



Country: Seychelles

UNDAF Outcome(s)/Indicator(s):

(Link to UNDAF outcome, if no UNDAF, leave blank)

Expected Output(s)/Indicator(s): 1. Reconstruction of Bridges at Roche Caiman and Cascade and Rehabilitation of 30 Km of coastal Roads on Mahe and Praslin Islands.

Implementing partner: Government of Seychelles
Land Transport Division

Other Partners: Ministry of Foreign Affairs
National Disaster Committee
United Nations Office for Project Services (UNOPS)

Programme Component: Tsumani Flash Appeal
Project Title: Reconstruction/rehabilitation of roads and bridges infrastructure in Seychelles
Award ID: 00039537
Project ID: 00044390
Flash Appeal Project No: TSU-SEY-05-ER/01-SEYCHELLES
Project Duration: 18 months
Management Arrangement: National Execution

Total Project Costs	USD 7,449,912
Budget: AUSTRALIA	USD 349, 139
CANADA	USD 972,380.95
UNDP (TRAC 1.1.3)	USD 47,619.05
PALAU	USD 25,886
UK	USD 1,675,000
EUROPEAN UNION	USD 900,000
Total budget:	USD 3,970,025
Allocated resources:	USD 3,970, 025
Government	
In kind Contributions	USD 2,884,562
Total allocated resources	USD 6,854,587
Unfunded amount	USD 595,325

Agreed by:

<u>On behalf of:</u>	<u>Signature</u>	<u>Date</u>	<u>Name/Title</u>
Government of Seychelles			Ambassador Claude Morel Principal Secretary Ministry of Foreign Affairs
Implementing Agency			Mr. Alone Edmond Director General Land Transport Division Department of Tourism and Transport
UNDP			Ms. Aase Smedler Resident Representative



PROJECT DOCUMENT

UNITED NATIONAL DEVELOPMENT PROGRAMME

GOVERNMENT OF SEYCHELLES

**TSU-SEY-05-ER/01-SEYCHELLES - PROJECT DOCUMENT FOR
RECONSTRUCTION/REHABILITATION OF ROADS AND BRIDGES INFRASTRUCTURE
IN SEYCHELLES**

The project provides the rehabilitation/reconstruction of essential infrastructure in Seychelles following the Tsunami: two bridges at Cascade and Roche Caiman, a causeway with the bridge to link the two housing estates at Roche Caiman and approximately 30 kms of coastal roads on Mahe and Praslin Islands, damaged by the tsunami, in order to restore essential infrastructure required for maintaining economic activities and sustaining livelihoods in the Seychelles.

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Project Document for the Reconstruction/Rehabilitation of Roads and Bridges Infrastructure in Seychelles

Section I

Part I - Situation analysis

Following the Tsunami on 26 December 2004, substantial damages were sustained to the infrastructure in Seychelles. An UNDAC mission from 3 – 10 January 2005 confirmed the extensive damages. To assess in more detail the damages to physical infrastructure, the UNDP office fielded a consulting engineer (3 to 10 February 2005) to carry out the assessment and to prepare detailed cost estimates for the rehabilitation/reconstruction of damaged essential infrastructure. The mission also prepared implementation plans and timelines of activities.

Following the Assessment Report from the mission, the main priorities are the reconstruction of two road bridges, the Cascade Bridge and the Roche Caiman Bridge, along the main highway, a causeway with the bridge to link the two housing estates at Roche Caiman and surface repairs/rehabilitation of approximately 30 kms of coastal roads on Mahe and Praslin Islands. These bridges and the road network are essential for maintaining economic activities and normal transport of goods and people as well as access to services in the Capital Victoria and links with the only International Airport. The highway from the International Airport to Victoria services approximately 30,000 vehicles daily.

Part II - Project Objectives

A) Objectives:

The objective of this project is to support the reconstruction of two main bridges, a causeway with the bridge to link the two housing estates at Roche Caiman and rehabilitation of coastal roads damaged by the tsunami, in order to restore essential infrastructure required for maintaining economic activities and sustaining livelihoods in the Seychelles. This entails reconstruction of two bridges, a causeway with the bridge to link the two housing estates at Roche Caiman and rehabilitation of approximately 30 kms of coastal roads.

B) Strategy

Bridges: The project will finance the design, preparation of tender documents for civil works, supervision of works by Consulting engineer(s) and subsequently the reconstruction by Class 1 Contractors in Seychelles (*List of Consulting Engineers and Class 1 Contractors operating in Seychelles provided as Annex VI*). The UNDP office will ensure that technical specifications with cost estimates and bidding documents will be prepared through funding obtained from the Flash Appeal for urgent action on recovery and reconstruction. The Technical Specifications for the 2 bridges and causeway are as follows:

Cascade Bridge

1. Specifications

The design and construction of the bridge will be as per British Standard for a Class A Highway.

2. Dimension.

The width of the bridge is for 4 lanes traffic with central medium, hard shoulders and safety barriers on both sides.

The span of the bridge will be not less than 25mtrs.

Depth. The finish level of the substructure must have a minimum depth of one meter of water at low tide and the superstructure a minimum clearance of +6m ACD.to allow the passage of small fishing boats.

The finish road level will be as per existing finished level.

Roche Caiman Bridge

1. Specifications

The design and construction of the bridge will be as per British Standard for a Class A Highway.

2. Dimension.

The width of the bridge is for 4 lanes traffic with central medium, hard shoulders and safety barriers on both sides.

The minimum opening of the bridge will be not less than 20mtrs.

Depth. The finish level of the substructure must have a minimum depth of one meter of water at low tide and the superstructure a minimum clearance of +3.5m ACD to allow the passage of small fishing boats.

(Additional Specifications for the design are provided in the Terms of Reference and Scope of Services for Design Consultancy as Annex IV)

Rehabilitation of Roads

The project will meet the cost of rehabilitation and reconstruction of the coastal roads surface, which were temporarily repaired after the tsunami to restore normality of traffic flow on Mahe and Praslin Islands. These temporary repairs are not adequate to support normal load and flow of traffic in the long run and as such applying a 50mm layer of hot premix asphalt is absolutely necessary. The Government of Seychelles through the Land Transport Division will provide the plant, equipment and labour for the road rehabilitation. *(The cost breakdown for plant, equipment and materials required for resurfacing of the approximately 30 km of roads are provided as Annex V).*

C) Outputs and Activities:

The Project will have the following Output and activities:

Output Reconstruction of Bridges at Roche Caiman and Cascade and Rehabilitation of 30 Km of coastal Roads on Mahe and Praslin Islands.

Activities

- 1.1 Preparation of Terms of Reference for Design and Preparation of Tender Documents
- 1.2 Tendering for Design Phase and preparation of Tender Documents for Civil Works
- 1.3 Evaluation of Tender Documents for Design

- 1.4 Selection of Consulting Engineer, Award of Contract for Design and preparation of Tender Documents
- 1.5 Preparation of Design, Tender Documents and Bill of Quantities for Civil Works
- 1.6 Tendering for Civil Works
- 1.7 Tendering for Supervision of Construction of Bridges and Road Rehabilitation
- 1.8 Evaluation of Tenders for Supervision of Construction of Bridges and Road Rehabilitation
- 1.9 Award of Contract for Supervision Works
- 1.10 Evaluation of Tenders for Civil works
- 1.11 Award of Contract for Civil Works
- 1.12 Construction and Commissioning
- 1.13 Prepare design and specifications for Roads
- 1.14 Procurement of raw materials for Road rehabilitation
- 1.15 Construction and asphaltting of Roads
- 1.16 Evaluation and Audit of Project

D) Expected Results

The expected results of the project are reconstruction works for the two bridges, a causeway with the bridge to link the two housing estates at Roche Caiman and rehabilitation of the coastal roads, so that they can structurally withstand any future similar disasters, and to guarantee the functionality of main transport links between the capital and the airport, as well as restore the main road networks throughout the island of Mahe and Praslin Islands and on the national highway.

Part III - Management Arrangements

Government - The Ministry of Foreign will be the Executing Agency and will be responsible for the overall management of the project.

Land Transport Division (LTD) – The Land Transport Division will be the Implementing Agency for the project. LTD will nominate a National Project Director. Terms of Reference of the National Project Director are provided as Annex I1. For the Bridges, the LTD will prepare tender documents for selecting the consulting engineer to prepare the design and tender for civil works. Upon Approval of tender documents for design, LTD will float tenders locally and select the consulting engineer for the design and preparation of tender documents with appropriate bill of quantities.

Tendering for consulting engineer for design and supervision and contractor will be through local competitive bidding. As Implementing Agency for the project, the LTD will ensure rapid bid evaluation and contract awards in accordance with good international procurement practices and UNDP procurement rules and regulations. It is expected that both bridges can be reconstructed simultaneously.

Upon approval of design, the consulting engineer will prepare tender documents for civil works. LTD will float tender for civil works to Class 1 civil engineering contractors as well as to international contractors, evaluate tenders and award contract after consultation with UNDP. LTD will supervise activities in accordance with tender documents and specifications. At the same time, Land Transport division will prepare tender document for contracting out supervision of construction works. Upon approval of consultant, LTD will prepare a separate contract for supervision of works. LTD will maintain overall supervision of all activities under the project in accordance with tender documents and specifications.

For the Roads, the Land Transport Division is the only entity in Seychelles possessing the required plant, equipment and know-how to carry out road resurfacing with hot premix asphalt. LTD will be responsible for preparing the detailed work schedule for the rehabilitation of approximately 30 km of roads, including maps, technical drawings, quantities of materials and works for each section being rehabilitated.

UNOPS – United Nations Office for Project Services will be contracted to undertake all international procurement for raw materials required under the project. *A Standard Letter of Agreement between Government of Seychelles and UNOPS, which specifies the terms and conditions of services to be rendered by the UNOPS is provided as Annex III*

UNDP - The UNDP office in Mauritius will oversee the implementation of the project and ensure that tendering, evaluation and selection processes of both the civil engineer and the contractor for civil works are in accordance with UN procurement procedures. UNDP will set up a small technical management unit in Seychelles to oversee overall project implementation under the Flash Appeal, and will provide support to the national authorities through backstopping from technical experts. UNDP will recruit a qualified civil engineer and a procurement specialist conversant in road and bridge construction to manage this unit. This unit will provide secondary level supervision for the all the works under the project in together with the consulting engineer for supervision. All procurement of good and services will be subject to UNDP procurement procedures as per UNDP guidelines. UNDP will use the direct payment modalities as far as applicable for procurement of goods and services under this project.

Part IV Monitoring and Evaluation

Bridges:

Technical progress reports will be presented by the successful bidder in accordance with instructions in tender and contract documents, which will form the basis for payment to the contractor. The selected consulting engineer's report will confirm progress of works and adherence to design specifications. The consulting engineer will certify claims of the contractor and recommend to Land Transport Division and UNDP for settlement according to Programme of Works. Land Transport Division will approve payment claims by contractor, which shall be through UNDP.

Roads:

Claims submitted by the implementing agency (LTD) will have to be certified by the technical unit/consulting engineer and approved by the Ministry of Foreign Affairs before submission to UNDP for payments. UNDP office in Mauritius will release funds for Local Supplies (See Annex I - Items 3.2.3 and 3.2.4,) and for cost of imported inputs (Annex 1 – Consumables 4.1 and 4.4) as established in the workplan and in accordance with completed works. Bitumen and primer will be procured by UNOPS and delivered in bulk to LTD as per Standard Letter of Agreement – (Annex III). LTD shall certify delivery of raw materials by UNOPS.

In compliance with UNDP's monitoring, evaluation and reporting requirements, monitoring & evaluation will be undertaken as spelled out in the contract and in accordance with the UNDP Programming Manual. Progress reports will be submitted to UNDP by the Land Transport Division

through the Ministry of Foreign Affairs, providing a brief summary of the status of activities and output delivery. The periodicity of reports will be according to the contract and workplan..

UNDP will prepare and forward progress reports to the respective donors on a regular basis based on their reporting requirements. A Final Project Report (FPR) will be prepared at the end of the project, summarizing the results achieved.

Part V Legal Context

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Seychelles and the United Nations Development Programme, signed by both parties on 18th November 1977. The host country-implementing agency shall, for the purpose of the Standard Basic Assistance Agreement, refer to the government co-operating agency described in that Agreement. The following types of revisions may be made to this project document with the signature of the UNDP Resident Representative only, provided he or she is assured that the other signatories of the project have no objections to the proposed changes:

- Revisions in, or additions of, any of the annexes of the project
- Revisions, which do not involve significant changes in the immediate objectives, outputs or activities of a project, but are caused by rearrangements of inputs agreed to or by costs increases due to inflation;
- Mandatory annual revisions, which re-phase delivery of agreed inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility;
- Inclusion of additional annexes and attachments only as set out here in the Project Document.

Part VI. Budget. – Detailed budget Breakdown provided **Annex I**

Main Activities	Estimated Costs (USD)
1. Design and Supervision	400,010
2. Plant, Equipment and Supplies	2,884,562
3. Reconstruction/Asphalting (Roads)	1,032,915
4. Works (Bridges)	3,000,000
5. Support Costs	132,425
Total project infrastructures	7,449,912

Notes:

It is estimated that engineering works consist of 30% local costs and (70%) foreign exchange costs.

It is estimated that asphalting consist of 50% local costs and 50% foreign exchange costs.

Exchange rate 1\$ ~ 5.18 SR (Feb 05)

Excludes all duty and local taxes (General Service Tax)

Government contribution will cover all plant, equipment and labor costs for road rehabilitation

Section II

Strategic Results Framework

Output	Activities	Inputs (USD)
Reconstruction of Bridges at Roche Caiman and Cascade, a causeway with the bridge to link the two housing estates at Roche Caiman and Rehabilitation of 30 Km of Coastal Roads	1.1 Preparation of Terms of Reference for Design and Preparation of tender Documents	7,317,487
	1.2 Tendering for Design Phase and preparation of tender Documents for construction	
	1.3 Evaluation of tender Documents	
	1.4 Selection of Consulting Engineer, Award of Contract for Design and preparation of Tender Documents	
	1.5 Preparation of Design, Tender Documents and Bill of Quantities for Civil Works	
	1.6 Tendering for Civil Works	
	1.7 Tendering for Supervision of Construction	
	1.8 Evaluation of Tenders for Construction Supervision	
	1.9 Award of Contract for Supervision	
	1.10 Evaluation of Tenders for Civil works	
	1.11 Award of Contract for Civil Works	
	1.12 Construction and Commissioning	
	1.13 Prepare design and specifications	
	1.14 Procurement of raw materials	
	1.15 Construction and asphaltting	
	Support Costs	132,425
	Grand Total	7,449,912

Project Implementation Schedule

Key Activities	Time frame	Main Responsibility
A. Bridges		
Selection of Consulting Engineer	1.5 months	LTD/UNDP/NDC/MFA*
Prepare Design, site investigation and Tender Documents for Civil Works/Bill of Quantities	2.5 months	LTD/UNDP/NDC/MFA Consulting Engineer
Tendering for Civil Works	1.5 months	LTD/UNDP/NDC/MFA Consulting Engineer
Evaluation of Tender	0.5 months	LTD/UNDP/NDC/MFA Consulting Engineer
Submission to CAP/HQ	0.5 months	UNDP/LTD/MFA
Contractor move on site	1.5 months	LTD/NDC/UNDP/MFA Consulting Engineer
Construction and Commissioning	6 months	
TOTAL	14 months	
B. Roads		
Prepare design/specifications	2 month	LTD/UNDP/NDC/MFA
Procurement of imported raw materials	4 month	LTD/NDC/UNDP/MFA
Construction/asphaltting	12 months	LTD/NDC/UNDP/MFA
TOTAL	18 months	

Section III – Annual Work Plan 2005

Project Title: TSU-SEY-05-ER/01-SEYCHELLES - PROJECT DOCUMENT FOR RECONSTRUCTION/REHABILITATION OF ROADS AND BRIDGES INFRASTRUCTURE IN SEYCHELLES

Project Number: 00044390

Key Outputs	Key Activities	Time Frame (Q)				IMP Agency	Planned Budget				
		1	2	3	4		Fund	Donor	Account	Description	Amount US\$
Reconstruction of Bridges at Roche Caiman and Cascade and Rehabilitation of 30 Km of Coastal Roads	Tendering and Award for design and preparation of Tender documents for Civil Works for Bridges			X	X	002302	04130	UNDP	72100	Contractual Services	47,619.05
	Tendering and Award for Civil Works for Bridges			X	X	002302	26800	AUL	72100	Contractual Services	5,000
	Tendering and Award for Supervision for Bridges			X	X	002302	26800	AUL	72100	Contractual Services	50,000
	Evaluation of tender and award of contract for civil works for Bridges				X	002302	26800	AUL	72100	Contractual Services	5,000
	Construction and Commissioning of Bridges				X	002302	30000	UNOG	72100	Contractual Services	300,886
					X	002302	26800	CAN	72100	Contractual Services	300,000
	Prepare design and specifications for Roads			X		002302	26800	CAN	71300	Contractual Services	20,000
	Procurement of raw materials for Road rehabilitation			X		002302	26800	CAN	72300	Contractual Services	552,380.95
Construction and asphaltting of Roads			X	X	002302	26800	AUL	72100	Contractual Services	70,000	
GRAND TOTAL										1,350,886	

Section III – Annual Work Plan 2006

Project Title: TSU-SEY-05-ER/01-SEYCHELLES - PROJECT DOCUMENT FOR RECONSTRUCTION/REHABILITATION OF ROADS AND BRIDGES INFRASTRUCTURE IN SEYCHELLES

Project Number: 00044390

Key Outputs	Key Activities	Time Frame (Q)				IMP Agency	Planned Budget				
		1	2	3	4		Fund	Donor	Account	Description	Amount US\$
Reconstruction of Bridges at Roche Caiman and Cascade and Rehabilitation of 30 Km of Coastal Roads	Tendering and Award for Supervision for Civil Works	X	X	X		002302	26800	AUL	72100	Contractual Services	150,000
	Construction and Commissioning of Bridges	X	X	X		002302	30000	UNOG	72100	Contractual Services	1,400,000
		X	X	X		002302	26800	CAN	72100	Contractual Services	100,000
	Construction and asphaltting of Roads	X	X			002302	26800	AUL	72100	Contractual Services	69,139
	Evaluation and Audit of Project				X	002302			72100	Contractual Services	
GRAND TOTAL										1,719,139	

ANNEX I

Expenses	Unit	# of Units	Unit rate (in EUR)	Costs (in EUR)	Cost in USD
1. HUMAN RESOURCES					
ROADS (GOS contribution)				680,021.40	884028
BRIDGES				307,700.00	400010
1.1.1 - Consultant Engineer	per month	14	10989	153,850.00	200005
Technical Support Unit	per month	14	10989	153,850.00	200005
Total Human Resources				987,721.40	1284038
2. PLANT AND EQUIPMENT	Unit	# of Units	Unit rate (in EUR)	Costs (in EUR)	
Plant and Equipment Costs				1,050,644.00	1365837
Administration, support services and depreciation Costs (20%) (GOS Contribution)				210,128.80	273167
Total Plant and Equipment				1,260,772.80	1639005
3. SUPPLIES					
3.2.1 Bitumen	Per ton	1250	320	400,000.00	520000
3.2.2 Primer	Per ton	140	369	51,692.31	67200
3.2.3 Crusher Dust	Per ton	9500	23	217,142.86	282286
3.2.4 Aggregates	Per ton	14250	20	289,285.71	376071
Total supplies				958,120.88	1245557
4. Consumables					
4.1 Vehicle costs (Fuel Costs)	Litres per month	10400	1	69,141.27	89884
4.4 Electricity (Per 100 tons of asphalt produced)	Per tons	24000	2	45,387.79	59004
Subtotal Consumables				114,529.06	148888
6. Engineering Works					
6.1. Cascade Bridge	per bridge	1	923077	923,077.00	1200000
6.2 Roche Caiman Bridge	per bridge	1	1384615	1,384,615.00	1800000
Subtotal Engineering works				2,307,692.00	3000000
TOTAL GOS CONTRIBUTIONS				1,004,679.26	1306083
TOTAL COST OF ACTIONS (including GOS Contributions)				5,628,836.14	7317487
7. Administrative Support costs				101,865.4	132,425
TOTAL COST OF THE PROGRAMME				5,730,701.54	7,449,912

GOS - Government of Seychelles

Annex II

Terms of Reference of the National Project Director

1. The National Project Director shall have overall responsibility for the implementation of the Project. He/she shall be responsible to report to UNDP on the progress of project implementation.
2. The NPD will be responsible for certifying the Work plan, Financial Reports and Request for advance of funds under the project, ensuring their accuracy and in accordance with the project document
3. The NPD shall be the authorized person who shall certify all payments to be effected under the project after consultation with the UNDP country office.
4. The NPD shall be the authorized signatory for contracting services under the project following endorsement by the Government and UNDP.

Annex III

STANDARD LETTER OF AGREEMENT BETWEEN THE GOVERNMENT AND A UNITED NATIONS AGENCY UNDER NATIONAL EXECUTION

Dear Mr. David Rendall,

1. Reference is made to consultations between officials of the **Land Transport Division of the Department of Tourism and Transport of the Government of Seychelles** (hereinafter referred to as "*the designated institution* ") and officials of the **United Nations Office for Project Services** ("the United Nations agency") with respect to the participation of the **UNOPS** in the UNDP support to programme/project **TSU-SEY-05-ER/01-SEYCHELLES - RECONSTRUCTION/REHABILITATION OF ROADS AND BRIDGES INFRASTRUCTURE IN SEYCHELLES** , to be managed by the Government. The latter shall be represented for the purpose of such management by the designated institution; **Land Transport Division of the Department of Tourism and Transport of the Government of Seychelles**.
2. The designated institution recognizes that **UNOPS** enjoys privileges and immunities under the Convention on the Privileges and Immunities of the Specialized Agencies, to which the **Government of Seychelles** became a signatory on **18th November 1977 (Standard Basic Assistance Agreement)**.
3. In accordance with the programme support document or project document and with the following terms and conditions, we confirm our acceptance of the services to be provided by the United Nations agency towards this programme or project. Close consultations will be held between the United Nations agency and the designated institution on all aspects of the services to be rendered as described in Attachment 1: Description of services of this letter of agreement.
4. The United Nations agency shall provide the services and facilities described in Attachment 1: Description of services of this letter of agreement.
5. The designated institution shall retain overall responsibility for the UNDP support to the programme/project and shall designate a **National Project Director**.
6. The personnel assigned by the United Nations agency to the programme/project, and under contract with the United Nations agency shall work under the supervision of the **National Project Director**. The supervisory arrangements shall be determined in mutual consultation and described in the relevant terms of reference of the personnel. This personnel shall remain accountable to the United Nations agency for the manner in which assigned functions are discharged.
7. In the event of disagreement between the **National Project Director** and the programme/project personnel of the United Nations agency, the **National Project Director** shall refer the matter under dispute to the United Nations agency for the purpose of finding a satisfactory solution. In the interim, the decisions of the **National Project Director** shall prevail.
8. Upon signature of this letter of agreement and pursuant to the budget of the programme support document/project document and the work plan, the designated institution agrees that UNDP headquarters will advance funds to the United Nations agency, according to the schedule of payments specified in Attachment 2: Schedule of services, facilities and payments.
9. The United Nations agency shall submit a cumulative statement of expenditure each quarter (31 March, 30 June, 30 September and 31 December). The statement will be submitted to the designated

institution through the UNDP resident representative within 30 days following those dates. The format will follow the standard expenditure report of the United Nations agency, unless otherwise agreed to between the parties. The designated institution will include the expenditure reported by the United Nations agency in the financial report.

10. The United Nations agency shall recast and rephrase the schedule of services and facilities described in Attachment 2, as necessary, when submitting the statement of expenditure to the designated institution. The United Nations agency may incur expenditures that exceed its assigned annual budget by five per cent or by US\$20,000.00, whichever is higher, in order to cover differences between actual and pro-forma costs. The designated institution shall adjust its financial records and confirm the revision submitted by the United Nations agency.

11. The United Nations agency shall submit such reports relating to the programme/project as may reasonably be required by the **National Project Director** in the exercise of his or her duties.

12. The United Nations agency shall provide the designated institution with an annual report of non-expendable equipment purchased by the United Nations agency for the programme/project. The report shall be submitted within 30 days following 31 December, and shall be included by the Government designated institution in the main inventory for the programme/project.

13. The United Nations agency shall submit job descriptions and candidates for the posts foreseen in section 1 of Attachment 2 and obtain clearance of the Government designated institution for the personnel to be assigned to the programme/project.

14. Any changes to the programme support document or project document which would affect the work being performed by the United Nations agency in accordance with Attachment 1 shall be recommended only after consultation with the United Nations agency. Any changes to these arrangements shall be effected by mutual agreement through an amendment to this letter of agreement.

15. The arrangements described in this agreement will remain in effect until the end of the programme/project, or the completion of activities of the United Nations agency according to Attachment 2, or until terminated in writing by either party. The schedule of payments specified in Attachment 2 remains in effect based on continued performance by the United Nations agency unless UNDP receives written indication to the contrary by the designated institution.

16. For any matters not specifically covered by this agreement, the appropriate provisions of the programme support document/project document and revisions thereof and the appropriate provisions of the financial regulations and rules of the United Nations agency shall apply.

All further correspondence regarding this agreement, other than signed letters of agreement or amendments thereto should be addressed to **Mr. Gerard Lafortune, Principal Secretary, Land Transport Division, Department of Tourism and Transport, P.O. Box 1385, Huteau Lane, Victoria, Mahé, Seychelles**
Tel: (248) 224449 Fax: (248) 324146

17. The designated institution and the United Nations agency shall keep the UNDP Resident Representative fully informed of all actions undertaken by them in carrying out this agreement.

18. Except as provided in paragraph 6 above, any dispute between the designated institution and the United Nations agency arising out of or relating to this letter which is not settled by negotiation or other agreed mode of settlement, shall, at the request of either party, be submitted to a Tribunal of three arbitrators. Each party shall appoint one arbitrator, and the two arbitrators so appointed a third arbitrator, who shall be

the chairperson of the Tribunal. If, within 15 days of the appointment of two arbitrators, the third arbitrator has not been appointed, either party may request the President of the International Court of Justice to appoint the arbitrator referred to. The Tribunal shall determine its own procedures, provided that any two arbitrators shall constitute a quorum for all purposes, and all decisions shall require the agreement of any two arbitrators. The expenses of the Tribunal shall be borne by the Parties as assessed by the Tribunal. The arbitral award shall contain a statement of the reasons on which it is based and shall be final and binding on the parties.

19. The designated institution shall handle and be responsible for any third-party claim or dispute arising from operations under this agreement against UNDP or the United Nations agency, their officials or other persons performing services on their behalf, and shall hold them harmless in respect of such claims or disputes. The foregoing provision shall not apply where the parties agree that a claim or dispute arises from the gross negligence or willful misconduct of the above-mentioned individuals.

If you are in agreement with the provisions set forth above, please sign and return to this office two copies of this letter. Your acceptance shall thereby constitute the basis for your organisation's participation in the programme/project.

Yours sincerely,

Mr. Gerard Lafortune
Principal Secretary
Land Transport Division
Department of Tourism and Transport
For the Government of Seychelles
[Date]

Signed on behalf of the United Nations Office for Project Services
Mr. David Rendall
Regional Director
UNOPS Eastern and Southern Africa Regional Office
PO Box 783 (village Market)
00621 Nairobi – KENYA
+25420621160

Attachment 1

DESCRIPTION OF SERVICES

Programme/project number: **Reconstruction/rehabilitation of roads and bridges infrastructure in Seychelles**

Programme/project title: **00044390**

Work to be performed by the United Nations agency:

The United Nations Office for Project services is hereby contracted to undertake the procurement of 1250 tons of Bitumen and 140 tons of Primer only at this stage and the shipment of the materials to the Seychelles based on the following specifications and schedule. (See attached Annex IV)

Other materials for bridge construction (to be determined after acceptance of design and bill of quantities) may be added to this agreement after consultations between the parties.

Description of services:

The services consist of tendering, evaluation of tender, contracting of suppliers and arranging shipment of the materials (Annex IV) to Seychelles before 31 December 2005.

No other services such as receipt of materials, storage, and proper use are part of this agreement.

Annexes:

The technical specifications for bitumen and primer are provided as Annex IV.

Management fees:

For rendering the above services, UNOPS will received a total management fee of 5% or at least USD20,000 whichever is higher, of the total value of the contract.

Attachment 2

SCHEDULE OF SERVICES, FACILITIES AND PAYMENTS

Section	Budget line	Work months	Total costs	Estimated expenditure by year		Schedule of payments	
				Year 1	Year 1	Year 1	Year 1
Section 1 : Personnel							
Section 2 : contracts			USD400,000	USD400,000		USD400,000	
Section 3: Miscellaneous							
Total							

Note:

- Expenditures for personnel services may be limited to salary, allowances and other entitlements, including the reimbursement of income taxes due and travel costs on appointment to the programme/project, duty travel within the programme country or region and repatriation costs.
- The designated institution shall be responsible for providing miscellaneous services such as secretarial assistance; postage and cable services and transportation as may be required by the United Nations agency personnel in carrying out their assignment.
- Adjustments within each of the sections may be made in consultation between the designated institution and the United Nations agency. Such adjustments may be made if they are in keeping with the provisions of the programme support document or project document and if they are found to be in the best interest of the programme or project.

TERMS OF REFERENCE & SCOPE OF SERVICES

- 1. Background**
- 2. Implementation Arrangements**
- 3. Scope of Consultancy Services**
- 4. Reports and Documents to be submitted by Consulting Engineer**
- 5. Remuneration and Payments**

1. **Background**

Seychelles, an archipelago of 115 islands in the Indian Ocean lies more than 7,000 kilometers from the epicenter of the undersea earthquake that occurred off the west coast of northern Sumatra and which triggered the tsunami on 26th December 2004 with the disastrous and dramatic effects to life, property and the environment in many countries.

On Sunday 26th December 2004 around 13.00 hours, tidal waves ranging from 2.5 to 4.0 meters hit the east coast of the inner granitic islands of Mahe, Praslin and other nearby islets, when it was low tide. Another tidal wave hit the islands at around 17 00 hours, when it was high tide. The extreme tidal movement caused severe flooding with water moving at very high speed in some areas causing considerable damage to important infrastructure such as bridges and roads, quays, jetties, electrical network within the fishing port area, hotels, houses, sanitation and water pipes on coastal areas on Mahe and Praslin islands and to a lesser extent on certain coastal parts on La Digue, Cerf and Curieuse islands.

Seychelles does not experience volcanic, seismic or cyclonic conditions and as consequence infrastructures are constructed without taking into consideration the design parameters for these natural phenomena. The coastal roads lie in most areas within one (1) meter from high water mark. On the main island of Mahe, three reclamation projects initiated as from 1986 in front of coastline from Seychelles International Airport to the Capital Victoria have created a series of low lying wetlands behind the reclaimed areas. The main coastal road and highway lying on this stretch was badly hit with the tsunami very high velocity receding water and Petit Paris, Roche Caiman and Cascade bridges were badly damaged. Cascade and Petit Caiman bridges on the main highway were completely washed away.

Bridge construction all over the islands are mainly open ARMCO culvert type with galvanized iron formwork laid on concrete foundations, backfilling, embankments where required and then the road construction above.

(i) Cascade Bridge

This was the main bridge of two lanes in each direction on the highway linking the international airport to the capital Victoria carrying a traffic flow of about 30,000 vehicles daily. During the tsunami this bridge suffered the most dramatic damage and completely collapsed after its foundations were undermined with the water flows. This bridge has not been reconstructed to date (see plate 1), but LTD constructed a diversion road of about 500m which was commissioned less than a month after the tsunami. The existing coastal road which was in use prior to construction of the highway provides also an alternative route with limited load restrictions.



Plate 1: Damaged Cascade Bridge and new diversion road constructed

(ii) Roche Caiman Bridge

This bridge lying on the expressway linking the airport to the capital Victoria suffered considerable damages and collapsed; emergency repairs were carried out to restore traffic flow in that important stretch of the road network. LTD has now confirmed that this bridge will be redesigned and reconstructed to higher standard in anticipation of the extended highway towards this bridge. A diversion bridge will also be constructed during the main bridge construction to allow traffic to proceed smoothly.

Plates 2 & 3 refer to the bridge damaged during the tsunami and the temporary works carried thereon.



Plate 2: Damaged Roche Caiman Bridge



Plate 3: Temporary repairs on Roche Caiman Bridge

The Government of Seychelles through the Department of Tourism & Transport wishes to invite tenders for consultancy services for the design, preparation of tender documents, evaluation of tenders, and award of contract for the following infrastructure:-

- (i) Two bridges along the highway in the same locations at Cascade and Roche Caiman.
- (ii) A causeway with the bridge to link the two housing estates at Roche Caiman.

2. Implementation Arrangements

2.1 The Land Transport Division of the Department of Tourism & Transport as represented by the Principal Secretary shall represent the Client; the Director General will act as the Client's Representative. He will be responsible for providing coordination between the Consulting Engineer, the Government Agencies, UNDP and other authorities concerned.

2.2 The Consulting Engineer will be required to incur all expenses other than the data and services provided by Client under the contract for the engineering services.

3. Scope of Consultancy Services

- 3.1 The Consultancy Engineer shall perform all engineering works, field surveys and investigations as are required to attain the objectives of this tender.
- 3.2 The Department of Transport and Tourism will supply the Consulting Engineer with all data, site maps, and information available to better understand the local context. The Consulting Engineer shall be solely responsible for the analysis and interpretation of the data and information received.
- 3.3 The Consultancy Engineer shall pay particular attention to the near conditions created during the passage of the Tsunami on the 26th December 2004 and its dramatic effects on the coastal infrastructure with huge volume of water receding at high speed at low lying areas e.g open culverts etc.
- 3.4 The Consulting Engineer will be required to make technical presentations of his design to the Client.
- 3.5 The scope of work pertaining to the preliminary design, detailed design, tender and evaluation of tenders upto award of contract of the two bridges at Cascade & Roche Caiman and the causeway with the bridge to link the two housing estates at Roche Caiman will include, but not limited to the tasks as outlined below:-

i. Preliminary Design

- (i) Study all datas and information available and carry out any further investigations as deemed necessary for the successful completion of the assignment including soil investigations, hydrological survey etc.
- (ii) Carry out detailed field investigations to established the necessary dimensions of the bridges.
- (iii) Carry out preliminary design and produce survey plans with level, alignment plans, longitudinal sections, cross sections and elevations of each bridge and the causeway including junction with existing highway.
- (iv) Location of the two bridges will be at existing locations on the main highway and coastal road.
- (v) Submit a cost estimate for the preliminary design and submit recommendation for approval.

ii. Detailed Engineering Design

Once the preliminary design has been approved by Client, the scope of the detailed engineering design shall comprise of:-

- (i) detailed engineering design of the bridges and approach roads, preparation of plans, detailed drawings including reinforcement drawings and bar bending schedule, bill of quantities and tender documents,
- (ii) preparation of detailed confidential cost estimate of the proposed works with breakdown into foreign exchange and local currency costs to an accuracy of 10% of the final quantities as measured on completion of works, excluding any approved variation to the contract.
- (iii) Topographic Survey and mapping
- (iv) Soils and Materials Investigation

(v) Drainage site investigations. Particular attention to be given to drainage pattern from the tsunami phenomenon.

(vi) Environmental impact investigation

Any adverse environmental impact which may be occasioned by the project implementation will be studied and appropriate measures against them will be considered. The Consultancy Engineer to advise Client accordingly.

(vii) Engineering design

The Engineering design on every item shall be the optimum design as the result of engineering investigations and analysis in accordance with relevant design standards adopted and acceptable to the Department of Transport & Tourism. Hereunder are given suggested guidelines for the perusal of the Consulting Engineer.

◆ Horizontal and Vertical Alignment

Design speed to be used shall be 100 Km/h

◆ Typical cross section

Carriageway width - 4 lanes of 3.5 m on bridge
Central Median - 2.0 m
Shoulders - min 2 x 2.0m

◆ Pavement design

A 15-ton axle load shall be used for the Pavement (sub-base, base and bituminous courses)

(viii) Bridge and drainage structures

Detailed structural analysis for all structures in accordance with the relevant British Standards, AASHTO or equivalent to the Department of Transport & Tourism for a Class A Highway Wind speed of 80 km/h to be assumed

Some technical details for consideration:-

◆ Cascade Bridge

The width of the bridge shall be for 4 lanes traffic with central median hard shoulders and safety barriers on both sides. The minimum opening of the bridge will not be less than 25m and the finished level of the substructure must have a minimum depth of 1m of water at low tide. The superstructure must have a minimum clearance of +6m ACD to allow passage of small fishing boats. The finished road level will be as per existing finished level of existing road.

◆ Roche Caiman Bridge

The width of the bridge shall be for 4 lanes traffic with central median hard shoulders and safety barriers on both sides. The minimum opening of the bridge will not be less than 20m and the finished level of the substructure must have a minimum depth of 1m of water at low tide. The superstructure must have a minimum clearance +3.5m. ACD to allow the passage of small fishing boats.

(ix) Road Furnitures, street lighting and facilities

As necessary

(x) Drawings

- ◆ Plan, longitudinal and cross sections plan scale :1000
- Longitudinal section scale H= 1:1000
V= 1:100
- Cross section
 - Typical cross section scale 1:50
 - Stational cross section scale 1:100
- Bridge and drainage structures plan scale 1:200
 - Elevation scale 1:100
 - Cross section scale 1:50
 - General arrangement scale as appropriate
 - Particular details scale as appropriate

(xi) Quantity Calculation

- Bar bending schedules
- All quantity of works in close conformity with the work group and item of Bills of Quantities
- Breakdown of Quantities

(xii) Cost Estimates

1) Construction Cost

- a. Unit price analysis for each work item using basic cost elements (labour, material, equipment, etc.)
- b. Total construction cost including and excluding taxes

2) Administration and other costs if necessary

(xiii) Construction Method

Recommend the most suitable methods, taking into account technical and economic aspects and availability of materials in Seychelles. During construction of the two bridges, the highway shall remain closed to traffic.

(xiv) Tender and Contract Documents

Prepare tender and contract documents for the approved scheme, which shall include:

- Volume 1
 - Instructions to Tenderers
 - Form of tender and Appendices,
 - Schedules of Supplementary Information,
 - Sample forms of Agreement, Tender Security, Performance Security, and Bank Guarantee for Advance Payment
 - List of Prices
 - Bill of quantities
- Volume 2
 - General Conditions of contract – FIDIC IV
 - Conditions of Particular Application

(xv) Tendering period and evaluation of bids

Assist Client in tendering, pre-bid visit/meeting, clarification of tenders and carry out evaluation of bids including evaluation of alternative proposals, if any. Submission of report accordingly.

4. Reports and Documents to be submitted by Consulting Engineer

4.1 The Consulting Engineer shall prepare and submit the following reports, all in English to the Client at intervals to be mutually agreed prior to signature of the contract agreement between Client and the Consulting Engineer.

- | | | |
|--------|--|---|
| (i) | Inception Report | - 6 copies |
| (ii) | Preliminary Design Report | - 6 copies |
| (iii) | Draft Detailed Engineering Report & Tender Documents | - 3 copies |
| (iv) | Final Detailed Engineering Report & Confidential Cost Estimate | -6 copies |
| (v) | Tender Documents & Drawings | - 10 copies |
| (vi) | Contract Drawings | - 6 copies including one set
On tracing/autocad. |
| (vii) | Data and Calculation Sheets | - 6 copies |
| (viii) | Tender Evaluation Report & Recommendation | - 6 copies |

All the above documents (including drawings) shall be submitted in an electronic format acceptable to Client on CD.

5. Remuneration and Payment

- 5.1 The Lump sum/ceiling for each phase (the design and supervision phases) quoted by the Consulting Engineer respectively shall be fixed and firm for the duration of the Contract which for the purpose of this assignment shall be after the signature of the contract for the design phase. No adjustment for whatsoever reasons shall be made to the contract sum except in the case that the scope of works is varied by the Client. In such a situation any addition or omission shall be priced according to unit prices given in a schedule of rates in the financial offer, showing staff charges, documentation costs, air fares, hotel/subsistence cost, local transportation, office charges etc. and computed on a time basis together with all reimbursable costs incurred.
- 2.1 In case of delays, beyond the control of the Consulting Engineer, and beyond the Contract Period, an index of escalation (to be submitted with the financial offer) shall be applied. The Consulting Engineer shall submit an appropriate formula for computation of additional costs due to delays beyond the Contract Period.
- 2.2 The Land Transport Division of the Department of Transport & Tourism should note that the contract for this assignment will be with the Payments to the Consulting Engineer will be as per the following schedule:

A. Lump sum for design of Bridges

10% on submission of Inception Report

20% on submission of Preliminary Design Report

25% on submission of draft Detailed Engineering Report + tender documents

25% on submission of final Detailed Engineering Report + tender documents (including Tender Drawings), Confidential cost estimate, Contract Drawings, Land Acquisition Drawings and Data and Calculation Book.

15% on submission of Tender Evaluation Report and Recommendations for award of contract.

5% Upon Award of Contract for Construction.

- 2.3 The Consulting Engineer and his personnel will not be exempt from or reimbursed for the cost of taxes, duties, fees, levies and other impositions in Seychelles related to:
- (a) Payments to the Consulting Engineer or his personnel in connection with carrying out this assignment.
 - (b) Equipment, materials and supplies brought into Seychelles for the purposes of carrying assignment.

The Consulting Engineer shall submit his consultancy fees excluding VAT which will be paid separately by Client.

Annex V

BREAKDOWN COST FOR RESURFACING OF 30KM OF ROADS

Road Details

Length of roads 30km
Average width of roads 6.5m
Average thickness 50mm

(Mix design WC 4A)

Bitumen	5%
Crusher dust and filler	38%
Coarse Aggregates	57%

Daily Production

100tons of laying and mixing

Plant and Equipment require for mixing and laying 100tons of asphalt premix

Batching Plant	5hrs @ SR 3500/h
Paver with operator	6hrs@ SR 2000/h
Tandem roller with operator	5hrs@ SR 650/h
Bowser with operator	5hrs@ SR450/h
Hand driven roller with operator	4hrs@ SR100/h
Tractor and hand sprayer with operator	4hrs@ SR450/h
10-ton tipper truck with operators (3 Nos)	5hrs @ SR400/h
1no. 3 ton pick up	8hrs @ SR200/h

Labour require for mixing and laying 100 tons of asphalt premix

All labour work for a minimum 8hrs /day

Asphalt Engineer	SR50.10/hour
Asphalt Plant Supervisor (1)	SR 38.45/hour
Asphalt plant operator(1)	SR.27.80/hour
Asphalt plant operator(1)	SR.21.70/hour
Asphalt plant mechanic(1)	SR.23.80/hour
Paver with operator (1)	SR 2000/hour
Tandem roller operator(1)	SR 650/hour
Bowser operator (1)	SR450/hour
Hand driven roller operator(1)	SR100/hour
Tractor and hand sprayer operator(2)	SR450/hour
10-ton tipper truck drivers (3)	SR400/h
Work supervisor (1)	SR18.60
Bitumen laborer (7)	SR16.85

**Quotation for Supply of Materials
Supply of Bitumen**

SPECIFICATION FOR BITUMEN

LOT 1

Specification

The 60/70 penetration bitumen shall comply with the A.S.T.T. specifications for bitumen. A certificate of analysis and certificate of quality must be provided with each consignment.

Quantity

1100 tons of 60/70 penetration bitumen will be supplied by the suppliers to the Government of Seychelles in 6 consignments.

Packing

The bitumen is to be filled in heatable containers. The mass weight of the containers should not exceed 25tons.

Delivery

Delivery will be done within a period of 6 months as per the Government of Seychelles schedule and will be delivered to the Land Transport Division, P.O. Box 1385 Victoria.

Calculation of Prices

The price will be calculated based on C.I.F. Mahe per metric ton including delivery, duty paid, taxes and importation duties. All sea-freight, handling and transportation charges to and from site on Mahe

All accessories such as burners (including spare parts), flexible pipes and valves for emptying the containers shall be provided by the suppliers.

Freight costs for returning the empty containers to origin and the cost of cleaning them are to be borne by the suppliers

SPECIFICATION FOR BITUMEN

SUBJECT

Quotation for Supply of Materials Supply of Bitumen Technical Data

LOT 2

Specification

The 60/70 penetration bitumen shall comply with the A.S.T.T. specifications for bitumen. A certificate of analysis and certificate of quality must be provided with each consignment.

Quantity

300 tons of 60/70 penetration bitumen will be supplied by the suppliers to the Government of Seychelles in 3 consignments.

Packing

The bitumen is to be filled in new steel drums and packed in 20tons containers. The mass weight of the containers should not exceed 25tons.

Delivery

Delivery will be done within a period of 3 months as per the Government of Seychelles schedule and will be delivered to the Land Transport Division, P.O. Box 1385 Victoria.

Calculation of Prices

The price will be calculated based on C.I.F. Mahe per metric ton including delivery, duty paid, taxes and importation duties. All sea-freight, handling and transportation charges to and from site on Mahe

SPECIFICATION FOR BITUMEN

SUBJECT

Quotation for Supply of Materials Supply of Bitumen Technical Data

LOT 3

Specification

The CSSI Primer and MC30 cutback bitumen shall comply with the A.S.T.T. specifications for bitumen. A certificate of analysis and certificate of quality must be provided with each consignment.

Quantity

- I. 140 tons of CSSI cationic bitumen
- ii. 30 tons of MC30 cut back bitumen

Packing

The bitumen is to be filled in new steel drums and packed in 20tons containers. The mass weight of the containers should not exceed 25tons.

Delivery

Delivery will be done in one consignment as per the Government of Seychelles schedule and agreement with the supplier and will be delivered to the Land Transport Division, P.O. Box 1385 Victoria.

Calculation of Prices

The price will be calculated based on C.I.F. Mahe per metric ton including delivery, duty paid, taxes and importation duties. All sea-freight, handling and transportation charges to and from site on Mahe

Annex VI

List of Consultancy Engineering Operating in Seychelles

- 1) F & D Structural Consultants
Providence Industrial Estate
P.O.BOX 1014 , Victoria
Phone : 373334
Fax : 373733

- 2) Charles Pool
Providence
Phone : 373727
Fax : 373738

- 3) Joe Pool
Ocean Gate House
Phone : 224212
Fax : 224983

- 4) Philip Adrienne Consulting Engineer
Premier Building Room 404
Phone : 322206
Fax : 324001

- 5) Aries Consultancy Services
Bois De Rose Avenue
P.O.BOX 892 , Victoria
Phone : 321878
Fax : 321898

- 6) Doffay M & Savy A Associates
Consulting Engineer
Kingsgate House
P.O.BOX 114
Phone : 225527

- 7) Building & Structural Consultant
Mont Fleuri
P.O.BOX 615
Phone : 224707
Fax : 225290

List of Contractors Grade 1 Operating in Seychelles

- 1) Allied Builders
P.O.BOX 215 , Victoria
Phone : 344600

- 2) Vijay Construction (Pty) Ltd
Providence Industrial Estate
P.O.BOX 501, Victoria
Phone: 373423
Fax : 373470

- 3) Island Construction (Pty) Ltd
Bois De Rose Avenue
P.O.BOX 892, Victoria
Phone : 321878
Fax : 321898

- 4) United Concrete Products
Anse Des Genets
P.O.BOX 382
Phone : 373203
Fax : 373142

- 5) Laxmanbhai & Co Sey (Pty) Ltd
Allied Building , Victoria
P.O.BOX 511
Phone : 224263
Fax : 224861

- 6) Frankipile Mauritius International
P.O.BOX 117
Victoria
Phone : 324707
Fax : 27 317002693

- 7) Cellate L.L.C & Precast Technologies
Trinity House, First Floor F2
Victoria
Phone : 610820
Fax : 610821