

Form CT-2 (3) Classification of Present Conditions for the Sector of Functionality of Irrigation and Drainage Facilities (Canal)

Canal

NO.	Region	NIS	Main Canal Name	Main Canal				Lateral - A & Sub-lateral - A				Lateral - B & Sub-lateral - B				Lateral - C & Sub-lateral - C				Lateral - D & Sub-lateral - D				Lateral - E & Sub-lateral - E				Mean	Max.	Min.
				Damaged	Leak	Sediment	Related S.	Damaged	Leak	Sediment	Related S.	Damaged	Leak	Sediment	Related S.	Damaged	Leak	Sediment	Related S.	Damaged	Leak	Sediment	Related S.	Damaged	Leak	Sediment	Related S.			
1	CAR	Upper Chico	Chico																							#DIV/0!	Good	Good		
			Talaca Catch																									#DIV/0!	Good	Good
																												#DIV/0!	Good	Good
																												#DIV/0!	Good	Good
2		Hapid																												
3		West Apayao Abulog																												
4	Region I	Bonga PIS-1	Bonga Canal # 1																								#DIV/0!	Good	Good	
5		Bonga PIS-2	Bonga Canal # 2																								#DIV/0!	Good	Good	
6		Bonga PIS-3	Bonga Canal # 3																								#DIV/0!	Good	Good	
7		Laoag Vintar	M. C. # 1																									#DIV/0!	Good	Good
			M. C. # 2																									#DIV/0!	Good	Good
			M. C. # 3																									#DIV/0!	Good	Good
8		Nmc Pasuquin	Nmc Pasuquin																								#DIV/0!	Good	Good	
9		Dingras	Dingras Int.																								#DIV/0!	Good	Good	
10		Bolo	N/A																								#DIV/0!	Good	Good	
11		Cura	Cura Int.																								#DIV/0!	Good	Good	
12		Nueva Era	Nueva Era																								#DIV/0!	Good	Good	
13		Madongan Area	Right M. C.																								#DIV/0!	Good	Good	
			Left M. C.																								#DIV/0!	Good	Good	
14		Solsona Area	Right M. C.																								#DIV/0!	Good	Good	
			Left M. C.																								#DIV/0!	Good	Good	
15		Labugaon Area	Labugaon																								#DIV/0!	Good	Good	
16		Papa Area	M. C. # 1																								#DIV/0!	Good	Good	
			M. C. # 2																								#DIV/0!	Good	Good	
17		Sta. Maria-Burgos	Sta. Maria-Burgos																								#DIV/0!	Good	Good	
18		Sta. Lucia-Candon	Sta. Lucia-Candon																								#DIV/0!	Good	Good	
19	Tagudin	Tagudin																								#DIV/0!	Good	Good		
20	Amburayan	Amburayan																								#DIV/0!	Good	Good		
21	Ambayonan	Ambayonan Int.																								#DIV/0!	Good	Good		
22	Ambayonan-Extension																									#DIV/0!	Good	Good		
23	Dipalo	Dipalo																								#DIV/0!	Good	Good		
24	Masalip	Agoo M.C.																								#DIV/0!	Good	Good		
		Masalip M.C.																								#DIV/0!	Good	Good		
25	Lower Agno	Lower Agno																								#DIV/0!	Good	Good		
26	San Fabian	San Fabian																								#DIV/0!	Good	Good		
27	Dumuloc	Dumuloc																								#DIV/0!	Good	Good		
28	Agno	Agno																								#DIV/0!	Good	Good		
																										#DIV/0!	Good	Good		
29	Sinolacan	Sinolacan #1																								#DIV/0!	Good	Good		
		Sinolacan # 2																								#DIV/0!	Good	Good		
30	Visitacion																									#DIV/0!	Good	Good		
31	Baua	Baua																								#DIV/0!	Good	Good		
32	Banurbur Creek	San Lorenzo																								#DIV/0!	Good	Good		
		Nagsabaran																								#DIV/0!	Good	Good		
33	Magapit PIS	Magapit M.C.																								#DIV/0!	Good	Good		
34	Apayao-Abulog	Dacao																								#DIV/0!	Good	Good		
		Swan																								#DIV/0!	Good	Good		
35	Pamplona																									#DIV/0!	Good	Good		
36	Dummun	Dummun																								#DIV/0!	Good	Good		
37	Zinundungan	Sicalao																								#DIV/0!	Good	Good		

NO.	Region	NIS	Main Canal Name	Main Canal				Lateral - A & Sub-lateral - A				Lateral - B & Sub-lateral - B				Lateral - C & Sub-lateral - C				Lateral - D & Sub-lateral - D				Lateral - E & Sub-lateral - E				Mean	Max.	Canal Min.
				Damaged	Leak	Sediment	Related S.	Damaged	Leak	Sediment	Related S.	Damaged	Leak	Sediment	Related S.	Damaged	Leak	Sediment	Related S.	Damaged	Leak	Sediment	Related S.	Damaged	Leak	Sediment	Related S.			
195	Region XII	Banga	Banga																							#DIV/0!	Good	Good		
196		Marbel-1	Marbel-1																								#DIV/0!	Good	Good	
197		Marbel-2	Marbel 2																								#DIV/0!	Good	Good	
198		Siluy	Siluy																								#DIV/0!	Good	Good	
199		Buayan	Tinagacan																								#DIV/0!	Good	Good	
200	Region XIII	Cabadbaran-Taguibo	Cabadbaran																							#DIV/0!	Good	Good		
201		Cantillan	Cantillan Int.																							#DIV/0!	Good	Good		
202		Tago	M. C. Left																								#DIV/0!	Good	Good	
				M. C. Right																								#DIV/0!	Good	Good
203		Andanan	Andanan																							#DIV/0!	Good	Good		
204	Gibong																								#DIV/0!	Good	Good			
205	Simulao	Simulao																								#DIV/0!	Good	Good		

No. of Canal

(unit: No.)

Condition of Canal	Main Canal					Lateral & Sub-lateral				
	Damaged	Leak	Sediment	Related S.	Average	Damaged	Leak	Sediment	Related S.	Average
Good Condition	0	0	0	0	0	0	0	0	0	0
Moderate Condition	0	0	0	0	0	0	0	0	0	0
Severe Condition	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0

Percentage of Canal

(unit: %)

Condition of Canal	Main Canal					Lateral & Sub-lateral				
	Damaged	Leak	Sediment	Related S.	Average	Damaged	Leak	Sediment	Related S.	Average
Good Condition	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Moderate Condition	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Severe Condition	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Total	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Work Item for Rehabilitation /Improvement (more than 10 %)

Work Item	Condition	Part of Facilities	No. of Canal	Percentage
			(line)	(%)
Repair	Damaged	1) Related structures of main canal		
		2) Related structures of Lateral		
Leak	Leak	1) Main canal		
		2) Lateral		
Desilting	Sediment	1) Main canal		
		2) Lateral		

Form CT-3 Description Guidelines for Classification of NIS Inventory Survey Data of Irrigation and Drainage Facilities

Information	Item		Description Guidelines
	No	Item	
<b>IV. Functionality of Irrigation and Drainage Facilities</b>			
Table A3-7: Facility Scale	(1)	Manner of Classification	<p>The classifications of NIS facility scale were carried out by the following manners.</p> <ul style="list-style-type: none"> <li>- Table A2-4 (1) to (3) will be copied in Table A3-7 (1) to (3) in Appendices.</li> <li>- <b>The summary table of maximum, mean and minimum in Table A3-7 (1) to (3) in Appendices will be moved from last portion to beginning portion by copies.</b></li> <li>- The maximum dimension of large scale is round up of maximum scale.</li> <li>- The minimum dimension of large scale is over than round of 150 % of mean scale.</li> <li>- The maximum dimension of medium scale is not exceeding round of 150 % of mean scale.</li> <li>- The minimum dimension of medium scale is over than round of 50 % of mean scale.</li> <li>- The maximum dimension of small scale is not exceeding round of 50 % of mean scale.</li> <li>- The minimum dimension of small scale is zero.</li> <li>- <b>The evaluations of each dimension will be carried out by the data in Table A3-7 (1) to (3) in Appendices automatically by “Microsoft Excel”.</b></li> <li>- <b>The summary table will be make automatically by “Microsoft Excel”</b></li> </ul>

Information	Item		Description Guidelines																
	No	Item																	
Table A3-8: Facility Conditions	(1)	Manner of Classification	<p>The classifications of NIS facility condition were carried out by the following manners.</p> <ul style="list-style-type: none"> <li>- <b>Table A2-5 (1) to (3) in Appendices will be copied in Table A3-8 (1) to (3) in Appendices.</b></li> <li>- The criteria of evaluation are as follows.</li> </ul> <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Percentage</th> <th>Functionality Situation</th> <th>Symbol</th> <th>Extent of Maintenance</th> </tr> </thead> <tbody> <tr> <td>0 ~ 30</td> <td>Good</td> <td>Good</td> <td>No need maintenance</td> </tr> <tr> <td>31 ~ 70</td> <td>Normal</td> <td>Mode.</td> <td>Need maintenance</td> </tr> <tr> <td>71 ~ 100</td> <td>No good</td> <td>Severe</td> <td>Need rehabilitation/Improvement</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>- <b>The evaluations of each condition will be carried out by the data in Table A3-8 (1) to (3) in Appendices automatically by “Microsoft Excel”.</b></li> <li>- <b>The summary table will be make automatically by “Microsoft Excel”</b></li> </ul>	Percentage	Functionality Situation	Symbol	Extent of Maintenance	0 ~ 30	Good	Good	No need maintenance	31 ~ 70	Normal	Mode.	Need maintenance	71 ~ 100	No good	Severe	Need rehabilitation/Improvement
Percentage	Functionality Situation	Symbol	Extent of Maintenance																
0 ~ 30	Good	Good	No need maintenance																
31 ~ 70	Normal	Mode.	Need maintenance																
71 ~ 100	No good	Severe	Need rehabilitation/Improvement																

Form MP-1 Maintenance, Rehabilitation and Improvement (MRI) Plan

1. General and Hydrology Information

The general and hydrology informations of NIS are as follows (refer to Part I to III and Table A2-4 in the Manual)

Summary Table of General and Hydrology Informations

Description	Unit	Wet Season (June)		Dry Season (Nov.)	
		Designed	Programmed	Designed	Programmed
1. Service area:	ha				
2. Max. flood discharge:	m <sup>3</sup> /sec				
3. Design intake discharge	m <sup>3</sup> /sec				
4. Max. available water resources:	m <sup>3</sup> /sec				
5. Average available water resources:	m <sup>3</sup> /sec				
6. Max. water requirement:	m <sup>3</sup> /sec				
7. Revised design intake discharge:	m <sup>3</sup> /sec		0.00		0.00

Note: Maximum unit land soaking irrigation requirement, wet: lit/sec/ha, dry: lit/sec/ha

2. Maintenance Plan

2.1 Diversion Dam

2.1.1 General and Structural Dimensions

The general and structural dimensions are picked-up from Table A2-4 (1) in the Manual.

Summary Table of General and Structural Dimensions for Diversion Dam

Description	Width (m)	Height (m)	Length (m)	No.(pc.)
1. Diversion dam				
2. Spillway (weir type)				
3. Sluice way gate (right)				
4. Intake gate (right)				
5. Protection dike (left)				
6. Protection dike (right)				
7. Protection sidewall (left)				
8. Protection sidewall (right)				

2.1.2 Maintenance Plan

The maintenance components and scales are picked-up from Table A3-7 (1) and A3-8 (1) in the Manual.

Summary Table of Maintenance Components for Diversion Dam

Maintenance Component	Scale	Width (m)	Height (m)	Length (m)	No.(pc.)
1. Repair of D/S riverbed protection					
2. Repair of sluice way pier					
3. Repair of intake concrete					
4. Repair of protection dike (left)					
5. Repair of sluice way gate					
6. Replace of seal rubber for sluice way gate					
7. Repainting of sluice way gate					
8. Greasing of sluice way gate					
9. Repainting of intake gate					
10. Greasing of intake gate					

2.1.3 Maintenance Cost

The maintenance costs are estimated as follows.

Summary Table of Maintenance Cost for Diversion Dam

(unit: peso)

Maintenance Component	Type	Unit	Quantities	Unit Cost	Amount
1. Repair of D/S riverbed protection		m <sup>2</sup>	0.00	0	0
2. Repair of sluice way pier		pc.	0.00	0	0
3. Repair of intake concrete		lot	0.00	0	0
4. Repair of protection dike (left)		m	0.00	0	0
5. Repair of sluice way gate		set	0.00	0	0
6. Replace of seal rubber for sluice way gate		set	0.00	0	0
7. Greasing of sluice way gate		set	0.00	0	0
8. Repainting of sluice way gate		set	0.00	0	0
9. Repainting of intake gate		set	0.00	0	0
10. Greasing of intake gate		set	0.00	0	0
<b>Total</b>					<b>0</b>

## 2.2 Main and Lateral Canal

### 2.2.1 General and Structural Dimensions

The general and structural dimensions are picked-up from Table A2-4 (3) in the Manual.

**Summary Table of General and Structural Dimensions for Main and Lateral Canal**

Name of Canal	Service Area (ha)	Discharge (m3/sec)	Rivised Q (m3/sec)	Length (km)	Width (m)	Height (m)	Related Str. (set)
1. Main Canal			0.00				
2. Lateral A			#DIV/0!				
3. Lateral B			#DIV/0!				
4. Lateral C			#DIV/0!				
5. Lateral D			#DIV/0!				

### 2.2.2 Maintenance Plan

The maintenance components and scales are picked-up from Table A3-7 (3) and A3-8 (3) in the Manual.

**Summary Table of Maintenance Components for Main and Lateral Canal**

Maintenance Component	Scale	Length (km)	Width (m)	Height (m)	No.(pc.)
1. Repair of damaged main canal		0.00	0.00	0.00	
2. Repair of leaked main canal		0.00	0.00	0.00	
3. Maintenance of related structure of main canal		-	-	-	
4. Repair of damaged Lateral A		0.00	0.00	0.00	
5. Repair of leaked Lateral A		0.00	0.00	0.00	
6. Maintenance of related structure of Lateral A		-	-	-	
7. Repair of damaged Lateral B		0.00	0.00	0.00	
8. Repair of leaked Lateral B		0.00	0.00	0.00	
9. Maintenance of related structure of Lateral B		-	-	-	
10. Repair of damaged Lateral C		0.00	0.00	0.00	
11. Maintenance of related structure of Lateral C		-	-	-	
12. Repair of damaged Lateral D		0.00	0.00	0.00	
13. Repair of leaked Lateral D		0.00	0.00	0.00	

Note: The greasing plan of related canal structure will be included in maintenance plan of related structures.

### 2.2.3 Maintenance Cost

The maintenance costs are estimated as follows.

**Summary Table of Maintenance Cost for Main and Lateral Canal**

(unit: peso)

Maintenance Component	Type	Unit	Quantities	Unit Cost	Amount
1. Repair of damaged main canal		km	0.00	0	0
2. Repair of leaked main canal		km	0.00	0	0
3. Maintenance of related structure of main canal		lot	#VALUE!	0	#VALUE!
4. Repair of damaged Lateral A		km	0.00	0	0
5. Repair of leaked Lateral A		km	0.00	0	0
6. Maintenance of related structure of Lateral A		lot	#VALUE!	0	#VALUE!
7. Repair of damaged Lateral B		km	0.00	0	0
8. Repair of leaked Lateral B		km	0.00	0	0
9. Maintenance of related structure of Lateral B		lot	#VALUE!	0	#VALUE!
10. Repair of damaged Lateral C		km	0.00	0	0
11. Maintenance of related structure of Lateral C		lot	0.00	0	0
12. Repair of damaged Lateral D		km	0.00	0	0
13. Repair of leaked Lateral D		km	0.00	0	0
<b>Total</b>					#VALUE!

Note: The greasing cost of related canal structure will be included in maintenance cost of related structures.

## 2.3 Annual Maintenance Cost for Aganan RIS

**Summary table of Annual Maintenance Cost**

(Service area: ha, unit: peso)

Description	Main. Cost
1. Diversion Dam	0
2. Main/Lateral Canal	#VALUE!
<b>Annual Maintenance Cost</b>	#VALUE!
<b>Maintenance Cost / Service area</b>	#VALUE!

< Actural amount: Peso/ha  
(see page 4-13 in the Main Report)

### 3. Rehabilitation and Improvement Plan

#### 3.1 Diversion Dam

##### 3.1.1 Present Conditions of Diversion Dam

The present conditions of diversion dam are picked-up "Severe" from Table A3-8 (1) in the Manual.

Summary Table of Present Conditions for Diversion Dam

Part of Facility	Present Conditions	Scale	Width (m)	Height (m)	Length (m)	No.(pc.)
1. Sluice way gate (right)	severe sediment					
2. Intake gate (right)	severe sediment					

##### 3.1.2 Rehabilitation and Improvement Plan for Diversion Dam

###### 1) Sediment Flushing in Sluice Way

The maintenance plan of sediment flushing in sluice way should be in accordance with the flowchart was shown on page 3-15 in the Manual.

###### a) Judgement of Sediment Flushing

(1) Sediment depth in the sluice way: m is more than 0.30m.

(2) Sediment depth in main canal: m is more than m of 10% of water depth (= m)

Then the judgement of sediment flushing is " ", go to " 2- ".

###### b) Judgement of Sand Settling in Sluice Way

$$V_s = Q_s / (W \times h_s)$$

Where,  $V_s$ : Velocity in sluice way (m/sec)

$Q_s$ : Maximum available water resources,  $Q_s =$  m<sup>3</sup>/sec

$W$ : Width of sluice way,  $W =$  m

$h_s$ : Water depth in sluice way,  $h_s =$  m

$$V_s = / ( \times ) = \text{m/sec} > 0.40 \text{ m/sec}$$

Then the judgement of sand settling is " ", go to " ".

###### 2) Improvement of Sluice Way

###### a) Required Width of Sluice Way

$$W_r = Q_s / (V_s \times h_s)$$

Where,  $W_r$ : Required width of sluice way (m)

$Q_s$ : Maximum available water resources,  $Q_s =$  m<sup>3</sup>/sec

$V_s$ : Velocity in sluice way,  $V_s = 0.40$  m/sec

$h_s$ : Water depth in sluice way,  $h_s =$  m

$$W_r = / (0.40 \times ) = \text{m} > \text{m (existing width of sluice way)}$$

Therefore, the additional sluice way with m width will be provided for sand settling.

###### b) Minimum Diameter of Sediment in Main Canal

The situation of sediment in sluice way are as follows.

Description	unit	Original	Present	Proposed
Design Discharge	m <sup>3</sup> /sec			
Water Depth	m			
Sediment Depth	m			
Velocity	m/sec			
Critical Tractive Particle Size	mm			

Therefore, minimum diameter of sediment in main canal is mm.

###### 3) Improvement of Intake Mouth

###### a) Judgement of Intake Mouth

(1) Gap between sluice way sill and intake sill

$$\Delta H = - = \text{m} > \text{Minimum } \Delta H = 1.00\text{m} \quad \text{O.K.}$$

(2) Velocity through the intake mouth

$$V_i = Q_i / (W_i \times h_i)$$

Where,  $V_i$ : Velocity through the intake mouth, Standard  $V_i = 0.60\text{m/sec}$  to  $1.00\text{m/sec}$

$Q_i$ : Revised design intake discharge,  $Q_i = \text{ m}^3/\text{sec}$

$W_i$ : Width of intake mouth,  $W_i = \text{ m} \times \text{ sets} = \text{ m}$

$h_i$ : Water depth in intake mouth,  $h_i = \text{ m}$

$$V_i = \text{ / ( } \times \text{ )} = 0.40 \text{ m/sec} < \text{ Standard } V_i = 0.60 \text{ to } 1.00\text{m/sec} \text{ O.K.}$$

Therefore, the existing intake mouth is design to prevent sediment into the intake.

4) Proposed Sand Settling Basin

a) Maximum Diameter of Sediment in Main canal

The situation of sediment in main canal are as follows.

Description	unit	Original	Present	Proposed
Design Discharge	m <sup>3</sup> /sec			
Water Depth	m			
Sediment Depth	m			
Velocity	m/sec			
Critical Tractive Particle Size	mm			

Therefore, maximum diameter of sediment in main canal is mm.

b) Width and Depth in Sedimentation Ditch

$$W = Q / (U \times h)$$

Where,  $W$ : Required width of sedimentation ditch (m)

$Q$ : Proposed design discharge,  $Q = \text{ m}^3/\text{sec}$

$U$ : Velocity in sedimentation ditch,  $U = \text{ m/sec}$

$h$ : Water depth in sedimentation ditch,  $h = \text{ m}$

$$W = \text{ / ( } \times \text{ )} = \text{ m} < \text{ m} \times \text{ rows} = \text{ m}$$

c) Length of Settling Basin

$$L = K \cdot h / V_g \cdot U$$

Where,  $L$ : Required length of settling basin (m)

$K$ : Safety factor,  $K = 1.5$  to  $2.0$

$h$ : Water depth in sedimentation ditch,  $h = \text{ m}$

$V_g$ : Critical settling velocity,  $d_{min} = \text{ mm}$ , then  $V_g = \text{ m/sec}$

$U$ : Velocity in sedimentation ditch,  $U = \text{ m/sec}$

$$L = (1.5 \text{ to } 2.0) \times \text{ / } \times \text{ = } 37.50 \text{ to } 50.00 \text{ m}$$

Therefore, the length of settling basin will provided m.

5) Summary of Rehabilitation and Improvement Plan for Diversion Dam

The summary of rehabilitation and improvement plan for diversion dam are as follows.

Summary Table of rehabilitation and Improvement for Diversion Dam

Rehabilitation and Improvement Component	Scale	Width (m)	Height (m)	Length (m)	No.(lot)
1. Improvement of sluice way	medium				
2. Proposed sand settling basin	medium	m x rows			

6) Rehabilitation and Improvement Cost

The rehabilitation and improvement costs would be estimated as follows.

Summary Table of Rehabilitation and Improvement for Diversion Dam

(unit: peso)

Rehabilitation and improvement Component	Type	Unit	Quantities	Unit Cost	Amount
1. Improvement of sluice way		lot		0	0
2. Proposed sand settling basin		lot		0	0
<b>Total</b>					<b>0</b>

Note: The R/I Coat for Aganan Diversion Dam in "The Rehabilitation Project of Aganan RIS" is Pesos 34,100,000.



### 3.2 Main and Lateral Canal

#### 3.2.1 Present Conditions of Main and Lateral Canal

The present conditions of main and lateral canal are picked-up "Severe" in Table A3-8 (3) in the Manual.

Summary Table of Present Conditions for Main and Lateral Canals

Part of Facility	Present Conditions	Scale	Length (m)	Width (m)	Height (m)	No.(pc.)
1. Desilting of main canal	severe sediment					
2. Impr. of related structure of M.C	severe sediment and rust					
3. Desilting of Lat. A	severe sediment					
4. Impr. of related structure of Lat.	severe sediment and rust					
5. Desilting of Lat. B	severe sediment					
6. Impr. of related structure of Lat.	severe sediment and rust					
7. Desilting of Lat. D	severe sediment					
8. Impr. of related structure of Lat.	severe sediment and rust					

#### 3.2.2 Rehabilitation and Improvement Plan for Main and Lateral Canal

##### 1) Desilting in Main and Lateral Canals

The desilting in main and lateral canals should be in accordance with the flowchart was shown on page 3-19 in the Manual.

##### a) Judgement of Desilting

- (1) Sediment depth in main canal:    m is more than    m of 10% of water depth (=    m)
- (2) Sediment depth in Lateral canal (large):    m is more than    m of 10% of water depth (=    m)
- (3) Sediment depth in Lateral canal (medium):    m is more than    m of 10% of water depth (=    m)
- (4) Sediment depth in Lateral canal (small):    m is more than    m of 10% of water depth (=    m)

Then the judgement of desilting is "    ", go to "    ".

##### b) Revised Design Discharge

The revised design discharges are as follows.

Canal Name	Original Design Discharge Qo (m <sup>3</sup> /sec)	Available Discharge Qa (m <sup>3</sup> /sec)	Max. Water Requirement Qr (m <sup>3</sup> /sec)	Revised Design Discharge Qd (m <sup>3</sup> /sec)
(1) Main Canal	8.25			
(2) Lateral A	2.55			
(3) Lateral B	4.60			
(4) Lateral C	0.27			
(5) Lateral D	0.86			

##### c) Present Canal Capacities

The present canal capacities are as follows.

##### (1) Main Canal (large scale)

Canal Capacities of Main Canal (large scale)

Description	unit	Original Design	Present Situation	Proposed Design
Design discharge	m <sup>3</sup> /sec			
Bottom width	m			
Water depth	m			
Flow area	m <sup>2</sup>			
Velocity	m/sec			

The present sedimentation is    m<sup>3</sup>/m (=    -    ) and the desilting volume is    m<sup>3</sup>/m (=    -    ).

(2) Main Canal (medium scale)

Canal Capacities of Main Canal (medium scale)

Description	unit	Original Design	Present Situation	Proposed Design
Design discharge	m <sup>3</sup> /sec			
Bottom width	m			
Water depth	m			
Flow area	m <sup>2</sup>			
Velocity	m/sec			

The present sedimentation is m<sup>3</sup>/m (= - ) and the desilting volume is m<sup>3</sup>/m (= - ).

(3) Main Canal (small scale)

Canal Capacities of Main Canal (small scale)

Description	unit	Original Design	Present Situation	Proposed Design
Design discharge	m <sup>3</sup> /sec			
Bottom width	m			
Water depth	m			
Flow area	m <sup>2</sup>			
Velocity	m/sec			

The present sedimentation is m<sup>3</sup>/m (= - ) and the desilting volume is m<sup>3</sup>/m (= - ).

(4) Lateral Canal (large scale)

Canal Capacities of Lateral Canal (large scale)

Description	unit	Original Design	Present Situation	Proposed Design
Design discharge	m <sup>3</sup> /sec			
Bottom width	m			
Water depth	m			
Flow area	m <sup>2</sup>			
Velocity	m/sec			

The present sedimentation is m<sup>3</sup>/m (= - ) and the desilting volume is m<sup>3</sup>/m (= - ).

(5) Lateral Canal (medium scale)

Canal Capacities of Lateral Canal (medium scale)

Description	unit	Original Design	Present Situation	Proposed Design
Design discharge	m <sup>3</sup> /sec			
Bottom width	m			
Water depth	m			
Flow area	m <sup>2</sup>			
Velocity	m/sec			

The present sedimentation is m<sup>3</sup>/m (= - ) and the desilting volume is m<sup>3</sup>/m (= - ).

(6) Lateral Canal (small scale)

Canal Capacities of Lateral Canal (small scale)

Description	unit	Original Design	Present Situation	Proposed Design
Design discharge	m <sup>3</sup> /sec			
Bottom width	m			
Water depth	m			
Flow area	m <sup>2</sup>			
Velocity	m/sec			

The present sedimentation is m<sup>3</sup>/m (= - ) and the desilting volume is m<sup>3</sup>/m (= - ).

d) Selection of Desilting Method

The criteria of selection of desilting method are as follows.

- (1) Manual: desilting volume is small (less than 0.50 m<sup>3</sup>/m).
- (2) Equipment: desilting volume is medium or large (more than 0.50m<sup>3</sup>/m)

Canal Name	Sedimentation		Desilting		Desilting Method
	Depth (m)	Volume (m <sup>3</sup> /m)	Depth (m)	Volume (m <sup>3</sup> /m)	
(1) Main Canal (large)	0.67			( %)	
(2) Main Canal (medium)	0.53			( %)	
(3) Main Canal (small)	0.34			( %)	
(4) Lateral Canal (large)	0.29			( %)	
(5) Lateral Canal (medium)	0.25			( %)	
(6) Lateral Canal (small)	0.24			( %)	

2) Summary of Rehabilitation and Improvement Plan for Main and Lateral Canal

The summary of rehabilitation and improvement plan for main and lateral canals are as follows.

**Summary of Rehabilitation and Improvement Plan for Main and Lateral Canals**

Rehabilitation and Improvement Component	Scale	Length (m)	Width (m)	Height (m)	No.(pc.)
1. Desilting of main canal (R/ I)					
2. Improvement of related structure of main canal (R/I)					
3. Desilting of Lat. A (R/I)					
4. Improvement of related structure of Lat. A (R/I)					
5. Desilting of Lat. B					
6. Impr. of related structure of Lat. B					
7. Desilting of Lat. D					
8. Impr. of related structure of Lat. D					

6) Rehabilitation and Improvement Cost

The rehabilitation and improvement costs are estimated as follows.

**Summary table of Rehabilitation and Improvement Cost for Main and Lateral Canals** (unit: peso)

Rehabilitation and Improvement Component	Type	unit	Quantities	Unit Cost	Amount
1. Desilting of main canal (R/ I)		km	0.00	0	0
2. Improvement of related structure of main canal (R/I)		place	0.00	0	0
3. Desilting of Lat. A (R/I)		km	0.00	0	0
4. Improvement of related structure of Lat. A (R/I)		place	0.00	0	0
5. Desilting of Lat. B		km	0.00	0	0
6. Improvement of related structure of Lat. B		place	0.00	0	0
7. Desilting of Lat. D		km	0.00	0	0
8. Improvement of related structure of Lat. D		place	0.00	0	0
<b>Total</b>					<b>0</b>

3.3 Rehabilitation and Improvement Cost for Aganan RIS

**Summary Table of Rehabilitation and Improvement Cost** (Service area: ha, unit: peso)

Description	Main. Cost
1. Diversion Dam	0
2. Main/Lateral Canal	0
<b>Rehabilitation and Improvement Cost</b>	<b>0</b>
<b>R/I Cost / Service area</b>	<b>0</b>

< Actual amount: Peso/ha/year x years  
= Peso/ha (see page 4-13 in the Main Report)

Form MP-2 Summary of Maintenance Cost of Irrigation Facilities (205 NISs)

No. (1)	Reg. (2)	NIS Name (3)	FUSA (4a) (4)	Estimated Maintenance Cost						Total (Pesos) (9)	Unit Cost (P/ha) (10)	Nat'l Ave. Maint Cost (P/ha) (11)	Difference (11)-(10) (P/ha) (12)
				Dam (Pesos) (5)	Pump Station (Pesos) (6)	Canal (Pesos) (7)	Canal Str. (Pesos) (8)						
1	CAR	Upper Chico		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
2		Hapid		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
3		West Apayao Abulog		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
4	Region I	Bonga PIS-1		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
5		Bonga PIS-2		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
6		Bonga PIS-3		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
7		Laoag Vintar		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
8		Nmc Pasuquin		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
9		Dingras		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
10		Bolo		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
11		Cura		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
12		Nueva Era		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
13		Madongan Area		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
14		Solsona Area		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
15		Labugaon Area		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
16		Papa Area		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
17		Sta. Maria-Burgos		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
18		Sta. Lucia-Candon		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
19		Tagudin		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
20		Amburayan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
21		Ambayaoan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
22		Ambayaoan-Extension		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
23		Dipalo		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
24		Masalip		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
25		Lower Agno		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
26		San Fabian		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
27		Dumoloc		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
28		Agno		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
29		Sinolacan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
30	Region II	Visitacion		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
31		Baua		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
32		Banurbar Creek		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
33		Magapit PIS		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
34		Apayao-Abulog		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
35		Pamploña		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
36		Dummun		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
37		Zinundungan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
38		Baggao		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
39		Igug-Alcala-Amulung PIS		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
40		Lower Chico		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
41		Solana PIS		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
42		Pinacanauan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
43		San Pablo Cabagan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
44		Tumauini		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
45		Mallig		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
46		Bagabag		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
47	MRIS	MRIS District I		#VALUE!	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
48		MRIS District II		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
49		MRIS District III		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
50		MRIS District IV		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
51	Region III	Nayom		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
52		Bayto		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
53		Camiling		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
54		Tarlac		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
55		San Miguel		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
56		Bucao		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
57		NEPIS		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
58		Pampanga Dalta		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
59		Porac		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
60		Gumain		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
61		Colo		0	0	0	0	0	#DIV/0!	489	#DIV/0!		
62		Caulaman		0	0	0	0	0	#DIV/0!	489	#DIV/0!		
63		Angeat		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
64		Maasim		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
65		Disalit Creek		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
66	UPRIS	UPRIS District I		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
67		UPRIS District II		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
68		UPRIS District III		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
69		UPRIS District III (Vaca)		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
70		UPRIS District IV		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
71	Region IV	Molino		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
72		Embarcadero-Baluctot		0	0	0	0	0	#VALUE!	489	#VALUE!		
73		Lukshin-Makuling		0	0	0	0	0	#VALUE!	489	#VALUE!		
74		Pasong Kastila-Julian		0	0	0	0	0	#VALUE!	489	#VALUE!		
75		Bankud		0	0	0	0	0	#VALUE!	489	#VALUE!		
76		Butas Marcelo		0	0	0	0	0	#VALUE!	489	#VALUE!		
77		Plucena-Bayan		0	0	0	0	0	#VALUE!	489	#VALUE!		
78		Butas-Lawang Bato		0	0	0	0	0	#VALUE!	489	#VALUE!		
79		Navarro		0	0	0	0	0	#VALUE!	489	#VALUE!		
80		Matanda		0	0	0	0	0	#VALUE!	489	#VALUE!		
81		Balayungan		0	0	0	0	0	#VALUE!	489	#VALUE!		
82		Tres Cruces		0	0	0	0	0	#VALUE!	489	#VALUE!		
83		San Agustin-Pasong Buaya		0	0	0	0	0	#VALUE!	489	#VALUE!		
84		Culong-Culong		0	0	0	0	0	#VALUE!	489	#VALUE!		
85		Sahing		0	0	0	0	0	#VALUE!	489	#VALUE!		
86		Agos		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
87		Falco		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
88		Cabuyao PIS		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
89		San Cristobal		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
90		Diezmo PIS		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
91		Macabing		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
92		San Juan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
93		Sta. Maria		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
94		Mayor		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
95		Dambo PIS		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
96		Sta. Cruz		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
97		Mabacan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
98		Balanac		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
99		Lumban		#VALUE!	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
100		Malaunod		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
101		Dumacaa		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
102		Hanagdong		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		
103		Lagnas		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!		

No.	Reg.	NIS Name	FUSA (ha)	Estimated Maintenance Cost						Nat'l Ave. Maint. Cost (P/ha)	Difference (11)-(10) (P/ha)
				Dam (Pesos)	Pump Station (Pesos)	Canal (Pesos)	Canal Str. (Pesos)	Total (Pesos)	Unit Cost (P/ha)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
104	Region IV	Pagbahan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
105		Baco Bucavao		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
106		Mag-Asawang Tubig		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
107		Amnay-Patric		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
108		Mongpong		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
109		Pula		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
110		Bansud		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
111		Lumntao		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
112		Caguray		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
113		Cantingas		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
114		Batang-Batang		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
115		Malatgao		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
116	Region V	Daet Talisay		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
117		Malogdon		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
118		Ijmanan Cabusao PIS		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
119		Tigman-Hinagyanan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
120		Inarihan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
121		Cagaycay		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
122		Barit		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
123		Rida		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
124		Buhi-Lalo		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
125		Malaha		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
126		Nasisi		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
127		Ogsong		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
128		Hibiga		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
129		San Francisco		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
130		San Ramon		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
131	Region VI	Aklan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
132		Panukuan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
133		Sibalom-San Jose		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
134		Mambusao		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
135		Jalaar-Propor		#VALUE!	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
136		Jalaar- Extension		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
137		Suague		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
138		Sibalom-Tigbuan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
139		Aganan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
140		Sta. Barbara		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
141		Barotac Viejo		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
142		Bago		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
143		Pangiplan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
144	Region VII	Bohol		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
145		Capayas		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
146	Region VIII	Mainit		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
147		Pongso		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
148		Bao		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
149		Binahaan North		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
150		Binahaan South		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
151		Lower Binahaan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
152		Tibak		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
153		Daguitan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
154		Gumarona		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
155		Balire North		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
156		Balire South		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
157		Ibawon		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
158		Gibuya		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
159		Bito		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
160		Hindang-Hilongos		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
161		Das-Av		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
162	Region IX	Sibuguey Valley		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
163		Dipolo		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
164		Salug		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
165		Labangan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
166	Region X	Bubunawan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
167		Manupali		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
168		Pulangui		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
169		Roxas-Kuya		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
170		Muleta		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
171		Ruenan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
172		Maranding		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
173	Region XI	Lupon		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
174		Batutu		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
175		Saug		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
176		Libunganon-Left		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
177		Lasang		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
178		Libunganon-Right		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
179		Kipaliku		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
180		Mal		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
181		Padada		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
182	Region XII	Alip		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
183		Talayan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
184		Maridagao		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
185		Libungan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
186		Kabunan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
187		Kabacan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
188		Pagalungan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
189		Miang		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
190		Malasila		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
191		Lambayong		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
192		Tacurong (Dumaguil)		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
193		Allah-1		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
194		Allah-2		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
195		Banga		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
196		Marbel-1		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
197		Marbel-2		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
198		Situay		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
199		Buavan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
200	Region XIII	Cabadbaran-Taguibo		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
201		Canillan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
202		Tago		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
203		Andanan		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
204		Gibong		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
205		Simulao		0	0	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!
		Total		0	#VALUE!	0	#VALUE!	#VALUE!	#VALUE!	489	#VALUE!