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## PROPOSED PROGRAMME BUDGET FOR THE BIENNIUM 1990-1991

Construction of additional conference facilities  
at Addis Ababa and BangkokReport of the Secretary-General

1. At its forty-third session, the General Assembly, in part VIII of resolution 43/217 of 21 December 1988, took note of the report of the Secretary-General on revised estimates (A/C.5/43/16), including the plans of the Secretary-General for the implementation of recommendation 5 of the Group of High-level Intergovernmental Experts to Review the Efficiency of the Administrative and Financial Functioning of the United Nations 1/ on the construction of United Nations facilities, as requested by the Assembly in resolutions 41/213 of 19 December 1986 and 42/211 of 21 December 1987. In that report, it was indicated that, in accordance with those resolutions, measures had been taken on the implementation of the construction projects at Addis Ababa and Bangkok as outlined below:

(a) Work on the construction projects had resumed in 1988 on the basis of the scope of facilities as originally approved in sections III and XI of Assembly resolution 39/236 of 18 December 1984;

(b) Work on both projects was proceeding within the level of resources available from previous appropriations and no new appropriation would be required during the 1988-1989 biennium.

2. The present report reviews the progress on the projects at Addis Ababa and Bangkok since the 1988 report of the Secretary-General (A/C.5/43/16), and contains updated timetables for the implementation of both projects and the related financial considerations.

I. EXPANSION OF THE CONFERENCE FACILITIES OF THE ECONOMIC  
COMMISSION FOR AFRICA AT ADDIS ABABA

A. Status and development of the project

3. Pursuant to General Assembly resolution 42/211, the project at Addis Ababa was resumed during 1988 and proceeded on the basis of the scope of facilities originally approved and as subsequently reflected in the design developed by the winning architect/engineer firm selected during 1986, namely one large plenary hall, one medium-size conference room and four small conference rooms in addition to the existing Africa Hall.

4. When the proposal to defer the construction projects was considered by the General Assembly at its resumed fortieth session, the Fifth Committee had drawn the attention of the Assembly to the fact that the deferral of the projects could entail additional costs and a modification of construction schedules (A/40/1011, para. 5 (i)). A revised timetable for the project at Addis Ababa was provided in the previous report of the Secretary-General (A/C.5/43/16), together with an updated cost estimate. In that report, it was indicated that, based on the September 1988 rate of \$US 1.11 to the European Currency Unit (ECU) and a composite inflation rate of 4.5 per cent per year, the cost of construction, excluding contingency, was estimated at \$71,534,700. Given the estimated total cost approved by the Assembly in section III of resolution 39/236 (\$73,501,000), that provided an allowance of less than \$2 million for contingency and administrative costs, which was substantially less than the usual provision of 5 to 10 per cent; and that, consequently, actual experience regarding currency fluctuations during the following 18 to 24 months, and to a lesser extent inflation, would determine whether the original estimated total project cost of \$73,501,000 approved by the Assembly could be maintained.

5. On the basis of activities undertaken since the report of the Secretary-General to the General Assembly at its forty-third session, as outlined below, the timetable and cost estimates have now been revised. The activities undertaken since the previous report of the Secretary-General include the following:

(a) Contracts were signed with the quantity surveyor and with the architect/engineer selected during the architectural design competition in 1986. The schematic design of the project has been completed and the preparation of detailed design drawings begun;

(b) A detailed topographic survey of the construction site has been completed. Discussions are in progress with the Ethiopian authorities regarding the precise boundaries of the additional property being deeded to the United Nations by the host Government for the project. A draft supplementary agreement regarding the site is ready for signature pending determination of the boundaries;

(c) Investigations of the subsurface conditions have been undertaken by the Ethiopian Building Design Enterprise.

(d) Discussions have continued with the host Government regarding the operational arrangements that would be necessary during the construction period;

(e) Engineering consultants have reviewed the various utility arrangements and connections for the project with local authorities and have inspected the various mechanical services installations of the existing complex. The United Nations has commissioned a study by a consultant to determine the best location on the site for the satellite earth station, which is needed to support the communications requirements of the Economic Commission for Africa (ECA), including the new conference facility, as well as other United Nations activities in Ethiopia;

(f) Up-to-date project cost estimates using current information on construction costs in Addis Ababa, East Africa and Europe have been prepared by the quantity surveyor based on the latest available detailed design drawings. On the basis of these estimates and the current timetable, a projection has been made of the necessary financial commitments which would be entered into during the implementation of the project.

## B. Summary timetable

6. When initial subsurface investigations revealed no rock of sufficient bearing capacity within the construction area, additional borings to a depth of 40 metres were ordered. Since the results were the same it was necessary to revise the foundation design to utilize friction pilings. The additional time required for further geotechnical investigations and the consequent need to revise the foundation designs resulted in some revisions to the project timetable outlined in paragraph 6 of document A/C.5/43/16, although the completion of the main construction is still envisaged in the second half of 1993. The revised timetable is as indicated below:

<u>1989</u>	
January-December	Detailed design and preparation of tender documents by architect/engineer and quantity surveyor
October-December	Pregualification of general contractors
<u>1990</u>	
January-March	Completion of tender documents by architect/engineer and quantity surveyor
April-June	International tendering
June-August	Evaluation of tenders and award of construction contract
August-September	Mobilization begins, followed by construction period of 36 months
<u>1991-1992</u>	Construction continues
<u>1993</u>	
Second half	Completion of main construction, followed by final testing, furnishing and commissioning of the building
<u>1994</u>	Guarantee period and final payments to contractors and consultants

### C. Financial aspects

7. The estimated total cost of \$73,501,000 for the construction project at Addis Ababa, approved in principle in 1984 by the General Assembly in section III of resolution 39/236, was based on a project duration of six years through the completion of construction, with an allowance for escalation in construction costs of 7.5 per cent per year on a compounded basis. It was reported in 1988 that, although basic construction costs as expressed in local and European currencies had increased during the period of suspension of the project, the effect on the project budget had been partially offset by lower rates of inflation in construction costs than those originally foreseen in 1984. As of September 1988, it was considered that a composite annual inflation rate of 4.5 per cent would suffice. That rate was maintained in the preparation of the proposed programme budget for the biennium 1990-1991. In the past year, however, construction costs in East Africa and Europe have risen sharply and estimates of future inflation have increased. Current experience indicates that such costs relevant to the Addis Ababa construction project will show an increase from September 1988 to September 1989 of at least 7 per cent. Furthermore, it is now considered that the projected composite inflation rate for the balance of the project should be increased from the rate of 4.5 per cent to 5.5 per cent per year compounded.

8. The cost estimates summarized below were developed by the quantity surveyor based on the latest available designs for the project and will be refined as the design work progresses. These estimates reflect the results of a further review of local construction costs in June 1989 and projections of future trends in labour, material and equipment costs in Addis Ababa, East Africa and Europe as of September 1989, and assume the timely resolution of various factors concerning transportation and availability of materials and labour.

9. As part of the cost-management process, separate estimates have been prepared for local and non-local components of construction costs. As had been indicated in the report of the Secretary-General to the General Assembly at its thirty-eighth session (A/C.5/38/82), cost estimates for foreign labour and imported materials for construction are based on sources in Europe. Inasmuch as non-local costs comprise 70 to 80 per cent of the total construction costs, the estimated total project cost expressed in United States dollars would be sensitive to fluctuations in rates of exchange between the dollar and European currencies. These factors, as well as the assumptions mentioned in paragraphs 7 and 8 above, will be carefully monitored and adjustments made as appropriate throughout the duration of the project.

10. Upon completion of the detailed design drawings, a detailed examination was undertaken of the estimated cost of the detailed design compared with that prepared on the basis of the schematic designs. This comparison was made on a constant cost basis utilizing the September 1988 prices and exchange rates. The comparison revealed that there were significant cost increases in three categories. Thus, construction cost, including furniture and equipment, is now estimated at \$60,742,500, compared with \$54,377,100 in September 1988. These increases, which could not have been determined in the absence of detailed design drawings and geotechnical studies, are as follows:

(a) Structural (\$4,016,300). This category includes substructure (piling and foundations), superstructure, roof structure and underground/external parking structures. Increases have resulted from unsatisfactory subsurface conditions and consequent foundation redesign, increased provisions for anti-seismic design, increased estimates for the roof structure space-frame, pilings for underground/external parking structures, bridge and tunnel and substantial safety factors in response to local conditions. The quantity surveyor and the architect/engineer have undertaken a thorough re-evaluation of all structural design criteria with a view to minimizing the cost. The cost increase indicated reflects the preliminary result of the cost-management review and represents an increase of approximately 25 per cent over 1988 estimates for this category;

(b) Exterior walls (\$1,187,600). The increase is due to the substitution of stone cladding for the cement stucco finish previously contemplated in order to reduce future maintenance costs by providing a more durable exterior finish;

(c) Infrastructure (approximately \$2,100,000). The consultants have identified a number of deficiencies in the basic mechanical services infrastructure of the complex as a whole. Improvements to these basic infrastructure installations are necessary to serve the new conference facility properly, as well as to provide improved services in these areas for all the existing buildings. Although these installations will not be located in the new conference building, it is more practical to include them as part of the new construction project while the main contractor is mobilized on the site, rather than to undertake them as separate projects that would normally be funded under the major maintenance and alterations portions of section 32 of the programme budget. These installations involve enlargement and replacement of the drinking water storage facilities for the complex, emergency power and uninterruptible power supply systems, new centralized boiler plant and air conditioning chiller plant building, incinerator, central security and fire safety centre, etc.

The increases in categories (a), (b) and (c), which total \$7,303,900, are partly offset by an anticipated reduction of \$938,500, consisting of reductions of \$780,200 in cost estimates for electrical work, hardware and interior fittings and a net reduction of \$158,300 in cost estimates for other categories. The revised construction cost, including furnishing and equipment but excluding consultants, construction supervision, administrative costs and inflation is thus estimated (at 1988 rates) at \$60,742,500.

11. As discussed in paragraph 4 above, it was indicated in 1988 that an allowance of less than \$2 million for contingency and administrative expenses was substantially less than the usual provision of 5 to 10 per cent, which, on that basis and given the estimated construction cost of \$71,534,700 projected in 1988, would have been in the range of \$3,500,000 to \$7,200,000. Only a large and favourable movement in exchange rates or a significant decrease in inflation would have permitted the original estimated total project cost of \$73,501,000 to be maintained. The monitoring of inflation and exchange rates in the past year revealed that the assumptions made in 1988 would not materialize. Moreover, it is considered that a contingency of 8 to 10 per cent would be prudent at this stage in the project. Administrative costs, including the cost of the architectural competition, are estimated at \$1,300,000 for the period 1985-1994.

12. The estimates summarized below are on a constant cost basis and are based on the September 1988 unit prices and exchange rate assumption of \$US 1.11 to ECU 1.00, the average rate of exchange during the period January to June 1989. Inflation assumptions have been revised to 7 per cent in 1989 instead of the 4.5 per cent originally projected and a composite inflation rate of 5.5 per cent per year compounded for the duration of the construction. The total project cost based on the foregoing is now estimated at \$93,889,500. This figure includes an allowance of \$1,300,000 for administrative costs and a contingency of \$7,500,000, which is within the range of contingency normally provided. As indicated above, the estimated total project cost expressed in United States dollars is sensitive to fluctuations in rates of exchange between the dollar and European currencies. The summary breakdown is given in table 1 below:

Table 1

	September 1988 estimate <u>schematic design</u> \$	June 1989 estimate <u>detailed design</u> \$
Construction cost (including site work and connections to existing buildings)	50 106 600	
Furnishing and equipment	<u>4 270 500</u>	
Subtotal	54 377 100	60 742 500
Consultants and construction supervision	<u>6 210 400</u>	<u>6 937 400</u>
Subtotal	60 587 500	67 679 900
Inflation compounded over the remaining project duration	<u>10 947 200 a/</u>	<u>17 409 600 b/</u>
Estimated total construction cost (excluding contingency and administrative costs)	71 534 700	85 089 500
Administrative costs	c/	1 300 000
Contingency	c/	<u>7 500 000</u>
Estimated total project cost d/		<u>93 889 500</u>

a/ Inflation compounded at 4.5 per cent per annum.

b/ Inflation compounded at 7 per cent in 1989 and 5.5 per cent for the duration of the project.

c/ See para. 4 above.

d/ Based on an exchange rate of ECU 1.00 = \$US 1.11.

13. Actual expenditures as at 31 December 1988 in the construction-in-progress account amounted to \$370,000. Expenditures in 1989 are estimated at \$2,448,400. Thus, of the amount of \$3,120,000 initially appropriated, a balance of \$301,600 would still be available in the construction-in-progress account to be carried over to the 1990-1991 biennium.

14. Based on projections of future trends of labour, material and equipment costs in Addis Ababa, East Africa and Europe, and the timetable outlined above, expenditures of \$5,800,300 and \$21,800,000 have been estimated for 1990 and 1991 respectively. Taking into account the estimated carryover of \$301,600 from 1989, provisions of \$5,498,700 and \$21,800,000 would be required for 1990 and 1991, i.e., an appropriation of \$27,298,700. These revised requirements are within the level of the estimates (\$27,801,700) included under section 32 of the Secretary-General's initial proposed programme budget for the biennium 1990-1991. The requirements for the biennium 1990-1991 reflect a decrease of \$503,000 against the initial amount requested in the Secretary-General's initial proposal for the programme budget for the biennium 1990-1991 since the effect of increased inflation on cash requirements for that biennium is more than offset by the revised timing of the award of the construction contract, thereby requiring fewer payments to the contractor during the biennium 1990-1991. The award of the construction contract to the selected construction contractor in August 1990, as indicated in the summary timetable contained in paragraph 6 above, would commit the Organization to the total cost of the project, which would be payable until 1994, i.e., over three bienniums. The schedule of estimated expenditures and appropriations required is given in table 2 below.

Table 2

	<u>Carryover from prior appropriations</u> \$	<u>Estimated expenditures including administrative costs and contingency</u> \$	<u>Appropriations</u> \$
1984-1988		370 000 a/	3 120 000 b/
1989	2 750 000	2 448 400	-
1990	301 600	5 800 300	5 498 700
1991	-	21 800 000	21 800 000
1992	-	28 424 000	28 424 000
1993	-	24 652 100	24 652 100
1994	-	10 394 700	10 394 700
Total		<u>93 889 500</u>	<u>93 889 500</u>

a/ Actual.

b/ Approved.

## II. EXPANSION OF THE CONFERENCE FACILITIES OF THE ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC AT BANGKOK

### A. Status and development of the project

15. The project at Bangkok was resumed in 1988 pursuant to the terms of General Assembly resolution 42/211 on the basis of the scope of facilities originally approved and as reflected in the previously completed plans and specifications.

16. The activities undertaken since the report of the Secretary-General to the General Assembly at its forty-third session (A/C.5/43/16) include the following:

(a) Upon completion of the prequalification review of interested contractors, invitations to tender were issued in November 1988 to 11 contractors/consortia representing firms from six countries;

(b) Tenders were received in February 1989 from eight contractors. Following a detailed review by the quantity surveyor, the architects/engineers and the United Nations, a construction contract was signed on 12 April 1989 with the lowest bidder;

(c) Construction began in May 1989. Driving of foundation pilings is progressing satisfactorily despite seasonal rainfall. The contractor is confident that the relatively slight delay experienced to date can be made up after the rains in four to six weeks time;

(d) Procedures have been established with the customs authorities to facilitate clearance of materials imported duty-free for the project. Discussions have been initiated regarding procedures for exemption of the project from the new value-added tax to be introduced in July 1990;

(e) Final reviews of finished materials, furnishings and equipment are under way. A study is being made of the siting of the satellite earth station required to support the communications requirements of the Economic and Social Commission for Asia and the Pacific (ESCAP), including the new conference facilities, as well as other United Nations activities in Thailand;

(f) Up-to-date estimates of project cost have been prepared by the quantity surveyor based on the priced bills of quantities incorporated in the construction contract. A projection has been made of the cash disbursements required through the completion of the project.

### B. Summary timetable

17. The construction contract for the project was signed in April 1989. Construction began in May and is scheduled to take 30 months. The main construction should be completed in November-December 1991, followed by final testing, furnishing and commissioning of the building in the period January-March 1992, as indicated in the timetable contained in document A/C.5/43/16, paragraph 16.



<u>1989</u>	
February	Construction tenders received
February-April	Evaluation of tenders and award of main construction contract
April-May	Mobilization by construction contractor
May	Commencement of construction
<u>1990</u>	Construction continues
<u>1991</u>	Construction continues
November-December	Completion of main construction
<u>1992</u>	
January-March	Final testing, furnishing and commissioning of the building
<u>1993</u>	Guarantee period and final payment to contractors and consultants

### C. Financial aspects

18. As reported in the previous report, construction cost inflation in Bangkok in the period 1985 to 1988 had been less than was foreseen in 1984. However, the pace of construction activity in Bangkok began to increase in mid-1988 and prices rose sharply by year-end. A number of the larger contractors were working at full capacity and consequently were less interested in new projects. Three of the prequalified contractors cited the pressure of other work in declining the invitation to tender for the project, notwithstanding their expressions of interest three months earlier. The increased construction activity during this period also resulted in sharp increases in the costs of major subcontracts. In the eight months preceding receipt of tenders, construction prices in Bangkok rose by more than 20 per cent, substantially more than the allowance of 13.28 per cent for the entire project originally provided for in 1984. Prices have continued to rise and it is estimated that construction prices in Bangkok have risen by over 30 per cent in the past year; however, the United Nations will not be liable for those increases taking place since receipt of tenders. Prices quoted in the tender are good for the duration of the contract inasmuch as construction prices in Bangkok are currently quoted inclusive of inflation. In other words, lacking an agreed basis or index for inflation adjustments, contractors include in their quotations a factor representing their estimate of future inflation in the cost of materials, labour and subcontracts. As expectations regarding inflation rates change, quoted prices change sharply, resulting from the compounding of the rate over the duration of the project.

19. A construction contract for 955,000,000 baht (\$US 37,598,425 at the April 1989 rate of B 25.40 per United States dollar) was signed on 12 April 1989 with the lowest bidder. This amount represents a sizeable increase over the tender prices anticipated in 1988. The estimates indicated in the previous report of the

Secretary-General (A/C.5/43/16) provided for \$36,840,600 for construction, furnishings and equipment, including inflation. This cost, including inflation, is now estimated at slightly over \$39,000,000. The total project cost estimated in June 1988 prior to the signing of the contract is indicated in table 3 below. The revised project costs are indicated in table 4. As indicated in paragraph 18 above, the contract price for the main construction includes full allowance for inflation. It also includes a contingent sum to cover variations in quantities and other changes. While the boom in the construction sector has led to a serious shortage in field supervision staff, resulting in sharp increases in the salaries that must be paid to obtain suitable qualified site staff, and while higher than anticipated inflation was recorded, the original provision for contingency (\$3,849,900) was sufficient to cover the resulting increases. It is envisaged that a provision of \$839,275, representing the balance available against the initially authorized project cost, would be sufficient to cover incidental costs until the final payments to the contractors and consultants are made in 1992.

Table 3June 1988 estimates

	\$
Construction cost (including demolition relocation costs and alterations to existing buildings)	28 369 700
Furnishing and equipment	<u>4 391 200</u>
Subtotal	32 760 900
Inflation compounded over the remaining four years project duration (4.6 per cent per annum)	<u>4 079 700</u>
Subtotal	36 840 600
Consultants and construction supervision	<u>3 487 200</u>
Estimated total construction cost, excluding contingency and administrative costs	40 327 800
Contingency and administrative costs	<u>3 849 900</u>
Estimated total project cost	<u><u>44 177 700</u></u>

Table 4

August 1989 estimates

	\$
Construction cost:	
Main construction contract (including inflation and most furniture and equipment)	37 598 425
Demolition, relocation and alterations to existing building	625 000
Other furnishings, equipment and miscellaneous costs	<u>840 000</u>
Subtotal	39 063 425
Consultants and construction supervision	4 275 000
Estimated construction cost, excluding contingency and administrative costs	43 338 425
Contingency and administrative costs	<u>839 275</u>
Authorized project cost	<u><u>44 177 700</u></u>

20. The estimated total cost of the construction project at Bangkok approved in principle by the General Assembly in section XI of resolution 39/236 amounted to \$44,177,700. Given the current estimated construction cost of \$43,338,425, this would provide an allowance of \$839,275 for contingency and administrative costs. On the assumption that no major change from the current situation will occur and that no major unforeseen costs will arise during the balance of the project, it is expected that the total project cost of \$44,177,700 already approved by the Assembly at its thirty-ninth session would be sufficient to cover the cost of the construction project at Bangkok.

21. Actual expenditures as at 31 December 1988 amounted to \$2,153,300. Expenditures in 1989 are estimated at \$8,695,400. Thus, of the total appropriation of \$22,698,000 available in the construction-in-progress account for ESCAP, a balance of \$11,849,300 would be available to be carried over to the 1990-1991 biennium.

22. Based on the contractor's schedule of work and projections of cash disbursements by the quantity surveyor, it is estimated that \$12,940,000 and \$15,770,800 will be required for 1990 and 1991, respectively. Taking into account the estimated carryover of \$11,849,300 from 1989, appropriations of \$1,090,700 and

\$15,770,800 would be required for 1990 and 1991. These amounts have been requested under section 32 of the proposed programme budget for the biennium 1990-1991. The balance of \$4,618,200 would be required for 1992. The revised schedule of estimated expenditures and appropriations required is given below:

Table 5

	<u>Carryover from prior appropriations</u> \$	<u>Estimated expenditures including administrative costs and contingency</u> \$	<u>Appropriations</u> \$
1984-1988	-	2 153 300 a/	22 698 000 b/
1989	20 544 700	8 695 400	-
1990	11 849 300	12 940 000	1 090 700
1991	-	15 770 800	15 770 800
1992-1993	-	<u>4 618 200</u>	<u>4 618 200</u>
Total		<u>44 177 700</u>	<u>44 177 700</u>

a/ Actual.

b/ Approved.

### III, SUMMARY

23. In summary, the expansion of conference facilities at Addis Ababa and Bangkok would require additional appropriations of \$27,298,700 and \$16,851,500 respectively under section 32 of the proposed programme budget for the biennium 1990-1991. These revised estimates should be compared with the Secretary-General's initial proposals for the programme budget for the biennium 1990-1991, namely \$27,801,000 for ECA and \$16,861,500 for ESCAP.

24. In accordance with General Assembly resolution 39/236, progress reports on both projects will be submitted to the Assembly annually until construction is completed.

### Notes

1/ Official Records of the General Assembly, Forty-first Session, Supplement No. 49 (A/41/49).

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