Town	No. & Facility:	-1.14/-1	Year of Construction	Finai	nced by:	
Ermera	04 - Propose					
Existing Condit	Treatment	Piani	Photograph:			
Existing Condition	don.		i notograpii.			
Evaluation:						
	uality from the sou	ce requires t	treatment of the water price	or to di	stribution.	
The mater q	danty from the ood	oo roquiroo	arodamoni or aro mater pri	o. 10 a.		
Rehabilitation F						
1) Basic Considera		of the town ic	5L/sec. Two basins of SS	النبد ع	he constructed	
			, required area for filtration			
	86,400/1000 / 4.5	.omo/mz/aay	, roquirou arou for intration	10 0011	ipatoa ao ionowo.	
= 96 r	·					
331						
2) Civil Work:						
		apron for sa	nd washing (below are the	e spec	ifications), fence	
and staff ho	use.		A			
SSF:	ion rate: 4.5m3/m2	/day	Apron: Structure: concrete			
	6m x 8m - two basi	-	Size: 6m x 8m x 40cm h	eiaht s	enarated into two	
3) Piping work:	om x om two bao		CIZOT OTT X OTT X TOOTT IN	oigiii o	oparatoa into tiro	
, , ,	of 75mm and 100m	m for inlet ar	nd outlet, respectively.			
Installation of	of gate valves, flow	meter and c	ontroller and other appurt	enanc	es.	
4) Mechanical wor	rk: none					
5) Electrical work: none						
o) Licotrical Work.	Tioric					
6) Miscellaneous:	6) Miscellaneous:					
Installation of chlorination facilities.						
	sition with approxim	ate area, A =	= 1,000 m ²	1		
Estimated cost		Construct	ion schedule:		Priority:	
US\$6	9,241				C-1	

Town Ermera 05 - Poetete Reservoirs 1 & 2 Existing Condition: Facility: Service reservoirs Structure: Reinforced Concrete Shape: Rectangular Dimension: 2.4m x 5.4m x 2.2m Reservoir 1: 6.0 m x 4.0 m x 1.5 m Reservoir 2: 3.8 m x 3.5 m x 2.0 m Total Volume: 63 m³ Function: Storage Source of Water: Ersoi and Lubulala springs Ground level (amsl): Accessories: Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none 6) Miscellaneous: none				
Existing Condition: Facility: Service reservoirs Structure: Reinforced Concrete Shape: Rectangular Dimension: 2.4m x 5.4m x 2.2m Reservoir 1: 6.0 m x 4.0 m x 1.5 m Reservoir 2: 3.8 m x 3.5 m x 2.0 m Total Volume: 63 m² Function: Storage Source of Water: Ersoi and Lubulala springs Ground level (amst): Accessories: Poetete Reservoir No.2 [Date: Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none	Town	No. & Facility:	Year of Construction	Financed by:
Facility: Service reservoirs Structure: Reinforced Concrete Shape: Restangular Dimension: 2.4m x 5.4m x 2.2m Reservoir 1: 6.0 m x 4.0 m x 1.5 m Reservoir 2: 3.8 m x 3.5 m x 2.0 m Total Volume: 63 m³ Function: Storage Source of Water: Ersoi and Lubulala springs Ground level (amst): Accessories: Poetete Reservoir No.2 (Date: Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none				
Structure: Reinforced Concrete Shape: Rectangular Dimension: 2.4m x 5.4m x 2.2m Reservoir 1: 6.0 m x 4.0 m x 1.5 m Reservoir 2: 3.8 m x 3.5 m x 2.0 m Total Volume: 63 m³ Function: Storage Source of Water: Ersoi and Lubulala springs Ground level (amsl): Accessories: Poetete Reservoir No.2 (Date: Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none			Pnotograpn:	
Shape: Rectangular Dimension: 2.4m x 5.4m x 2.2m Reservoir 1: 6.0 m x 4.0 m x 1.5 m Reservoir 2: 3.8 m x 3.5 m x 2.0 m Total Volume: 63 m³ Function: Storage Source of Water: Ersoi and Lubulala springs Ground level (amst): Accessories: Poetete Reservoir No.2 (Date: Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none	•			
Dimension: 2.4m x 5.4m x 2.2m Reservoir 1: 6.0 m x 4.0 m x 1.5 m Reservoir 2: 3.8 m x 3.5 m x 2.0 m Total Volume: 63 m³ Function: Storage Source of Water: Ersoi and Lubulala springs Ground level (amst): Accessories: Poetete Reservoir No.2			W. 45	
Reservoir 1: 6.0 m x 4.0 m x 1.5 m Reservoir 2: 3.8 m x 3.5 m x 2.0 m Total Volume: 63 m³ Function: Storage Source of Water: Ersoi and Lubulala springs Ground level (amsi): Accessories: Poetete Reservoir No.2 (Date: Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none				and the same of th
Reservoir 2: 3.8 m x 3.5 m x 2.0 m Total Volume: 63 m³ Function: Storage Source of Water: Ersoi and Lubulala springs Ground level (amsl): Accessories: Poetete Reservoir No.2 (Date: Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m³ including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none				
Total Volume: 63 m³ Function: Storage Source of Water: Ersoi and Lubulala springs Ground level (amsl): Accessories: Poetete Reservoir No.2 (Date: Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none				as Aline at
Function: Storage Source of Water: Ersoi and Lubulala springs Ground level (amsl): Accessories: Poetete Reservoir No.2 (Date: Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none				
Ground level (amsl): Accessories: Poetete Reservoir No.2				
Accessories: Poetete Reservoir No.2	Source of Water:	Ersoi and Lubulala springs		
Poetete Reservoir No.2 (Date: Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none	Ground level (am	s <i>I):</i>	PARA	
Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none	Accessories:		Charles of March	Mark The State of
Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none				EN SUZZIE VOLEN
Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none			Poetete Res	ervoir No.2
Evaluation: Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none				
Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none				(D)
Working but require rehabilitation and expansion. The existing 2 reservoirs will be insufficient to provide the required storage requirement. Both tanks are not equipped with flow meters and control valves. Rehabilitation Plan: 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none	Fraluction:			(Date:
 1) Basic Calculation: Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m³ including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none 5) Electrical work: none 	Both tanks	are not equipped with flow met		torage requirement.
Storage requirement = Water demand * 8 hrs storage/day where: water demand = 428 m³/day Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none				
Storage requirement = 428 * 8/24 = 143 m³/day Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none	Storage red	quirement = Water demand * 8	hrs storage/day	
Storage deficit = 143 - 63 = 80 m³/day 2) Civil Work: Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none 5) Electrical work: none		•	3,,	
Construction of service reservoir with the capacity of 80 m3 including the necessary appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none 5) Electrical work: none	•		°/day	
appurtenances Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none 5) Electrical work: none	,			
Construction of security fence and staff house 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none 5) Electrical work: none			capacity of 80 m3 including	g the necessary
 3) Piping work: Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none 5) Electrical work: none 				
Installation of 100mm including flow meter and control valves for the proposed reservoir Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none 5) Electrical work: none		n of security fence and staff ho	use	
Installation of 50mm x 50 m including 2 sets of control valves for existing reservoirs 4) Mechanical work: none 5) Electrical work: none	, , ,	of 100mm including flow motor	and control values for the	proposed recorneir
5) Electrical work: none		_		• •
	4) Mechanical wo	rk: none		
6) Miscellaneous: none	5) Electrical work.	: none		
6) Miscellaneous: none				
	6) Miscellaneous:	none		

Construction schedule:

Priority:

C-2

Estimated cost:

US\$27,083

Town	No. & Facility:		Year of Construction	Financed by:		
Ermera	06 - Proposed Dist	ribution Main				
Existing Condit	tion:		Photograph:			
Evaluation:						
	distribution main v	vill be insuffic	cient for the future water o	demand		
	,					
Data di Wasi and	<u></u>					
Rehabilitation F 1) Basic Considera						
· 1		will be requir	ed to maintain an efficien	t distribution of water		
supply.	istribution network	wiii bo roquii	ca to maintain an emolem	t distribution of water		
2) Civil Work: non	e					
3) Piping work:						
	of 100mm x 6 km w	ith the nece	ssary appurtenances.			
4) Mechanical wor	rk: none					
4) Mechanical Wol	A. HOHE					
5) Electrical work: none						
6) Miscellaneous: none						
o, micochariodas.						
	_					
Estimated cost		Construct	ion schedule:	Priority:		
US\$1	50,000			C-1		

Town No. & Facility:

Liquica 01 - Enalua and Daulo Intake

Year of Construction Portuguese Period Portugal

Existing Condition:

Facility: Collection chamber & intake pipes Function: Water collection from source

Sources of water:

Enalua - Goularlua River

Daulo - Goularlua Structure: Concrete Elevation (amsl): Collection Chamber:

Enalua - 2.8 m x 2.8 m x 1.5 m Daulo - damaged and eroded

Inlet & Outlet Pipes:

Enalua: 2 x 4-inch and 1 x 3-inch Daulo: damaged and eroded





(Date:

Evaluation:

The existing facilities are oftentimes subjected to natural damage because they were constructed below standard.

Rehabilitation Plan:

1) Basic Consideration

To improve water collection, new intake will be constructed with a design intake rate, 5L/sec for each.

2) Civil Work:

Construction of the intake facilities to include the following:

Perforated pipes: 150mm GSP protected by concrete

Gabion: 50cm x 50cm x 150cm x 17

Security fence, flow controller, grit chamber (2m x 4m x 2mH)

3) Piping work

Design intake rate: 5 L/sec (Daulo), 5 L/sec (Enalua)

Intake pipes: 100mm x 50 m (for Enalua) and 100mm x 100 m (for Daulo)

Raw water transmission: 150mm (Daulo) x 4km

4) Mechanical work: none

5) Electrical work: none

6) Miscellaneous: none

Estimated cost: Construction schedule: Priority:
US\$168,320 A-1

Town No. & Facility: Year of Construction | Financed by: Liquica 02 - Manlaka Intake Existing Condition: Photograph: Facility: Collection chamber and intake pipes Function: Water collection from source Source of Water: Manlaka River Structure: Concrete Collection Chamber: 2.0 m x 2.0 m x 1.0 m Elevation (amsl): Inlet Pipe: Temporarily replaced by bamboo Outlet Pipe: GSP 3-inch & 2-inch (Date: Evaluation: Oxfam carried rehabilitation works on this source particularly on the intake structures. Rehabilitation Plan: 1) Basic Consideration The existing facilities are not sufficient to abstract the design intake rate, 5L/sec. Construction of new intake facilities is necessary to upgrade water collection. Rehabilitation work is necessary on the transmission main. 2) Civil Work: Construction of intake facilities safe from natural damages Installation of perforated pipes protected by concrete, 1.5m underneath the river bed together with gabion. Construction of a grit chamber (2m x 4m x 2mH) Construction of river crossings. 3) Piping work: Installation of transmission main 75mm x 7 km and 100mm x 2.5km (from intake to Maumeta reservoir) including necessary appurtenances such as air release valves, blow-off 4) Mechanical work: none 5) Electrical work: none 6) Miscellaneous: none Estimated cost: Construction schedule: Priority: US\$234,466 A-1

Ta	No 9 Facility		Vacuation	Financed by:	
Town	No. & Facility:	- 4 0 0	Year of Construction		
Liquica	03 - Maumet	a 1 & 2	1985	Indonesia	
Existing Condi			Photograph:		
Facility: Deepwell					
Casing Diameter:					
Drilled Depth: 84			1 2 2		
Designed Capacit					
Maumeta 1			(Total		
Maumeta 2					
Function: Water s			2 元 元 元 元	W 141	
Supplies to: Maur	meta Reservoir		Control of the last of the las		
Elevation (amsl):			1		
Accessories:					
	GSP 3-inch				
Gate valve			以外, 自由扩大的		
non-return v	valve				
Pumping St	tations with minor da	amages			
				(Date:)	
Evaluation:					
Not in opera	ation due to damage	e of the pump	oing facilities and electro-	-mechanical equipment	
Rehabilitation	Plan:				
1) Basic Consider	ration:				
In the cours	se of the study, this	deepwell will	be abandoned.		
2) Civil Work:					
3) Piping work: no	one				
o) r iping nome n	5110				
4) Mechanical wo	rk: nono				
4) Mechanical Wo	rk. Hone				
_					
5) Electrical work:	•				
6) Miscellaneous:	none				
Estimated cost	t:	Construct	ion schedule:	Priority:	
Na	one			_	
INC	51.10			_	

Town	No. & Facility:		Year of Construction	Financed by:	
Liquica	04-Propose	d WTP			
Existing Condit	ion:		Photograph:		
Evaluation:					
L valuation.					
Rehabilitation F	Plan:				
raw water be Slow sand fi	Manlaka intake are	heavy rains,	ied to the consumers with water treatment is require ropriate.		
Dimension: Design filtra Appurtenand fence, outlet	6m x 9m - 2 basins tion rate: 4.5m/day ces: filter media, ur t chambers	derdrain pip	roduction rate, 5 L/s. es (GS), ladders, overflov filter media (6m x 10m) v	·	
3) Piping work:	n x 30m) from Manl	_	with necessary appurtena		
Outlet main to be installed (150mm x 10m) 4) Mechanical work: none					
5) Electrical work: none					
6) Miscellaneous: staff house, land acquisition (60m x 40m)					
Estimated cost.	7	Construct	ion schedule:	Priority:	
US\$7	6,862			A-1	

Town	No. & Facility:	> \A/ !!	Year of Construction	Finar	nced by:
Liquica	05 - Proposed I	Deep Well	Dhatawanh		
Existing Condit	ion:		Photograph:		
Evaluation:					
Evaluation:					
Rehabilitation F	Plan:				
1) Basic Considera					
,		e constructed	to augment the existing	water s	sources
production.	·		· ·		
2) Civil Work:					
	•	-	the necessary pumping a	and ele	ectrical facilities
-	nping station buildin	-			
Construction	n of the security fen	ice.			
2) Dining works no					
3) Piping work: no		بر المسرموم	water to the Maumete De	o 75°	am v 2 km
			water to the Maumeta Re- roposed transmission mai		
	and No.2 - Mean Re	-	oposed transmission mai	iii (tiie	Maumeta deep
4) Mechanical wor		,0.,			
*		sion canacity	3L/sec		
A submersible pump with a design capacity, 3L/sec					
5) Electrical work:					
Main Power Switch Panel, Generator Set, Fuel Tank					
6) Miscellaneous:					
	I Survey Work				
Land Acquis	sition Area = $200m^2$!			
-		0 1	*		
Estimated cost:		Construct	ion schedule:		Priority:
US\$3	86,000				A-1

Town	No. & Facility:		Year of Construction	Financed by:
Liquica	06 - Propo			
	Transmission	n Mains	Dhatawanh	
Background:			Photograph:	
Existing transmission main from Manlaka intake to the Manlaka reservoir will be utilized as future main to the proposed Maumeta reservoir. It needs transmission from the proposed deep wells to Mean and Maumeta reservoirs.				
Evaluation:				
Rehabilitation F	Plan:			
1) Basic Considera	ation:			
,	ransmission mains	should be in	stalled;	
			the proposed Mean rese	ervoir
			take to the Pproposed Ma	
			iano to tiro i propossa ini	
2) Civil Work: non	e			
3) Piping work:				
, , ,		0m, 100mm :	x 2.5 km, 150mm GSP x	2km with necessary
4) Mechanical wor	k: none			
5) Electrical work:	none			
6) Miscellaneous:	none			
Estimated cost:		Construct	ion schedule:	Priority:
LIS\$1	45,900			A-1
υ υ υ	.0,000			7. 1

Town No. & Facility: Year of Construction Financed by: 07 - Serlema SSF Liquica Indonesian Period Indonesia **Existing Condition:** Photograph: Facility: Service reservoir (2 basins) Structure: Reinforced Concrete Shape: Rectangular Dimension: 8.5m x 29.6m Production Capacity: 12L/sec Design filtration rate: 4.5m3/m2/day Function: Filtration Source of Water: Daulo and Eanlua intakes Elevation (amsl): Accessories: Inlet: GSP 1 x 4-inch from Eanlua GSP 1 x 3-inch from Daulo (Date: Evaluation: In operation but requires repair and rehabilitation Rehabilitation Plan: 1) Basic Consideration 2) Civil Work: Repair of concrete base and walls after removal of filter media. Provide concrete apron for sand washing with drain. Wash and seive filter sands and gravel for reuse Installation of ladders for maintenance 3) Piping work: Installation of flow meter and control valves on the inlets 4) Mechanical work: none 5) Electrical work: none 6) Miscellaneous: none Estimated cost: Construction schedule: **Priority:** US\$16,574 A-1

Town	No. & Facility:		Year of Construction	Finar	aced by:
Liquica	08 - Mean Re	eservoir	rear or construction		ioca by.
Existing Condition		3301 7011	Photograph:	<u> </u>	
Facility: Service re			i notograpii.		
Structure: Reinfor				THE REAL PROPERTY.	A STATE OF THE STA
Shape: Rectangu				Stillhilla Land	
Dimension: 10.5m				10/10	
Capacity: 170 m ³					
Function: Storage				Charles and	
	; erlema Reservoir & N	orlolo Corina			
	enema Reservoir & N	anolo Spring	MANAGE IN THE SECOND SE		
Elevation (amsl): Accessories:					SECURITY OF THE PARTY OF THE PA
Accessories.					
			The state of the s		
				and the same	American Control
				And the last of	
				(Date	:)
Evaluation:					
In use but re	equires minor rehab	oilitation.			
Rehabilitation I	Plan:				
1) Basic Consider	ation				
2) Civil Work:					
Construction	n of security fence.				
	·				
3) Piping work:					
	pipes to interconne	ct to the exist	ting.		
			3		
4) Mechanical wor	rk: none				
5) Electrical work:	none				
o, Liedindai Work.	HOHE				
6) Missellanas :::					
6) Miscellaneous:	af abbad of the S				
Installation	of chlorine dosing d	evice			
Cotimosto de actividad	<u> </u>	Canat	ion ooks dedag	I	Duiouit
Estimated cost		Construct	ion schedule:		Priority:
US\$	5,300				A-2

Town	No. & Facility:		Year of Construction	Finan	ced by:
Liquica	09 - Proposed	Reservoir			
Existing Condit	tion:		Photograph:		
				(D)	,
Evaluation:				(Date:)
Lvaiuation.					
Rehabilitation I	Plan:				
1) Basic Considera					
			one, Mean reservoir shou		ograded.
		-	5% x 8hrs/24hrs = 487m3	3	
_	0m3 (Mean) + 145	, ,	capacity 172m3 is require	od	
Costruction	Of fiew reserovit wi	iii a sioraye	capacity 1721113 is require	eu.	
2) Civil Work:					
•	oir will be of rectang	gular shape,	made of concrete (10m x	14m x	2.5m) with
necessary a	ppurtenances (flow	meter, flow	controller, air valves, ove	erflow, d	lrain, ventilator,
level gauge,	, chlorine dosage d	evices, fence	e, etc.)		
Location to I	be near Mean Rese	ervoir at the	similar height		
3) Piping work:					
Installation of 100mm GSI	of pipes to intercon	nect to the e	xisting.		
100111111 GS1	P X 500III				
4) Mechanical wor	rk: none				
i) moonamoai noi	7 110110				
5) Electrical work: none					
6) Miscellaneous:	none				
Estimated cost	,	Construct	tion schedule:	Ι	Priority:
LStilllated Cost.	•	Construct	ion schedule.	1	riionty.
US\$6	34,376				A-2
		Ī			

Town	No. & Facility:		Year of Construction	Finar	nced by:
Liquica	10 - Koramil R	Reservoir			,
Existing Condit			Photograph:		
Structure: Reinfor	ced Concrete			L	August 1960 March
Shape: Rectangu					
Dimension: 9.3m	x 6.4m x 2.5m			WOOD	AND ARE ARE
Capacity: 145m ³					Mary Control of the C
Function: Storage					
Source of Water:	Mean Reservoir				
Elevation (amsl):					
Accessories:					
				(Date	:)
Evaluation:					
In use but re	equires minor rehab	oilitation.			
Rehabilitation F	Plan:				
1) Basic Consider	ation				
2) Civil Work:					
Construction	n of security fence				
3) Piping work: no	nne				
o) I iping work. He	,,,,				
4) Mechanical wor	rk: none				
5) Electrical work:	nono				
o) Electrical work:	HUHE				
6) Miscellaneous:	none				
		_			
Estimated cost.	;	Construct	ion schedule:		Priority:
1100	2,400				A-2
US\$.	۷,+00				M-Z

Iown	No. & Facility:		Year of Construction	Financea by:
Liquica	11 - Maumeta	Reservoir		
Existing Condit	tion:		Photograph:	
Structure: Reinfor	ced Concrete			
Shape: Rectangul	ar			
Dimension: 6.7 m	x 5.3 m x 2.5 m			
Capacity: 85 m ³				
Function: Storage				
	etagou, Raesape, Ma	aumeta wells		
	o wells	daniota wono		
	O Wells			
Elevation (amsl):				
Accessories:				
				(Date:
Evaluation:				
In use but re	equires rehabilitatio	n		
			tion from the source, the	canacity of this
	l be insufficient.	water produc	don nom the source, the	capacity of this
ieservon wii	i be ilisuilicient.			
Rehabilitation F	Dlan:			
1) Basic Calculation		3/1- * 050/	* 0/04 000 · · ³ / A · · · · · · ·	14-1-050/-441-44-1
Storage req	uirement = 2249 m	7day * 35%	* 8/24 = 262 m ³ (Assumed	to be 35% of the total)
			³ (Lauhata) + 75 m ³ (Mau	meta) = 93 m°
Storage defi	icit = 262 - 93 = 169	9 m°		
2) Civil Work:				
Construction	n of the service res	ervoir with th	e capacity of 170 m3 inclu	uding the necessary
appurtenand	ces.			
Dimer	nsion: 8.5 m x 8 m	x 2.5 m		
Construction	n of security fence a	and staff hou	se.	
	•			
3) Piping work:				
, , ,	nnection with the e	xistina		
•	of Inlets from the pr	-	and the Deenwell	
installation (or infects from the pr	oposed SSI	and the Deepwell	
1) Machanical was	de nono			
4) Mechanical wor	k. Hone			
5) Electrical work:	none			
6) Miscellaneous:				
Installation of	of chlorine dosing d	evice		
	9 -			
Estimated cost	•	Construct	ion schedule:	Priority:
	-	20.100, 400		
US\$3	3,930			A-2

Town	No. & Facility:		Year of Construction	Financed by:		
Liquica	12 - Proposed Dist	ibution Main				
Existing Condit	tion:		Photograph:			
Evaluation:						
Dahahilitatian I	Diam					
Rehabilitation F						
1) Basic Considera		and low zone	es requires the installation	of distribution mains		
THE CStabils	inflictit of the high t	and low zone	3 requires the installation	or distribution mains.		
2) Civil Work:						
River crossi	ngs (150mm x thre	e, 200mm x	one)			
a) 5: :						
3) Piping work:	af tha a fall accions who	United the advisables				
	of the following pipe zone = 200mm x 4ł		g appurtenances and rive	r crossings.		
	zone = 200mm x 6 l					
	of gate valves, air re	-				
n otalialion (or gato varvoo, all it	oroado varro				
4) Mechanical wor	rk: none					
5) Electrical work: none						
6) Miscellaneous:	none					
-,						
Estimated cost	:	Construct	ion schedule:	Priority:		
US\$7	17,000			A-1		

Town:	No. & Facility:	Year of Construction	Financed by:
Suai	01 - Sukabilaran 1	1995	Indonesian gov't
Existing Conditions Facility: Deep will Diameter (casing Well depth: 84nd Static water level Pumping water Capacity: Supply to: Hospible Elevation (amstrument) Accessories: Pumps: _ Delivery: In the properies of the properies o	dition: rell g): 200mm n below ground level el: level: sital reservoir):m3/min x 46m head x 7kw 2 inch 1/2 comersible pump er Switch Panel	Photograph:	
Generato Pump Pai			
			(Date:)
Evaluation: 1. In operation: 2. Pumps, good replacements Rehabilitation	enerator set and electro-mechan ent.	ical facilities had lapsed th	neir economic life. Need
1) Basic Consid For an eff			tor set to be replaced

4) Mechanical work:

Pumps: 0.45m3/min x 46m head x 7kw

Delivery: 2 inch 1/2 Type: submersible pump

5) Electrical work:

Watt-hour Meter Box x1set Fuel Tank x1set

Main Power Switch Panel x1set Pump Control Board x1set

Generator Set x1set 6) Miscellaneous: none

Estimated cost:	Construction schedule:	Priority:
US\$92,172		B-1

Town:No. & Facility:Year of ConstructionFinanced by:Suai02 - Sukabilaran 21995Indonesian gov't

Existing Condition: Facility: Deep well

Diameter (casing): 200mm

Well depth:

Static water level: 0.5m below ground level

Pumping water level:

Capacity:

Supply to: Hospital reservoir

Elevation (amsl) : Accessories:

Pumps: 0.45m3/min x 70m head x 7kw

Delivery: 1/2 inch

Type: temporary submersible pump

Main Power Switch Panel

Generator Pump Panel

Photograph:



(Date:

Evaluation:

- 1. Pumps, generator set and electro-mechanical facilities heavily damaged.
- 2. Put back into operation by PKF on temporary basis.
- 3. Installed with mobile pumping equipment and generator set.
- 4. Pumps water into PKF water trucks on routine basis.

Rehabilitation Plan:

1) Basic Consideration:

New set of pumps and electron-mechanical facilities need to be installed on this well in order to operate normally. The pumping station needs to be refurbished.

2) Civil Architectural:

- a) Pumping station: Installation at doors with locks, windows and accessories. Ceiling to be repaired.
- b) Security fence: New security fence to be installed.

3) Piping work:

Replacement and realignment of the discharge pipe.

4) Mechanical work:

Pumps: 0.45m3/min x 70m head x 7kw

Delivery: 1/2 inch

Type: submersible pump

5) Electrical work:

Watt-hour Meter Box x1set Fuel Tank x1set

Main Power Switch Panel x1set Pump Control Board x1set

Generator Set x1set 6) Miscellaneous: none

Estimated cost:	Construction schedule:	Priority:
US\$94,972		B-1

No. & Facility: Town: Year of Construction Financed by: 03 - Ameriko Stream Intake Suai Existing Condition: Photograph: Facilities: spring water collecting basin, grit chamber Structure: concrete Dimension: W4.5m x 2.5m x 1.5m Observed flow: 0.6 L/sec in 10 / 20 / 2000 Function: spring water collection and grit removal Supply to: Bereluik 2 Elevation (amsl): Accessories: Inlet weir (Date: Evaluation: 1. In operation. 2. Yield decreases in dry season. 3. Lacks routine maintenance. Rehabilitation Plan: 1) Basic Consideration: 2) Civil Architectural: Installation of security fence. 3) Piping work: none 4) Mechanical work: none 5) Electrical work: none 6) Miscellaneous: none Estimated cost: Construction schedule: Priority: US\$1,800 B-2

Town:	No. & Facility:		Year of Construction	Financed by:	
Suai	04 - Kuluai Stre	am Intake			
Existing Condit			Photograph:		
	ollection tank, and g	irit chamber			
Structure: concret					
Dimension: W4.5r	11 X 2.5111 X 1.5111				
Capacity:	vater collection and	arit removal			
Supply to: Berelui		giit icinovai			
Elevation (amsl) :					
Accessories: none	Э				
				(Data:	
Fraluction:				(Date:	
Evaluation: 1. Not in opera	ation				
	n main GSP 3-inch	damaged b	v flood		
	ases in dry season.		y nood.		
0. 11014 400100	accom any coaccom				
Rehabilitation I	Plan:				
1) Basic Considera	ation :				
	_		pply. Transmission main t	o be installed in safe	
location. Into	ake facilities to be v	well protected	d from natural damage.		
0) 0: ". A! "	1				
2) Civil Architectur					
installation (of security fence				
3) Piping work:					
	of 75mm x 200m to	replace dan	naged section.		
		·			
4) Mechanical wor	k: none				
E) Flootrical wards					
5) Electrical work: none					
6) Miscellaneous:	6) Miscellaneous: none				
-,					
Estimated cost		Construct	ion schedule:	Priority:	
US\$	5,400			B-2	
	l.	I		1	

Town:	No. & Facility:		Year of Construction	Financed by:
Suai	05 - Olivio Spri	ng Intake		
Existing Condit		alt als anals an	Photograph:	
	ollection tank, and g	rit cnamber		
Structure: concret Dimension:	е			
Flow Rate:				
	ater collection and	arit removal		
<i>i unction.</i> Spring w	rater concentor and	giit iciiiovai		
Elevation (amsl) :				
Accessories:				
				(Doto:
Evaluation:				(Date:)
1. In operation				
Needs secu				
	e maintenance.			
	ases in dry season.			
Rehabilitation I				
1) Basic Consider				
•		e carried out	and security fence to be	installed.
2) Civil Architectur a) Security fen				
3) Piping work: no	ne			
4) Mechanical wor	k: none			
5) Electrical work:	none			
6) Miscellaneous:	none			
Estimated cost		Construct	ion schedule:	Priority:
US\$ ²	1,800			B-2