utility was not part of the audit objective, nor was reviewing the justification for decisions to award contracts (the latter aspect had already been covered in a previous report by the Court ⁽³⁾).

SIGNIFICANT DIFFERENCES BETWEEN CONTRACTS AND END RESULT

Quality and quantity

8. Most of the works inspected had been carried out as part of national or regional sectoral strategies supported by the community of funding bodies. Generally speaking, the work done had been carried out correctly. However, out of the 30 cases reviewed:

- (a) the works met the initial technical objectives in 12 cases;

⁽²⁾ In the case of Madagascar tests were based on the Commission's files, supplemented by questionnaires to the delegation.

⁽³⁾ Annual report of the Court of Auditors concerning the financial year 1996, paragraphs 12.11 to 12.80 (OJ C 348, 18.11.1997).

- (b) in six cases the actual design of the works had been substantially amended after the contracts had been signed. This was the position with the Addis Ababa-Jimma and Addis Ababa-Woldiya roads that were under construction in Ethiopia and still represented technical and financial risks in September 2002;
- (c) in 12 cases it was the quantity or quality of the works that was cut, and sometimes a combination of the two. Three major projects, the Yaoundé-Ayos road in Cameroon, the port of Zanzibar in Tanzania and the wastewater treatment plant at Negril in Jamaica, ended in construction of poor-quality works.

9. Compensating for cost overruns by cutting back or eliminating certain items of work was seldom considered to be an abnormal situation that called for corrective action at project management or project funding level. Cutbacks have a direct impact on the quality of the works where, for example, they affect the thickness of the wearing course or the depth of the base courses of roads. Where changes of this type are made it becomes extremely difficult to identify and quantify separately divergences in quality or quantity between the initial objectives and the end result.

Cost and duration

10. Table 2 shows, for the contracts examined, the extent to which the cost and duration of the work were affected by variations in works after contracts had been signed:

- (a) optimum limitation of cost and duration divergence was achieved where works were carried out in accordance with the terms and conditions; any divergences could then be considered to be necessary, controlled improvements (column 1);
- (b) cost and time divergence was greatest when the actual design of the works to be carried out was amended (column 2);
- (c) where cutbacks in quality or quantity (and in many cases a combination of the two) were a main feature of implementation the overruns in time and cost were also substantial, especially where, in reality, they were the equivalent of a reduction in the work actually carried out (column 3).

Table 2

Divergence between initial contract and completed works for the contracts examined

Main characteristics of execution	Carried out as specified or improved	Substantial changes		Total reviewed
		Design change	Quantity or quality reduced	
	Column 1	Column 2	Column 3	
Number of contracts	12	6	12	30
<i>(Mio EUR)</i>				
Initial price	138,1	112,3	171,2	422
Price increase	18,1	52,8	32,5	103
Price at 30.9.2002	156,2	165,1	203,7	525
<i>(%)</i>				
Price increase	13	47	19	25
Time extension	25	66	30	38

Source: Contracts and variations at 30.9.2002 excluding claims pending.

Box 1

Differences between work planned and work done

1. In six cases the design of the works was modified after the contracts had been signed. They were the Addis Ababa-Mojo-Awassa and Addis Ababa-Jimma roads and the school building at Awassa in Ethiopia, the drainage work in Pikine in Senegal and the RN 4 road and provincial slaughterhouses in Madagascar.

— In Ethiopia the design of the Addis Ababa-Jimma road had to be modified, the construction period increased from 36 months to 73 and the cost had already risen by 61 %. As of June 2002 the bulk of the work had not yet been undertaken, even though the contract had been signed in March 1999.

— In Madagascar, the buildings that were the end result of the project to build and equip seven provincial slaughterhouses remained unfinished and unused. The government department concerned was considering whether it should schedule them for some other purpose or transfer them to private operators. As regards the renewal of the RN 4 road, the work was redefined after the contract had been concluded, increasing the construction period from 18 months to 44, with a cost increase of more than 70 %.

2. The 12 contracts involving cutbacks on quantities or quality were the Yaoundé-Ayos road in Cameroon, the three road contracts and wastewater treatment plants in Jamaica, the Diéma-Didiéni road in Mali, the Guéoul Baralé, Niore-Keur Ayib and Senoba-Ziguinchor roads in Senegal, in Tanzania the urban roads in Mwanza and the port of Zanzibar and in Madagascar, the provincial airports.

— In Cameroon the Yaoundé-Ayos road deteriorated very quickly when it was brought into service, to the point where it had to be closed to heavy vehicles in 1995 and 1996. This setback may be connected with the fact that the carriageway was undersized and the specifications, which were already low, were not respected during construction. As regards the flood defences for the town of Kousseri, the works for protecting the embankments were not deep enough and this was already affecting their stability.

— In Jamaica the instability of the edges led to the collapse of a section of road that had been renewed, followed by a three-month closure starting in May 2001. The durability and viability of works were also affected by reductions in the thickness of the wearing course that were made during construction in the interest of illusory economies. In the case of the wastewater treatment works at Ocho Rios, and Negril in particular, the work finally accepted was incomplete, fragile or of reduced capacity. The works were completed in mid-1999, after three years of extensions, while the contract price had risen by 36 %.

— In Madagascar, the cost of the provincial airports increased by more than 40 %.

— In Senegal, the studies were updated after the contract was signed, with the result that the length of the section of the Guéoul-Baralé road to be resurfaced was reduced by half and by 12 % in the case of the Senoba-Ziguinchor road, in order to keep within the budget.

— In Tanzania, the piles supporting the quays in the port of Zanzibar were corroding, endangering the stability of the work carried out. This engineering fault was detected in 1993 but satisfactory corrective action has not yet been taken. The base course specified in the contract for roads in the town of Mwanza was reduced in order to achieve a 6 % saving, which was then earmarked for emergency repairs and other unspecified requirements.

Maintenance and accompanying measures

11. The sustainability of the completed works also depends on an ACP State's ability to carry out the necessary maintenance. Article 222 of the Lomé Convention emphasises this point by making ACP States responsible for maintenance of works financed by the EDF. Most of the countries visited had carried out the budgetary, fiscal and institutional reforms required by the financing agreements, as well as planning and carrying out maintenance of the road network, but they did not usually succeed in implementing the annual maintenance programme in full. The maintenance constraints that were taken into account in the projects examined were sometimes unrealistic, especially in the case of small-scale projects or projects that were not the responsibility of the central authorities.

12. The utility of the works was also influenced by the accompanying measures provided for in the financing agreements. In general the authorities did not succeed in enforcing the axle loads used in drawing up the specifications for road works, thereby seriously reducing the useful life of the works. In the areas of the environment and road safety, measures adopted as part of the design of a main project, e.g. the Bertoua-Garoua Boulai road in Cameroon, are more effective than accompanying measures which suffer because they materialise as secondary features when the projects are carried out. In the case of the wastewater treatment contracts that were examined, the government had not been able to put in place the necessary charging policy and there were no connections to the installations for a large percentage of the population affected.

Box 2

Maintenance and accompanying measures

1. In Cameroon the resources earmarked for road maintenance were not sufficient for current maintenance, and certainly not for periodic maintenance, of the extensive road network. The intentions, budget and resources of Kousseri local authority remained vague as regards the maintenance of the works protecting the banks of the watercourse. Limiting the extent of land-take, achieving a satisfactory balance between traffic speed and keeping to the existing route and providing parking areas were environmentally sound measures and improved safety, because they had been included in the original design of the Bertoua-Garoua Boulai road. The voluntarism of the government, the delegation and the contracting authority in ensuring that maximum authorised axle loads were respected paid off, but they continued to suffer the effects of the exemptions enjoyed by fuel transporters.

2. In Ethiopia the existing weighbridges registered excess loads, but no penalties were imposed. The absence of parking areas had negative impacts on road safety and the stability of the works at the customary parking spots. The suspension of current maintenance on the Addis Ababa-Jimma road following the award of the contract for its renewal, in 1999, was affecting the condition of the road as the renewal work had not yet been carried out.

3. In Jamaica the utility of the Negril and Ocho Rios sewage treatment works was seriously compromised by the small number of consumer connections provided, by operating the installations at 25 % of capacity and by the absence of an appropriate charging policy.

4. In Mali a public undertaking had recently been set up to carry out road maintenance. However, the financial resources allocated to it were not expected to cover requirements until 2006. In 2002 the accumulation of payment arrears made it impossible to carry out routine maintenance. The newly installed weighbridges revealed the frequency and extent of excess loads, but no penalties were being applied at the time.

5. In Senegal the independent agency that had been responsible for road maintenance since 2000 was unable to keep up with routine maintenance and had not been able to put in place a programme of periodic maintenance. The authorities had not yet taken action to limit axle loads. Even though the roads inspected had been scaled to carry loads of 13 tonnes per axle, actual loads could be as much as 17 or 20 tonnes per axle.

(g) consideration of the most effective or most economical technical solutions for meeting specifications in the local environment;

(h) consistency between the specifications for one project and those for projects of a similar nature or between specifications and existing standards.

14. A technical audit established that a share of the responsibility for the faults in the design of the provincial airports in Madagascar lay with the consultants. At the request of the national authorities this aspect was also under consideration as regards the Senoba-Ziguinchor road in Senegal. The same question could usefully have been raised in the case of other contracts such as the Addis Ababa-Jimma road in Ethiopia, which was badly designed.

15. Delegations and national authorities consistently mentioned the unsuitability of the procedures for awarding study contracts. In a context of tight budgets these procedures too often resulted in the acceptance of bids that were too low for sufficiently detailed studies. Furthermore, the terms of reference did not specify the degree of accuracy to be achieved in studies. This allowed consultants to trim the service provided according to the value of their contracts and so to produce poor quality results.

16. Insufficient knowledge about a country and the inadequacies of locally collected data have frequently been sources of shortcomings at the design stage. Article 279 of the Fourth Lomé Convention, which seeks to encourage the use of experts from ACP countries in association with European experts, should help to solve this sort of problem.

17. Due to the absence of quality control, technical weaknesses in studies were rarely detected before work started.

FACTORS INFLUENCING THE RESULTS OF CONTRACT IMPLEMENTATION

Quality of studies

Studies lacking in detail and not subject to adequate control

13. It would be unrealistic to expect studies to anticipate all the implementation problems that are likely to arise, as well as providing a basis for detailed specifications of the work to be carried out, especially when the latter depends on ground conditions that will only become known once work is actually in progress. However, the audit showed that in too many cases shortcomings in the studies had been a major cause of excessive changes to the original plans and of difficulties encountered during the work. The main areas in which shortcomings were noted were:

- (a) analysis and consideration of physical characteristics of the ground, particularly in the case of clay or peat soils;
- (b) topographical surveys;
- (c) attention to the flood risk when establishing road levels and drawing up road drainage plans;
- (d) identification of all essential work;
- (e) accuracy of quantities;
- (f) choice of techniques in relation to the strength specifications;

Box 3

Studies lacking in detail and not subject to adequate control

1. In Cameroon, the horizontal and vertical alignment for lot 3 of the Bertoua-Garoua Boulai road had to be redone and modelling restarted during implementation of the project, because of inconsistencies in the studies.

2. In Ethiopia the studies for the Addis Ababa-Jimma road provided for the same level of renewal along the full length of the route, whereas wholesale rebuilding was necessary from km 10,6 to km 58. Although unstable clay was known to be present, this fact was ignored. The road level was 1 m too low over a line of eight kilometres across a flood plain. On a more general level, as a result of errors in modelling the route, the drawings and quantities on which the call for tenders was based were substantially wrong. The unstable nature of the clay soils was similarly ignored in the case of the Addis Ababa-Woldiya road. Due to errors in the calculations the quantities of bitumen specified in the contract corresponded to only 37 % of the actual requirement. Much of the geometry was incorrect (cross-sections, thickness of the existing base course, level of the finished road, position of the centre line). The contract

for the auditorium of Awassa college was based on plans and measurements produced for a similar project on a different site, so that the quantities for site preparation, foundations and masonry given in the specifications did not correspond to the actual requirements. Many of the major errors in the studies for these three projects would have been detected by effective quality control. In particular the question of unstable clays and the quantities of bitumen could not have gone unnoticed.

3. In Jamaica the studies and calls for tenders for road renewal contracts omitted drainage work amounting to 22 % of the price, as well as a large amount of other essential work corresponding to 18 % of the price. The studies and call for tenders for the Ocho Rios drainage project estimated the amount of rock to be excavated as 4 000 m³, whereas in reality excavation of 40 000 m³ was necessary. At Negril the ground surveys were too cursory to evaluate and take into account the presence of peat soils. These errors and omissions could not have escaped efficient quality control.

4. In Madagascar omissions and inaccuracies in the estimates for the provincial airports could not have escaped a minimum of quality control.

5. In Senegal the studies for the Guéoul-Louga road specified for the base course an aggregate which did not provide the requisite strength. They rejected the most suitable solution without technical justification. In the case of the Baralé-Saint Louis road the studies did not consider using the economical locally available aggregate for the base course. On the contrary, they chose an aggregate which was difficult to obtain. The width of carriageway proposed by the studies for the Senoba-Ziguinchor road was below the regional standards.

6. In Tanzania the studies for the port of Zanzibar omitted soil analysis. Taking the latter and corrosion risks into account during implementation resulted in a doubling of the cost. On two of the road projects examined water pipes and power lines were obstacles to the work that were not identified correctly by the studies (Wazo Hill-Bagamoyo road and urban roads in Mwanza). The levels determined by the studies for the Mwanza airport road and the Mwanza-Nianguge road had to be raised during construction, to protect the carriageway from the waters of Lake Victoria during the rainy season.

Renewal requirements not updated sufficiently

18. In the area of road renewal, the passage of time is marked, to a greater or lesser extent, by deterioration of the carriageway, depending on the traffic and state of the road. This situation is aggravated because government departments tend to suspend maintenance of roads that are to be renewed. Considerable time elapses, however, between the preparatory studies and the point at which work actually starts:

- (a) the interval between the preliminary studies and publication of calls for tenders;
- (b) in half the cases examined there was an interval of more than a year between the start of the tendering process and the signing of the contract. In the case of one road in Mali three years elapsed between the preparatory study for the tender dossier and the signing of the contract;

(c) intervals of several months between the signing of a contract and work starting officially;

(d) intervals of several months between the official start of work and the contractors actually deploying the technical resources.

19. The quantities, and sometimes the nature of the work, provided for in the contract must therefore be revised, usually after contracts have been signed. The procedures for executing contracts do not take sufficient account of this fact. For example, the procedures and the rigour applied in updating requirements and then assessing and defraying the resultant cost increases are left to the discretion of the authorities concerned (see paragraph 9).

The influence of budgetary constraints

20. The drawing-up of specifications was constrained by a desire to carry out projects within the limits of the overall budget decided by the Commission on the basis of estimates. A further constraint was the mixing of technical and budgetary constraints when the specifications for future works were being drawn up. The complexity of the financial system and the project preparation procedures, as well as the absence of quality control, served as incentives to cut back the specifications, with a detrimental effect on the quality of the works. Responsibility for this was shared between the consultants and the authorising officers who supervised them. For example, in Ethiopia the contracting authority and the Commission did not follow up the recommendations made by the consultant who carried out the studies for the Addis Ababa-Mojo road and stated several times that the proposed renewal work was insufficient. In Senegal, the initial studies underestimated the earthwork required for the Senoba-Ziguinchor road by approximately 8 % so as not to overrun the allotted budget. In Cameroon the implementation study and the tender dossier cut back the specifications for the Yaoundé-Ayos road in order to keep within the overall budget for the project.

Changes during implementation

Insufficient monitoring of the financial implications of changes

21. Article 37 of the general conditions for works contracts financed by the EDF details the procedure to be followed in agreeing, by means of administrative orders, both changes that have to be made to the proposed works, and the cost of them. In the main, these conditions are in accordance with best practice for the management of works contracts. However, the implementation of the provisions fell short in certain respects:

- (a) because of difficulties or lack of urgency in establishing the cost of such changes administrative orders were often issued too long after the need for modification had been identified;

- (b) the impact of the requested change on other work, the duration of the contract and, ultimately, the total cost of the contract was rarely established;
- (c) when a change was requested it often provided the contractor with the justification for requesting an extension of the implementation period. The contract supervisor usually paid insufficient attention to the financial implications of such extensions which, of course, opened up the way to financial compensation for the contractor. Extensions of this kind also led to extra costs linked to the extensions of contracts for assistance with the supervision of works;
- (d) many contract supervisors did not keep up-to-date bills of quantities with details of unit costs, quantities, and the final cost of the contract, all of which are essential for sound contract management. They were content to draw up lists of the administrative orders issued. This approach did not give the necessary analytical view. Moreover, where a change is the result of poor quantity estimates in the contract it can be made without an administrative order;
- (e) once changes in individual or aggregate items exceeded a certain size, the contractor became entitled to financial compensation, because the work was no longer being carried out under the conditions specified in the call for tenders;
- (f) where changes were expensive and led to substantial overruns of the contract price many contract supervisors and contractors agreed to offset the extra cost by reducing other quantities or work. The justification for these cutbacks was not adequately verified, even though they are just as important for the economics of the contract and the quality of results as increases are.

Box 4

Insufficient supervision of the financial implications of changes

1. In Ethiopia, the scale of the changes requested for the Addis Ababa-Mojo-Awassa road allowed the contractor to submit claims for compensation for the increased duration of the work and for other indirect consequences of the changes. These various aspects were not taken into account when the changes were approved. In the case of the Addis Ababa-Jimma road, the contractor also obtained an increase in the contractual unit prices on the basis of the scale of the changes.

2. In Jamaica, the decision to reduce the thickness of the wearing surface of the renovated roads was taken without any knowledge of what, precisely, the savings achieved and the impact on the life expectancy of the works would be. With regard to the drainage works at Ocho Rios, substantial underestimates of quantities and other inaccuracies in the contract were the subject of corrections which led to legal action and costly extensions.

3. In Mali, even though work on the Diéma-Didiéni road suffered considerable delays, the cause of which lay with the contractor, the contract supervisor granted an eight-month extension without changing the initial contract price. On completion of the works, however, the contractor entered a claim that included the costs associated with the extensions obtained.

4. In Senegal, the contract supervisor granted an extension of 4,5 months for the execution of an administrative order concerning the Guéoul-Baralé road, without obtaining agreement in respect of its financial consequences. Under the same circumstances, they granted an extension of 12 months for the Senoba-Ziguinchor road. In this latter case the delegation refused to endorse the extension and to commit the EDF to funding the financial repercussions of the extension.

5. In Tanzania, new unit prices for the port of Zanzibar were set by negotiation between the contract supervisor's representative and the contractor, with the result that, to a significant extent, the contract price was no longer the outcome of the initial tendering procedure. In the case of the roads in the town of Mwanza the contractor accepted the administrative order cutting back the specifications for the base course, but expressed formal reservations concerning the soundness of any works constructed in accordance with the amended specifications. With regard to the contract for the flood defences for the Dar Es Salaam-Kigoma railway, while the bulk of the work had been completed in December 1996, the contract supervisor asked for changes which extended the contractor's involvement until October 1997. On completing the contract, the contractor filed a claim for compensation because it had been unable to use its equipment while the requests for changes were being examined.

Insufficient supervision of price revisions

22. Application of the price revision clauses in contracts can be problematic because the provisions are out of line with the realities of the operations that are being funded. The clauses for any one country are often copied from one contract to another, without the best practice from other countries being considered. Because of this compartmentalisation, the revision clauses may prove to be very different from one contract to another, even though the works are very similar. Some contracts use formulae and indices, others take the real justified cost. The Commission gains experience by dealing with the problems encountered, but does not put it to good use by improving and standardising the price revision clauses in all contracts of a similar nature.

Box 5

Insufficient supervision of price revisions

1. In Cameroon, the formula for revising the contract price for the Bertoua-Garoua Boulai road did not include bitumen, which is nevertheless an important material in this type of work. Following an unforeseeable and exceptional increase in the price of this product during the period when the work was being carried out, the contractor asked for the price revision clause in the contract to be amended. This request was rejected by the contract supervisor. As it represented almost 11 % of the initial contract price, the request was repeated in the form of a claim on completion of the work. As a result of this problem, the price revision clauses in the highways contracts in preparation in Cameroon were amended and refined. This example of assimilation of experience remains, however, an isolated one because operations are compartmentalised on a country by country basis.

2. In Jamaica, as the price revision clauses in the road-renewal contracts examined were inapplicable in practice, a flat-rate price revision equivalent to 20,4 % of the contract total was granted by the contract supervisor during implementation of the work. Because of the excessive weighting applied to the fuel and bitumen indices compared with their actual cost, this revision was to the contractors' advantage.

3. In Tanzania, in the case of the Wazo Hill-Bagamoyo road, different interpretations of the price revision clause in respect of fuel oil triggered disputes which were settled amicably thanks to the Commission's mediation. The amount of the revision agreed was not, however, the subject of an amendment to the contract.

Disagreement over performance programmes

23. In the case of five of the contracts examined, work was undertaken without any performance programme having been approved by the contract supervisor, either because the contracts were imprecise and unrealistic, or because of disagreements over the terms and conditions. This situation is contrary to Article 17 of the general conditions of contract and is conducive to disputes, since the parties have no common basis for interpretation of the contract documents. It also prevents strict control of a contractor's progress relative to the performance schedule. The said Article 17 does not specify any procedures for resolving this situation. The special conditions do not usually provide the necessary detail, with the result that contract supervisors and delegations allow this situation to persist without taking appropriate action, to the detriment of sound management of the operations.

Late and inappropriate settling of claims

24. The general conditions for works contracts financed by the EDF lay down procedures for settling claims for additional payment (Article 55) or time extensions (in Article 35) and for settling disputes (Article 68). Details of any conciliation and arbitration procedures are set out in separate rules ⁽¹⁾ applicable to contracts of all kinds financed by the EDF, under Article 307 of the Fourth Lomé Convention. The purpose of these various provisions is to bring about an amicable settlement of the various types of claims as soon as possible after the events that provide the justification for them. Table 3 shows the main claims outstanding at the end of September 2002 in relation to the contracts examined. Implementation of the contractual provisions was defective mainly for the following reasons:

- (a) sometimes contract supervisors, technical assistance, delegations and the Commission's central departments put off dealing with claims until the end of the contract and then settled everything together;
- (b) the resources and skills needed to examine claims were not usually mobilised promptly, so that on the one hand the reply deadlines provided for in the regulations were exceeded and, on the other hand, the contractor gained the initiative;
- (c) the financial implications of an extension were not examined at the same time as the request for extension;
- (d) the Commission's central departments at headquarters did not have the resources to deal with the requests for assistance to settle disputes that were submitted to them.

Table 3

Main claims outstanding in September 2002, for the contracts reviewed

(Mio EUR)

Contract	Date of initial claim	Total claim at 30.9.2002	% of initial contract
Cameroon — Bertoua-Garoua Bouläi road	5.10.2001	7,4	13,4 %
Ethiopia — Addis Ababa-Awassa road	18.10.2000	22,1	56,0 %
Ethiopia — Addis Ababa-Jima road	4.10.2000	14,1	26,7 %
Mali — Diéma-Didiéni road	10.5.1999	12,8	119,4 %
Total		56,4	30,7 %

Source: Claims filed by contractors.

⁽¹⁾ Procedural rules on conciliation and arbitration of public works contracts financed by the EDF (Annex V to Decision No 3/90 of the ACP-EEC Council of Ministers of 29 March 1990).

Box 6

Late and inappropriate settling of claims

1. In Cameroon, the efficiency of the technical, administrative and financial management of the construction contract for the Bertoua-Garoua Boulai road was due to the fact that implementation problems were usually dealt with promptly and in an appropriate manner by all the parties involved. However, the two serious problems (the price of bitumen and maintenance work under a public contract) which the contract supervisor and the delegation preferred to put off dealing with until the final settlement of the contract ultimately resulted in a substantial claim.

2. In Ethiopia, the contractor entered claims, which were still awaiting settlement, concerning two of the three highway contracts which they obtained. The largest claim, which was submitted in October 2000 and concerned the Addis Ababa-Awassa road, was for an amount equivalent to more than half the initial contract price, and a number of other claims pending raised the percentage involved to a total of almost 70 %. The largest claim for the Addis Ababa-Jimma road was based on the suspension of the work in July 2000 and was equivalent to more than a quarter of the initial contract price.

3. In Jamaica, in the case of the Negril and Ocho Rios sewage treatment contracts, the inability of the delegation, the contract supervisor and technical assistance to play their full roles, when confronted with a contractor who also performed poorly in the discharge of its obligations, led to an accumulation of unresolved questions and a climate of distrust between the parties involved. In the end, 94 claims were entered by the contractor and 35 by the contract supervisor. A lump-sum settlement was ultimately concluded on an amicable footing.

4. In Mali, in respect of the Diéma-Didieni road, the contractor submitted a claim in May 1999 which was equivalent to 121 % of the initial contract price. The Commission and the contract supervisor did not settle the problem with the requisite rigour and promptness. In August 1999 they carried out what was only a very superficial evaluation of the claim and in May 2000 the contracting authority asked the Commission's central departments to mediate. The experts called in by the Commission ten months later had still not completed their investigations in June 2002. Such delays undermine the position of the contracting authority.

5. In Senegal, three of the contracts examined were the subject of disputes, of which two went as far as arbitration. The arbitrators' rulings led to increases of approximately one third of the value of each of the contracts. The government department did not display the necessary rigour and commitment when dealing with these lawsuits. As the Commission and technical assistance were equally weak the client party, as a whole, was unable to perform effectively when faced with the claims of contractors which had sound and experienced legal departments at their disposal.

6. In Tanzania, more than three years after the issue of the final invoice, certified by the project supervisor, for the contract for the flood defences for the Dar Es Salaam-Kigoma railway, the Commission had still not decided whether the EDF could or could not defray the cost of the claims which accompanied this invoice. In the case of the roads in the town of Mwanza, the contract supervisor and the delegation did not react to the contractor's claims before the deadline stipulated in the contract, with the result that the contractor gained the initiative and exercised its right to demand cancellation of the contract together with compensation.

- (a) in some cases there were not enough personnel to meet requirements, so that the close monitoring that was needed was not possible;
- (b) for the delegations the main emphasis was on increases in the total financing. Often, however, financial problems are a reflection of problems encountered during implementation, when it is already too late for an effective response;
- (c) when one or more parties did not fully discharge their responsibilities in the management process, this shortcoming was not detected at the appropriate level and not dealt with as rigorously as it should have been.

26. Many technical and organisational problems arose in an identical manner from one country to another, but the delegations and national authorities concerned were not informed of the solutions developed by their counterparts in other countries. Since the central departments did not systematically provide them with back-up in this area (see paragraph 28), the delegations were unable to give effect to Article 287 of the Fourth Lomé Convention which stipulates that project appraisal is to take account of experience gained from similar operations, as well as considering the results of studies already undertaken on similar types of project or programme.

27. Documentary checks of payment orders by the delegations were not designed to detect problems concerning the reality of works or conformity with contracts. Essentially, these problems are only recognised as a result of tests carried out by the contracting authority and technical assistance and through the certificates which they forward to delegations in support of applications for payments.

Box 7

The role of the delegations

1. In Ethiopia, for a number of years the delegation has included two engineers. Nevertheless, until 2002, the differences between the Commission's and the authorities' ideas concerning the system for management of contracts financed by the EDF, combined with the scale of the design and implementation problems encountered in connection with the highway contracts, were underestimated in the reports of the delegation and the national authorising officer. In the case of the construction of a school building in Awassa, the incompatibility of the contract management procedures applied by the Ministry of Education and those favoured by the Commission ended in the Commission imposing an administrative 'freeze' when the final payment was due, at the expense of the small enterprise which carried out the work. The delegation approved interim invoices without drawing attention to the need for authorisation of the obvious changes in quantities revealed by the interim progress reports.

2. In Jamaica, the delegation only had an experienced engineer available to monitor the infrastructure projects as from January 2001. During the difficult implementation of the projects examined the post was either vacant (1998) or occupied by staff whose skills lay in other fields.

Management system**The role of the delegations**

25. Staff at the delegations were not always able to fulfil their monitoring obligations, mainly for the following reasons:

3. In Madagascar, work on the provincial slaughterhouses was not monitored by specialist technical assistance for reasons of economy. The delegation did not carry out any monitoring on the spot. An audit established that the amount of work done (in the region of 38 %) was considerably less than stated in the progress reports drawn up while the work was in progress and, because of this, the payments made (equivalent to 60 % of the contract) were excessive. The contracting authority was in a difficult position as far as recovering the overpayments was concerned, as the contract was rescinded in September 2000 on grounds of non-performance.

4. In Mali, the delegation only had an engineer at its disposal to monitor infrastructure projects as from 1998. The heavy workload resulted in over-long delays in reacting to the problems raised. As part of the decentralisation of the Commission the unit in question was enlarged to three persons in mid-2002.

5. In Senegal, the delegation was not in a position to monitor the infrastructure projects closely until September 2001. In 1999, the delegation refused to endorse an important administrative order for the Senoba-Ziguinchor road in the absence of an expert's report evaluating the justification for it, and took no action as disputes developed with the contractors that were carrying out the contracts examined. It was given more staff at the beginning of 2002 as part of the decentralisation.

6. In Tanzania, from April 2001, the delegation had only one technical consultant to monitor 20 infrastructure projects comprising approximately 40 contracts. In this situation, the objective of monitoring all the financial and technical aspects of the projects assigned to the technical consultant in the description of his duties could not be achieved. In the case of the roads in the town of Mwanza, the 20 % advance paid to the contractor exceeded the proven purchases of equipment, in contravention of Article 46 of the general conditions of the contract. Ministry of Transport administrative expenditure was charged to the contract without justification and re-invoiced by the contractor with the application of a 25 % margin.

The role of the central departments

28. The central desk and operational support departments were over-compartmentalised and did not identify the key points on which the limited number of specialists available at headquarters and in the delegations should focus their attention. End-of-project evaluations may be postponed indefinitely pending completion of project aspects that are of secondary importance. The lessons drawn from the problems encountered, technical audits, evaluation and control reports are not consolidated and circulated to all the managers concerned. The delegations' effectiveness is thus limited by the absence of sectoral expertise. The latter should be commensurate with the Commission's ambitions and size and should be for the benefit of all staff in every country.

29. The construction of the Bertoua-Garoua Boulāi road in Cameroon encapsulated a number of points that are important for good design and execution of highway works and could usefully be taken into account for projects of this type financed by the EDF or by the EU budget:

- (a) the added value of appropriate recourse, in good time, to regular technical audits and reports by technical experts on specific points that are complementary to the control mission, for example, carriageway, disputes, composition of surfacing, etc;
- (b) the necessity of calculating the load-bearing qualities of soils when exposed to varying levels of water saturation;
- (c) the practical value of radar measurements to check the thickness of the base courses, whether at initial acceptance or during the works, before the wearing course is laid;
- (d) the practical value of imposing implementation and control techniques that are compatible with the narrow tolerances used in specifying the thickness of base courses;
- (e) the sensitivity of price and environmental impact to technical parameters or route parameters that may be submerged in the mass of specifications, for example, the reference speed, the width of land-take, the gradient or flow speed necessitating the provision of concrete drainage channels, the elevation of the roadway.

30. The guidelines and support tools supplied by the central departments concentrated on contract preparation and conclusion, and then on the financial implementation of them. Their coverage of the performance-monitoring aspect was insufficient, so that, in an area as demanding and complex as infrastructure projects, this aspect was the responsibility of individual delegations and countries and relied over-much on the experience and capabilities of the staff in post. The delegations did not have precise descriptions of duties or management reports that could be used to optimise the allocation of their human resources to project follow-up. The useful practices of non-objection to administrative orders introduced empirically by certain delegations are not integrated into the Commission procedures.

31. Central departments did not keep records of the problems encountered in relations with consultants and public works contractors, so that it was difficult to apply the exclusion clauses laid down by the general conditions.

32. The unit responsible for acting as the Commission's mediator in disputes did not have the human resources needed to respond effectively to applications concerning works contracts, which were on the increase. It provided support only when the ACP State concerned asked for mediation. As of end-September 2002 it was aware of only one of the four claims shown in Table 3.

33. The Commission's accounting and management systems did not provide exact information about the position regarding works contracts financed by the EDF:

- (a) many contracts were split up between several account numbers without the related accounts being identified and without the possibility of consolidation;
- (b) works contracts financed by the EDF as part of programme estimates were not recorded;
- (c) the object of the contract was not always registered. The nature of the works and the type of infrastructure involved were not registered;
- (d) the amount initially entered in the accounts was not the total for the contract on the date that it was concluded. At the authorising officer's discretion it included provisions, so that it was not possible to monitor and analyse changes in the cost of the contracts on the basis of data in the accounts;
- (e) the estimate of final cost and the financial claims were not recorded.

Technical assistance

34. The mechanisms for ensuring that financial management of implementation of contracts financed by the EDF is sound were weakened by the number of parties involved and the complexity of the administrative and decision-making procedures. In the context of individual countries a strategy of calling on appropriate technical assistance, as in Cameroon for example, is necessary if the EDF is to perform the client role effectively in relation to the contractors carrying out the works. Where the Commission and the national authorities were unable to guarantee the sound management of operations themselves and were unable to agree on judicious means of reinforcing the weak links in the mechanisms, the effectiveness and efficiency of investing in studies and assistance with supervision were reduced, as was the case in Ethiopia. Although Article 275 of the Lomé Convention specifies that technical assistance is to be made available only at the request of an ACP State, it also requires programme appraisal to take due account of national human resources constraints and to promote those resources. The financing agreements are insufficiently detailed in this area.

Box 8

Technical assistance

1. In Cameroon the synergy between the skills of the delegation engineer and the coordination unit for regional road projects that had been set up in the contracting authority ensured that in the case of the Bertoua-Garoua Boulai road: the non-objection procedure in respect of administrative orders worked smoothly; implementation problems met with a response and specialists were called in due time; regular audits were effectively implemented; there was appropriate resistance to any excessive claims that were made by the contractor; and lastly, a constructive partnership was established with the contractor. Furthermore, there is reasonable certainty that the experience gained will benefit the design of forthcoming projects in the country, and the supporting measures were the subject of careful monitoring.

2. In Ethiopia, the technical assistance attached to the contract supervisor was assigned responsibilities at one and the same time, rather unrealistically, for horizontal tasks concerned with capacity building, as well as for operational tasks concerning contract management. It was therefore unable to handle the numerous design and implementation problems arising from the contracts financed by the EDF. The contracting authority's reluctance to recognise the Commission's right of inspection as regards the implementation of the contracts, combined with the authority's prevarication, greatly reduced the efficiency of the control offices that had been instructed to assist in supervising the implementation of each contract, as well as reducing the motivation for them to become an integral part of the management system.

3. In Jamaica, the Commission, the contracting authority and the contract supervisor did not succeed in control of the projects that were reviewed. In the case of the highway projects, technical assistance resources were not reinforced to deal with the question of price revisions. As regards the Negril and Ocho Rios sewage treatment contracts, shortcomings in contract management led to an increase in the costs of supervision borne by the EDF, from 1 million euro to 4,1 million euro. This increase of 300 % was contrary to the internal rules restricting increases in works and service contracts to 50 % of their initial amount.

4. In Mali, the contract for assistance with supervision was concluded seven months after work on the Diéma-Didiéni road began. There was then a succession of five different team leaders. The quality of the analysis of the contractor's claims was inadequate.

5. In Senegal, the assistance with supervision was found to have been defective as regards several of the contracts examined, but no action was taken to remedy the shortcomings. In the case of the Mékhé-Saint Louis road, delays accumulated in the drawing-up of final accounts, progress reports and plans, and daily construction records. As the service contract had expired, no technical assistance was available for supervision of the final work and for final acceptance. In the case of the Senoba-Ziguinchor road there was a succession of three different team leaders, the final report remained incomplete, differences between bills of quantities and quantities invoiced remained unexplained and the analysis of the contractor's claims was insufficient. In the case of the Guéoul-Louga road, the analysis of the contractor's claims proved unusable, partly because it contained no figures.

CONCLUSIONS AND RECOMMENDATIONS

General appraisal

35. In overall terms the works financed by the EDF made a significant and relevant contribution to national infrastructure development strategies. All too often, however, the end result, costs and time taken were substantially different from the initial terms of the contracts. Although projects of this type are naturally subject to variation and unforeseen factors, the Court noted that the management system that had been designed to monitor whether work was progressing in accordance with the terms of contract did not provide any guarantee that financial management of the operations would be sound in cases where the design or scope of the works was substantially modified (see paragraphs 8 to 10).

36. Shortcomings and errors in the design or implementation studies were the starting point for much of the slippage that was found. Studies were not subject to quality control, and as a result too many contracts were based on faulty or unrealistic terms and conditions (see paragraphs 13 to 20). Too often the Commission's central departments and delegations, as well as the national departments concerned, were not sufficiently decisive in their application of the implementing procedures. This situation then allowed contractors to evade their responsibilities or, where the changes were substantial, to contest the prices that resulted from competitive tendering. The implementing procedures established to deal with normal situations proved inadequate in such situations (see paragraphs 21 to 25 and 32). The strategy of calling on technical assistance did not always provide the means of strengthening weak links in individual countries' own mechanisms (see paragraph 34).

37. Many of the implementation problems encountered recurred from one contract and one country to another. Unfortunately, the organisation of the central departments, like that of the links between those departments and the delegations, did not allow them to build up sectoral expertise that could be applied to the advantage of all works contracts financed by the EDF, and thus robbed the Commission's involvement of some of its added value. The key points on which project monitoring should focus were not clearly defined and the monitoring focused excessively on formal authorisation of payments (see paragraphs 26 to 30). Contractors whose performance was inadequate were not sufficiently detected and monitored (see paragraphs 14 and 31). Accounting and management information and systems were unsuitable for close monitoring of the technical and financial execution of projects (see paragraph 33).

Recommendations concerning studies and call for tender documents

Recommendation 1

38. Quality control should be increased for studies and consultants should be held financially liable for any professional negligence on their part.

Quality control of studies should focus on the following points:

- definition of the precision of the study and of any additional studies needed prior to implementation,
- adequacy of the budget allowed for studies and work and involvement of experts from ACP countries,
- errors and omissions and reliability of bills of quantities. Precision could be set at around 10 %,
- consistency of studies relating to the same project,
- price revision clauses and details added to the general conditions by the special conditions, especially as regards the handling of disputes,

Articles 14(5) and 17(3) of the general conditions for service contracts should be transposed, in detail, to the general conditions of contracts, so that consultants can be held responsible. The level of detail of the studies and on-site surveys provided for in the bids should be combined with guarantees as to the precision of the quantities and methods adopted in the tender dossier. This would help to eliminate the submission of bids that are not adequately budgeted.

Recommendations concerning changes during implementation

Recommendation 2

39. Administrative orders should always include a numerical estimate of quantitative and financial impact. Changes that entail a reduction in the scope or quality of the works should be subject to a reasoned authorisation.

Quantification should not only cover the items of the bills of quantities that are directly affected. It should also cover the other items, as well as the duration of the work.

Reductions should not lightly be considered as savings, especially where they are made in order to render unexpected cost overruns acceptable. The following points should be examined:

- any change in the price structure that is to the contractor's advantage,
- the implications for the viability of the works,
- alternative possibilities of increasing the project budget.

Recommendation 3

40. Supervisors should immediately call on the experts needed to resolve implementation problems. The practice of deferring treatment of claims to the end of the contract should be abandoned.

When implementation problems are raised, supervisors should immediately obtain the expert advice needed to assess the problems and resolve them authoritatively.

Any claim or notification by the contractor of events that are likely to give rise to a claim should be subject to follow-up on the basis of pre-set deadlines for:

- acknowledgement of receipt and request for quantification and justification by the supervisor,
- production of quantified data and supporting documents by the contractor,
- acceptance or rejection by the supervisor, on the basis of appropriate expert advice within the time allowed.

Recommendations concerning the management system**Recommendation 4**

41. Devolution of responsibility to the delegations should go hand-in-hand with a reorganisation that allows central departments to provide delegations with back-up in the form of sectoral expertise.

The organisation and tasks of the central departments should take the following points into consideration:

- *abandoning the geographical organisation of the central departments in favour of skills centres for use by all projects of a similar type,*
- *reinforcing the delegation's basic management tools: description of the key points on which management should focus, monitoring the estimate of the final cost of the works contract, management reports, examples of the interpretation of the general conditions, records of any information that may help the Commission expand its sectoral expertise,*
- *carrying out end-of-project evaluations for all large-scale projects as soon as they have been substantially completed.*

The following information should be collected and circulated to delegations:

- *performance of technical assistance, consultants and the contractors holding works contracts,*
- *differences over the interpretation of the general and special conditions of contracts, even when they have been settled amicably at local level,*
- *main implementation problems encountered and the solutions found,*
- *strategy for the use of technical assistance. This should be assessed at the time of the financing proposal.*

Recommendation 5

42. Accompanying measures that have a decisive impact on the viability and durability of the works should receive extra attention.

More attention should be given to the following points:

- *the constraints of supervising and maintaining small projects and projects that are scattered over a wide area,*
- *maintenance and control of axle loads in the case of roads, charging and connection policies in the case of wastewater treatment,*
- *possibility of partnership with contractors combining road construction and maintenance.*

Recommendation 6

43. The general conditions relating to the implementation of works contracts have not changed since March 1990. They should be re-examined in the light of the experience acquired since then.

The following points should receive special attention:

- *payment of advances to facilitate start-up and the deployment of plant and machinery should be linked to formal follow-up of the deployment and to financial penalties where it does not take place within the time specified,*
- *penalty clauses dealing with delays could also provide for bonuses in cases where deadlines are met or anticipated,*
- *the absence of agreement over the performance programme should have repercussions.*

This report was adopted by the Court of Auditors in Luxembourg at the Court meeting of 8 May 2003.

For the Court of Auditors
 Juan Manuel FABRA VALLÉS
 President

ANNEX I

Works contracts financed by the sixth, seventh and eighth EDFs

(Mio EUR)

Country	Contracts registered	Payments
Angola	48,36	38,52
Antigua and Barbuda	4,64	4,64
Bahamas	6,97	6,97
Barbados	32,31	30,53
Belize	23,12	23,12
Benin	189,77	126,13
Botswana	23,61	23,36
Burkina Faso	212,89	139,66
Burundi	75,76	73,27
Cameroon	164,57	141,49
Cape Verde	28,84	27,90
Comoros	22,99	22,93
Congo (Brazzaville)	27,92	27,64
Regional cooperation	0,00	0,00
Côte d'Ivoire	19,90	19,75
Djibouti	16,39	16,03
Eritrea	17,35	7,38
Ethiopia	163,94	92,84
Fiji	14,48	14,48
Gabon	45,14	44,66
Gambia	6,20	6,20
Ghana	82,64	69,52
Grenada	0,43	0,43
Guinea	187,21	122,49
Equatorial Guinea	7,81	6,29
Guinea-Bissau	44,40	28,81
Guyana	20,72	20,21
Haiti	56,33	34,00
Jamaica	63,78	61,65
Kenya	70,21	70,21
Kiribati	0,10	0,10
Lesotho	52,39	44,85
Liberia	3,00	2,74
Madagascar	116,67	113,29
Malawi	145,80	128,55
Mali	171,12	117,21
Mauritius	41,04	36,34
Mauritania	90,57	72,63
Mozambique	133,51	110,26
Namibia	33,38	31,77
Niger	134,20	112,03
Nigeria	58,70	58,04
Uganda	103,95	101,19
Papua New Guinea	53,35	53,30
Democratic Republic of Congo	43,85	39,24

	(Mio EUR)	
Central African Republic	83,77	83,56
Dominican Republic	30,67	20,33
Rwanda	63,30	58,03
Saint Kitts and Nevis	7,92	7,91
Saint Vincent and the Grenadines	7,09	7,09
Saint Lucia	2,61	2,61
Solomon Islands	2,89	2,89
Samoa	21,00	18,41
São Tomé and Príncipe	10,86	8,96
Senegal	147,05	117,87
Seychelles	6,97	6,92
Sierra Leone	37,27	35,52
Somalia	3,49	3,31
Sudan	7,38	7,38
Suriname	12,90	12,79
Swaziland	23,74	23,68
Tanzania	233,71	211,60
Chad	102,04	68,02
Togo	21,40	21,40
Tonga	6,43	6,20
Trinidad and Tobago	16,17	5,74
Vanuatu	3,99	3,93
Zambia	89,54	75,67
Zimbabwe	15,49	15,36
Total African, Carribean and Pacific	3 818,03	3 147,83
Anguilla	1,55	1,55
Netherlands Antilles	3,24	3,24
Aruba	9,01	9,01
Cayman Islands	1,49	1,49
Virgin Islands	2,47	2,47
Mayotte	9,01	8,98
Montserrat	4,20	4,20
New Caledonia	10,07	9,18
French Polynesia	13,37	10,31
Saint Pierre and Miquelon	2,60	2,60
Saint Helena	1,39	1,39
Turks and Caicos Islands	4,76	4,76
Wallis and Futuna	0,55	0,55
Total overseas countries and territories	63,72	59,72
Total works contracts registered	3 881,74	3 207,55
Total EDF 6, 7 and 8	23 598,14	20 610,88
Percentage of works contracts registered	16 %	16 %

Source: Commission accounts at 30.9.2002 reprocessed in order to allocate regional projects to beneficiary countries. The contracts reviewed in the report relate to the countries in bold type (see details in Annex II).

ANNEX II

Contracts reviewed

(Mio EUR)

Account number reference	Description	Date of contract	Initial contract total excluding provisions	Total committed at 30.9.2000	Total paid at 30.9.2002	Total works contracts registered	% examined
5 CM 44, 45 6 CM 17 1, 18 1, 42 1	Yaoundé — Ayos road	05/91	62,4	66,2	66,2		
6 RPR 555 2 7 RPR 630 3,4, 12 to 15 7 CM 50 2, 50 3	Bertoua — Garoua Boulai road	03/99	55,1	68,2	59,8		
7 CM 43 7, 8 CM 11 3	Defences, drainage — town of Kousseri	03/98	4,5	4,7	4,7		
7 CM 43 5, 44 1	Roads town of Kousseri	06/97	2,3	2,4	2,4		
Subtotal Cameroon	4		124,3	141,6	133,1	164,6	86 %
7 ET 93 1, 94 1	Addis Ababa — Mojo — Awasa road	09/97	39,4	49,1	44,6		
7 ET 99 01, 8 ET 3 3	Addis Ababa — Jimma road	03/99	52,7	70,0	30,6		
8 ET 4 1	Addis Ababa — Woldya Lot 2	11/00	35,9	38,3	12,2		
7 ET 90 3	School building Awassa agricultural college	10/99	0,2	0,2	0,2		
Subtotal Ethiopia	4		128,2	157,6	87,7	163,9	96 %
7 JM 6 5, 8 JM 12 1	Papine — Buff Bay road	03/99	6,2	8,6	8,4		
7 JM 6 7, 8 JM 12 2	Chovey-Highgate, Port Maria-Water Valley road	03/99	2,9	3,6	3,5		
7 JM 6 8, 8 JM 12 3	Highgate-Richmond, Highgate-Tavern Hill road	03/99	2,7	2,8	2,8		
7 JM 23 2 and 3, 24 1 and 2	Drainage Negril and Ocho Rios	05/94	26,4	32,0	29,7		
Subtotal Jamaica	4		38,1	47,0	44,5	63,8	74 %
7 MAG 33 2	RN 4 and bridge to Kamolandy	02/96	14,1	25,2	25,2		
6 MAG 69 13	Provincial slaughterhouses	12/97	1,8	1,8	0,8		
6 MAG 85 5	Provincial airports	10/97	6,6	7,2	7,2		
Subtotal Madagascar	3		22,4	34,2	33,2	116,7	29 %
7 MLI 80 5, RPR 386 1	Segou-Faramana road	05/96	11,4	13,1	12,1		
7 MLI 80 3	Diéma-Didiémi dirt road	04/96	10,8	12,3	10,5		
7 MLI 80 4	Ouan-Sévaré road	04/96	3,1	3,8	3,8		
8 MLI 06 1	Sévaré-Bandiagara road	11/99	5,0	5,8	5,8		
6 MLI 27 59	Miyou-Macina road	05/00	3,9	4,5	3,9		
Subtotal Mali	5		34,1	39,5	36,2	171,1	23 %
7 SE 1 3	Guéoul-Barale road	05/93	3,8	3,3	2,9		
7 SE 1 4	Meckhe — St Louis road	08/95	11,2	13,6	10,4		
7 SE 1 5	Nioro du Rip -Keur Ayib road	12/95	2,0	2,6	2,6		

(Mio EUR)

7 SE 1 6	Senoba-Ziguinchor road	04/96	11,6	15,4	12,2		
8 SE 31 1	Pikine (St Louis)	07/00	4,1	4,1	4,1		
Subtotal Senegal	5		32,6	38,9	32,2	147,0	26 %
5 TA 42, 6 TA 11 1	Port of Zanzibar (began with 5th EDF)	12/87	13,5	23,9	23,9		
8 TA 10 1	Mwanza roads	10/00	22,5	25,7	9,6		
7 RPR 27 10	Flood defences	08/95	3,0	7,2	7,2		
7 TA 111 10	Road renewal in Dar Es Salaam	12/98	1,6	1,7	1,7		
7 TA 89 1	Bagamoya road (excluding work financed bilaterally by Italy)	04/96	1,3	2,0	1,8		
Subtotal Tanzania	5		41,8	60,5	44,1	233,7	26 %
Total	30		421,7	519,3	411,0	1 060,8	49 %
Audit coverage				13 %	13 %	27 %	
Total works contracts registered for EDF 6, 7 and 8				3 881,7	3 207,6	3 881,7	

Source: Contracts and Commission revenue and expenditure accounts at 30.9.2002.

THE COMMISSION'S REPLIES

SUMMARY

I. The Commission welcomes the analysis of the Court into the reasons why some works contracts encountered problems, and what might be done to improve the ways in which such problems can be prevented. The focus on risk areas helps to identify issues that need to be tackled on a wide front. The Commission is not alone in financing infrastructure projects in ACP countries, and other donors have faced similar difficulties.

Procedures adopted by the Commission in recent years, notably the publication in 1996 of transport-sector guidelines and the revision in 2000 of tendering procedures, already address these problems. The Commission now endeavours to ensure that design studies be completed before the financing of the works contract is decided, and expects that this will further contribute to address the identified problems.

II. The Commission's 1994 evaluation of its programmes in the transport sector concluded that establishing sustainable road networks requires a sectoral approach, and this strategy has been developed in partnership with other donors, particularly the Member States and the World Bank.

The Commission has in recent years adopted improved practices for addressing problems related to delays in construction. Approaches such as completing all design work before awarding works contracts, retaining the design consultants also to supervise the works construction are significantly reducing the incidence of technical, financial and managerial problems. In parallel, sectoral policy and project management training programmes have been running for Commission officials since the mid-1990s. There is now a far better understanding of the kinds of issue raised in the Court's audit.

The important role of the ACP country authorities in managing the phase of implementation of projects and ensuring the measures are in place to maintain the infrastructure after completion, should be highlighted. The Commission emphasises the importance of the various powers conferred in the Lomé Conventions and the Cotonou Agreement on the local institutions. In some cases noted by the Court, weaknesses in project design stemmed directly from studies in which the Commission was not involved. However, large projects of this kind cannot be perfectly planned beforehand, and many problems cannot be anticipated. It is sound management to respond to the need to amend a project in a way which identifies the most cost-effective solution.

III. In spite of the technical and financial problems, the audited road projects have been economic successes, improving access to local markets and increasing regional trade. The revised functions of the central services at the Commission, which are being introduced, provide for them to ensure that best practices are adopted quickly in the different countries. Moreover there is a rotation of staff between headquarters and the delegations in the ACP coun-

tries. In addition, staff numbers in delegations are being progressively increased under the devolution arrangements.

- IV. (a) The Commission's procedures for engaging consultants were completely revised in 2000, in a way which should improve quality and performance. It is the responsibility of the contracting authority (usually the government) to pursue any action necessary in relation to professional negligence.
- (b) The Commission already examines carefully the issues listed by the Court when a variation on the original contract is asked for by the Contractor. It will try to ensure that existing guidance on documenting the reasons for the relevant analysis is fully respected.
- (c) The reorganisation, decided in February 2003, is currently being implemented.

INTRODUCTION

3. The important role of the ACP country authorities in managing the phase of implementation of projects and ensuring the measures are in place to maintain the infrastructure after completion should be highlighted. The Commission emphasises the importance of the various powers conferred on the local institutions by the Lomé Conventions and the Cotonou Agreement. In some cases noted by the Court, weaknesses in project design stemmed directly from studies in which the Commission was not involved.

6. The Commission acknowledges that the checks carried out the Court enabled it to identify the main problems arising from implementation of work contracts. It notes that the audit has not examined the economic impact of the projects.

EXCESSIVE DIFFERENCES BETWEEN CONTRACTS AND END RESULT

8. The Commission considers that the fact that the works were in most of cases of a satisfactory standard is a positive assessment and achievement. The audited road projects have been economic successes, improving access to local markets and increasing regional trade. They join the list of road projects financed since the late 1980s, amounting to some 30 000 km that have provided significant benefits to the countries and regions concerned

(b) The Commission now believes that the technical and financial risks associated with the Addis Ababa-Jimma and Addis Ababa-Woldiya routes in Ethiopia have now been contained.

(c) Important efforts were made to learn the lessons of the Yaoundé-Ayos Road, to the advantage of the subsequent project of Bertoua-Garoua Boulai Road: taking into account of environment concerns in project conception, identification and resolution in good time of problems occurring during works execution, optimisation of project under execution. In Zanzibar, aid was suspended for a time, but plans are now under way to launch a revised project.

9. Compensating for cost overruns by reducing or omitting certain work is a decision which needs to take into account the costs and benefits of the alternative solutions and is not in itself an abnormal situation.

10. (b) For some projects a principal reason for the augmentation of cost was the higher specifications set in the implementation phase.

Box 1, point 1. The fact that a new feasibility study is being planned for the expansion of the section of Addis Ababa-Modjo Road, does not imply that the realised works were underdesigned with regard to traffic. The design modifications introduced during construction, mainly the third climbing lane, have greatly contributed to a practically unhindered flow of traffic at the design speed. The new feasibility study could instead be considered as in-time planning in an evolving situation, since any works that may result out of that study will not be realised before eight to ten more years. By then, the examined project will be well in its second decade and will, therefore, have fully satisfied its objective.

Box 1, point 2, first indent. The protections in the town of Kousseri in Cameroon, are of insufficient depth in specific points only. Up to now, no stability problems have been reported.

Box 1, point 2, second indent. On the three roads contracts in Jamaica, a possible solution with zero risk from instability of slopes was not cost-effective. The shoulder problem mentioned in the Court's report was limited to certain lengths of road. The only alternative solution was to reduce the number of kilometres. This was not the option retained, as it would have implied a permanent disruption of traffic.

On the Wastewater Project in Jamaica, the *ex post* evaluation of the project concludes by affirming that 'both sewerage systems work steadily and up to now, only very few breakdowns have occurred during over three years of operation'.

For the port of Zanzibar, plans are now under way to launch a revised project.

11. The Court correctly identifies road maintenance as the principal aspect of the sustainability of road networks. Such a conclusion was also a highlight of the Commission's transport sector evaluation of 1993/94. Moreover, the evaluation recommended that establishing sustainable maintenance at a country level involved moving from a project approach to a sectoral approach.

The Commission, in coordination with the Member States, published in 1996 practical transport sector guidelines '*Towards sustainable transport: a sectoral approach in practice*'. These guidelines shape the Commission's strategy for supporting transport, particularly the roads sector, in countries where transport is a focal sector. Working with Member States and the World Bank a sector wide programme has developed in many partner countries, for example, Benin, Ghana, Senegal, Cameroon, Chad, Ethiopia, Kenya, Tanzania, Uganda, Malawi, Madagascar, Mozambique and Zambia.

The Commission's communication 422 of July 2000 'Promoting sustainable transport in development cooperation' develops the sectoral approach by setting principles for transport.

The communication and the transport sector guidelines provided a sound foundation for '*Programming guidelines for the transport sector*' developed for the 9th EDF. These guidelines address the maintenance concerns expressed by the Court and provide a road map for defining the Community response strategy in transport in Country Strategy Papers and National Indicative Programmes.

The Commission therefore gives priority to the issue of road maintenance and sustainability of the roads sector and in 2002 launched a global evaluation of its interventions in the transport sector. This evaluation will address the issues raised by the Court and provide valuable feedback for improving the application of the sectoral approach.

12. The Commission and many other donors share the Court's concerns of axle load control and road safety. Enforcement of traffic regulations is complex as it involves many agencies and institutions, for example, traffic police, road agency inspectors, and local magistrate courts. And, examples of good practice in sub-Saharan Africa are few. Other sectors experience similar problems.

In Ethiopia, the Government is beginning to implement the recommendations of the Community-financed studies into axle load management and updating of the traffic regulations.

Road safety in ACP countries has a low priority in terms of government policy, despite the high cost of accidents on the economy and the negative social impact. The Community is supporting the governments of Ethiopia and Lesotho to increase road-safety awareness and reduce accidents.

Box 2, point 1. The objectives of maintenance operations in Cameroon were fixed in terms of a priority road network and not of the national road network, as a whole, which is indeed vast. The situation in this domain, although not satisfactory yet, has improved substantially since the creation of the Road Fund and the start of the EDF-financed 'Perfed2' programme, especially in the resources mobilised and the capacity of small and medium-sized enterprises and consultants, but also in view of the achieved results.

Box 2, point 2. Measures for application of fines on overloaded vehicles in Ethiopia should be incorporated in the existing Road Transport Regulation, prior to application. A study financed under EDF was completed in October 2002, providing draft legislation, which is expected to be presented to Parliament in early 2003.

The necessity to control parking for reasons of safety, or of structural stability, is acknowledged. The choice of the most suitable technical solution to the problem (i.e. construction of parking places or some other scheme) is a matter of debate.

On the Addis Ababa-Jimma Road, maintenance could not be carried out at the sections of road handed over to the contractor. The unforeseen suspension of works for almost two years did affect the maintenance programme under national resources in these sections. During the last dry season (2002), maintenance work was carried out to good effect at the most severely deteriorated stretches, in order to alleviate the situation.

Box 2, point 3. In Jamaica, the *ex post* evaluation of the water treatment project, completed in November 2002, recommends lines of action to overcome the identified shortcomings. These consist in defining a revised plan for a customer assistance programme and providing for septic tanks and cesspits disposal. Cooperation with the national water commission in Jamaica is ongoing, after the end of the project.

FACTORS INFLUENCING THE RESULTS OF CONTRACT IMPLEMENTATION

13. The Commission is conscious of the importance of design studies, and of the difficulties which are likely to ensue if these studies are deficient.

Part of the answer lies in ensuring that the contract for the design study is awarded with the main emphasis on technical quality, and this has been strengthened since the changes in tender procedures introduced in 2000.

14. It is the responsibility of the Contracting Authority — under the Lomé Convention this is usually the ACP Government — to pursue any action in relation to professional negligence.

15. The existing procedures for adjudication of service contracts effective since 2000 provide for an increased weighting on technical quality, including for the preparatory studies for infrastructure projects.

The Commission believes that an improvement in the technical quality of studies can be achieved by adopting a higher degree of precision of their terms of reference.

16. In order to avoid the problems identified by the Court, ACP experts are invariably associated with EU experts in studies and other technical assistance activities. The local involvement can be up to 80 % of the person-months required for the contract work. The same principle applies to works contracts. EU companies engage local companies as subcontractors for significant amounts of the work. Local companies also benefit from the transfer of technology.

17. The Commission is increasing the quality control of preparatory studies.

Especially in the case of complex projects such as hydroelectric plants this can be arranged through the signature of separate contracts with consultants other than those responsible for preparatory studies.

Box 3, point 2. Modifications to the design of the Addis Ababa-Jimma road project were made necessary due to either the faster-than-expected deterioration of the road quality, experienced between the time of the design and the construction period or in order to effect solutions that were fitting better to the actual project requirements. The accentuated nature of highly expansive soil materials necessitated the implementation of adequate technical solutions. Consequently, contract quantities were modified in order to reflect the technical solution finally adopted.

The design of Addis Ababa-Woldiya road project was carried out under the responsibility and financing of the Government of Ethiopia. At the time of the design, it is possible that ERA did not have the capacity to identify potential problems of the design. The Commission even embarked on precautionary cross-checking of the road design as soon as the potential for same-nature problems became apparent in other Community-financed projects, i.e. the Addis Ababa-Jimma Road.

The information on the Auditorium of Awassa is correct. It reveals capacity problems at the level of the contracting authority. In order to upgrade the administrative capacity of the Ministry of Education, particularly with regard to tender procedures, a support programme has been approved and launched (8. ACP. ET.021).

18. The Commission acknowledges that these factors pose a problem. It is inevitable that several months are needed to conduct tender procedures and for the contractor to mobilise. Also, several months can pass until the work force can deal with the farthest stretches of road. Consequently, there can be an interval of two to three years between the completion of the studies and the execution of remedial works for certain lengths of road. The rapidly increasing volume of traffic on African main highways during the 1990s and the inadequacy of historical traffic data made it very difficult for designers to foresee the true construction needs over such periods. Added to that was the fact that most roads in need of periodic maintenance were of the multi-layer type (bitumen spread over graded gravel, in two or three layers). This tended to break down rapidly under the ever-increasing volume of traffic.

Whenever availability of finance allows, roads are now designed with a higher resistance to axle loads and are built of pre-mix asphalt (which provides far better quality control and, thereby, longer periods between major maintenance).

19. See comments under point 9.

20. Investment in infrastructure demands considerable funds. Different solutions are applied on a case-by-case basis, for instance limiting the size of the planned infrastructure, which may still provide a cost-effective solution. In the immediate future, the Commission will examine which solutions are adapted to the constraints of the new Financial Regulation for the EDF.

New procedures for the engagement of appropriate consultants, insistence that design studies are fully completed before the financing decision is taken and the time constraints imposed by the new Financial Regulation should ensure that the studies and works programmes are better structured, and that thereby cost increases are significantly less frequent.

21. The Commission is conscious of the difficulties identified by the Court.

- (a) The observations here are acknowledged in relation to the audited projects. The shortcomings should not have occurred since they are normally the responsibility of the supervising consultant to keep a close check on such matters on behalf of the contracting authority.
- (b) Prior to modifying the activities covered by a works contract it is normal to carry out an extensive and detailed control of all financial and other consequences of these modifications (including consequences on the timetable). The Commission notes the Court comments, and will remind the relevant services to ensure the applications of the rule in all cases.

- (c) The Commission's present service contracts contain all necessary general provision or allow for appropriate, case-by-case modifications under the special conditions, to cover such control needs. The Commission will be vigilant to see that they are applied.

- (d) The Commission considers that more important modifications, implying serious financial or other consequences, should be the object of a formal rider, with a record of the final (provisional) quantities and budget (in detailed and in global figures) should be kept and regularly updated.

The Commission notes the Court comments and will seek to ensure that this is always the case.

- (e) Significant modifications in quantities can lead to conditions of execution dissimilar to those under which the contractor has tendered. (It should be noted that the agreement on new prices is one between the contractor and the contracting authority.)

- (f) The Commission notes the Court's comments and will remind the relevant services of the need to verify the justification for such modifications.

22. The Commission accepts the need to identify best practice on this question and is preparing a revision of price formula to be proposed to delegations. This is a good example of the role which has been defined for the services at headquarters after the devolution of functions to the Commission's delegations, which is currently under way.

23. The Commission agrees that the works timetable provided for in Article 17 of the general conditions of contracts is an essential tool for the follow-up of works and should have been available in all the cases examined by the Court. The Commission will take action to ensure that the provisions of Article 17 are respected by contracting authorities.

24. Please see the Commission's observations to point 32 on the question of claims.

Concerning the Jimma Project, substantial progress was recorded with prompt follow up by the contracting authority of claims submitted by the contractor.

- (a) It is indeed preferable to deal with claims as they arise and not leave them to be treated as a joint operation at the end of the project. The Commission is examining the procedures in order to ensure that as far as possible they are dealt with at the time they arise. The Commission may be unable, in delegations or in headquarters, to treat claims in real time. Claims are initiated by the works contractor and arise between him and the contracting authority, making it difficult for the Commission to achieve progress alone.

- (c) It is not always possible to identify the financial cost of extensions at the time they occur but the Commission will seek ways of developing capacities in this area.
- (d) According to Article 5 of the procedural rules on conciliation and arbitration of contracts financed by the EDF, a party may, before a request for arbitration, request the amicable intervention of the Commission or the settlement of the dispute by conciliation.

The Commission does not have an obligation to take on requests for mediation.

25. The fundamental point to be borne in mind is that if there is a technical contingency an appropriate solution has to be found. It has to be found quickly (or contractor 'standing time' costs are incurred) and there is a resulting additional cost to the project.

The delegation's role is to judge whether the optimum financial solution has been chosen in relation to technical aspects and the resulting timetable for the works. As far as possible, since 2001, all necessary technical and financial studies (field and office) have been carried out before financing the works. This significantly reduces the risk of major contingencies arising.

Coupled with a policy of retaining the design consultant also for the site supervision, costly unforeseen modifications to the works should be significantly less frequent.

26. Staff is in rotation between headquarters and delegations, as well as between delegations, covering diversified fields of expertise.

The policy of devolution, which will come into effect in most ACP countries in 2004, has an important bearing on this issue. Moreover, the purpose of the new organisation chart for headquarters, which is being introduced, is precisely to strengthen the role of headquarters in making best practice more widely known and providing technical support.

27. Two series of controls are operated in delegations: financial/accountant and operational. The first series to which this point mainly refers is supported by the online accounting system, or its manual ancestor. They are indirectly based on operational controls operated by the supervisor and his representatives and also on direct, regular or ad hoc participation of the delegation's operational staff in meetings, visits, reception of works or other events.

28. In the context of the reform of the RELEX services, including the devolution of responsibilities to delegations, the volume of sectoral expertise available to the Commission is being increased. In addition, the Commission is continually seeking to improve the dissemination of lessons learned amongst its service.

29. The Commission agrees that the parameters and tools, among others, identified by the Court have their importance in the technical assessment of infrastructure projects. Training programmes are helping to improve delegation staff knowledge in technical practices. Sectoral specialists in Brussels are identifying specific training needs.

30. Delegations used to ensure the necessary operational follow-up, as they continue to do in non-devolved delegations. Agents were usually limited to one sole agent — an engineer, on whose experience and capacity the operational aspects largely depended. This used to correspond to the adopted policy and standards for staff in delegations. In such a context, management tools mostly covered policy and other non-technical issues.

Systematic tools for monitoring and reporting by agents in post are being developed in the devolved delegations, as well as between these and headquarters. It is expected that standard tools will be available by the end of 2003.

The situation will substantially change in devolved delegations in the near future, as two operational agents (initiator and validator) should enter into line with two finance/contracts agents and the head of delegation in the visa circuit, in accordance with the new Financial Regulation, making it difficult to anticipate one or other of the visas, therefore making it useless to speak unofficially with the supervisor. A clear working scheme is expected by the end of 2003.

It is therefore very probable that the schemes and tools of operational cooperation, follow-up and reporting that will be adopted *in fine* will have a strong compulsory side, based on the precepts of the new Financial Regulation.

31. The Practical Guide makes provision for evaluation of services provided by consultants.

32. A claim may give rise to a dispute, but not necessarily. However, claims are unavoidable and inherent to contracts of this kind. (cf. Articles 21, 37, 38, 48 and 55 of the general conditions for works contracts financed by the EDF; they all foresee the possibility for the contractor to introduce claims of some sort). So the fact that the unit has only knowledge of some of the claims confirms that not all claims give rise to disputes which have been referred to the Commission.

33. The management system will be further improved with the foreseen integration of OLAS into CRIS.

34. Although practice has always shown an important degree of implication and valorisation of the local human resources in the course of preparation and execution of an infrastructure project, the Commission accepts to be attentive in the proper formulation covering Article 275 of Lomé Convention, to be inserted in future Financing Agreements.

CONCLUSIONS AND RECOMMENDATIONS

35. The Court, through its examination of works contracts, has highlighted a number of complex problems to which solutions are being sought (not just by the Commission but also by other donors). The projects involved are by nature costly, often carried out in remote areas affected by special circumstances (lack of basic amenities, difficult terrain, armed conflict, etc.) and in cooperation with administrations which are unused to managing projects of this scope. The Commission will pursue its efforts to develop appropriate contractual and technical solutions.

These already include carrying out all technical design (field and office) and detailed financial estimates prior to financing the works and retaining the design consultants to carry out the supervision. These two requirements alone, introduced as of 2001, should normally result in a significant reduction in the risk of technical modification and, thereby, cost increase.

36. The difficulty of foreseeing all possible problems in the execution of a major works contract, particularly road construction in remote areas, is acknowledged by the Court. The Commission accepts however that more attention needs to be paid to this area, particularly in the clear definition of the terms of reference of these studies.

37. The reorganisation of the services in headquarters in February 2003, taking into account the devolution process, is intended to allow the staff in headquarters to play precisely the role recommended by the Court. Support to the delegations will be provided by sectoral units. Separate units will ensure the management of programmes remaining under headquarters' responsibility.

The Commission's project monitoring system was already the subject of reform in 2002; this should provide regular information on how far major projects are meeting their objectives.

The practical guide makes provision for evaluation of services provided by consultants.

Recommendation No 1

38. The Commission's procedures for engaging consultants were completely revised in 2000. One objective was to ensure that only fully competent firms of consultants would be selected, and that thereby, the quality of studies should be entirely satisfactory. This should lead to a significant reduction in the incidence of cost increases in works contracts. Should it be necessary from time to time to seek a second opinion about study reports, it is possible for the EDF to finance such actions.

It is the responsibility of the contracting authority (in the case of ACP countries, usually the Government) to pursue any action in relation to professional negligence. The Commission encourages them to do so but there is often reluctance on their part because the process is costly, difficult and long.

In some cases (as when the physical approach during the design study is difficult), the figure of 10 % may be difficult to achieve.

Recommendation No 2

39. The principles under this recommendation fully comply with current Commission practices and the Commission subscribes to these.

Recommendation No 3

40. The Commission's current practice is to provide for the necessary competence to solve execution problems under the contract for technical assistance to supervise. This concerns day-to-day execution problems, as well as specific or exceptional execution problems. Under the general conditions, the supervisor is invested with the necessary authority to evaluate and solve problems.

The Commission fully subscribes to this part of the recommendation, which will be communicated to delegations for a proper follow-up.

Recommendation No 4

41. This reorganisation was undertaken in February 2003 and is currently being implemented.

Recommendation No 5

42. This recommendation is already part of the Commission's current preparation and follow-up to an infrastructure project. The accompanying measures form an integral part of a Financing Proposal that is presented to the EDF Committee for a decision and are further integrated in the Financing Convention that is signed with the ACP State. In particular, concerning the transport sector, the Commission demands that the essential elements of a sustainable national transport policy are well defined

and agreed between the ACP State and the Commission (and in most cases with other important international donors as well).

Recommendation No 6

43. The general conditions to be applied under the 9th EDF are currently under revision, prior to an agreement with Member States and the adoption of a decision of the ACP-EU Council of Ministers.
