



DELIBERASAUN N. 27/III/CAFI/2025

Conselho de Administração do Fundo das Infraestruturas – CAFI, bazeia ba artigo 10º (1) e (3) DL Nº. 25/2024, de 22 de maio, Primeira Alteração ao DL Nº.13/2016, 18 de Maio, realiza reuniaun ordinária iha loron Sexta-feira, 28 de Março de 2025, e halo deliberasaun ba assunto tuir mai ne'e:

Asuntu: Pedidu Aprovasaun no autorizasaun despezas nune'e mos konfirma finansiamentu iha FI 2025 ba projetu:

1. *Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality, Kustu estimativa ADN, I.P. ho montante USD 7,461,024.64;*
2. *Construction Supervision of Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality, Kustu estimativa ADN, I.P. ho montante USD 516,750.00.*

Proponente: Ministério da Agricultura, Pecuária Pesca e Floresta — MAPPF

Notas/justifikasaun:

- SGP simu karta husi Ministério da Agricultura, Pecuária, Pesca e Florestas – MAPPF ho no. Ref.; 81/DGACPI/II/2025, data 19 de fevereiro de 2025, ho asuntu: Pedidu Ajendamento Enkontru projetu Fundus Infraestruturas Ministério da Agricultura, Pecuária, Pesca e Florestas – MAPPF.
- MAPPF hetan alokasaun orsamentu geral do estado 2025 liu husi fundo de Infraestruturas (FI) atu halo konstrusaun ba aktividade hanesan :
 - **A390415:** Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality;
 - **A390416:** Construction Supervision of Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality.
- Resultadu verifikasiadaun ADN, I.P. ho karta no. ref.: 0243/ADN,I.P./II/2025, data 14 de fevereiro 2025, ho asuntu: resultadu verifikasiadaun - Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality;
- Dono do projetu sei assume responsabilidade hodi assegura orsamentu ba Ezekusan no Implementasaun projetu;
- Projetu nain sei assume responsabilidade ba koordenasaun entre entidade relevantes ba implementasaun projetu ne'e, e ba supervizaun, monitorizasaun e akompanhamentu ba projetu ne'e iha faze implementasaun, e sei garante kualidade servisu konstrusaun nian tuir espesifikasiadaun nebe aprova ona;
- Lista proposta:



IX GOVERNO CONSTITUCIONAL
MINISTÉRIO DO PLANEAMENTO E INVESTIMENTO ESTRATÉGICO
FUNDO DAS INFRAESTRUTURAS



Conselho de
Administração

No.	Naran Projetu	Verifikasišuan ADN,I.P./No.reference	Alokasaun FI 2025
1	Rehabilitation Constructions of Caraulun Irrigation Project, Municipality;	<p>Resultadu verifikasišuan, ADN, I.P. ho karta no. ref.: 0243/ADN,I.P./II/2025, data 14 de fevereiro 2025;</p> <p>Montante verifikasišuan \$ 7,461,024.64;</p>	<ul style="list-style-type: none"> • Alokasaun FI 2025: \$ 50.000,00; • Programa A39: Agricultura, Horticultura, Café e de Plantas Industriais e Anuais; • Kodigou atividade A390415: Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality;
2	Construction Supervision of Rehabilitation Constructions Caraulun Irrigation Project, Municipality	<p>Resultadu verifikasišuan, ADN, I.P. ho karta no. ref.: 2414/ADN,I.P./XII/2024, data 18 de dezembro de 2024;</p> <p>Montante verifikasišuan \$ 516,750.00</p>	<ul style="list-style-type: none"> • Alokasaun FI 2025: \$100.000,00; • Programa A39: Agricultura, Horticultura, Café e de Plantas Industriais e Anuais; • Kodigou atividade A390416: Construction Supervision of Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality.

Rekomendasaun:

- 1) CAFI atu aprova kustu total ba projetu no autoriza despezas, nune'e mos konfirma finansiamentu iha Fundo das Infraestruturas tinan 2025, bazeia ba pedidu husi MAPPF ba Projetu:
 1. *Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality* ho kustu estimativa verifikasišuan husi ADN, I.P. \$7,461,024.64;
 2. *Construction Supervision of Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality* ho kustu estimativa verifikasišuan husi ADN, I.P. \$ 516,750.00;
- 2) Desizaun kona ba abertura ka inisiasišuan prosesu aprovisionamentu bazeia, Artigo 24 & 25, Decreto Lei No.43/2024, de 20 de Dezembro, regra ezekusaun OGE 2025;
- 3) Bazeia ba Artigo 21, DL No.13/2016, de 18 de maio, kona ba Regulamentu Fundo da Infraestrutura, determina katak aprovisionamento projetu FI nian sei lao tuir Regime Juriku Aprovizionamento em vigor. Modalidade aprovisionamento bazeia ba kustu projetu no sei lao tuir Decreto-Lei No.22/2022 de 11 de Maio;
- 4) Modalidade aprovisionamento bazeia ba kustu projetu no sei lao tuir Decreto-Lei No.22/2022 de 11 de Maio;
- 5) Dono do projetu sei assume responsabilidade hodi assegura orsamentu ba Ezekusan no Implementasaun projetu;
- 6) Projetu nain sei asume responsabilidade ba monitorizasaun e akompanhamentu ba ezekusaun projetu ne'e no sei garante kualidade servisu konstrusaun no supervizaun nian tuir padraun no espesifikaun ne'ebe aprova ona;

Gonçalves

U



Desizaun:

1. CAFI aprova kustu total ba projetu no autoriza despezas, nune'e mos konfirma finansiamantu iha Fundo das Infraestruturas tinan 2025, bazeia ba pedidu husi MAPPF nudar Projetu nain;
2. Desizaun kona ba abertura ka inisiasaun prosesu aprovisionamentu bazeia, Artigo 24 & 25, Decreto Lei No.43/2024, de 20 de Dezembro, regra ezekusaun OGE 2025;
3. Bazeia ba Artigo 21, DL No.13/2016, de 18 de maio, kona ba Regulamentu Fundo da Infraestrutura, determina katak aprovisionamento ba projetu sira ho finansiamantu husi FI nian sei lao tuir Regime Juridiku Aprovizionamentu em vigor;
4. Modalidade aprovisionamento bazeia ba kustu projetu no sei lao tuir Decreto-Lei No.22/2022 de 11 de Maio;
5. Dono do projetu sei assume responsabilidade hodi assegura orsamentu ba Ezekusan no Implementasaun projetu;
6. Projetu nain sei asume responsabilidade ba koordenasaun entre entidade relevantes ba implementasaun projetu ne'e, e ba supervizaun, monitorizasaun e akompanhamentu ba projetu ne'e iha faze implementasaun, e sei garante kualidade servisu konstrusaun nian tuir espesifikasiasaun nebe aprova ona;
7. Lista Aprovasaun CAFI:

Naran Projeto	Kustu Estimativa (ADN, I.P.)	Alokasaun FI 2025	Orgaun Kompetênti Autoriza despezas - DL No. 23/2022, 19 de Maio
Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality;	Resultadu verifikasiasaun, ADN, I.P. ho karta no. ref.: 0243/ADN,I.P./II/2025, data 14 de fevereiro 2025; Montante verifikadu \$ 7,461,024.64;	<ul style="list-style-type: none">• Alokasaun FI 2025: \$ 50.000,00;• Programa A39: Agricultura, Horticultura, Café e de Plantas Industriais e Anuais;• Kodigou atividade A390415: Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality;	CAFI: konfirma no autoriza despezas
Construction Supervision of Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality	Resultadu verifikasiasaun, ADN, I.P. ho karta no. ref.: 2414/ADN,I.P./XII/2024, data 18 de dezembro de 2024; Montante verifikadu \$ 516,750.00	<ul style="list-style-type: none">• Alokasaun FI 2025: \$100.000,00;• Programa A39: Agricultura, Horticultura, Café e de Plantas Industriais e Anuais;• Kodigou atividade A390416: Construction Supervision of Rehabilitation Constructions of Caraulun Irrigation Project, Manufahi Municipality	CAFI: konfirma no autoriza despezas



IX GOVERNO CONSTITUCIONAL
MINISTÉRIO DO PLANEAMENTO E INVESTIMENTO ESTRATÉGICO
FUNDO DAS INFRAESTRUTURAS



Conselho de
Administração

Aprovado husi CAFI iha loran 28 de março de 2025.

O Conselho de Administração do Fundo das Infraestruturas

O presidente,



Gastão Francisco de Sousa

Ministro do Planeamento e Investimento Estratégico



Santina José Rodrigues Ferreira Viegas Cardoso

Ministra das Finanças



Miguel Marques Gonçalves Manetelu

Ministro dos Transportes e Comunicações



Samuel Marçal

Ministro das Obras Públicas

DELIBERAÇAUN N.º 27/III/CAFI/2025

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**IX GOVERNO CONSTITUCIONAL
MINISTÉRIO DO PLANEAMENTO E INVESTIMENTO ESTRATÉGICO
FUNDO DAS INFRAESTRUTURAS**



**Conselho de
Administração**

Annexo:



REPÚBLICA DEMOCRÁTICA DE TIMOR-LESTE
Ministério do Planeamento e Investimento Estratégico
Fundo das Infraestruturas

NOTA DE DESPAICHO

1. ORIGEM DO DOCUMENTO

N Ref: 81/DGACPI/II/2025

Data do Documento : 18/02 /2025

Proveniência do Documento

DGACPI- MAPPF

2. DETALHES DO DOCUMENTO

Data Entrada do Documento: 19 / 02 /2025

Enviado ao:

1. Sr/ Mauricio Borges
2. Sr/a _____
3. Sr/a _____
4. Assessores Nacionais / Internacionais

Assunto:

Pedido Ajendamento Enkontru ba projetu Fundus Infraestruturas Ministerio da Agricultura, pecuária, pesca e Florestas (MAPPF)

3. INSTRUÇÃO DO DIRETOR DO SGP

Data do Despacho: 19/2 /2025

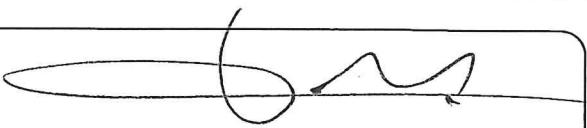
Para Sr/a

1. Sr/a Mauricio V. Borges
2. Sr/a Anabela M.
3. Sr/a _____

Despacho:

*Pre (ass) - se bele olin 19/2
ora 16:00*

Assinatura :


Mauricio Borges



REPÚBLICA DEMOCRATICA DE TIMOR LESTE
MINISTERÍO DA AGRICULTURA, PECUÁRIA, PESCA E FLORESTAS
DIRECÃO-GERAL DE AGRICULTURA, CAFÉ E PLANTAS INDUSTRIAS



Ref. No : ...81...../ DGACPI /II/2025

Ex.mo : Sr. Mauricio Borges
Director Executivo do Secretariado dos Grandes Projeto (SGP)

Assunto : Pedido Ajendamento Enkontru ba Projetu Fundus Infraestruturas
Ministerio da Agricultura, Pecuária, Pesca e Florestas (MAPPF)

Ministerio da Agricultura, Pecuária, Pesca e Florestas, hetan alokasaun orsamento geral do estado 2025 liu husi Fundo de Infraestruturas (FI) atu halo konstrusaun ba aktividade hanesan :

I. *A390415: Rehabilitation Construction of Caraulun Irrigation Project, Manufahi Municipality*

II. *A390416: Construction Supervision of Rehabilitation Construction Carau-ulun Irrigation Project, Manufahi Municipality*

Projetu eskema irrigasaun refere, hetan ona aprovasaun husi Agencia de Desenvolvimento Nacional-I.P (ADN_IP) ba desenho no BoQ, nune mos orsamento ba supervizaun iha 14 de Fevereiro de 2025.

Ho ida nee, Ministerio da Agricultura, Pecuária, Pesca e Florestas husu ba Secretariado dos Grandes Projeto (SGP), atu bele tau ajenda enkontru ba Konsellu Administrasaun Fundu Infraestrutura (KAFI) nian, hodi nune bele hetan aprovasaun.

Dokumentus mak hanesan tuir mai:

- I. Sumario BoQ no General design ba Reabilitasaun Construsaun eskema irrigasaun Karau-ulun Municipio Manufahi
- II. Sumario Orsamento Supervizaun no TOR ba Reabilitasaun Construsaun eskema irrigasaun Karau-ulun Municipio Manufahi

Mak nee deit ba ita nia servico hamutuk hato'o obrigado.

Dili, 19 de Fevereiro de 2025

Martinho Laurentino Soares

Diretor Geral

Cc :

1. Sua. Excia. Ministro da Agricultura, Pecuária Pesca e Florestas
2. Inspektur Geral – MAPPF;
3. Arkivo



AGÊNCIA DE DESENVOLVIMENTO NACIONAL, I. P.

Díli, 14 de Fevereiro de 2025

No. Ref : 0243/ADN, I.P/II/2025

Hato' o ba : Sr. Martinho Laurentino Soares
Diretor Geral – DGACPI

Asunto : Resultado Verifikasioun – Project Rehabilitation Construction of Carau-Ulun Irrigation Scheme Municipality Manufahi

Bazeia ba karta pedidu verifikasioun ho no ref: 774/DGACPI/VIII/2024 ho data 15 de Agosto de 2024, ba asuntu ne'ebe mensiona iha leten, ekipa verifikasioun Unidade Avaliação dos Projetos – ADN, I.P. hala'o ona verifikasioun ba dokumentos refere. Ho nune bele hare resultado verifikasioun iha (*aneksu*).

Ba ita bo'ot nia atensaun ami hato'o agradecimento wain no subkreve ho konsiderasaun a'as tebes.

Rui Lourenço da Costa
Diretor Executivo - ADN, I.P.



Bedik-Hun, Fatuhada
Dili - Timor-Leste
info@mpic.gov.tl



REPÚBLICA DEMOCRATICA DE TIMOR LESTE
MINISTERÍO DA AGRICULTURA, PECUÁRIA, PESCA E FLORESTAS
DIREÇÃO-GERAL DE AGRICULTURA, CAFÉ E PLANTAS INDUSTRIAS



Ref. No : 774 / DGACPI / VIII / 2024

Ex.mo : Sr. Rui Lourenço da Costa
Director Executivo Agencia de Desenvolvimento Nacional-IP (ADN_IP)

Assunto : Submisaun dokumentu Pedidu Verifikasi saun ba Rehabilitasaun Irrigasaun Carau-Ulun Municipio Manufahi

Baseia ba assunto iha leten, Ministerio da Agricultura, Pecuária, Pescas e Florestas, submete dokumentus Rehabilitasaun Irrigasaun Carau-Ulun Municipio Manufahi, ba Agencia de Desenvolvimento Nacional-IP (ADN_IP) atu halo verifikasi saun no aprovasaun. Orsamento ba Projeto eskema irrigasaun iha leten, mai husi Fundus Infraestrutura, ho nia programa 797: *Agricultura; sub programa 79701: Irrigacao.* Rehabilitasaun eskema irrigasaun Karau-Ulun tama iha planu orsamento 2025.

Dokumentos atu halo verifikasi saun no aprovasaun mak hanesan;

- 1) Desenho no BoQ, Hardcopy
- 2) Softcopy iha USB, Desenho, BoQ no Specifikasi Tekniku

Mak nee deit ba ita nia servico hamutuk hato'o obrigado.

Dili, 15 de Agosto de 2024

Martinho L. Soares
Diretor Geral DGACPI

Cc :

- 1) Sua. Excia. Ministro da Agricultura, Pecuária Pesca e Florestas
- 2) Arkivo



AGÊNCIA DE DESENVOLVIMENTO NACIONAL, I. P.

FORMULARIO DE DESPACHO

Data de Entrada Documentos : 19 - 08 - 24 | Data do Documentos : 15 - 08 - 24

Husi : MAPPF - DGACPI

No. Ref : 774 / DGACPI / VIII / 2024

Projecto : Rehabilitation Construction
of Cacau - Urban irrigation
Scheme Municipality Manufilii

Quantidade Documentos : ... 4 ..

Anexo :

- * BOA : 1
- * Technical Specification : 1
- * Drawings Document : 1
- * USB : 1

Assuntos :

Submissão Documentos Pedido
Verificação

No.Tlf: 77 26 5188

Companhia : _____

Despacho :

- Unidade de Gestão Administrativa
- Unidade de Avaliação de Projectos
- Unidade de Controlo e Validação de Qualidade
- Unidade de Estudos e Desenvolvimento de Competências

Solvida na data acima

- Adjunto
- Assessor/a
- Gabinete DE / Base de Dados
- Other

Data : 20-24

Rui Lourenço da Costa
Director Executivo ADN



AGÊNCIA DE DESENVOLVIMENTO NACIONAL, I. P.

CHECK LIST DOKUMENTOS BA VERIFIKASAUN

PROJECTO NAIN / KOMPANHIA : Rehabilitation construction of Cacau - Ulun irrigation Shaeune

No	DOKUMENTOS NIA NARAN	
1.	Karta Akompanhamento Husi Projecto Nain	✓
2.	Fundo Husi : (LM...FI)..PDIM)	✓
	A. Kapital de Desenvolvimento	
	B. Bens de Servico	
	C. Transferencia Public	
	D. Other :	
3.	TOR ou Justifikasau kona ba projetu ne'be atu implementa.	
4.	Titik Koordinat husi Projecto neébe atu implementa	
5.	Desenhu tenke iha HVS Medida A3 no hetan Aprovasaun husi Projetu Nain no Ministerio (MOP)	✓
6	Cost Estimasaun ho BOQ Tenke Hetan Aprovasaun Husi Projectu Nain ou Ministerio (MOP)	✓
7.	Unit Price Analisis	✓
8.	Backup Quantidade	✓
9.	Spesifikasi Teknik	✓
10.	Soft Copy (BOQ iha Excel) no (Desenho iha Auto Cad) /USB	✓
11.	Tenke Anexu Kopia Livro OJE 2024 Cover ho Pajina	
12	Desenhu tenke Aneksu Mapa Quarry no hetan Aprovasaun husi Projetu Nain	✓



AGÊNCIA DE DESENVOLVIMENTO NACIONAL, I. P.

SUMMARY OF COST ESTIMATE

Project Owner : MINISTÉRIO DA AGRICULTURA, PECUÁRIA, PESCA E FLORESTAS
Project Title : Rehabilitation Construction of Caraulun Irrigation Scheme
Location : Caraulun Irrigation Scheme Manufahi Municipality

No.	Work Description	OWNER ESTIMATE Amount (USD)	VERIFIED BY AND Amount (USD)
I	Preparation	\$ 702.351,44	\$ 119.664,03
II	Construction Weir (include pilar, Scouring way & Stilling Basin)	\$ 4.346.908,90	\$ 4.507.049,75
III	Construction Intake - Sandtrap Basin - Regulating Structure - Flushing Structure	\$ 421.857,54	\$ 419.892,23
IV	Right and Left Retaining Wall (D/S Weir, include levee)	\$ 1.212.409,15	\$ 1.311.734,60
V	Hydromechanical Work	\$ 42.897,96	\$ 44.557,49
A	TOTAL AMOUNT CONSTRUCTION COST	\$ 6.726.424,99	\$ 6.402.898,10
B	PROFIT FORM TOTAL CONSTRUCTION COST (10% X A)	\$ 672.642,50	\$ 640.289,81
C	OVERHEAD		\$ 271.542,13
D	TAX 2% FROM (A+B+C)	\$ 147.981,35	\$ 146.294,60
E	GRAND TOTAL A+B+C+D	\$ 7.547.048,84	\$ 7.461.024,64

Verified By :

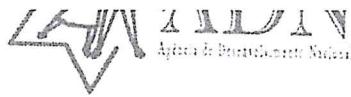
Eng. Paulino Abriantes Correia
Engineer, UAP - ADN.IP

Checked By :

Eng. Rogerio M. Pires
Chefe Departamento ITIAS UAP - ADN.IP

Certified By :

Eng. José Fernando Liu Soares
Coordenador, UAP - ADN.IP
19/05



AGÊNCIA DE DESENVOLVIMENTO NACIONAL, I. P.

Data, 18 de Dezembro de 2024

Ref : 2414 /ADN, I.P./XII/2024

Hato'oba : Sr. Martinho Laurentino Soares
Diretor Geral - DGACPI

Asunto : Resultado Verifikasi - Terms of Reference (ToR) Consultant Services
for Construction Supervision of Karau - Ulun Irrigation Scheme,
Manufahi Municipality

Ok

Ho Respeito,

Bazeia ba karta pedidu verifikasi - ho no ref: 775/DGACPI/VIII/2024 ho data 15 de Agosto de 2024, ba asuntu ne'ebe mensiona iha leten, ekipa verifikasi - Unidade Avaliação dos Projetos -ADN, I.P. hala'o ona verifikasi - ba dokumentos refere. Ho nune bele hare rezultado verifikasi ToR iha (aneksu).

Ba ita bo'ot nia atensaun ami hato'ba agradecimento wain no subkreve ho konsiderasaun a'as tebes.



Rui Lourenço da Costa
Diretor Executivo - ADN, I.P.





AGÊNCIA DE DESENVOLVIMENTO NACIONAL, I. P.

FORMULARIO DE DESPACHO

Data de Entrada Documentos : 15 - 08 - 24

Data do Documentos : 15 - 08 - 24

Husi : MAPPF - DGACPI

No. Ref : 775 / DGACPI / VIII / 2024

Projecto : Construcción Supervisión
of Karau - ulun Irrigation
Scheme Manufahi Municipality.

Quantidade Documentos : 2

Anexo :

* TOR : 1

* USB : 1

Assuntos :

Submissão Documentos Pedido
Verifikasiación TOR

No.Tlf : -

Companhia : -

Despacho :

- Unidade de Gestão Administrativa
- Unidade de Avaliação de Projectos
- Unidade de Controlo e Validação de Qualidade
- Unidade de Estudos e Desenvolvimento de Competências

Solicita MAP alocar

- Adjunto
- Assessor/a
- Gabinete DE / Base de Dados
- Other

Data : 15-24

Rui Lourenço da Costa
Director Executivo ADN



REPÚBLICA DEMOCRATICA DE TIMOR LESTE
MINISTERÍO DA AGRICULTURA, PECUÁRIA, PESCA E FLORESTAS
DIREÇÃO-GERAL DE AGRICULTURA, CAFÉ E PLANTAS INDUSTRIAS



Ref. No : 797/ DGACPI /VIII/2024

Ex.mo : Sr. Rui Lourenço da Costa
Director Executivo Agencia de Desenvolvimento Nacional-IP (ADN_IP)

Assunto : Submisaun dokumemtu Pedidu Verifikasi saun ba ToR Consultant Supervision
Reabilitasaun Irrigasaun Carau-Ulun Municipio Manufahi

Baseia ba assunto iha leten, Ministerio da Agricultura, Pecuária, Pescas e Florestas, submete dokumentus ToR Consultant Supervision ba Rehabilitasaun Irrigasaun Carau-Ulun Municipio Manufahi, ba Agencia de Desenvolvimento Nacional-IP (ADN_IP) atu halo verifikasi saun no aprovisaun. Orsamento ba Projeto eskema irrigasaun iha leten, mai husi Fundus Infraestrutura, ho nia programa 797: *Agricultura, sub programa 79701: Irrigacao.* Rehabilitasaun eskema irrigasaun Karau-Ulun tama iha planu orsamento 2025.

Dokumentos atu halo verifikasi saun no aprovisaun mak hanesan;

- 1) Terms of Reference (ToR) no Consultant Services, *Hardcopy*
- 2) Softcopy iha USB, Terms of Reference (ToR) no Consultant Services.

Mak nee deit ba ita nia servico hamutuk hato'o obrigado.

Dili, 15 de Agosto de 2024

Martinho L. Soares
Diretor Geral DGACPI

Cc :

- 3) Sua. Excia. Ministro da Agricultura, Pecuária Pesca e Florestas
- 4) Arkivo



AGÊNCIA DE DESENVOLVIMENTO NACIONAL,
INSTITUTO PÚBLICO (ADN, I.P.)

**CONSULTANT SERVICES FOR CONSTRUCTION SUPERVISION OF KARAU-ULUN IRRIGATION SCHEME
MANUFAHE MUNICIPALITY**

COST ESTIMATIVE

NO.	DESCRIPTIONS	UNIT	QUANTITY		UNIT PRICE (US\$)	COST (US\$)
			Pesonel	Duration		
I RENUMERATION INTERNATIONAL EXPERT						
1	Team Leader-Civil/Irrigation Engineer	Month	1	16	\$ 9,000.00	\$ 144,000.00
2	Irrigation Engineer	Month	1	16	\$ 7,500.00	\$ 120,000.00
3	Contract Engineer	Month	1	3	\$ 7,500.00	\$ 22,500.00
Sub-Total International Key Experts			3	35		\$ 286,500.00
II RENUMERATION NACIONAL EXPERTS						
1	Site Supervisor	Month	2	16	\$ 2,500.00	\$ 80,000.00
2	Quality Assurance Engineer	Month	1	16	\$ 2,500.00	\$ 40,000.00
Sub-Total National Key Experts			3	32		\$ 120,000.00
III SUPPORTING PERSONEL						
1	Office Manager	Month	1	16	\$ 600.00	\$ 9,600.00
2	Office Boy	Month	1	16	\$ 300.00	\$ 4,800.00
3	Driver	Month	1	16	\$ 300.00	\$ 4,800.00
Sub-Total Suporting Personel						\$ 19,200.00
IV REIMBURSABLES						
1	International Transportation	R. Trip	3	2	\$ 2,000.00	\$ 12,000.00
2	Local Transport (Rent, Included Fuel)	Unit	1	16	\$ 2,000.00	\$ 32,000.00
3	New Motorbike (Honda Vario 125)	Unit	3		\$ 2,000.00	\$ 6,000.00
4	Motorbike Periodic Maintenance/ 4 month	Month		4	\$ 150.00	\$ 600.00
5	Motorbike Fuel	Month		16	\$ 50.00	\$ 800.00
6	Communication	Month	5	16	\$ 50.00	\$ 4,000.00
Sub-Total Reimbursables						\$ 55,400.00
V REPORTING						
1	Inception Report	Ls	1		\$ 150.00	\$ 150.00
2	Monthly Report	Month		16	\$ 200.00	\$ 3,200.00
3	Final Report	Ls	1		\$ 1,500.00	\$ 1,500.00
Sub-Total Reporting						\$ 4,850.00
VI FASILITIES & TRAINING						
1	Office Equipment, Engineering equipment and Furniture (Comp,Printer,Scanner, Surveying Equipment, etc)	Lsump	1		\$ 8,000.00	\$ 8,000.00
2	Office Operations (Office Supplies,Software,toner,etc) / 4 month	Month	1	16	\$ 300.00	\$ 4,800.00
3	Provided Training courses for MALFF Irrigation staffs	Lsump	1		\$ 18,000.00	\$ 18,000.00
Sub-Total Facilities & Training						\$ 30,800.00
						GRAND TOTAL \$ 516,750.00

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REPÚBLICA DEMOCRATICA DE TIMOR LESTE
MINISTERIO DA AGRICULTURA, PECUÁRIA, PESCAS E FLORESTAS
DIREÇÃO-GERAL DE AGRICULTURA, CAFÉ E PLANTAS INDUSTRIALIS
DIREÇÃO NACIOAL IRRIGAÇÃO E GESTÃO DE AGUA



TERMS OF REFERENCE (TOR)

REHABILITATION CONSTRUCTION SUPERVISION OF CARAU- ULUN IRRIGATION SCHEME_ MANUFAHE MUNICIPALITIES

Dili, November 2024

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TOR-Rehabilitation Construction Supervision of Karau-Ulun Irrigation Scheme

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I. INTRODUCTION

1. Definition

1.1. Name of Project

Name of activities is Rehabilitation Construction Supervision of Carau-Ulun Irrigation Scheme Manufahe Municipalities.

1.2. Owner

The Owner of this activity is the Ministry of Agriculture Livestock, Fisheries and Forestry (MALFF).

1.3. Management of Activities

The overall Management of Activities is led by a Project Manager who is the Director of Irrigation and Water Management of MALFF under the guidance from the Project Owner and Project Steering Committee (PSC) that will consist of the representative of the MALFF, the Agency of National Development (ADN), the Ministry of Public Works and the Ministry of Finance (MOF).

1.4. Procurement Commission

Procurement of Construction Supervision Consultant will be carried out by the National Procurement Commission (CNA). They will invite the proposals from consultants, arrange pre-proposal meeting, receive the proposals, evaluate the proposals, and propose the winner.

1.5. Construction Supervision Consultant

The Construction Supervision Consultant is the company of consulting services which has been determined as the winner of the tender, successfully negotiated and signed a Contract together with the Owner.

2. Background

- a. The Sahen Irrigation Scheme have been nominated as high priority project by the Government of Timor-Leste. The construction development of Carau-Ulun Irrigation Scheme is scheduled to be implemented from 2025 and will likely require 16 months

for completion. The construction and super vision works will be funded from the Government of Timor-Leste Budget under Infrastructure Funds.

- b. The area to be irrigated is 1050 hectares with estimated total beneficiaries of 520 Households. The irrigation facilities required for technical detailed design are the head works, the primary canals, the secondary canals, the tertiary canals, and the quarterly canals including agricultural facilities and relevant structures related to irrigation requirements.
- c. A subsequent detailed engineering design and cost estimate a for rehabilitation construction works of the irrigation scheme was completed in 2023.
- d. Essential components of the works have been identified and it will be the task of the Construction Supervision Consultant to assist the MALFF in the preparation of instructions to the Contractor on the issuance of work orders for completion of the scheme.
- e. This project is categorized as an important project requiring appropriate and high- quality construction control during implementation. The required supervision services will assist the Contractor during implementation and include provision of formal and on-the-job training to MALFF Irrigation Staffs assigned to work with the Construction Supervision Consultant.
- f. For these purposes, the consulting services offered by eligible bidders will be considered against the criteria set out above in order to obtain high quality supervision services in accordance with professional rules, norms, and behavior.
- g. The Terms of Reference (TOR) for the construction supervision work should be used for reference for the consulting services in order to support the performance of construction supervision to conform to required standards.

3. Objectives

- a. This Terms of Reference (TOR) should be used for guidance for the project. This TOR sets out the output, principles, criteria, process and input.
- b. In the tasks, the Rehabilitation Construction Supervision Consultant will implement the duties in a good manner coast deliver all outputs in accordance with the technical specifications and standards stated in this TOR.
- c. This TOR is to provide technical guidance and instruction to the bidders so that they can fulfill the technical specification in term of structural and functional aspects.

4. Scope of Services

The scope of services for the Rehabilitation Construction Supervision Consultant is as follows:

- a. Review all technical designs, drawings and cost estimates prepared for the development of the scheme and make recommendations on any changes, additions and deductions that are deemed necessary to the Project Manager. The changes and additions and deduction so suggested will be discussed with the Project Steering Committee and if approved will be redesigned and drawn by the Construction Supervision Consultant and presented to the Contractor for implementation.
- b. All communications, reports and minutes of meetings shall be addressed to the Project Manager.
- c. The Project Manager shall have the sole discretion to approve or change the Team Leader based on technical qualification and experiment in a similar position.

5. Location

The location of the Carau-Ulun Irrigation Channel is on the Carau-Ulun River, Betano Village, Same District of Manufahi City

The head works on Carau-ulun River in Manufahi district, with coordinates as:

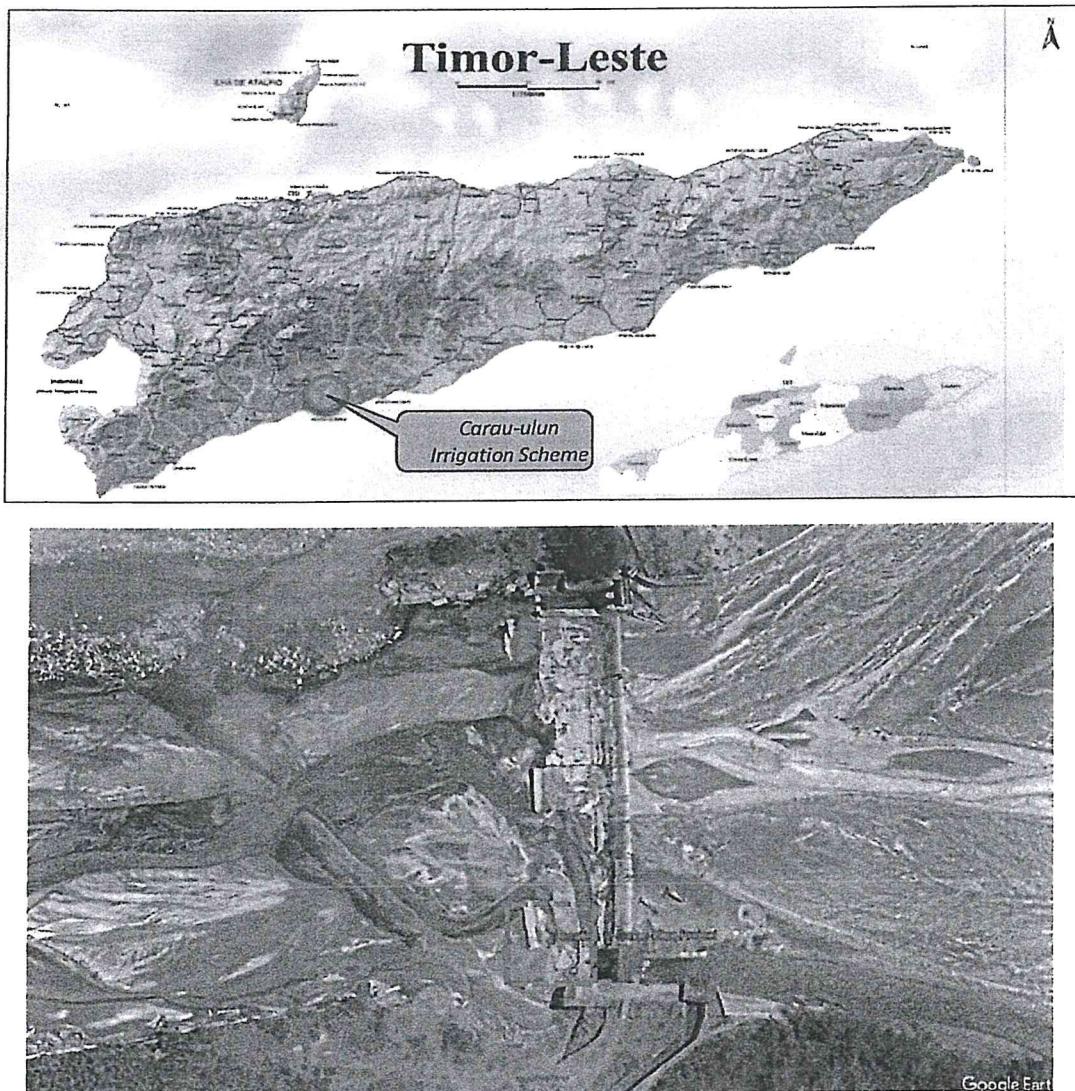


Figure 1: Location Map of Carau ulun Irrigation Scheme

II. SCOPE OF WORKS

The Construction Supervision Consultant shall assist the Project Manager in site supervision during construction by carrying out the following :

1. Check and study the document for the implementation of construction of the essential components of the scheme development.
2. The Essential components of Carau-Ulun Irrigation Scheme comprise:

No.	Work Description
I	Preparation
II	Construction Weir (include pilar, Scouring way & Stilling Basin)
III	Construction Intake - Bypass - Sandtrap Basin - Regulating Structure - Flushing Structure
IV	Right and Left Retaining Wall (D/S Weir, include levee)
V	Hydromechanical Work

3. Check the Technical Specification which are to regulate the Contractor toward proper progress and accomplishment of the construction work.
4. Check the shop drawings provided by the Contractor.
5. Supervise the utilization of labor, material, equipment and working method, as well as time and cost control of the construction works.
6. Supervise the implementation of the construction works in the aspects of quantity, quality control testing and physical progress and confirm that construction is being performed according to the drawings, as defined in the Technical Specifications and comply with time schedule.
7. Monitor the testing program and testing procedures of samples to the laboratory to ensure that these comply with the Technical Specifications.
8. Ensure that the environmental impact of the scheme is controlled through sound environmental management practices.
9. Inform to the Project Manager to take appropriate action in case land acquisition and resettlement action plan or land dispute issues may arise to enable the project continue without delay.

10. Collect data and information in the field to solve problems during the implementation of construction work.
11. Keep a field log-book to document all quality control related to the test results taken on the site.
12. Review the planned work schedule and monitor physical progress against the Contractor work program and when necessary, take appropriate action to ensure that the contractor maintains an adequate rate of progress to complete the work on schedule.
13. Review and check the Contractor's interim progress for accurate payments.
14. Design and discuss with the Project Manager any additional and/or deduction works (addendums, amendments, variations construction) that would enhance the quality of the development.
15. Advice the Project Manager of the likelihood of possible construction delays in completion of the works, which might require revision to the duration of the construction and supervision periods and recommend on alternative timings of key personnel inputs.
16. Prepare recommendations to the Project Manager of any possible contract modifications between the Contractor and the Owner that in the Consultant's professional opinion would result in more successful achievement of the development objectives.
17. Hold weekly site meeting at a fixed and regular time with the Contractor and present the minutes of meeting, which is signed and agreed to by the participants, to the Project Manager on Monday of the following week. The Construction Supervision Consultant shall present a progress report once a month at a meeting organized by the Project Manager.
18. Provide a short term on-the-jobs a short term training courses for MALFF Irrigation staffs to improve their capacity to understand how to deal with contract supervision, Owner's responsibility, technical specification, Bench Marks surveys, accuracy of design drawings, drawing preparation, measurement and payment procedures, Contractor's work plan, quality control test, recordkeeping, acceptance procedure of completed work, defective works, and monitoring during the maintenance liability period.

19. Provide on-the-jobs training for MALFF Irrigation staffs assigned to the project in the use of a total station survey, equipment, to survey and install Bench Marks at the works' sites and how to use the equipment in topographic surveys and mapping.
20. Provide on-the-jobs training for the MALFF Irrigation staffs assigned to the project in the operation of the gates of the irrigation structures during the normal conditions, during the flood, during the dry season, etc.
21. Provide on-the-jobs learning in the maintenance of the irrigation structures covering weir, sediment traps, irrigation canal, etc.
22. Prepare monthly reports on supervision works based on the input of regular site meetings, daily reports, weekly reports, and monthly reports of the construction works provided by the Contractor.
23. Prepare a list of defective works prior to handing over; supervise the reparation within the maintenance liability period and the submission of the final report of supervision works.
24. Prepare a manual of standards for operation and maintenance works of the facilities.
25. Check the as-built drawings provided by the Contractor prior to the handing over of the completed works.
26. Assist the Project Manager during handing over and final acceptance of completed civil works related to the development and in commissioning of the irrigation scheme.
27. Witness and report on any commissioning of the civil works when the Contractor has declared that the work has been completed and prepare a written report on the Commissioning and stating the results of the tests measuring the status of the constructed facilities.
28. Prepare reports on physical progress, maintenance liability, handing over, commissioning and final acceptance of completed civil works related to the development.

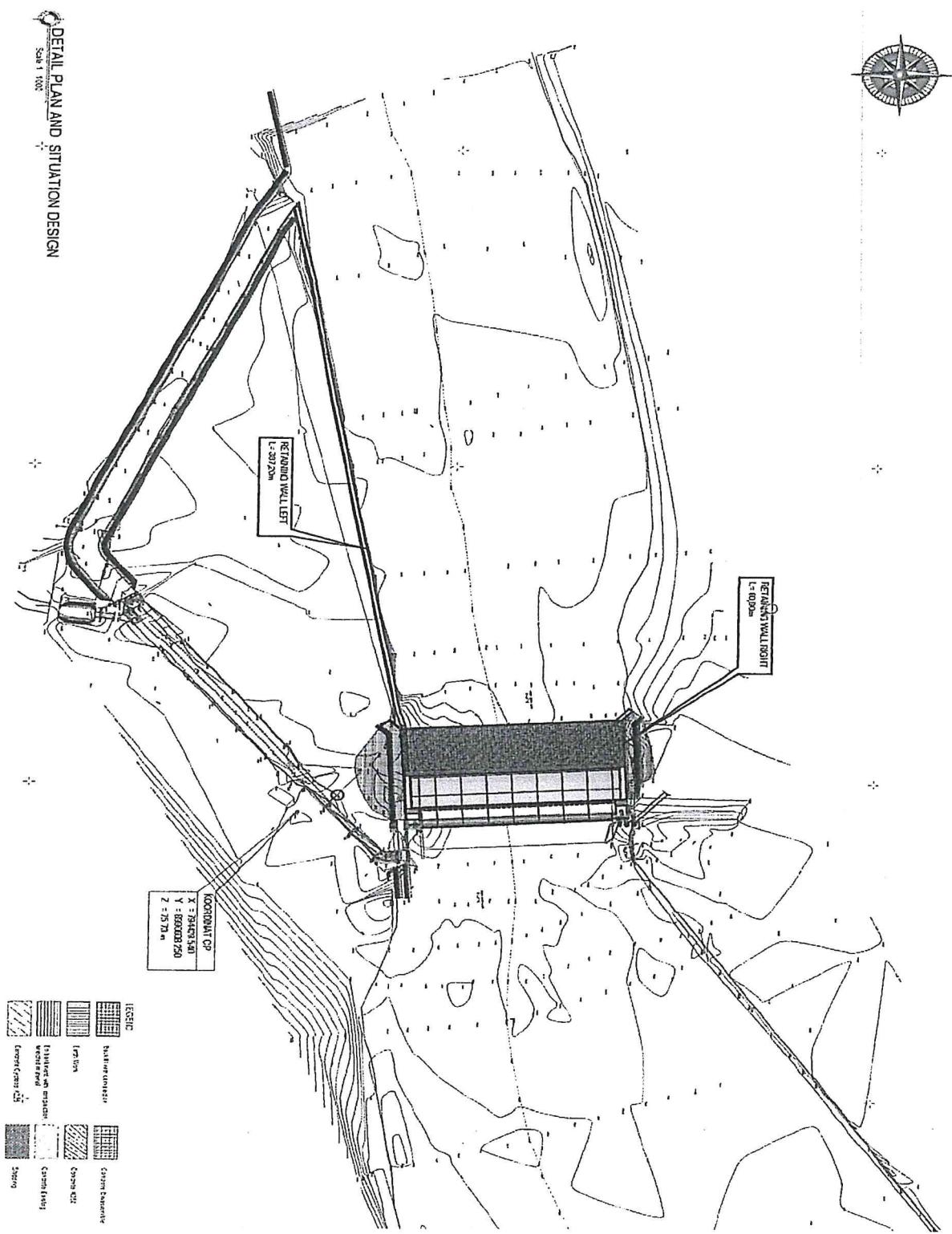


Figure 2: Situation design head works of Carau-Ulun Irrigation Scheme

III. RESPONSIBILITY OF CONSTRUCTION SUPERVISION CONSULTANT

1. The Construction Supervision Consultant is responsible professionally on the supervision services to conform to the regulations and in accordance with ethical code of professionalism.
2. In general, the responsibility of the Construction Supervision Consultant covers the following:
 - a. Review of detailed engineering designs for the essential works as defined above, including recommendations on amendments and revisions
 - b. Identification of priorities for repair and improvements to water irrigation canals. The Construction Supervision Consultant will present recommendations to Owner on these works within that stated in the works Contract or, if found necessary, to a greater value to enable a variation in the works Contract to be agreed
 - c. The result of construction supervision works should fulfill supervision qualification standards
 - d. The result of construction supervision works should accommodate the limitations expressed by the Owner including through this TOR such as in the aspect of payment, work schedule and the quality of constructions to be constructed
 - e. The result of construction supervision works should fulfill the regulations, standards and technical guidance of construction that are generally in effect in Timor-Leste.

IV. CONSTRUCTION SUPERVISION COST

1. The construction supervision consulting services will be provided at a Fixed Cost based on the selected bidder's offer price and financed in negotiation with the Owner.
2. Upon signing of Contract, there will not be any additional cost unless as subsequently Agreed between the Construction Supervision Consultant and the Owner through, and Incorporate in, a written Contract Amendment.

V. OUTPUT OF CONSTRUCTION SUPERVISION CONSULTANT ACTIVITIES

The output resulted by the Construction Supervision Consultant of these activities is presented in a systematic format as follows:

1. Inception Report

The stage of construction supervision concept consists of as follows:

- a. The concept of technical construction supervision works including the number and qualification of the team members and its responsibilities, and methodology of implementation.
- b. Scope of services, report of the existing site data and information, and other purposes needed. The Inception Report will be submitted within one month of mobilization of the Construction Supervision Consultant in 6 hard copies and 6 electronic copies on CDs and/or other agreed form of electronic copies.

Comments on the Inception Report will be prepared and discussed between the Construction Supervision Consultant and the Owner and an agreed technical construction supervision concept will be approved by the Owner during the first 6 weeks of the assignment enabling the Construction Supervision Consultant to continue his work with minimal delay.

2. Daily Record

The Daily Record contains all events in the field, instructions, guidance's from the Project Manager, Irrigation Engineers, Supervisor to the Site Engineers of Contractor.

3. Daily Report

The Daily Report contains information indicating the Supervisor discussed with the Contractor regarding as follows:

- a. Labors working in the site
- b. Materials supplied at the site, accepted and or rejected
- c. Equipment to be used for construction
- d. Physical progress of the construction works those are being implemented by the Contractor
- e. Time for implementing the construction work

- f. Reporting all kinds of the influence the construction activities, such as weather, storm, stream, flood, earth quake, landslide, etc.

4. Weekly Report

Weekly Report contains the resume of Daily Report

5. Monthly Report

- a) Monthly Report based on the input of regular Site Meetings, Daily Reports, Weekly Reports, and Monthly Reports of the construction works provided by the Contractor.
- b) These documents should be submitted in 6 exemplars of hard copy and 6 pieces of USBs other forms of electronic copies.

6. Time Schedule

- a) Time Schedule of the construction works in Bar Chart- "S" Curve and Network Planning
- b) which are prepared by the Contractor.

7. Construction Progress Reports

Construction Progress Reports will be prepared on a monthly report by the Construction Supervision Consultant and will be necessary to support the payment of invoices submitted by the Contractor to the owner.

8. Shop Drawings

Shop Drawings are to be prepared by the Contractor and reviewed by the Construction Supervision Consultant.

9. Document of Design Changes

Document containing construction phase design changes, addition or deduction of works will be provided by the Construction Supervision Consultant to the Project Manager.

10. Document of Quality Control

Document containing all results of quality control, testing and measurements for payment to the Contractor taken at the sites during construction.

11. Document of Extra Claims

Document containing extra items or extra claimed by the Contractor that were approved by the Project Manager.

12. Minutes of Site Meeting

Minutes of Site Meetings and physical progress meetings as signed and agreed between Project Manager, the Construction Supervision Consultant and the Contractor.

13. Record of on the job Training

- a. Record of capacity development training to the MALFF Irrigation staff assigned to the project both on-the-job training and lecture type training to understand supervision contract, Owner's responsibility, technical specifications, Bench Marks surveys, accuracy of design drawings, drawing preparation, measurement and payment procedures, Contractor's work plan, quality control test, record keeping, acceptance procedure of completed work, defective works, and monitoring during the maintenance liability periods.
- b. Record of capacity development on-the-job training and lecture type training to the of MALFF Irrigation staff assigned to the project in the use of a total station survey, equipment, engineering and other surveys and install Bench Marks and the use of equipment in topographic surveys and mapping.

14. Photographs & Video

Photographs and Video showing the sequence of construction progress.

15. As-built Drawings

As-built drawings of the construction works.

16. Manuals

Manuals of equipment which are prepared by the Contractor.

17. Record of Commissioning

Record of equipment/structures commissioning

18. Construction Supervision Completion Report

The Construction Supervision Completion Report will include the following:

- a. Minutes of Meetings
- b. Minutes of Site Meetings
- c. Daily Report
- d. Document of Design Changes
- e. Document of Quality Control
- f. Document of Claims
- g. Record of Training
- h. Photographs and Videos
- i. As-built Drawings
- j. Manual
- k. Record of Commissioning

These documents should be submitted in 6 hard copies and on 2 USBs and/or other forms of electronic copies.

VI. PRINCIPLES

The Construction Supervision Consultant in the implementation of its tasks should take note of the principles as follows:

1. Within reasonable limits implementation of the works should cause minimal disturbance to farming and other activities in the locality of the works.
2. Works should be designed to minimize life-cycle costs of the works including investment, operation and maintenance.
3. The construction works should be completed in minimum time without compromising quality such the improved facilities are available for use as soon as possible.
4. The facilities constructed should increase the quality of environment.

VII. CONSTRUCTION SUPERVISION CRITERIA

1. General Criteria

Any construction supervision works should be accomplished properly until giving result as required and well accepted satisfactorily by the Project Manager.

2. Objective Criteria

The implementation of construction supervision works relating to the type, quality and Quantity, cost and time schedule of works should be accomplished to meet the supervision standard.

3. Functional Criteria

The implementation of construction supervision works should be accomplished to fulfill the professionalism to increase the project performance.

4. Procedure Criteria

The administrative procedure of the works in the site should be accomplished in accordance with the regulation in effect.

5. Technical Criteria

The construction supervision works should use the standard and technical guide in effect.

VIII. CONSTRUCTION SUPERVISION PROCESS

The Construction Supervision Consultant should prepare description of activities in detail of every part of supervision work in the site as follows:

1. Preparation

- a. Formulation of work program, allocation of personnel and the concept of technical construction supervision work.
- b. Check the Time Schedules, Bar-Charts, "S" Curves, Network Planning prepared by the Contractor and forwarded to the Project Manager for approval.

2. Implementation

- a. Implement supervision in general, coordination, site supervision and inspection continuously.
- b. Supervise the labors, quantity and quality of materials, equipment's, working method, quantity and quality of works, and accuracy of measurement in the site
- c. Supervise the physical progress and take action properly and fast in order to ensure the implementation time to meet the schedules.
- d. Give input of additional or deduction works that could give effect to the cost and time for approval by the Project manager.
- e. Give instructions to the Contractor with no deviation against the contract and make report of it to the Project Manager.

3. Consultation

- a. Hold regular meeting with the Project Manager to discuss any issues arise during construction. Then, make minutes of meeting
- b. Hold regular site meetings at least twice a month with the Project Manager and Contractor to discuss issues arise during construction. Then, make minutes of meeting and send to all parties related, and expected to be received within one week.
- c. Hold meetings out of regular schedules as required. Then, make minutes of meeting

4. Reports

- a. Prepare reports in administrative and technical aspect to the Project Manager regarding the quality, quantity and value of works constructed by the Contractor.
- b. Prepare reports regarding the materials, labors and equipment to be used.
- c. Prepare reports regarding the real work progress and compare with the schedules approved.
- d. Check the additional drawings prepared by the Contractor particularly as the result of additional or deduction works, and the shop drawings.

5. Documents

- a. Prepare documents on physical progress at each scheme for payments.
- b. Check and prepare documents on quantity and value of physical progress and additional or deduction works for payment.

- c. Prepare forms for daily, weekly and monthly reports, documents on work progress, handing over and acceptances of completed works.

IX. CONSTRUCTION SUPERVISION INPUT

1. Information

- a. To implement the tasks, the Construction Supervision Consultant should collect information required, beside the information provided by the Owner.
- b. The Construction Supervision Consultant should check the validity of information to be used in the implementation of his tasks either the information provided by the Owner or collected by himself.
- c. The faults of construction supervision work as the result of faults of information will be the responsibility of the Construction Supervision Consultant.
- d. The information required and should be obtained for supervision are as follows:
 - 1) Terms of Reference of Construction Supervision
 - 2) Minutes of Pre-bid Meeting and Assignment of Contractor
 - 3) Contract document of Contractor
 - 4) Work Schedule in Bar-Chart, "S" Curve and Network Planning prepared by the Contractor
 - 5) Technical Specifications
 - 6) Shop drawings
 - 7) Regulations, standard and manual including technical guidance for quality control testing.

2. Personnel

The Construction Supervision Consultant should provide key personnel to fulfill the requirements to implement this works, either considering based on the scope of work and the level of complexity of the works. The key personnel required for the construction supervision activities consists of as follows:

2.1. International Key Expert

- a) Team Leader (Civil / Irrigation Engineer)

The Team Leader should possess a University Degree in civil/irrigation engineering with minimum 10 years working experience in supervision of irrigation and water resources related construction projects, contract management and, FIDIC Conditions of Contracts. Must be fluent in English. Previous work experience in Timor-Leste and



knowledge of Tetun or Bahasa Indonesia or Portuguese, as well as experienced trainers will be an added advantage.

The tasks of the Team Leader are the followings:

- a) To plan, coordinate and control all activities and personnel involved in this work, so that the work could be finished in a good manner within the scheduled time and achieve the expected result.
- b) To prepare implementation guidance in the stage of data collection, processing, and final presentation of the whole works.
- c) To plan and implement all activities covering construction supervision and give input to the other experts related to this supervision works.
- d) Responsible for all Contract management between the Project Owner and the Contractor and ensuring that all procedure for that administration of the Contract is followed.
- e) Advise the Project Owner on legal issues regarding the contract extension /addendum/amendment, suspension, sanction, termination, force majeure, disputes and other contractual issues.

2.2. Irrigation Engineers

Irrigation Engineers should possess a University Degree in Irrigation Engineering with minimum 8 years working experience in construction supervision of irrigation and drainage project. Must be fluent in English. Previous work experience in Timor-Leste and knowledge of Tetun or Bahasa Indonesia or Portuguese, as well as experienced trainers will be an added advantage.

The tasks of Irrigation Engineers are the followings:

- a) Assist and advise the Team Leader on engineering issues as required,
- b) Supervise field surveys, including inventory and condition of weir, irrigation canal, drainage canal and all other irrigation structures.
- c) Inspect all activities on the site, ensuring safe practices and good workmanship.
- d) Maintain a detailed record of daily activities on the site including labor, material, equipment, weather conditions, work stoppages and the reasons therefore etc.
- e) Progress monitoring and quality control of works implementation.

2.3. Contract Engineer

Contract Engineer should possess a University Degree in civil engineering or similar with minimum 5 years working experience in contract management and FIDIC Condition of Contract. Must be fluent in English. Previous work experience in Timor- Leste and knowledge of Tetun or Bahasa Indonesia or Portuguese, as well as experienced trainers will be an added advantage.

The tasks for Contract Specialist are the following:

- a) Verify all contractual issues arising from commencement to completion of the project.
- b) Review the claims by the Contract
- c) Monitoring the Contractor schedule on the legal aspect

3. National Expert

All the National Experts must be East Timorese citizens and proficient in English.

3.1. Site Supervisor

Site Supervision should possess a Diploma Degree in civil engineering with minimum three 3 years' experience in construction supervision projects, more preferably in irrigation and water resource related construction supervision project. Previous work experience in Timor-Leste and knowledge of Tetun or Bahasa Indonesia or English, as well as experienced trainer will be an added advantage.

The Site Supervision shall assist the Irrigation Engineer in the day-to-day supervision of the works.

3.2. Quality Assurance Engineer

Quality Assurance Engineer should process a Diploma Degree in civil engineering with minimum 3 years relevant experience. Previous work experience in Timor-Leste and knowledge of Tetun or Bahasa Indonesia or English, as well as experienced trainer will be an added advantage.

The Quality Assurance Engineer shall undertake routine and random quality assurance testing of material and constructed structures and responsible for maintaining records of all testing performed.

3.3. Supporting Personal

The Consultant Firm is responsible for ensuring adequate technical support and administrative staff.

4. Person Month of Consulting Service

It is estimated that **155 Person-Month** of key personnel will be required, during construction supervision period was presented in Table 1:

NO.	DESCRIPTIONS	UNIT	QUANTITY	
			Personnel	Duration
I RENUMERATION INTERNATIONAL EXPERT				
1	Team Leader-Civil/Irrigation Engineer	Month	1	16
2	Irrigation Engineer	Month	1	16
3	Contract Engineer	Month	1	3
Sub-Total International Key Experts				3
II RENUMERATION NACIONAL EXPERTS				
1	Site Supervisor	Month	2	16
2	Quality Assurance Engineer	Month	1	16
Sub-Total National Key Experts				3
III SUPPORTING PERSONEL				
1	Office Manager	Month	1	16
2	Office Boy	Month	1	16
3	Driver	Month	1	16
Sub-Total Suporting Personel				48

Table 1 : Person month of consulting services

5. Facilities Provided by the Government of Timor-Leste

The Government will provide the following:

- a. Counterpart staff according to availability for assistance with surveys and progress monitoring.
- b. Assistance and advice on the processing of visas and work permits for consultant staff as requested.

6. Facilities Provided by the Supervision Consultant

The Supervision Consultant will provide the following:

- a. All survey equipment as required
- b. Computing, drafting and mapping equipment and software
- c. Other Office Supplies and equipment for use on or near the location of the irrigation schemes.
- d. Travel Costs to and from Timor-Leste.
- e. Provision of Three (3) units brand New Motorbike (Honda Vario 125) including fuel and maintenance.
- f. Communication Cost
- g. Training Courses for MAF Irrigation Staffs
- h. Site Office will provided through civil works contract.

X. PAYMENT

The payment of this construction supervision activity will be scheduled as follows:

- a. The payment will be paid to the Construction Supervision Consultant upon discussion and approval by the Employer.
- b. The payment will be paid to the Construction Supervision Consultant in accordance with the progress of works, work phases and deliverables.

The progress of works with the timeframe of construction schedule and deliverables are breakdown as below:

1. Construction plan will be conducted in phases with duration of Sixteen (16) months.
2. The consultant must comply with the following deliverables requirements and submit the required report based on the required deliverables.
3. The Consultant must comply with terms and conditions stated in the contract as well as the implementation phases for the construction must be done carefully, and thoroughly to guarantee the quality of the outputs.

No	Progress of Works from the Construction Milestones	Percentage (%) of Payment
I	Preparatory Works	8.25% of the Contract Price
II	Construction Weir (include pilar, Scouring way & Stilling Basin) 100% complete	57.0% of the Contract Price
III	Construction Intake - Bypass - Sandtrap Basin - Regulating Structure - Flushing Structure 100% complete	0.25% of the Contract Price
IV	Right and Left Retaining Wall (D/S Weir, include levee) 100% complete	34.0% of the Contract Price
V	Hydromechanical Work 100% complete	0.50% of the Contract Price

XI. WORK PROGRAM

- 1) The Construction Supervision Consultant should arrange work program minimum covers:
 - a. Work Schedule in detail on Bar Chart- 'S' Curve and Network Planning
 - b. Manning Schedule
 - c. Allocation of experts completely with their discipline and expertise. The experts proposed should attached Curriculum Vitae and a Letter of Availability to work.
 - d. Concept of technical construction supervision work.
- 2) The Work Schedule will be governed by the procurement schedule for irrigation development project construction. The Construction Supervision Consultant shall mobilize 5 days before the Contactor.
- 3) The work program should get approval from the Owner after presentation by the Construction Supervision Consultant and get input from the Owner.

