NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***PINACANAUAN***			
1) Water Resources Region	*2*	*2) Source of Water Supply*	*Pinacanauan River*	
3) Approved Water Rights	*6000 lps*		*4) Official Opening of the System*	*Nov. 1979*
5) Original Construction Cost	*P 2,478,870.00 / May 1984*		*6) Date of Rehabilitation*	*Non Rehabilitated*
7) Cost of Rehabilitation			*8) Current Status*	*Partial Operation Only*
9) Firmed-up Service Area			*10) Designed Area*	
11) Potential Area			*12) Number of Landowners*	*741*
13) Number of Farmers Served	*1556*		*14) Average Farm Size*	
15) Number of Lots	*709*		*16) Diversion Type*	*Intake*
17) Diversion Capacity	*3.30 cms*		*18) Length of Main Canal*	
19) Length of Laterals			*20) Number of Turnouts*	*57*
21) Length of Service Roads			*22) Length of Access Roads*	
23) Drainage Density			*24) Farmditch Density*	
25) Climatic Condition (Coronas)	*Type 3*		*26) Average Annual Rainfall*	
27) Main Crops	*Rice*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
		Total	***0***

29) Irrigated / Benefitted Area				
Average				
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)				
Benefitted Area (ha)				
Average Yield (cav/ha)				

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***

31) Future Expansion	
32) Deterioration of the System	
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***SAN PABLO-CABAGAN***			
1) Water Resources Region	*2*	*2) Source of Water Supply*	*Pinacanauan de San Pablo R.*	
3) Approved Water Rights	*on process*		*4) Official Opening of the System*	*Jan. 18, 1986*
5) Original Construction Cost	*P 26,934,124.00*		*6) Date of Rehabilitation*	*not yet rehabilitated*
7) Cost of Rehabilitation			*8) Current Status*	*Operating system*
9) Firmed-up Service Area	*1273*		*10) Designed Area*	*2890*
11) Potential Area	*2100*		*12) Number of Landowners*	*901*
13) Number of Farmers Served	*1215*		*14) Average Farm Size*	*0.9*
15) Number of Lots	*1.525*		*16) Diversion Type*	*Intake*
17) Diversion Capacity	*5.027 cms*		*18) Length of Main Canal*	*17.979*
19) Length of Laterals	*19.937*		*20) Number of Turnouts*	*72*
21) Length of Service Roads	*27.069*		*22) Length of Access Roads*	*18.5*
23) Drainage Density	*9.68*		*24) Farmditch Density*	*38.5*
25) Climatic Condition (Coronas)	*Type 3*		*26) Average Annual Rainfall*	*1872*
27) Main Crops	*Rice, Corn, Tobacco, Peanut*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
S Pablo	*Isabela*	*346*
Cabagan	*Isabela*	*92*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*506*	*518*	
Benefitted Area (ha)	*397*	*390*	
Average Yield (cav/ha)	*80*	*79*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Type I & II	*7*	*30.941*	*1.273*

31) Future Expansion	*There is a future expansion of 827 has.*
32) Deterioration of the System	*Headworks,removable of silt repair of banks, clearing vegetation, service road, structure repair, gates painting.*
33) Other Information	*The system is included in the list for improvement of the WRDP to be implemented starting CY 1997.*

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***SOLANA PUMP***				
1) Water Resources Region	*2*	*2) Source of Water Supply*	*Cagayan River*		
3) Approved Water Rights			*4) Official Opening of the System*	*Apr. 1979*	
5) Original Construction Cost			*6) Date of Rehabilitation*	*1995*	
7) Cost of Rehabilitation	*P 4,700,000.00*		*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*1000*		*10) Designed Area*	*2826*	
11) Potential Area	*2826*		*12) Number of Landowners*	*394*	
13) Number of Farmers Served	*892*		*14) Average Farm Size*	*0.7764*	
15) Number of Lots	*1049*		*16) Diversion Type*	*Pump*	
17) Diversion Capacity	*2.2*		*18) Length of Main Canal*	*18.391*	
19) Length of Laterals	*23.92*		*20) Number of Turnouts*	*35*	
21) Length of Service Roads	*86.81*		*22) Length of Access Roads*	*10.31*	
23) Drainage Density	*10.07*		*24) Farmditch Density*	*87.43*	
25) Climatic Condition (Coronas)	*Type III*		*26) Average Annual Rainfall*	*2010*	
27) Main Crops	*Rice*				
28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***		
	Solana	*Cagayan*	*1000*		
		Total	*0*		
29) Irrigated / Benefitted Area					
Average	*1985-1995*				
Season	***Wet***	***Dry***	***Third***		
Irrigated Area (ha)	*628*	*572*			
Benefitted Area (ha)	*521*	*536*			
Average Yield (cav/ha)	*69*	*78*			
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***	
	Stage III	*1*	*22.121*	*1000*	
31) Future Expansion					
32) Deterioration of the System					
33) Other Information					

NATIONAL WATER RESOURCES BOARD	SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***SOLANA-TUGUEGARAO***			
1) Water Resources Region	*2*	*2) Source of Water Supply*	*Cagayan River*	
3) Approved Water Rights	*No. Available Data*		*4) Official Opening of the System*	*Apr. 1979*
5) Original Construction Cost	*P 11,053,000.00*		*6) Date of Rehabilitation*	*1985*
7) Cost of Rehabilitation	*P 11,053,000.00*		*8) Current Status*	*Operating system*
9) Firmed-up Service Area			*10) Designed Area*	
11) Potential Area			*12) Number of Landowners*	*1186*
13) Number of Farmers Served	*2863*		*14) Average Farm Size*	*0.75*
15) Number of Lots	*1760*		*16) Diversion Type*	*Pump*
17) Diversion Capacity	*7.05 cms*		*18) Length of Main Canal*	
19) Length of Laterals			*20) Number of Turnouts*	*56*
21) Length of Service Roads			*22) Length of Access Roads*	
23) Drainage Density			*24) Farmditch Density*	
25) Climatic Condition (Coronas)	*Type 3*		*26) Average Annual Rainfall*	

27) Main Crops	*Rice*		
28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Total		*0*

29) Irrigated / Benefitted Area				
Average				
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)				
Benefitted Area (ha)				
Average Yield (cav/ha)				
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
31) Future Expansion				
32) Deterioration of the System				
33) Other Information				

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***TUMAUINI***			
1) Water Resources Region	*2*	*2) Source of Water Supply*	*Pinacanauan River*	
3) Approved Water Rights		*4) Official Opening of the System*	*1984*	
5) Original Construction Cost	*P 33,270,000.00*	*6) Date of Rehabilitation*	*1988-1991*	
7) Cost of Rehabilitation	*P 4,000,000.00*	*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*3650*	*10) Designed Area*	*6100*	
11) Potential Area	*5500*	*12) Number of Landowners*	*1923*	
13) Number of Farmers Served	*1556*	*14) Average Farm Size*	*1556*	
15) Number of Lots	*1.9*	*16) Diversion Type*	*Intake*	
17) Diversion Capacity	*7.57*	*18) Length of Main Canal*	*23.5*	
19) Length of Laterals	*87.9*	*20) Number of Turnouts*	*182*	
21) Length of Service Roads	*55.5*	*22) Length of Access Roads*	*14.7*	
23) Drainage Density	*6.85*	*24) Farmditch Density*	*0.56*	
25) Climatic Condition (Coronas)	*Type 3*	*26) Average Annual Rainfall*	*2258*	
27) Main Crops	*Rice, Corn*			
28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***	
	Tumauini	*Isabela*	*335*	
	Cabagan	*Isabela*	*35*	
	Ilagan	*Isabela*	*258*	
		Total	*0*	

29) Irrigated / Benefitted Area				
Average	*1975-1986*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*1629*	*1714*		
Benefitted Area (ha)	*1276*	*1297*		
Average Yield (cav/ha)	*58.47*	*59.61*		
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
	Type1, Type2, Stage2	*10*	*75.769*	*2481.02*
31) Future Expansion	*A proposed reservoir is in the offing to help increase water supply. An expansion of irrigable area of 6,285 has. if this will be pushed through.*			
32) Deterioration of the System	*Desilting and restoring canals to full section. Lining of canals to prevent seepage losses and erosion and improvements of serv. Roads*			
33) Other Information				

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***UPPER CHICO***			
1) Water Resources Region	*2*	*2) Source of Water Supply*	*Chico River*	
3) Approved Water Rights	*62550 lps*		*4) Official Opening of the System*	*1986*
5) Original Construction Cost			*6) Date of Rehabilitation*	*1986-1996 (Maintenance)*
7) Cost of Rehabilitation			*8) Current Status*	*Operating System*
9) Firmed-up Service Area	*17551*		*10) Designed Area*	*17551*
11) Potential Area	*17551*		*12) Number of Landowners*	*5357*
13) Number of Farmers Served	*6873*		*14) Average Farm Size*	*1.1*
15) Number of Lots	*1778*		*16) Diversion Type*	*Diversion Dam*
17) Diversion Capacity	*34.36*		*18) Length of Main Canal*	*109.01*
19) Length of Laterals	*87.22*		*20) Number of Turnouts*	*409*
21) Length of Service Roads	*154.79*		*22) Length of Access Roads*	*83867*
23) Drainage Density	*6.64*		*24) Farmditch Density*	*28.12*
25) Climatic Condition (Coronas)	*Type I*		*26) Average Annual Rainfall*	*1617*
27) Main Crops	*Rice*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Tabuk	*Kalinga-A*	*7409*
	Pinukpuk	*Kalinga-A*	*800*
	Quezon	*Isabela*	*7522*
	Mallig	*Isabela*	*2320*
		Total	*0*

29) Irrigated / Benefitted Area				
Average	*1985-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*9041.77*	*8814*		
Benefitted Area (ha)	*8416.7*	*7978.1*		
Average Yield (cav/ha)	*68.45*	*73.2*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
	Type I & II	*24*	*122.27*	*7245.892*

31) Future Expansion	*Expansion of 20,200 ha. located in Kalinga, Isabela and Cagayan.*
32) Deterioration of the System	*Deteriaration of main canals, laterals and gates which needs to be repaired. Upgrading of canal enbankment and canal lined.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***ZINUNDUNGAN***			
1) Water Resources Region	*2*	*2) Source of Water Supply*	*Zinund ,Sicalo,Banurbur R*	
3) Approved Water Rights	*Approved*		*4) Official Opening of the System*	*May. 1, 1978*
5) Original Construction Cost	*P 21,000,000.00*		*6) Date of Rehabilitation*	
7) Cost of Rehabilitation			*8) Current Status*	*Operating System*
9) Firmed-up Service Area	*2045*		*10) Designed Area*	*3200*
11) Potential Area	*3200*		*12) Number of Landowners*	*1400*
13) Number of Farmers Served	*1523*		*14) Average Farm Size*	*1461*
15) Number of Lots	*2607*		*16) Diversion Type*	*Gravity and Ogee*
17) Diversion Capacity	*2.095, 0.9, & .075*		*18) Length of Main Canal*	*27.07*
19) Length of Laterals	*14.358*		*20) Number of Turnouts*	*112*
21) Length of Service Roads	*35.466*		*22) Length of Access Roads*	*0.73*
23) Drainage Density	*0.0017*		*24) Farmditch Density*	*0.0174*
25) Climatic Condition (Coronas)	*Type III*		*26) Average Annual Rainfall*	*2277*
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Lasam	*Cagayan*	*2045*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*1596.166*	*1650.17*	
Benefitted Area (ha)	*1329.04*	*1438.19*	
Average Yield (cav/ha)	*77*	*76*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Stage II	*4*		*1231.93*

31) Future Expansion	*Future expansion will be 1,155 has.*
32) Deterioration of the System	*Main Canal and lateral needs to improve every cropping season and typhoon damages should be repair.*
33) Other Information	*Oggee dam is needed to maintain from deviating river bed elevation and river course.*

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***AGOS***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Agos River*	
3) Approved Water Rights	*2250 lps*	*4) Official Opening of the System*		*Sept. 15, 1959*
5) Original Construction Cost	*P 1,200,000.00*	*6) Date of Rehabilitation*		*1987-present (IOSP I)*
7) Cost of Rehabilitation	*P 3,169,000.00*	*8) Current Status*		*Operating System*
9) Firmed-up Service Area	*1991*	*10) Designed Area*		*1500*
11) Potential Area	*1250*	*12) Number of Landowners*		*2751*
13) Number of Farmers Served	*2751*	*14) Average Farm Size*		*0.35*
15) Number of Lots	*3450*	*16) Diversion Type*		*Intake*
17) Diversion Capacity	*3*	*18) Length of Main Canal*		*7.685*
19) Length of Laterals	*39.674*	*20) Number of Turnouts*		*134*
21) Length of Service Roads	*20.679*	*22) Length of Access Roads*		*2.998*
23) Drainage Density	*18.6*	*24) Farmditch Density*		*95.79*
25) Climatic Condition (Coronas)	*Type II*	*26) Average Annual Rainfall*		*3601.24*
27) Main Crops	*Rice*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Infanta	*Quezon*	*1119*
		Total	*0*

29) Irrigated / Benefitted Area				
Average	*1985-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*1119*	*1067*		
Benefitted Area (ha)	*1072*	*980*		
Average Yield (cav/ha)	*80*	*66*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
	Stage II	*7*	*45.33*	*1119*

31) Future Expansion	*Exapnsion area is in Brgy. Gumian & Libjo.*
32) Deterioration of the System	*Regular brushdamming & river chanelling at intake.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***AGUSTIN-KASTILA-JULIAN***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Alang-Ilang River*	
3) Approved Water Rights		*4) Official Opening of the System*	*Spanish Time*	
5) Original Construction Cost		*6) Date of Rehabilitation*		
7) Cost of Rehabilitation		*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*1415.8451*	*10) Designed Area*	*1700*	
11) Potential Area	*1700*	*12) Number of Landowners*	*687*	
13) Number of Farmers Served	*757*	*14) Average Farm Size*	*1.87*	
15) Number of Lots	*733*	*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*2550*	*18) Length of Main Canal*	*30.42*	
19) Length of Laterals	*20.867*	*20) Number of Turnouts*	*206*	
21) Length of Service Roads	*21.92*	*22) Length of Access Roads*	*2*	
23) Drainage Density		*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type I*	*26) Average Annual Rainfall*		
27) Main Crops	*Rice, Ampalaya*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Imus	*Cavite*	*1483.7213*
Dasmarinas	*Cavite*	*171.285*
	Total	***0***

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*1466.06*	*44.5702*	
Benefitted Area (ha)	*1380.36*	*44.57*	
Average Yield (cav/ha)	*59*	*65*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	***Number of FIA***	*Length of Canal (km) under contract*	***Area Covered (ha)***
Stage I			

31) Future Expansion	
32) Deterioration of the System	*Canal Rehabilitation and Improvement*
33) Other Information	

NATIONAL WATER RESOURCES BOARD	SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***AMNAY-PATRICK***				
1) Water Resources Region	*4*	*2) Source of Water Supply*		*Patrick River*	
3) Approved Water Rights			*4) Official Opening of the System*		*1986*
5) Original Construction Cost			*6) Date of Rehabilitation*		*On-going IOSP*
7) Cost of Rehabilitation			*8) Current Status*		*Operating System*
9) Firmed-up Service Area	*1331*		*10) Designed Area*		*1957*
11) Potential Area	*1957*		*12) Number of Landowners*		*330*
13) Number of Farmers Served	*330*		*14) Average Farm Size*		*3.18*
15) Number of Lots	*419*		*16) Diversion Type*		*Brash Dam*
17) Diversion Capacity			*18) Length of Main Canal*		*11.327*
19) Length of Laterals	*14.282*		*20) Number of Turnouts*		*44*
21) Length of Service Roads	*19.088*		*22) Length of Access Roads*		
23) Drainage Density	*4.461*		*24) Farmditch Density*		*39.284*
25) Climatic Condition (Coronas)	*Type IV*		*26) Average Annual Rainfall*		
27) Main Crops	*Rice*				
28) Towns / Province Served	***Towns***		***Province***		***Area (ha)***
	Sablayan		*Occidental Mindoro*		*1331*
			Total		*0*
29) Irrigated / Benefitted Area					
Average	*1985-1995*				
Season	***Wet***	***Dry***	***Third***		
Irrigated Area (ha)	*550*	*500*			
Benefitted Area (ha)	*550*	*500*			
Average Yield (cav/ha)	*75*	*70*			
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***		***Area Covered (ha)***
	Type 1	*1*	*3.66*		*105*
31) Future Expansion					
32) Deterioration of the System	*Canal and embankments can be easily damaged due to uncontrolled irrigation water coming from the river source.*				
33) Other Information	*Changed river course abandoning intake structure. Channeling must be done after rainy season to provide effeicient irrigation service.*				

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***BACO-BUCAYAO***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Baco & Langkawan Rivers*	
3) Approved Water Rights	*20000 lps*		*4) Official Opening of the System*	*Feb. 15, 1973*
5) Original Construction Cost	*P 7,340,000.00*		*6) Date of Rehabilitation*	*June1975 9MIRDO-ICO*
7) Cost of Rehabilitation			*8) Current Status*	*Operating System*
9) Firmed-up Service Area	*6327*		*10) Designed Area*	*10000*
11) Potential Area	*10000*		*12) Number of Landowners*	*2577*
13) Number of Farmers Served	*2574*		*14) Average Farm Size*	*5*
15) Number of Lots	*3*		*16) Diversion Type*	*Ogee Dam*
17) Diversion Capacity	*14.55*		*18) Length of Main Canal*	*24.779*
19) Length of Laterals	*97*		*20) Number of Turnouts*	*523*
21) Length of Service Roads	*105.85*		*22) Length of Access Roads*	*5.3*
23) Drainage Density	*28*		*24) Farmditch Density*	*48*
25) Climatic Condition (Coronas)	*Type IV*		*26) Average Annual Rainfall*	*1788.5*
27) Main Crops				

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Calapan	*Oriental Mindoro*	*5225*
Naujan	*Oriental Mindoro*	*1009*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*3786*	*4150*	
Benefitted Area (ha)	*360*	*4030*	
Average Yield (cav/ha)	*60*	*70*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Type 1 & 2	*2*		*700*

31) Future Expansion

32) Deterioration of the System

Perennial siltation due to watershed ecological disorder.

33) Other Information

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***BALANAC***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Balanac River*	
3) Approved Water Rights	*1718 lps*		*4) Official Opening of the System*	*Mar. 1967*
5) Original Construction Cost	*P 900,000.00*		*6) Date of Rehabilitation*	*1984-1987 SLBIP*
7) Cost of Rehabilitation	*P 37,105,575.00*		*8) Current Status*	*Operating system*
9) Firmed-up Service Area	*1040*		*10) Designed Area*	*1200*
11) Potential Area	*1300*		*12) Number of Landowners*	*928*
13) Number of Farmers Served	*1277*		*14) Average Farm Size*	*0.7171*
15) Number of Lots	*1435*		*16) Diversion Type*	*Ogee Dam*
17) Diversion Capacity	*3.9*		*18) Length of Main Canal*	*13.263*
19) Length of Laterals	*14.938*		*20) Number of Turnouts*	*82*
21) Length of Service Roads	*9.428*		*22) Length of Access Roads*	*20*
23) Drainage Density	*8.92*		*24) Farmditch Density*	*43.75*
25) Climatic Condition (Coronas)	*Type IV*		*26) Average Annual Rainfall*	
27) Main Crops	*Rice, Corn, Vegetables*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Sta Cruz	*Laguna*	*135*
Pagsanjan	*Laguna*	*405*
Lumban	*Laguna*	*400*
Magdalena	*Laguna*	*100*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*764.9682*	*965.2721*	
Benefitted Area (ha)	*635.2848*	*937.3838*	
Average Yield (cav/ha)	*78*	*91*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Type 1 & 2	*1*	*28.201*	*1040*

31) Future Expansion	*The present area may be increased after rehabilitation of the system thru WRDP from 1,040 to 1,300 has.*
32) Deterioration of the System	*The system is scheduled to be given rehabilitation funds thru WRDP.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***BALAYUNGAN***				
1) Water Resources Region	*4*	*2) Source of Water Supply*		*Balayangan River*	
3) Approved Water Rights			*4) Official Opening of the System*		*Spanish Time*
5) Original Construction Cost			*6) Date of Rehabilitation*		
7) Cost of Rehabilitation			*8) Current Status*		*Operating System*
9) Firmed-up Service Area	*1655.8518*		*10) Designed Area*		*1699.6157*
11) Potential Area	*1699.6157*		*12) Number of Landowners*		*1081*
13) Number of Farmers Served	*1049*		*14) Average Farm Size*		*1.62*
15) Number of Lots	*1081*		*16) Diversion Type*		*Diversion Dam*
17) Diversion Capacity	*2.54942*		*18) Length of Main Canal*		*14.397*
19) Length of Laterals	*17.973*		*20) Number of Turnouts*		*212*
21) Length of Service Roads	*32.35*		*22) Length of Access Roads*		
23) Drainage Density			*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type I*		*26) Average Annual Rainfall*		
27) Main Crops	*Rice*				

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Naic	*Cavite*	*1462.6144*
Ternate	*Cavite*	*26.4365*
Maragondon	*Cavite*	*210.5648*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*1586*	*1453*	
Benefitted Area (ha)	*1273*	*1452*	
Average Yield (cav/ha)	*61*	*83*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Stage 1			

31) Future Expansion

32) Deterioration of the System

Canal Rehabilitation and Improvement

33) Other Information

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***BANKUD***				
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Kay Alemang River*		
3) Approved Water Rights			*4) Official Opening of the System*	*Spanish Time*	
5) Original Construction Cost			*6) Date of Rehabilitation*		
7) Cost of Rehabilitation			*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*512.1433*		*10) Designed Area*	*800*	
11) Potential Area	*800*		*12) Number of Landowners*	*204*	
13) Number of Farmers Served	*327*		*14) Average Farm Size*	*1.566*	
15) Number of Lots	*255*		*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*1.2*		*18) Length of Main Canal*	*11.5*	
19) Length of Laterals	*6.7*		*20) Number of Turnouts*	*99*	
21) Length of Service Roads	*11.36*		*22) Length of Access Roads*		
23) Drainage Density	*16.7*		*24) Farmditch Density*	*19.09*	
25) Climatic Condition (Coronas)	*Type I*		*26) Average Annual Rainfall*		
27) Main Crops	*Rice*				

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Gen Trias	*Cavite*	*791.265*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*669.7862*	*132.0585*		
Benefitted Area (ha)	*585.7193*	*132.0585*		
Average Yield (cav/ha)	*65*	*83*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*

31) Future Expansion	
32) Deterioration of the System	*Canal Rehabilitation and Improvement*
33) Other Information	

NATIONAL WATER RESOURCES BOARD	SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***BANSUD***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Bansud & Langkawan Rivers*	
3) Approved Water Rights		*4) Official Opening of the System*		
5) Original Construction Cost		*6) Date of Rehabilitation*	*1975*	
7) Cost of Rehabilitation		*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*870*	*10) Designed Area*	*1081*	
11) Potential Area	*1081*	*12) Number of Landowners*	*679*	
13) Number of Farmers Served	*693*	*14) Average Farm Size*	*1.45*	
15) Number of Lots	*601*	*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*1.6*	*18) Length of Main Canal*	*7.553*	
19) Length of Laterals	*11.288*	*20) Number of Turnouts*	*39*	
21) Length of Service Roads	*22.134*	*22) Length of Access Roads*	*15.25*	
23) Drainage Density	*15*	*24) Farmditch Density*	*75*	
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*	*2027.6*	
27) Main Crops	*Rice, Monggo, Watermelon*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Bansud	*Oriental Mindoro*	*870*
		Total	*0*

29) Irrigated / Benefitted Area			
Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*870.21*	*830.8*	
Benefitted Area (ha)	*767.06*	*798.27*	
Average Yield (cav/ha)	*71*	*76*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
	Type 1 & 2	*1*	*3.586*	*209*

31) Future Expansion	*Proposed Markang Bato Irrigation Project has potential area of 884 ha.*
32) Deterioration of the System	*Near collapse of Lateral SA & service road of Division affecting 827 ha.*
33) Other Information	*Alarming siltation from denuded watershed*

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***BUTAS-MARCELO***				
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Rio Grande River*		
3) Approved Water Rights			*4) Official Opening of the System*	*Spanish Time*	
5) Original Construction Cost			*6) Date of Rehabilitation*		
7) Cost of Rehabilitation			*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*1973.944*		*10) Designed Area*	*2300*	
11) Potential Area	*2300*		*12) Number of Landowners*	*796*	
13) Number of Farmers Served	*1055*		*14) Average Farm Size*	*1.87*	
15) Number of Lots	*837*		*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*3450*		*18) Length of Main Canal*	*26.818*	
19) Length of Laterals	*25.375*		*20) Number of Turnouts*	*282*	
21) Length of Service Roads	*35.5*		*22) Length of Access Roads*	*3.4*	
23) Drainage Density			*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type I*		*26) Average Annual Rainfall*		
27) Main Crops	*Rice, Garlic, Watermelon*				
28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***		
	Gen.Trias	*Cavite*	*2260.6*		
		Total	*0*		
29) Irrigated / Benefitted Area					
Average	*1985-1995*				
Season	***Wet***	***Dry***	***Third***		
Irrigated Area (ha)	*1964.08*	*205.9607*			
Benefitted Area (ha)	*1741.59*	*205.9607*			
Average Yield (cav/ha)	*65*	*84*			
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***	
	Stage I				
31) Future Expansion					
32) Deterioration of the System	*Canal Rehabilitation and Improvement*				
33) Other Information					

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***CABUYAO EAST PUMPS***				
1) Water Resources Region	*4*	*2) Source of Water Supply*	*San Cristobal River*		
3) Approved Water Rights			*4) Official Opening of the System*	*Aug. 1980*	
5) Original Construction Cost	*P 20,207,481.18*		*6) Date of Rehabilitation*	*On-going IOSP*	
7) Cost of Rehabilitation	*P 1,362,412.88*		*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*632*		*10) Designed Area*	*1332*	
11) Potential Area	*1132*		*12) Number of Landowners*	*267*	
13) Number of Farmers Served	*349*		*14) Average Farm Size*	*1.28*	
15) Number of Lots	*493*		*16) Diversion Type*	*Pumps*	
17) Diversion Capacity	*2.15*		*18) Length of Main Canal*	*5.26*	
19) Length of Laterals	*10.81*		*20) Number of Turnouts*	*30*	
21) Length of Service Roads	*15.74*		*22) Length of Access Roads*	*5.6*	
23) Drainage Density	*18.05*		*24) Farmditch Density*	*66*	
25) Climatic Condition (Coronas)	*Type IV*		*26) Average Annual Rainfall*	*1284*	
27) Main Crops	*Rice, Garlic, Watermelon*				
28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***		
	Cabuyao	*Laguna*	*632*		
		Total	***0***		
29) Irrigated / Benefitted Area					
Average	*1985-1995*				
Season	***Wet***	***Dry***	***Third***		
Irrigated Area (ha)	*582*	*579*			
Benefitted Area (ha)	*513*	*546*			
Average Yield (cav/ha)	*80*	*99*			
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	*Length of Canal (km) under contract*	***Area Covered (ha)***	
31) Future Expansion	*There will be expansion if Lateral C & D could be irrigated*				
32) Deterioration of the System	*The system needs rehab. Access road needs repair.*				
33) Other Information					

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***CANTINGAS***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Cantingas River*	
3) Approved Water Rights		*4) Official Opening of the System*	*1957*	
5) Original Construction Cost	*P 204,800.00*	*6) Date of Rehabilitation*	*1996*	
7) Cost of Rehabilitation	*P 3,026,738.00*	*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*256*	*10) Designed Area*	*310*	
11) Potential Area	*310*	*12) Number of Landowners*	*319*	
13) Number of Farmers Served	*301*	*14) Average Farm Size*	*0.83*	
15) Number of Lots	*310*	*16) Diversion Type*	*Intake*	
17) Diversion Capacity		*18) Length of Main Canal*	*3.08*	
19) Length of Laterals	*3.45*	*20) Number of Turnouts*	*34*	
21) Length of Service Roads	*6.15*	*22) Length of Access Roads*		
23) Drainage Density		*24) Farmdutch Density*		
25) Climatic Condition (Coronas)	*Type I*	*26) Average Annual Rainfall*	*194.36*	
27) Main Crops	*Rice*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Fernando	*Romblon*	*256*
		Total	***0***

29) Irrigated / Benefitted Area			
Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*256*	*256*	
Benefitted Area (ha)	*256*	*256*	
Average Yield (cav/ha)	*70*	*70*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
	Stage III	*3*	*6.53*	*256*

31) Future Expansion	*Additional area of 26 ha from improvement by ARC and ARISP*
32) Deterioration of the System	*Perennial siltation of main canal sourced from Cantingas river*
33) Other Information	*Declared as Agrarian Reform Community (ARC)*

NATIONAL WATER RESOURCES BOARD	SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***CULONG-CULONG***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Culong-culong River*	
3) Approved Water Rights		*4) Official Opening of the System*	*Spanish time*	
5) Original Construction Cost		*6) Date of Rehabilitation*		
7) Cost of Rehabilitation		*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*507.3497*	*10) Designed Area*	*610.7789*	
11) Potential Area	*610.7789*	*12) Number of Landowners*	*682*	
13) Number of Farmers Served	*376*	*14) Average Farm Size*	*1.6*	
15) Number of Lots	*382*	*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*916*	*18) Length of Main Canal*	*14.407*	
19) Length of Laterals	*11.506*	*20) Number of Turnouts*	*76*	
21) Length of Service Roads	*14.7*	*22) Length of Access Roads*		
23) Drainage Density		*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type I*	*26) Average Annual Rainfall*		
27) Main Crops	*Rice*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Naic	*Cavite*	*610.7789*
		Total	***0***

29) Irrigated / Benefitted Area			
Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*522*	*232*	
Benefitted Area (ha)	*443*	*228*	
Average Yield (cav/ha)	*61*	*63*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
	Stage I (Temporary tur	*376*	*26.9*	*507.3497*

31) Future Expansion	
32) Deterioration of the System	*Canal Rehabilitation and Improvement*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***DIEZMO PUMPS***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Diezmo River*	
3) Approved Water Rights		*4) Official Opening of the System*	*Friars era*	
5) Original Construction Cost		*6) Date of Rehabilitation*	*On-going IOSP*	
7) Cost of Rehabilitation	*P 854,145.17*	*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*693*	*10) Designed Area*		
11) Potential Area		*12) Number of Landowners*	*174*	
13) Number of Farmers Served	*262*	*14) Average Farm Size*	*2.02*	
15) Number of Lots	*344*	*16) Diversion Type*	*Run-of-river*	
17) Diversion Capacity	*2.13*	*18) Length of Main Canal*	*8.72*	
19) Length of Laterals	*22.15*	*20) Number of Turnouts*	*22*	
21) Length of Service Roads		*22) Length of Access Roads*		
23) Drainage Density		*24) Farmditch Density*	*25*	
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*	*1530*	
27) Main Crops	*Rice, Garlic, Watermelon*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Sta Rosa	*Laguna*	*693*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*618*	*493*	
Benefitted Area (ha)	*596*	*491*	
Average Yield (cav/ha)	*66*	*70*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***

31) Future Expansion	
32) Deterioration of the System	*The system needs rehab. Drainage & flood control needs rehabilitation.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***DUMACAA***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Dumacaa & Ibia River*	
3) Approved Water Rights	*3200*	*4) Official Opening of the System*	*Aug 31, 1954*	
5) Original Construction Cost	*P 1,581,240.00*	*6) Date of Rehabilitation*	*1977-1996*	
7) Cost of Rehabilitation	*P 75,000,000.00*	*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*2509*	*10) Designed Area*	*2227*	
11) Potential Area	*2227*	*12) Number of Landowners*	*1346*	
13) Number of Farmers Served	*1257*	*14) Average Farm Size*	*1.5*	
15) Number of Lots	*2099*	*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*3.76*	*18) Length of Main Canal*	*3.702*	
19) Length of Laterals	*18.85*	*20) Number of Turnouts*	*200*	
21) Length of Service Roads	*82.702*	*22) Length of Access Roads*		
23) Drainage Density		*24) Farmditch Density*	*41.18*	
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*	*3053.6*	
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Lucena	*Quezon*	*2509*
Pagbilao	*Quezon*	
Tayabas	*Quezon*	
	Total	***0***

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*1810*	*2123*	
Benefitted Area (ha)	*1626*	*1900*	
Average Yield (cav/ha)	*65*	*70*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*

31) Future Expansion

32) Deterioration of the System

Existing earth canal should be lined to avoid scouring of embankment.

33) Other Information

Portion of Lucena area of Dumacaa RIS was categorized as residential & industrial area as per zoning ordinance.

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***EMBARCADERO-BALUCTOT***				
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Malaking Ilog River*		
3) Approved Water Rights			*4) Official Opening of the System*	*Spanish Time*	
5) Original Construction Cost			*6) Date of Rehabilitation*		
7) Cost of Rehabilitation			*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*775.8032*		*10) Designed Area*	*1000*	
11) Potential Area	*1000*		*12) Number of Landowners*	*296*	
13) Number of Farmers Served	*248*		*14) Average Farm Size*	*3.13*	
15) Number of Lots	*320*		*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*11.5*		*18) Length of Main Canal*	*12.33*	
19) Length of Laterals	*6.54*		*20) Number of Turnouts*	*117*	
21) Length of Service Roads	*26.48*		*22) Length of Access Roads*	*4.46*	
23) Drainage Density			*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type I*		*26) Average Annual Rainfall*		
27) Main Crops	*Rice, Ampalaya*				
28) Towns / Province Served	***Towns***		***Province***	***Area (ha)***	
	Imus		*Cavite*	*640.7373*	
	Dasmarinas		*Cavite*	*300.2625*	
			Total	*0*	
29) Irrigated / Benefitted Area					
Average	*1985-1995*				
Season	***Wet***	***Dry***	***Third***		
Irrigated Area (ha)	*522.0421*	*11.875*			
Benefitted Area (ha)	*457.7959*	*11.875*			
Average Yield (cav/ha)	*59*	*65*			
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***	
	Stage I				
31) Future Expansion					
32) Deterioration of the System	*Canal Rehabilitation and Improvement*				
33) Other Information					

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***HANAGDON***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Hanagdon River*	
3) Approved Water Rights	*398*	*4) Official Opening of the System*	*1944*	
5) Original Construction Cost	*P 100,000.00*	*6) Date of Rehabilitation*	*1977-1996 (incl. Dumacaa)*	
7) Cost of Rehabilitation	*P1,335,709.00*	*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*329*	*10) Designed Area*	*329*	
11) Potential Area	*329*	*12) Number of Landowners*	*32*	
13) Number of Farmers Served	*218*	*14) Average Farm Size*	*2*	
15) Number of Lots	*40*	*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*0.05*	*18) Length of Main Canal*	*7.3*	
19) Length of Laterals	*1.8*	*20) Number of Turnouts*	*7*	
21) Length of Service Roads	*7.3*	*22) Length of Access Roads*	*3660*	
23) Drainage Density		*24) Farmditch Density*	*69.56*	
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*	*4380*	
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Sariaya	*Quezon*	*329*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*291*	*252*	
Benefitted Area (ha)	*259*	*225*	
Average Yield (cav/ha)	*65*	*70*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Stage II	*1*	*3.71*	*95.16*

31) Future Expansion	
32) Deterioration of the System	*Existing earth canal should be lined to avoid scouring of embankment.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD	SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***KAY-AKLE RIVER***				
1) Water Resources Region	*4*	*2) Source of Water Supply*		*Kay-Akle River*	
3) Approved Water Rights			*4) Official Opening of the System*		
5) Original Construction Cost			*6) Date of Rehabilitation*		
7) Cost of Rehabilitation			*8) Current Status*		*Operating system*
9) Firmed-up Service Area	*374.459*		*10) Designed Area*		*378.296*
11) Potential Area	*378.296*		*12) Number of Landowners*		*260*
13) Number of Farmers Served	*260*		*14) Average Farm Size*		*1.45*
15) Number of Lots	*260*		*16) Diversion Type*		*Diversion Dam*
17) Diversion Capacity	*567*		*18) Length of Main Canal*		*12.525*
19) Length of Laterals			*20) Number of Turnouts*		*47*
21) Length of Service Roads	*8.26*		*22) Length of Access Roads*		
23) Drainage Density			*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type I*		*26) Average Annual Rainfall*		
27) Main Crops	*Rice*				

28) Towns / Province Served	*Towns*	*Province*	*Area (ha)*
	Maragondon	*Cavite*	*370.8519*
	Ternate	*Cavite*	*3.4141*
		Total	*0*

29) Irrigated / Benefitted Area				
Average	*1985-1995*			
Season	*Wet*	*Dry*	*Third*	
Irrigated Area (ha)	*324*	*257*		
Benefitted Area (ha)	*268*	*257*		
Average Yield (cav/ha)	*61*	*83*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	*Nature of Contract*	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
	Type I	*1*	*5.997*	*166*

31) Future Expansion	*Expansion of 100 ha.*
32) Deterioration of the System	*Canal Rehabilitation and Improvement*
33) Other Information	*In Stage II, Length of canal under contract is 12.525, and Area covered is 369.2309*

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***LAGNAS***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Lagnas and Bulakin River*	
3) Approved Water Rights	*1000*		*4) Official Opening of the System*	*Aug. 16, 1958*
5) Original Construction Cost	*P 300,000.00*		*6) Date of Rehabilitation*	*1977 - 1996 (incl. Dumacoa)*
7) Cost of Rehabilitation			*8) Current Status*	*Operating System*
9) Firmed-up Service Area	*857*		*10) Designed Area*	*753*
11) Potential Area	*753*		*12) Number of Landowners*	*344*
13) Number of Farmers Served	*496*		*14) Average Farm Size*	*1*
15) Number of Lots	*544*		*16) Diversion Type*	*Diversion Dam*
17) Diversion Capacity	*1.3*		*18) Length of Main Canal*	*6.26*
19) Length of Laterals	*8.6*		*20) Number of Turnouts*	*46*
21) Length of Service Roads	*13.17*		*22) Length of Access Roads*	*1.78*
23) Drainage Density			*24) Farmditch Density*	*23.5*
25) Climatic Condition (Coronas)	*Type II*		*26) Average Annual Rainfall*	*5475*
27) Main Crops	*Rice*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Tiaong	*Quezon*	*85*
		Total	***0***

29) Irrigated / Benefitted Area				
Average	*1985-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*601*	*506*		
Benefitted Area (ha)	*515*	*452*		
Average Yield (cav/ha)	*65*	*70*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***

31) Future Expansion	
32) Deterioration of the System	*Existing earth canal should be lined to avoid scouring of embankment.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***LUKSUHIN-MAKULING***				
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Malinta River*		
3) Approved Water Rights			*4) Official Opening of the System*	*Spanish Time*	
5) Original Construction Cost			*6) Date of Rehabilitation*		
7) Cost of Rehabilitation			*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*498.1639*		*10) Designed Area*	*900*	
11) Potential Area	*900*		*12) Number of Landowners*	*312*	
13) Number of Farmers Served	*401*		*14) Average Farm Size*	*1.24*	
15) Number of Lots	*359*		*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*1350*		*18) Length of Main Canal*	*17.698*	
19) Length of Laterals	*13.603*		*20) Number of Turnouts*	*108*	
21) Length of Service Roads	*1.25*		*22) Length of Access Roads*		
23) Drainage Density			*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type I*		*26) Average Annual Rainfall*		
27) Main Crops	*Rice, Ampalaya*				
28) Towns / Province Served	***Towns***		***Province***	***Area (ha)***	
	Imus		*Cavite*	*258.496*	
	Dasmarinas		*Cavite*	*606.7458*	
			Total	*0*	
29) Irrigated / Benefitted Area					
Average	*1985-1995*				
Season	***Wet***	***Dry***	***Third***		
Irrigated Area (ha)	*594.8032*				
Benefitted Area (ha)	*539.9494*				
Average Yield (cav/ha)	*54*				
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***	
	Stage 1				
31) Future Expansion					
32) Deterioration of the System	*Canal Rehabilitation and Improvement*				
33) Other Information					

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	**LUMBAN**			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*NPC Tailrace and Lewin Cr.*	
3) Approved Water Rights		*4) Official Opening of the System*	*Apr. 16, 1967*	
5) Original Construction Cost	*P 100,000.00*	*6) Date of Rehabilitation*		
7) Cost of Rehabilitation		*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*102*	*10) Designed Area*		
11) Potential Area	*200*	*12) Number of Landowners*	*84*	
13) Number of Farmers Served	*100*	*14) Average Farm Size*	*0.8304*	
15) Number of Lots	*123*	*16) Diversion Type*	*Intake*	
17) Diversion Capacity	*0.11*	*18) Length of Main Canal*	*4.662*	
19) Length of Laterals	*1.058*	*20) Number of Turnouts*	*5*	
21) Length of Service Roads		*22) Length of Access Roads*	*8*	
23) Drainage Density	*11.76*	*24) Farmditch Density*	*29.28*	
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*		
27) Main Crops	*Rice, Corn, Vegetables*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Lumban	*Laguna*	*102*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*50.1156*	*97.1894*	
Benefitted Area (ha)	*42.8017*	*94.9774*	
Average Yield (cav/ha)	*65*	*90*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Mainterance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Type 1 & 2	*1*	*5.72*	

31) Future Expansion	*The expansion depends on available water supply. If water supply is available, 100 ha. be additional service area*
32) Deterioration of the System	*Improvement of canal and structures are yearly programmed.*
33) Other Information	

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SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***MABACAN***				
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Mabacan River*		
3) Approved Water Rights	*364*		*4) Official Opening of the System*	*Jun. 16, 1961*	
5) Original Construction Cost	*P 600,000.00*		*6) Date of Rehabilitation*	*1990, IOSP*	
7) Cost of Rehabilitation			*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*390*		*10) Designed Area*	*1100*	
11) Potential Area	*1100*		*12) Number of Landowners*	*180*	
13) Number of Farmers Served	*361*		*14) Average Farm Size*	*2.029*	
15) Number of Lots	*207*		*16) Diversion Type*	*Low overflow dam*	
17) Diversion Capacity	*2.54*		*18) Length of Main Canal*	*8.48*	
19) Length of Laterals	*9.564*		*20) Number of Turnouts*	*33*	
21) Length of Service Roads			*22) Length of Access Roads*	*18.14*	
23) Drainage Density	*25*		*24) Farmditch Density*	*13*	
25) Climatic Condition (Coronas)	*Type IV*		*26) Average Annual Rainfall*		
27) Main Crops	*Rice, Watermelon, Corn, Vegetables*				

28) Towns / Province Served

Towns	***Province***	***Area (ha)***
L. Banos	*Laguna*	*25*
Bay	*Laguna*	*273*
Calauan	*Laguna*	*92*
	Total	***0***

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*498.9975*	*528.5997*	
Benefitted Area (ha)	*447.1043*	*518.9345*	
Average Yield (cav/ha)	*63*	*86*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
Stage I, Type 1 & 2	*1*	*3*	*88*

31) Future Expansion

The expansion depends on available water supply. If water supply is available , 100 ha. will be the expansion area.

32) Deterioration of the System

Improvement of canal and structures are yearly programmed.

33) Other Information

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***MACABLING***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Sta. Rosa River*	
3) Approved Water Rights		*4) Official Opening of the System*	*Friars era*	
5) Original Construction Cost		*6) Date of Rehabilitation*	*On-going IOSP*	
7) Cost of Rehabilitation	*P 915,970.57*	*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*680*	*10) Designed Area*		
11) Potential Area		*12) Number of Landowners*	*244*	
13) Number of Farmers Served	*287*	*14) Average Farm Size*	*1.84*	
15) Number of Lots	*369*	*16) Diversion Type*	*Run-of-river*	
17) Diversion Capacity	*1.32*	*18) Length of Main Canal*	*6.55*	
19) Length of Laterals	*3.4*	*20) Number of Turnouts*	*13*	
21) Length of Service Roads	*9.17*	*22) Length of Access Roads*	*3.65*	
23) Drainage Density	*4.64*	*24) Farmditch Density*	*59*	
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*	*1457*	
27) Main Crops	*Rice, Garlic, Watermelon*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Sta. Rosa	*Laguna*	*680*
		Total	*0*

29) Irrigated / Benefitted Area				
Average	*1985-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*645*	*474*		
Benefitted Area (ha)	*615*	*471*		
Average Yield (cav/ha)	*60*	*63*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***

31) Future Expansion	
32) Deterioration of the System	*Access road needs repair. The system needs rehab. Drainage & flood control needs rehabilitation.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***MAG-ASAWANG TUBIG***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Mag-asawa Tubig & Mapalo R.*	
3) Approved Water Rights	*10128*		*4) Official Opening of the System*	*Nov. 1987*
5) Original Construction Cost			*6) Date of Rehabilitation*	*Jul. 1987*
7) Cost of Rehabilitation			*8) Current Status*	*Operating system*
9) Firmed-up Service Area	*1700*		*10) Designed Area*	*3600*
11) Potential Area	*3600*		*12) Number of Landowners*	*1192*
13) Number of Farmers Served	*1382*		*14) Average Farm Size*	*3*
15) Number of Lots	*570*		*16) Diversion Type*	*Intake*
17) Diversion Capacity			*18) Length of Main Canal*	*16.03*
19) Length of Laterals	*28.24*		*20) Number of Turnouts*	*127*
21) Length of Service Roads	*57.79*		*22) Length of Access Roads*	
23) Drainage Density			*24) Farmditch Density*	
25) Climatic Condition (Coronas)	*Type IV*		*26) Average Annual Rainfall*	*4.9*
27) Main Crops	*Rice*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Naujan	*Oriental Mindoro*	*1200*
	Victoria	*Oriental Mindoro*	*500*
		Total	***0***

29) Irrigated / Benefitted Area				
Average	*1985-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*998*	*1248*		
Benefitted Area (ha)	*926*	*1145*		
Average Yield (cav/ha)	*80*	*80*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***

31) Future Expansion	
32) Deterioration of the System	*Perennial siltation due to watershed ecological disorder.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***MALAUNOD***				
1) Water Resources Region	*4*	*2) Source of Water Supply*		*Malaunod River*	
3) Approved Water Rights	*35*		*4) Official Opening of the System*		*Sept. 18, 1950*
5) Original Construction Cost	*P 104,757.00*		*6) Date of Rehabilitation*		*1990 IOSP*
7) Cost of Rehabilitation			*8) Current Status*		*Operating System*
9) Firmed-up Service Area	*228*		*10) Designed Area*		*233*
11) Potential Area	*233*		*12) Number of Landowners*		*121*
13) Number of Farmers Served	*200*		*14) Average Farm Size*		*1.1696*
15) Number of Lots	*195*		*16) Diversion Type*		*Ogee Dam*
17) Diversion Capacity	*1.131*		*18) Length of Main Canal*		*5.8*
19) Length of Laterals	*7.2*		*20) Number of Turnouts*		*27*
21) Length of Service Roads			*22) Length of Access Roads*		*8.34*
23) Drainage Density	*0.88*		*24) Farmditch Density*		*13.6*
25) Climatic Condition (Coronas)	*Type IV*		*26) Average Annual Rainfall*		
27) Main Crops	*Rice, Vegetables, Ampalaya*				
28) Towns / Province Served	***Towns***		***Province***		***Area (ha)***
	San Pablo		*Laguna*		*215*
	Tiaong		*Laguna*		*13*
			Total		*0*
29) Irrigated / Benefitted Area					
Average	*1985-1995*				
Season	***Wet***	***Dry***	***Third***		
Irrigated Area (ha)	*222.2407*	*221.9407*			
Benefitted Area (ha)	*209.8837*	*217.246*			
Average Yield (cav/ha)	*62*	*81*			
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***		***Area Covered (ha)***
	Type 1 & 2	*1*	*13.005*		*228*
31) Future Expansion	*The present area comprises the whole area that can be planted with palay.*				
32) Deterioration of the System	*Improvement of canal and structures are yearly programmed.*				
33) Other Information					

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***MATANDA***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Quintana River*	
3) Approved Water Rights		*4) Official Opening of the System*	*Spanish Time*	
5) Original Construction Cost		*6) Date of Rehabilitation*		
7) Cost of Rehabilitation		*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*1347.7657*	*10) Designed Area*	*1967.5261*	
11) Potential Area	*1967.5267*	*12) Number of Landowners*	*425*	
13) Number of Farmers Served	*761*	*14) Average Farm Size*	*1.8*	
15) Number of Lots	*784*	*16) Diversion Type*	*Diversion Dam (reservoir typ*	
17) Diversion Capacity	*2951.28*	*18) Length of Main Canal*	*11692*	
19) Length of Laterals	*24925*	*20) Number of Turnouts*	*246*	
21) Length of Service Roads	*41.82*	*22) Length of Access Roads*		
23) Drainage Density		*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type I*	*26) Average Annual Rainfall*		
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Tanza	*cavite*	*1967.5261*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*762.9798*	*180.06*	
Benefitted Area (ha)	*642.9203*	*180.06*	
Average Yield (cav/ha)	*58.5*	*69.98*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Stage I			

31) Future Expansion

32) Deterioration of the System

33) Other Information

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***MAYOR***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Mayor River*	
3) Approved Water Rights		*4) Official Opening of the System*	*May. 24, 1957*	
5) Original Construction Cost	*P 192,000.00*	*6) Date of Rehabilitation*	*1976-1984*	
7) Cost of Rehabilitation		*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*374*	*10) Designed Area*	*400*	
11) Potential Area	*472*	*12) Number of Landowners*	*700*	
13) Number of Farmers Served	*1300*	*14) Average Farm Size*	*0.25*	
15) Number of Lots	*1500*	*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity		*18) Length of Main Canal*	*6.899*	
19) Length of Laterals	*11.803*	*20) Number of Turnouts*	*29*	
21) Length of Service Roads	*4.853*	*22) Length of Access Roads*		
23) Drainage Density		*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*	*912.5*	
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Mabitac	*Laguna*	*120*
Famy	*Laguna*	*98*
Siniloan	*Laguna*	*154*
	Total	*0*

29) Irrigated / Benefitted Area

Average *1985-1995*

Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*202.6*	*226.5*	
Benefitted Area (ha)	*106.5*	*192.5*	
Average Yield (cav/ha)	*65*	*70*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Type I	*1*	*18.707*	*372*

31) Future Expansion

32) Deterioration of the System

Deterioration of canal embankments in all parts of the system.

33) Other Information

NATIONAL WATER RESOURCES BOARD	SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***MOLINO (CAVITE FRIAR LANDS)***				
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Dona Celia River*		
3) Approved Water Rights			*4) Official Opening of the System*	*Spanish Time*	
5) Original Construction Cost			*6) Date of Rehabilitation*		
7) Cost of Rehabilitation			*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*208.8423*		*10) Designed Area*	*450*	
11) Potential Area	*450*		*12) Number of Landowners*	*87*	
13) Number of Farmers Served	*101*		*14) Average Farm Size*	*2.067*	
15) Number of Lots	*100*		*16) Diversion Type*	*Diversion Dam (reservoir typ*	
17) Diversion Capacity	*0.675*		*18) Length of Main Canal*	*12.196*	
19) Length of Laterals	*5.495*		*20) Number of Turnouts*	*55*	
21) Length of Service Roads	*10.02*		*22) Length of Access Roads*	*1.51*	
23) Drainage Density			*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type I*		*26) Average Annual Rainfall*		
27) Main Crops	*Rice*				
28) Towns / Province Served	***Towns***	***Province***		***Area (ha)***	
	Bacoor	*Cavite*		*442.5005*	
		Total		*0*	
29) Irrigated / Benefitted Area					
Average	*1985-1995*				
Season	***Wet***	***Dry***	***Third***		
Irrigated Area (ha)	*307.8174*				
Benefitted Area (ha)	*263.1073*				
Average Yield (cav/ha)	*58.75*				
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***	
	Stage I				
31) Future Expansion					
32) Deterioration of the System	*Canal Rehabilitation and Improvement*				
33) Other Information					

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***MONGPONG***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Mongpong River*	
3) Approved Water Rights		*4) Official Opening of the System*	*May. 15, 1991*	
5) Original Construction Cost		*6) Date of Rehabilitation*	*On-going IOSP*	
7) Cost of Rehabilitation		*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*882*	*10) Designed Area*	*2400*	
11) Potential Area	*1928*	*12) Number of Landowners*	*77*	
13) Number of Farmers Served	*75*	*14) Average Farm Size*	*9.8*	
15) Number of Lots	*90*	*16) Diversion Type*	*Intake*	
17) Diversion Capacity		*18) Length of Main Canal*	*11.384*	
19) Length of Laterals	*4.54*	*20) Number of Turnouts*	*34*	
21) Length of Service Roads	*15.172*	*22) Length of Access Roads*		
23) Drainage Density		*24) Farmditch Density*	*10.026*	
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*		
27) Main Crops	*Rice*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Sablayan	*Occidental Mindoro*	*882*
		Total	*0*

29) Irrigated / Benefitted Area			
Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*250*	*200*	
Benefitted Area (ha)	*250*	*200*	
Average Yield (cav/ha)	*75*	*70*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	*Length of Canal (km) under contract*	***Area Covered (ha)***
	Type 1 & 2	*4*	*4.48*	*192*

31) Future Expansion	*Additional area can be generated if additional facilities can be extended to lower areas.*
32) Deterioration of the System	*Frequent brushdamming esp. during wet season*
33) Other Information	*Scarce irrigation water supply during dry season*

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***PALICO***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Palico River*	
3) Approved Water Rights	*1300*		*4) Official Opening of the System*	*1961*
5) Original Construction Cost			*6) Date of Rehabilitation*	*1975-1986*
7) Cost of Rehabilitation	*P 8,648,755.00*		*8) Current Status*	*Operating System*
9) Firmed-up Service Area	*886*		*10) Designed Area*	*886*
11) Potential Area	*886*		*12) Number of Landowners*	*805*
13) Number of Farmers Served	*785*		*14) Average Farm Size*	*1.01*
15) Number of Lots	*878*		*16) Diversion Type*	*Diversion Dam*
17) Diversion Capacity			*18) Length of Main Canal*	*8.395*
19) Length of Laterals	*23.065*		*20) Number of Turnouts*	*76*
21) Length of Service Roads	*21.66*		*22) Length of Access Roads*	
23) Drainage Density	*16.7*		*24) Farmditch Density*	*19.09*
25) Climatic Condition (Coronas)	*Type IV*		*26) Average Annual Rainfall*	
27) Main Crops	*Rice*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Navaglia	*Batangas*	*752*
	Ilan	*Batangas*	*134*
		Total	*0*

29) Irrigated / Benefitted Area				
Average	*1985-1995*			
Season	*Wet*	*Dry*	*Third*	
Irrigated Area (ha)	*788*	*780*		
Benefitted Area (ha)	*746*	*781*		
Average Yield (cav/ha)	*70*	*75*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***

31) Future Expansion	
32) Deterioration of the System	*Deterioration of various control gates.*
33) Other Information	*Portion of the area is planted with annual crops (sugarcane)*

NATIONAL WATER RESOURCES BOARD	SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***PLUCENA-BAYAN***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Panaysayan River*	
3) Approved Water Rights		*4) Official Opening of the System*	*Spanish Time*	
5) Original Construction Cost		*6) Date of Rehabilitation*		
7) Cost of Rehabilitation		*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*342 3635*	*10) Designed Area*	*510*	
11) Potential Area	*510*	*12) Number of Landowners*	*142*	
13) Number of Farmers Served	*184*	*14) Average Farm Size*	*1.8606*	
15) Number of Lots	*163*	*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*0.765*	*18) Length of Main Canal*	*12.407*	
19) Length of Laterals	*12.174*	*20) Number of Turnouts*	*63*	
21) Length of Service Roads	*11.64*	*22) Length of Access Roads*	*2.28*	
23) Drainage Density		*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type I*	*26) Average Annual Rainfall*		
27) Main Crops	*Rice, Watermelon*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Gen.Trias	*Cavite*	*506.6429*
		Total	***0***

29) Irrigated / Benefitted Area				
Average	*1985-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*410.8371*	*96.7421*		
Benefitted Area (ha)	*343.825*	*96.7421*		
Average Yield (cav/ha)	*65*	*83*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	*Length of Canal (km) under contract*	***Area Covered (ha)***
	Stage I			

31) Future Expansion	
32) Deterioration of the System	*Canal Rehabilitation and Improvement*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***PULA***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Pula River*	
3) Approved Water Rights	*9000*	*4) Official Opening of the System*	*Dec. 15, 1960*	
5) Original Construction Cost	*P 1,594,000.00*	*6) Date of Rehabilitation*	*1975-1985*	
7) Cost of Rehabilitation	*P 109,000,000.00*	*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*2690*	*10) Designed Area*	*3119*	
11) Potential Area	*3119*	*12) Number of Landowners*	*1642*	
13) Number of Farmers Served	*1523*	*14) Average Farm Size*	*1.09*	
15) Number of Lots	*2476*	*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*5*	*18) Length of Main Canal*	*14.375*	
19) Length of Laterals	*31.391*	*20) Number of Turnouts*	*90*	
21) Length of Service Roads	*30.403*	*22) Length of Access Roads*	*22.75*	
23) Drainage Density	*13.41*	*24) Farmditch Density*	*71.42*	
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*	*2329.6*	
27) Main Crops	*Rice, Monggo, Watermelon*			

28) Towns / Province Served

Towns	***Province***	***Area (ha)***
Pinamalayan	*Oriental Mindoro*	*2694*
Socorro	*Oriental Mindoro*	*283*
Pola	*Oriental Mindoro*	*43*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*2528.48*	*2394.1*	
Benefitted Area (ha)	*2586.11*	*2400.74*	
Average Yield (cav/ha)	*73*	*76*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***

31) Future Expansion	*Expansion of 700 ha in Socorro area.*
32) Deterioration of the System	*Sluice gate needs upgrading Rehabilitation of protection dike.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***SAHING***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Sahing River*	
3) Approved Water Rights		*4) Official Opening of the System*	*Spanish time*	
5) Original Construction Cost		*6) Date of Rehabilitation*		
7) Cost of Rehabilitation		*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*264.8261*	*10) Designed Area*	*470.2997*	
11) Potential Area	*470.2992*	*12) Number of Landowners*	*229*	
13) Number of Farmers Served	*229*	*14) Average Farm Size*	*2.05*	
15) Number of Lots	*229*	*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*705*	*18) Length of Main Canal*	*5.87*	
19) Length of Laterals	*7.958*	*20) Number of Turnouts*	*58*	
21) Length of Service Roads	*8.11*	*22) Length of Access Roads*		
23) Drainage Density		*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type 1*	*26) Average Annual Rainfall*		
27) Main Crops	*Rice*			

28) Towns / Province Served	*Towns*	*Province*	*Area (ha)*
	Naic	*Cavite*	*470.2997*
		Total	*0*

29) Irrigated / Benefitted Area			
Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*284*	*128*	
Benefitted Area (ha)	*273*	*128*	
Average Yield (cav/ha)	*61*	*83*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	*Nature of Contract*	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
	Stage I			

31) Future Expansion	
32) Deterioration of the System	*Canal Rehabilitation and Improvement*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***SAN CRISTOBAL***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*San Cristobal River*	
3) Approved Water Rights		*4) Official Opening of the System*	*Friars era*	
5) Original Construction Cost		*6) Date of Rehabilitation*	*On-going IOSP*	
7) Cost of Rehabilitation	*P 1,101,265.93*	*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*413*	*10) Designed Area*		
11) Potential Area		*12) Number of Landowners*	*184*	
13) Number of Farmers Served	*302*	*14) Average Farm Size*	*1*	
15) Number of Lots	*413*	*16) Diversion Type*	*Run-of-river*	
17) Diversion Capacity	*1.31*	*18) Length of Main Canal*	*8.2*	
19) Length of Laterals	*0.69*	*20) Number of Turnouts*	*18*	
21) Length of Service Roads	*8.8*	*22) Length of Access Roads*	*2.3*	
23) Drainage Density	*21.66*	*24) Farmditch Density*	*82*	
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*	*1361*	
27) Main Crops	*Rice, Garlic, Vegitables*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Calamba	*Laguna*	*413*
		Total	*0*

29) Irrigated / Benefitted Area			
Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*369*	*367*	
Benefitted Area (ha)	*354*	*367*	
Average Yield (cav/ha)	*71*	*75*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***

31) Future Expansion	
32) Deterioration of the System	*The system needs rehab. Access road needs repair.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***SAN JUAN***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*San Juan River*	
3) Approved Water Rights		*4) Official Opening of the System*	*Friars era*	
5) Original Construction Cost		*6) Date of Rehabilitation*	*On-going IOSP*	
7) Cost of Rehabilitation		*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*552*	*10) Designed Area*		
11) Potential Area		*12) Number of Landowners*	*252*	
13) Number of Farmers Served	*338*	*14) Average Farm Size*	*1.11*	
15) Number of Lots	*496*	*16) Diversion Type*	*Run-of the-river*	
17) Diversion Capacity	*3.31*	*18) Length of Main Canal*	*7.65*	
19) Length of Laterals	*4.22*	*20) Number of Turnouts*	*12*	
21) Length of Service Roads	*3.8*	*22) Length of Access Roads*		
23) Drainage Density	*20.68*	*24) Farmditch Density*	*55*	
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*	*1898*	
27) Main Crops	*Rice, Garlic, Vegitables*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Calamba	*Laguna*	*552*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*471*	*491*	
Benefitted Area (ha)	*399*	*488*	
Average Yield (cav/ha)	*73*	*81*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*

31) Future Expansion	
32) Deterioration of the System	*The system needs rehab. Access road needs repair.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***SANTA MARIA***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Sta. Maria & Mata Rivers*	
3) Approved Water Rights	*2100*	*4) Official Opening of the System*	*Oct. 2, 1961*	
5) Original Construction Cost	*P 981,000.00*	*6) Date of Rehabilitation*	*1976-1984, 1988-present*	
7) Cost of Rehabilitation		*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*801*	*10) Designed Area*	*2580*	
11) Potential Area	*945*	*12) Number of Landowners*	*500*	
13) Number of Farmers Served	*1000*	*14) Average Farm Size*	*1.74*	
15) Number of Lots	*1605*	*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity		*18) Length of Main Canal*	*13.387*	
19) Length of Laterals	*18.168*	*20) Number of Turnouts*	*46*	
21) Length of Service Roads	*49.926*	*22) Length of Access Roads*		
23) Drainage Density		*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*	*916.15*	
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Sta Maria	*Laguna*	*693*
Mabitac	*Laguna*	*108*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*727.4*	*756*	
Benefitted Area (ha)	*496.7*	*739.4*	
Average Yield (cav/ha)	*65*	*70*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
Type 1	*1*	*31.555*	*801*

31) Future Expansion	*Restoration of previously installed pump irrigation system constructed under Laguna Bay Dev. Project -Irrigation Component.*
32) Deterioration of the System	*Deterioration of canal embankments in all parts of the system.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***STA. CRUZ***			
1) Water Resources Region	*4*	*2) Source of Water Supply*	*Sta. Cruz (Lapad) River*	
3) Approved Water Rights	*5000*	*4) Official Opening of the System*	*Aug. 1, 1958*	
5) Original Construction Cost	*P 2,520,000.00*	*6) Date of Rehabilitation*	*Sept. 1976 - Mar. 1985*	
7) Cost of Rehabilitation	*P 63,171,500.00*	*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*3100*	*10) Designed Area*	*4133*	
11) Potential Area	*4133*	*12) Number of Landowners*	*1826*	
13) Number of Farmers Served	*1753*	*14) Average Farm Size*	*1.1*	
15) Number of Lots	*2613*	*16) Diversion Type*	*Ogee Type Dam*	
17) Diversion Capacity	*4*	*18) Length of Main Canal*	*9.4*	
19) Length of Laterals	*67.501*	*20) Number of Turnouts*	*79*	
21) Length of Service Roads	*61.655*	*22) Length of Access Roads*	*40*	
23) Drainage Density	*22*	*24) Farmditch Density*	*29*	
25) Climatic Condition (Coronas)	*Type IV*	*26) Average Annual Rainfall*	*1396.12*	
27) Main Crops	*Rice, Watermelon, Corn*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Calauan	*Laguna*	*50*
Victoria	*Laguna*	*150*
Lilio	*Laguna*	*52*
Nagcarlan	*Laguna*	*278*
Pila	*Laguna*	*1192*
Sta. Cruz	*Laguna*	*1318*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*2635.2836*	*2397.1042*	
Benefitted Area (ha)	*2292.1438*	*2332.9064*	
Average Yield (cav/ha)	*70*	*95*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under control*	*Area Covered (ha)*
Stage I, Type 1 & 2	*2*	*13.2*	*589.8339*

31) Future Expansion

The expansion depends on available water supply. If water supply is available, 625 ha will be the expansion area.

32) Deterioration of the System

Improvement of canal and structures are yearly programmed.

33) Other Information

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***TRES-CRUSES***				
1) Water Resources Region	*4*	*2) Source of Water Supply*		*Timlan River*	
3) Approved Water Rights			*4) Official Opening of the System*	*Spanish time*	
5) Original Construction Cost			*6) Date of Rehabilitation*		
7) Cost of Rehabilitation			*8) Current Status*	*Operating system*	
9) Firmed-up Service Area	*633.6084*		*10) Designed Area*	*827.6687*	
11) Potential Area	*827.6687*		*12) Number of Landowners*	*162*	
13) Number of Farmers Served	*233*		*14) Average Farm Size*	*1.8*	
15) Number of Lots	*251*		*16) Diversion Type*	*Diversion Dam (reservoir typ*	
17) Diversion Capacity	*1241.5*		*18) Length of Main Canal*	*12830*	
19) Length of Laterals	*10448*		*20) Number of Turnouts*	*103.45*	
21) Length of Service Roads	*18.83*		*22) Length of Access Roads*		
23) Drainage Density			*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Type I*		*26) Average Annual Rainfall*		
27) Main Crops	*Rice*				
28) Towns / Province Served	***Towns***	***Province***		***Area (ha)***	
	Tanza	*Cavite*		*827.6687*	
		Total		***0***	
29) Irrigated / Benefitted Area					
Average	*1985-1995*				
Season	***Wet***	***Dry***	***Third***		
Irrigated Area (ha)	*324*	*257*			
Benefitted Area (ha)	*268*	*257*			
Average Yield (cav/ha)	*61*	*83*			
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***	
	Stage I				
31) Future Expansion					
32) Deterioration of the System					
33) Other Information					

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***DAET-TALISAY RIS***				
1) Water Resources Region	*5*	*2) Source of Water Supply*	*Daet River and Talisay River*		
3) Approved Water Rights	*7.5 cu m /sec.*		*4) Official Opening of the System*	*June 30, 1957*	
5) Original Construction Cost	*P 4,200,000.00*		*6) Date of Rehabilitation*	*June 25, 1979; February 5, 19*	
7) Cost of Rehabilitation	*P 21,546,000.00; P 19,765,20*		*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*2603*		*10) Designed Area*	*3723*	
11) Potential Area	*3484.53*		*12) Number of Landowners*	*2973*	
13) Number of Farmers Served	*3340*		*14) Average Farm Size*	*0.88*	
15) Number of Lots	*4018*		*16) Diversion Type*	*Diversion Dam (Ogee)*	
17) Diversion Capacity	*6.0 cms*		*18) Length of Main Canal*	*21*	
19) Length of Laterals	*55.45*		*20) Number of Turnouts*	*186*	
21) Length of Service Roads	*43.64*		*22) Length of Access Roads*	*3.9*	
23) Drainage Density	*15*		*24) Farmditch Density*	*65*	
25) Climatic Condition (Coronas)	*Type II*		*26) Average Annual Rainfall*	*3550*	
27) Main Crops	*Rice*				
28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***		
	Daet	*Camarines Norte*	*1251.2708*		
	Basud	*Camarines Norte*	*5.462*		
	Mercedes	*Camarines Norte*	*18.4565*		
	Talisay	*Camarines Norte*	*16.84*		
	Vinzons	*Camarines Norte*	*541.06*		
		Total	*0*		
29) Irrigated / Benefitted Area					
Average	*1985-1995*				
Season	***Wet***	***Dry***	***Third***		
Irrigated Area (ha)	*2291*	*2223*			
Benefitted Area (ha)	*2281*	*2165*			
Average Yield (cav/ha)	*73*	*73*			
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***	
	Type I & II	*9*	*63.001*	*2278*	
31) Future Expansion	*Construction of additional source to cover Vinzons area. Sec. Escudero promised a financial assistance during his visit in the mentioned Irrigator's Association.*				
32) Deterioration of the System	*Deformed & worn-out canals that needs immediate lining repair. Other old structures like siphons & road crossing needs also to be replaced by new ones. Asphalting of access/service roads is very necessary.*				
33) Other Information	*PNOC projects at the upstream of our watershed area is believe to give siltation at the upstream portion of the Alawihao Dam. There's a need of 10 units 125 ccYamaha motorcycle for easy access to all areas of the system, for IA contacts, meetings & inspec*				

NATIONAL WATER RESOURCES BOARD	SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***LIBMANAN / CABUSAO PIS***				
1) Water Resources Region	*5*	*2) Source of Water Supply*	*Libmanan River*		
3) Approved Water Rights			*4) Official Opening of the System*	*June 28, 1981*	
5) Original Construction Cost	*P 87,600,000.00*		*6) Date of Rehabilitation*	*1989-1996*	
7) Cost of Rehabilitation	*P 6,260,800.00*		*8) Current Status*	*Operational*	
9) Firmed-up Service Area	*2195*		*10) Designed Area*	*3427*	
11) Potential Area	*3873*		*12) Number of Landowners*	*1688*	
13) Number of Farmers Served	*1868*		*14) Average Farm Size*	*1.3*	
15) Number of Lots	*2841*		*16) Diversion Type*	*pump*	
17) Diversion Capacity	*6.05 cms*		*18) Length of Main Canal*	*11.17*	
19) Length of Laterals	*35.6*		*20) Number of Turnouts*	*119*	
21) Length of Service Roads	*40.61*		*22) Length of Access Roads*		
23) Drainage Density	*23*		*24) Farmditch Density*	*27*	
25) Climatic Condition (Coronas)	*July-Dec.- rainy; Jan.-June- d*		*26) Average Annual Rainfall*		
27) Main Crops	*Rice*				

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Libmanan	*Camarines Sur*	*1305.79*
	Cabusao	*Camarines Sur*	*399*
		Total	*0*

29) Irrigated / Benefitted Area				
Average	*1985-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*1428.8697*	*1630.1417*		
Benefitted Area (ha)	*1050.4347*	*1360.0769*		
Average Yield (cav/ha)	*85.7*	*87*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
	Type I & II	*11*	*39.659*	*2195*

31) Future Expansion	*Construction of additional sub-pumping stations in areas not served by the system can expand the irrigated area particularly in the Municipality of Cabusao.*
32) Deterioration of the System	*There is a need for the complete rehabilitation of the system's facilities particularly the canal and drainage networks.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***MAHABA-NASISI-OGSONG-HIBIGA***				
1) Water Resources Region	*5*	*2) Source of Water Supply*		*MahabaR,Nasisi R,Ogsong R,Hibiga R*	
3) Approved Water Rights	*5,154 lps*		*4) Official Opening of the System*		*January 1, 1954*
5) Original Construction Cost	*P 11,576,262.00*		*6) Date of Rehabilitation*		*1996-1997*
7) Cost of Rehabilitation	*P 16,350,000.00*		*8) Current Status*		*Operating System*
9) Firmed-up Service Area	*1941*		*10) Designed Area*		*1947*
11) Potential Area	*2000*		*12) Number of Landowners*		*1431*
13) Number of Farmers Served	*2937*		*14) Average Farm Size*		*0.89*
15) Number of Lots	*3101*		*16) Diversion Type*		*Gravity Dam*
17) Diversion Capacity	*5.0 cms*		*18) Length of Main Canal*		*36.745*
19) Length of Laterals	*33.455*		*20) Number of Turnouts*		*72*
21) Length of Service Roads	*37.95*		*22) Length of Access Roads*		
23) Drainage Density	*4.93*		*24) Farmditch Density*		*29.97*
25) Climatic Condition (Coronas)			*26) Average Annual Rainfall*		*4345*
27) Main Crops	*Rice*				

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Ligao	*Albay*	*690*
Oas	*Albay*	*63"*
Polangui	*Albay*	*41"*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*1849*	*1819*	
Benefitted Area (ha)	*1834*	*1804*	
Average Yield (cav/ha)	*72*	*79*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Stage III	*6*	*70.2*	*1947*

31) Future Expansion

Existing brush dams within the system are proposed into permanent concrete checkgates and/or run of the river type diversion works.

32) Deterioration of the System

Concrete lining of all main canals and laterals for effective water distribution.

33) Other Information

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Dipolo IS***			
1) Water Resources Region	*9*	*2) Source of Water Supply*	*Tinonan, Domingag, Guitran Dipolo R.*	
3) Approved Water Rights	*3,000 lps*		*4) Official Opening of the System*	*June 1997*
5) Original Construction Cost	*P 1,510,000.00*		*6) Date of Rehabilitation*	*1986-1987*
7) Cost of Rehabilitation	*P 5,863,000.00*		*8) Current Status*	*Operating System*
9) Firmed-up Service Area	*1600*		*10) Designed Area*	*1980*
11) Potential Area	*1980*		*12) Number of Landowners*	*199*
13) Number of Farmers Served	*447*		*14) Average Farm Size*	*1.86*
15) Number of Lots	*113*		*16) Diversion Type*	*Diversion Dam*
17) Diversion Capacity	*3.6046 cms.*		*18) Length of Main Canal*	*23.24*
19) Length of Laterals	*19.32*		*20) Number of Turnouts*	*46*
21) Length of Service Roads	*19.41*		*22) Length of Access Roads*	
23) Drainage Density	*17*		*24) Farmditch Density*	*34*
25) Climatic Condition (Coronas)	*Type 3*		*26) Average Annual Rainfall*	*1244*
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Domingag	*Zamboanga del Sur*	*1600*
	Total	***0***

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*712*	*631*	
Benefitted Area (ha)	*629*	*537*	
Average Yield (cav/ha)	*86*	*85*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
Stage I	*3*	*17.94*	*150*

31) Future Expansion	*The 750 ha. irrigated area will be increased to 1,640 ha under the scheme proposed by WRDP. There is a plan of the system to construct small impounding dam to irrigate add'l. area of 2,000 ha.*
32) Deterioration of the System	*The system has 4 Diversion dams and due to the problem of siltation it is included in the proposal under WRDP. At present there is a program for immediate repair of dams however, funds is not available.*
33) Other Information	*The system is now undergoing rehabilitation work under IOSP - II and local funds.*

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Labangan RIS***			
1) Water Resources Region	*9*	*2) Source of Water Supply*	*Labangan River, Pulacan, Lantian, Tawagan Cr.*	
3) Approved Water Rights	*10.00 cms*		*4) Official Opening of the System*	*November 1959*
5) Original Construction Cost	*P 1,980,000.00*		*6) Date of Rehabilitation*	*January 1979-1996*
7) Cost of Rehabilitation	*P 25,878,720.00*		*8) Current Status*	*Operating System*
9) Firmed-up Service Area	*3195*		*10) Designed Area*	*3000*
11) Potential Area	*4000*		*12) Number of Landowners*	*916*
13) Number of Farmers Served	*926*		*14) Average Farm Size*	*1.7*
15) Number of Lots	*1225*		*16) Diversion Type*	*Dam and Intake*
17) Diversion Capacity	*5.20 cms / 4.20 cms*		*18) Length of Main Canal*	*14.286*
19) Length of Laterals	*54.5*		*20) Number of Turnouts*	*84*
21) Length of Service Roads	*52.33*		*22) Length of Access Roads*	*16.245*
23) Drainage Density	*18.39*		*24) Farmditch Density*	*22.12*
25) Climatic Condition (Coronas)	*Type III*		*26) Average Annual Rainfall*	*1164*
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Labangan	*Zamboanga del Sur*	*2779*
Pagadian City	*Zamboanga del Sur*	*416*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*2465*	*1863*		
Benefitted Area (ha)	*2146*	*1593*		
Average Yield (cav/ha)	*67*	*69*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***

31) Future Expansion

Non-commandable areas can be irrigated when these areas be converted into pump irrigation.

32) Deterioration of the System

Heavy siltation at intake, structure and canal section. Scouring of the river bank near the location of road and canal section. Scouring of canal section specially in the sandy places.

33) Other Information

The Labangan Dam is not functional. The latest survey data indicates that the barrel is full of silt, the elevation of the canal bottom at the outlet of the barrel is 1.5 m higher than the elevation of dam crest. The system is presently using intake as ma

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Salug RIS***			
1) Water Resources Region	*9*	*2) Source of Water Supply*	*Salug Daku, Salug Diut & Osugan River*	
3) Approved Water Rights	*11.141 lps*		*4) Official Opening of the System*	*April 1970*
5) Original Construction Cost	*P 2,500,000.00*		*6) Date of Rehabilitation*	*1979-1997*
7) Cost of Rehabilitation	*P 65,426,381.00*		*8) Current Status*	*Operating System*
9) Firmed-up Service Area	*7224*		*10) Designed Area*	*7300*
11) Potential Area	*7800*		*12) Number of Landowners*	*2281*
13) Number of Farmers Served	*4508*		*14) Average Farm Size*	*1.45*
15) Number of Lots	*930*		*16) Diversion Type*	*2-Diversion Dam, 1-Intake Ty*
17) Diversion Capacity	*21.8 cms.*		*18) Length of Main Canal*	*29.786*
19) Length of Laterals	*106.262*		*20) Number of Turnouts*	*305*
21) Length of Service Roads	*79.214*		*22) Length of Access Roads*	*11.127*
23) Drainage Density	*11.7*		*24) Farmditch Density*	*53.6*
25) Climatic Condition (Coronas)	*Type 3*		*26) Average Annual Rainfall*	*1400.4*
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Mahayag	*Zamboanga del Sur*	*3028*
Molave	*Zamboanga del Sur*	*1663*
Tambulig	*Zamboanga del Sur*	*1608*
Ramon Magsaysay	*Zamboanga del Sur*	*123*
Bonifacio	*Misamis Occidental*	*800*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1955-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*2883*	*5510*		
Benefitted Area (ha)	*5298*	*5262*		
Average Yield (cav/ha)	*83*	*90*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Stage I	*3*	*10.955*	*587*

31) Future Expansion	*Construction of Salug Valley Irrig. Dev. Project (Multi-purpose Dam) to irrigate 22,000 ha.*
32) Deterioration of the System	*Siltation of dam, canals, river beds, drainage canal, service roads and other irrigation facilities.*
33) Other Information	*The system is now undergoing rehab. work on its canal, canal structure, drainage canal and roads.*

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Sibuguey Valley Irrigation System***			
1) Water Resources Region	*9*	*2) Source of Water Supply*	*Sibuguey River & Dipili River*	
3) Approved Water Rights	*3,500 lps*		*4) Official Opening of the System*	*January 1, 1980*
5) Original Construction Cost	*P 35,112,407.00*		*6) Date of Rehabilitation*	*1988-1997*
7) Cost of Rehabilitation	*P 40,000,000.00*		*8) Current Status*	*Operational System*
9) Firmed-up Service Area	*3143*		*10) Designed Area*	*3500*
11) Potential Area	*3500*		*12) Number of Landowners*	*1791*
13) Number of Farmers Served	*2058*		*14) Average Farm Size*	*3.23*
15) Number of Lots	*971*		*16) Diversion Type*	*Diversion Dam*
17) Diversion Capacity	*3.75 cms.*		*18) Length of Main Canal*	*13.46*
19) Length of Laterals	*39.97*		*20) Number of Turnouts*	*58*
21) Length of Service Roads	*51.6*		*22) Length of Access Roads*	*4.3*
23) Drainage Density	*38.34*		*24) Farmditch Density*	*77.4*
25) Climatic Condition (Coronas)	*Type 3*		*26) Average Annual Rainfall*	*978*
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Buyog	*Zamboanga del Sur*	*610*
Bung	*Zamboanga del Sur*	*358*
Diplahan	*Zamboanga del Sur*	*134*
Siay	*Zamboanga del Sur*	*828*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*2052*	*1919*	
Benefitted Area (ha)	*1718*	*1652*	
Average Yield (cav/ha)	*73*	*72*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Stage I and II	*2*	*15.75*	*1004*

31) Future Expansion	*Lower Sibuguey - 3,500 ha. Balangao - 1,000 ha.*
32) Deterioration of the System	*Roads, irrigation canal and drainage canal*
33) Other Information	*Proposed projects for expansion of the system covered by four (4) municipalities Dipalahan, Siay, Imelda and Payao province of Zamboanga del Sur.*

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Manupali RIS***			
1) Water Resources Region	*10*	*2) Source of Water Supply*	*Manupali River*	
3) Approved Water Rights	*8,000 lps*		*4) Official Opening of the System*	*July 1936*
5) Original Construction Cost	*P 199,926,883.00*		*6) Date of Rehabilitation*	*1992-1995*
7) Cost of Rehabilitation	*P 5,468,509.00*		*8) Current Status*	*Operating System*
9) Firmed-up Service Area	*4395*		*10) Designed Area*	*5700*
11) Potential Area	*5700*		*12) Number of Landowners*	*945*
13) Number of Farmers Served	*682*		*14) Average Farm Size*	*1.5*
15) Number of Lots	*384*		*16) Diversion Type*	*Diversion Dam*
17) Diversion Capacity	*10.73 cms*		*18) Length of Main Canal*	*26.792*
19) Length of Laterals	*54.478*		*20) Number of Turnouts*	*158*
21) Length of Service Roads	*81.27*		*22) Length of Access Roads*	*26.58*
23) Drainage Density	*47.43*		*24) Farmditch Density*	*85.17*
25) Climatic Condition (Coronas)	*Type III*		*26) Average Annual Rainfall*	*2012.4*
27) Main Crops	*Rice, Corn, Sugarcane, Durian, Banana, Tomato*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Valencia	*Bukidnon*	*2663*
Lantapan	*Bukidnon*	*1054*
Malaybalay	*Bukidnon*	*678*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1955-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*1133*	*1119*	
Benefitted Area (ha)	*978*	*932*	
Average Yield (cav/ha)	*82*	*78*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Type I	*6*	*22.569*	
Type II	*3*		*4.395*

31) Future Expansion

32) Deterioration of the System

33) Other Information

Declaring Manupali as "Critical Watershed" with Presidential Decree No. 127 dated June 1987.

NATIONAL WATER RESOURCES BOARD	SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Muleta RIS***			
1) Water Resources Region	*10*	*2) Source of Water Supply*	*Muleta and Kulaman Rivers*	
3) Approved Water Rights	*10,000 lps (6.85 & 3.15)*		*4) Official Opening of the System*	*January 1990*
5) Original Construction Cost	*P 212,491,806.00*		*6) Date of Rehabilitation*	
7) Cost of Rehabilitation			*8) Current Status*	*Operating System*
9) Firmed-up Service Area	*4063*		*10) Designed Area*	*5700*
11) Potential Area	*6000*		*12) Number of Landowners*	*802*
13) Number of Farmers Served	*1040*		*14) Average Farm Size*	*2.03*
15) Number of Lots	*777*		*16) Diversion Type*	*Diversion Dam*
17) Diversion Capacity	*6.85, 3.15 lps*		*18) Length of Main Canal*	*52.125*
19) Length of Laterals	*38.493*		*20) Number of Turnouts*	*160*
21) Length of Service Roads	*91.518*		*22) Length of Access Roads*	*3.2*
23) Drainage Density	*12.91*		*24) Farmditch Density*	*19.37*
25) Climatic Condition (Coronas)	*Moderate*		*26) Average Annual Rainfall*	*696.25*
27) Main Crops	*Rice, Corn, Sugarcane*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Maramag	*Bukidnon*	*1412.93*
Don Carlos	*Bukidnon*	*214.07*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1990-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*1012.68*	*915*	
Benefitted Area (ha)	*807.27*	*633.02*	
Average Yield (cav/ha)	*81.33*	*78*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
I & II	*7*	*31.541*	*1327*

31) Future Expansion	*Realization of the proposed reservoir dam across Muleta River to fully generate the system's service area of 4,062 ha. with an additional area of 2,400 ha.*
32) Deterioration of the System	*Continuous roll down of stream flow due to denudation of watershed areas and siltation of headwork & canal system. Comprehensive reforestation project within system's watershed areas.*
33) Other Information	*Assigned equipment needs total rehabilitation/provision of priority O & M equipment to improve system's facilities and better services to farmers clientiles.*

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Pulangui RIS***			
1) Water Resources Region	*10*	*2) Source of Water Supply*	*Pulangui River*	
3) Approved Water Rights		*4) Official Opening of the System*	*January 1984*	
5) Original Construction Cost	*P 199,899,210.00*	*6) Date of Rehabilitation*	*November 1990 - December 1*	
7) Cost of Rehabilitation	*P 255,629,183.00*	*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*11415*	*10) Designed Area*	*11415*	
11) Potential Area	*11415*	*12) Number of Landowners*	*4552*	
13) Number of Farmers Served	*5145*	*14) Average Farm Size*	*2.22*	
15) Number of Lots	*829*	*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*SMC - 19.8 cms; NMC - 1.22*	*18) Length of Main Canal*	*64.214*	
19) Length of Laterals	*157.996*	*20) Number of Turnouts*	*459*	
21) Length of Service Roads	*225.671*	*22) Length of Access Roads*	*129*	
23) Drainage Density	*376.871*	*24) Farmditch Density*	*459.303*	
25) Climatic Condition (Coronas)	*Type III*	*26) Average Annual Rainfall*	*156*	
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Valencia	*Bukidnon*	*91[illegible]5*
Malaybalay	*Bukidnon*	*1515*
Quezon	*Bukidnon*	*[illegible]25*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*7712.13*	*8623.54*	
Benefitted Area (ha)	*7603.06*	*8147.27*	
Average Yield (cav/ha)	*4.09*	*4.01*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Type I	*15*	*161.426*	*11415*
Type II	*7*		

31) Future Expansion	
32) Deterioration of the System	
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Roxas-Kuya RIS***			
1) Water Resources Region	*10*	*2) Source of Water Supply*	*Kuya River*	
3) Approved Water Rights		*4) Official Opening of the System*	*CY 1957*	
5) Original Construction Cost	*P 1,600,000.00*	*6) Date of Rehabilitation*	*CY 1979-1984*	
7) Cost of Rehabilitation	*P 14,000,000.00*	*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*771*	*10) Designed Area*	*823*	
11) Potential Area	*823*	*12) Number of Landowners*	*314*	
13) Number of Farmers Served	*392*	*14) Average Farm Size*	*1.97*	
15) Number of Lots	*119*	*16) Diversion Type*	*Diversion Dam*	
17) Diversion Capacity	*2,000 lps*	*18) Length of Main Canal*	*12.319*	
19) Length of Laterals	*6.229*	*20) Number of Turnouts*	*40*	
21) Length of Service Roads	*20.798*	*22) Length of Access Roads*	*15.5*	
23) Drainage Density	*17.8*	*24) Farmditch Density*	*32.05*	
25) Climatic Condition (Coronas)	*Type III*	*26) Average Annual Rainfall*	*156*	
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Maramag	*Bukidnon*	*771*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*722.98*	*702.01*	
Benefitted Area (ha)	*705.51*	*695.57*	
Average Yield (cav/ha)	*3.63*	*3.59*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Type I	*1*	*6.1*	*222.192*
Type II	*2*		

31) Future Expansion

32) Deterioration of the System

33) Other Information

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Allah-I RIS***			
1) Water Resources Region	*11*	*2) Source of Water Supply*	*Allah, Lonon, Sepaka River*	
3) Approved Water Rights	*no record*		*4) Official Opening of the System*	*Dam 1- June 1985; Dam 2 - J*
5) Original Construction Cost	*P 1.096 Billion*		*6) Date of Rehabilitation*	*1993-1996*
7) Cost of Rehabilitation	*P 62,669,523.00*		*8) Current Status*	*On going*
9) Firmed-up Service Area	*11505*		*10) Designed Area*	*18812*
11) Potential Area	*21000*		*12) Number of Landowners*	*2500*
13) Number of Farmers Served	*7168*		*14) Average Farm Size*	*1*
15) Number of Lots	*8279*		*16) Diversion Type*	*Barrage*
17) Diversion Capacity	*Dam #1- 17.88; Dam #2 - 30.*		*18) Length of Main Canal*	*44.89*
19) Length of Laterals	*150.02*		*20) Number of Turnouts*	*281*
21) Length of Service Roads	*192.41*		*22) Length of Access Roads*	*192.41*
23) Drainage Density			*24) Farmditch Density*	
25) Climatic Condition (Coronas)	*Wet (May-Oct); Dry (Nov.-Ap*		*26) Average Annual Rainfall*	*6*
27) Main Crops	*Rice, Corn*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Surallah	*South Cotabato*	*1.12*
Banga	*South Cotabato*	*1900*
Norala	*South Cotabato*	*2585*
Sto. Nino	*South Cotabato*	*3500*
Isulan	*South Cotabato*	*2100*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*9392.02*	*7024.51*		
Benefitted Area (ha)	*7684.73*	*5522.92*		
Average Yield (cav/ha)	*84.03*	*82.16*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
Type I	*46*	*209.01*	*11505*
Type II	*1*	*3.94*	*130*

31) Future Expansion	*Matapol Dam - 2,500 ha - 42.05% completed w/ funding if 2.83M (CDF - 1.5M and GAA -1.33M) funding req't. to complete works is P3.9M; Silt Ejector - 80 ha funding req't. is P150,000; Kalawag Dam - 80 ha 50% complete w/ initial funding of P200,000 from CDF*
32) Deterioration of the System	*Canal lining, watershed, siltation, drainage system and service roads.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Banga RIS***			
1) Water Resources Region	*11*	*2) Source of Water Supply*	*Banga River*	
3) Approved Water Rights		*4) Official Opening of the System*	*October 1972*	
5) Original Construction Cost	*P 11,000,000.00*	*6) Date of Rehabilitation*	*May 1991*	
7) Cost of Rehabilitation	*P 216,261,895.00*	*8) Current Status*	*Operating System*	
9) Firmed-up Service Area	*2337.51*	*10) Designed Area*	*3360*	
11) Potential Area	*3360*	*12) Number of Landowners*	*463*	
13) Number of Farmers Served	*1783*	*14) Average Farm Size*	*1.463*	
15) Number of Lots	*505*	*16) Diversion Type*	*Diversion type/ogee*	
17) Diversion Capacity	*5.2*	*18) Length of Main Canal*	*16.655*	
19) Length of Laterals	*51.735*	*20) Number of Turnouts*	*131*	
21) Length of Service Roads	*39.153*	*22) Length of Access Roads*		
23) Drainage Density		*24) Farmditch Density*	*96*	
25) Climatic Condition (Coronas)	*Temperate*	*26) Average Annual Rainfall*	*10.34*	
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Banga	*South Cotabato*	*3774.65*
Norala	*South Cotabato*	*1084.15*
Sto. Nino	*South Cotabato*	*878.71*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*1748.06*	*1405.48*	
Benefitted Area (ha)	*1608.3*	*1267.66*	
Average Yield (cav/ha)	*82.96*	*79.49*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
	2	*8.905*	*578.38*

31) Future Expansion	*Installation of deep-well water pump on unirrigated area but w'in the service area of the system.*
32) Deterioration of the System	*1. Construction of concrete canal lining on unlined canals susceptible sloughing. 2. Repair of damaged structure.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Batutu RIS***			
1) Water Resources Region	*11*	*2) Source of Water Supply*	*Batutu River*	
3) Approved Water Rights	*During construction period*		*4) Official Opening of the System*	*December 1979*
5) Original Construction Cost	*P 24,694,794.44 & $ 53,312.9*		*6) Date of Rehabilitation*	*January 1988*
7) Cost of Rehabilitation	*P 5,485,744.63 (IOSP) CY '88*		*8) Current Status*	*Functional & viable system*
9) Firmed-up Service Area	*3269*		*10) Designed Area*	
11) Potential Area	*4450*		*12) Number of Landowners*	*797*
13) Number of Farmers Served	*1606*		*14) Average Farm Size*	*1.42*
15) Number of Lots	*2032*		*16) Diversion Type*	*Run-Off the River*
17) Diversion Capacity	*4,100.00 lps*		*18) Length of Main Canal*	*27.34*
19) Length of Laterals	*43.38*		*20) Number of Turnouts*	*147*
21) Length of Service Roads	*78*		*22) Length of Access Roads*	*10*
23) Drainage Density			*24) Farmditch Density*	
25) Climatic Condition (Coronas)	*Fair weather*		*26) Average Annual Rainfall*	*307.5*
27) Main Crops	*Rice*			

28) Towns / Province Served	***Towns***	***Province***	***Area (ha)***
	Compostela	*Davao del Norte*	*2169*
	New Bataan	*Davao del Norte*	*1100*
		Total	*0*

29) Irrigated / Benefitted Area				
Average	*1985-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*2124.48*	*2140.7*		
Benefitted Area (ha)	*2124.48*	*2140.7*		
Average Yield (cav/ha)	*80.51*	*78.98*		

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
		14	*45.631*	*3269*

31) Future Expansion	*30.1 Inapawan Area*
32) Deterioration of the System	
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Buayan RIS***			
1) Water Resources Region	*11*	*2) Source of Water Supply*	*Buayan & Timagacan Rivers*	
3) Approved Water Rights	*Water Permit No. 7513*		*4) Official Opening of the System*	*July 1978*
5) Original Construction Cost	*P 1,514,646.81*		*6) Date of Rehabilitation*	*December 1985*
7) Cost of Rehabilitation	*P 10,610,000.00*		*8) Current Status*	*Operational*
9) Firmed-up Service Area	*807.01*		*10) Designed Area*	*1188.33*
11) Potential Area	*1939.36*		*12) Number of Landowners*	*345*
13) Number of Farmers Served	*462*		*14) Average Farm Size*	*0.84*
15) Number of Lots	*345*		*16) Diversion Type*	*Intake/Ogee type*
17) Diversion Capacity	*3 cms*		*18) Length of Main Canal*	*12.177*
19) Length of Laterals	*19.452*		*20) Number of Turnouts*	*68*
21) Length of Service Roads	*19.745*		*22) Length of Access Roads*	*6*
23) Drainage Density	*6.8*		*24) Farmditch Density*	*65.5*
25) Climatic Condition (Coronas)	*Type IV*		*26) Average Annual Rainfall*	*1068.72*
27) Main Crops	*Rice, Corn, Vegitables*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Lagao	*South Cotabato*	*135.75*
Baluan	*South Cotabato*	*352.6*
Buluan	*South Cotabato*	*6*
Buayan	*South Cotabato*	*52.31*
Ligaya	*South Cotabato*	*161.7*
Kalumpawan	*South Cotabato*	*73.74*
Timagacan	*South Cotabato*	*23.91*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*634.47*	*533.71*	
Benefitted Area (ha)	*560.28*	*440.57*	
Average Yield (cav/ha)	*84*	*75*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
	5	*32.05*	*807.01*

31) Future Expansion

The proposed Datal-as dam will generate an additional irrigated area of about 200 ha for Brgy. Batomelong and about 300 ha for the present Buayan RIS.

32) Deterioration of the System

The Malandagdam at Brgy.Kiblat, Malungon Sarangani Prov. Needs concreting of Main Canal due to steep slope which cause severe erosion.

33) Other Information

Buayan RIS Dam gets most of its irrigation waters from Malandag Dam. Malandag Dam's irrigation water is being shared by Buayan RIS and the Malandag CIS under the So. Cotabato PIO.

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Dumaguil RIS***				
1) Water Resources Region	*11*	*2) Source of Water Supply*		*Dumaguil River*	
3) Approved Water Rights			*4) Official Opening of the System*	*Partial*	
5) Original Construction Cost	*P 154,268,000.00 (Partial)*		*6) Date of Rehabilitation*		
7) Cost of Rehabilitation			*8) Current Status*		
9) Firmed-up Service Area	*1000*		*10) Designed Area*	*2300*	
11) Potential Area	*2300*		*12) Number of Landowners*	*288*	
13) Number of Farmers Served	*743*		*14) Average Farm Size*	*2.02*	
15) Number of Lots	*425*		*16) Diversion Type*	*Check Type*	
17) Diversion Capacity	*3,500 lps*		*18) Length of Main Canal*	*2925*	
19) Length of Laterals	*20.881*		*20) Number of Turnouts*	*65*	
21) Length of Service Roads	*43.06*		*22) Length of Access Roads*		
23) Drainage Density	*67.23*		*24) Farmditch Density*	*50.57*	
25) Climatic Condition (Coronas)			*26) Average Annual Rainfall*	*4.35*	
27) Main Crops	*Rice*				

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Tocurong	*Sultan Kudrat*	*2158*
Norala	*South Cotabato*	*112*
	Total	***0***

29) Irrigated / Benefitted Area

Average	*1993-1996*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*1265.05*	*841.33*	
Benefitted Area (ha)	*1221.53*	*822.36*	
Average Yield (cav/ha)	*95.75*	*56.5*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
Type 1 & 2	*2*	*18.88*	*1375*
Type 2	*1*	*2.125*	*125*

31) Future Expansion

32) Deterioration of the System

33) Other Information

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Kipaliku RIS***			
1) Water Resources Region	*11*	*2) Source of Water Supply*	*Kipaliku River*	
3) Approved Water Rights		*4) Official Opening of the System*	*1993*	
5) Original Construction Cost	*P 408,069,887.95*	*6) Date of Rehabilitation*	*1995*	
7) Cost of Rehabilitation	*P 1,664,120.00*	*8) Current Status*		
9) Firmed-up Service Area	*3820*	*10) Designed Area*	*2600*	
11) Potential Area	*4400*	*12) Number of Landowners*	*956*	
13) Number of Farmers Served	*1260*	*14) Average Farm Size*	*1*	
15) Number of Lots	*622*	*16) Diversion Type*	*Ogee*	
17) Diversion Capacity	*5 cms*	*18) Length of Main Canal*	*13.6795*	
19) Length of Laterals	*20.48668*	*20) Number of Turnouts*	*49*	
21) Length of Service Roads	*26.58651*	*22) Length of Access Roads*	*11.9*	
23) Drainage Density		*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Fair,cloudy*	*26) Average Annual Rainfall*	*1445.3*	
27) Main Crops	*Rice, Banana*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Sto. Tomas	*Davao del Norte*	*4379.68*
	Total	*0*

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*1299.11*	*939.4*	
Benefitted Area (ha)	*1102.11*	*1624.73*	
Average Yield (cav/ha)	*79.66*	*80.32*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
	3	*32.16333*	*2400*

31) Future Expansion	*Expansion of rice and banana area*
32) Deterioration of the System	*Drainage system, roads, irrigation canal and structures.*
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Lambayong RIS***				
1) Water Resources Region	*11*	*2) Source of Water Supply*		*Kapingkong River*	
3) Approved Water Rights			*4) Official Opening of the System*		*November 30, 1990*
5) Original Construction Cost	*P 510,800,000.00*		*6) Date of Rehabilitation*		
7) Cost of Rehabilitation			*8) Current Status*		
9) Firmed-up Service Area	*11355*		*10) Designed Area*		*12000*
11) Potential Area	*13280*		*12) Number of Landowners*		*5512*
13) Number of Farmers Served	*5758*		*14) Average Farm Size*		*1.97*
15) Number of Lots	*7344*		*16) Diversion Type*		*Barrage type*
17) Diversion Capacity	*16,000 lps*		*18) Length of Main Canal*		*12.09*
19) Length of Laterals	*134.026*		*20) Number of Turnouts*		*346*
21) Length of Service Roads	*131.58*		*22) Length of Access Roads*		
23) Drainage Density	*129.97*		*24) Farmditch Density*		*246.84*
25) Climatic Condition (Coronas)			*26) Average Annual Rainfall*		*4.35*
27) Main Crops	*Rice*				

28) Towns / Province Served	*Towns*	*Province*	*Area (ha)*
	Lambayong	*Sultan Kudrat*	*9°00*
	Tacurong	*Sultan Kudrat*	*21°0*
	Pres. Quirino	*Sultan Kudrat*	*130*
		Total	*0*

29) Irrigated / Benefitted Area			
Average	*1985-1995*		
Season	*Wet*	*Dry*	*Third*
Irrigated Area (ha)	*3709.31*	*3328.35*	
Benefitted Area (ha)	*8479.45*	*2413.77*	
Average Yield (cav/ha)	*80.77*	*72.11*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	*Nature of Contract*	*Number of FIA*	*Length of Canal (km) under contract*	*Area Covered (ha)*
	Type 1	*4*	*11.74*	*852*
	Type 1 & 2	*24*	*108.25*	*9308*

31) Future Expansion	
32) Deterioration of the System	
33) Other Information	

NATIONAL WATER RESOURCES BOARD

SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Lasang RIS***			
1) Water Resources Region	*11*	*2) Source of Water Supply*	*Lasang River*	
3) Approved Water Rights		*4) Official Opening of the System*		*November 22, 1982*
5) Original Construction Cost	*P 126,076,518.00*	*6) Date of Rehabilitation*		*1993-1995*
7) Cost of Rehabilitation	*P 33,852,437.46*	*8) Current Status*		
9) Firmed-up Service Area	*4450*	*10) Designed Area*		*4580*
11) Potential Area	*5237*	*12) Number of Landowners*		*1200*
13) Number of Farmers Served	*2207*	*14) Average Farm Size*		*1*
15) Number of Lots	*1200*	*16) Diversion Type*		*Ogee*
17) Diversion Capacity	*8.02 cms*	*18) Length of Main Canal*		*20.402*
19) Length of Laterals	*53.59*	*20) Number of Turnouts*		*125*
21) Length of Service Roads	*72.408*	*22) Length of Access Roads*		*5.55*
23) Drainage Density		*24) Farmditch Density*		
25) Climatic Condition (Coronas)	*Fair, cloudy*	*26) Average Annual Rainfall*		*1506.6*
27) Main Crops	*Rice, Banana*			
28) Towns / Province Served	***Towns***	***Province***		***Area (ha)***
	Carmen	*Davao del Norte*		*2[illegible].36*
	Panabo	*Davao del Norte*		*1810.32*
		Total		***0***
29) Irrigated / Benefitted Area				
Average	*1985-1995*			
Season	***Wet***	***Dry***	***Third***	
Irrigated Area (ha)	*4085.58*	*3914.71*		
Benefitted Area (ha)	*3287.09*	*3157.3*		
Average Yield (cav/ha)	*72.35*	*77.45*		
30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance	***Nature of Contract***	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
		1	*7410.097*	*4450*
31) Future Expansion	*100 has of rice @ Manay, Panabo*			
32) Deterioration of the System	*Drainage system, roads, irrigation canal and structures.*			
33) Other Information				

NATIONAL WATER RESOURCES BOARD	SALIENT FEATURES OF NATIONAL IRRIGATION SYSTEM

Name of System	***Libuganon Left RIS***			
1) Water Resources Region	*11*	*2) Source of Water Supply*	*Libuganon River*	
3) Approved Water Rights		*4) Official Opening of the System*	*January 1993*	
5) Original Construction Cost	*No available data (Dvo. III P*	*6) Date of Rehabilitation*		
7) Cost of Rehabilitation		*8) Current Status*		
9) Firmed-up Service Area	*618*	*10) Designed Area*	*1090*	
11) Potential Area	*1090*	*12) Number of Landowners*	*313*	
13) Number of Farmers Served	*313*	*14) Average Farm Size*	*1.97*	
15) Number of Lots		*16) Diversion Type*	*Ogee/Run-Off the River*	
17) Diversion Capacity		*18) Length of Main Canal*	*11549*	
19) Length of Laterals	*7.626*	*20) Number of Turnouts*	*41*	
21) Length of Service Roads	*19.175*	*22) Length of Access Roads*	*3.6*	
23) Drainage Density	*5.42*	*24) Farmditch Density*		
25) Climatic Condition (Coronas)		*26) Average Annual Rainfall*	*1.428*	
27) Main Crops	*Rice*			

28) Towns / Province Served

Towns	*Province*	*Area (ha)*
Asuncion	*Davao*	*430.85*
Kapalong	*Davao*	*197.65*
	Total	***0***

29) Irrigated / Benefitted Area

Average	*1985-1995*		
Season	***Wet***	***Dry***	***Third***
Irrigated Area (ha)	*451.67*	*457*	
Benefitted Area (ha)	*349.33*	*332.67*	
Average Yield (cav/ha)	*74*	*69*	

30) Farmers Irrigators Association (FIA) with Memorandum of Agreement for Operation and Maintenance

Nature of Contract	***Number of FIA***	***Length of Canal (km) under contract***	***Area Covered (ha)***
	2		

31) Future Expansion	*Construction of Proposed Lateral C.*
32) Deterioration of the System	*On going implementation of IOSP-II*
33) Other Information	