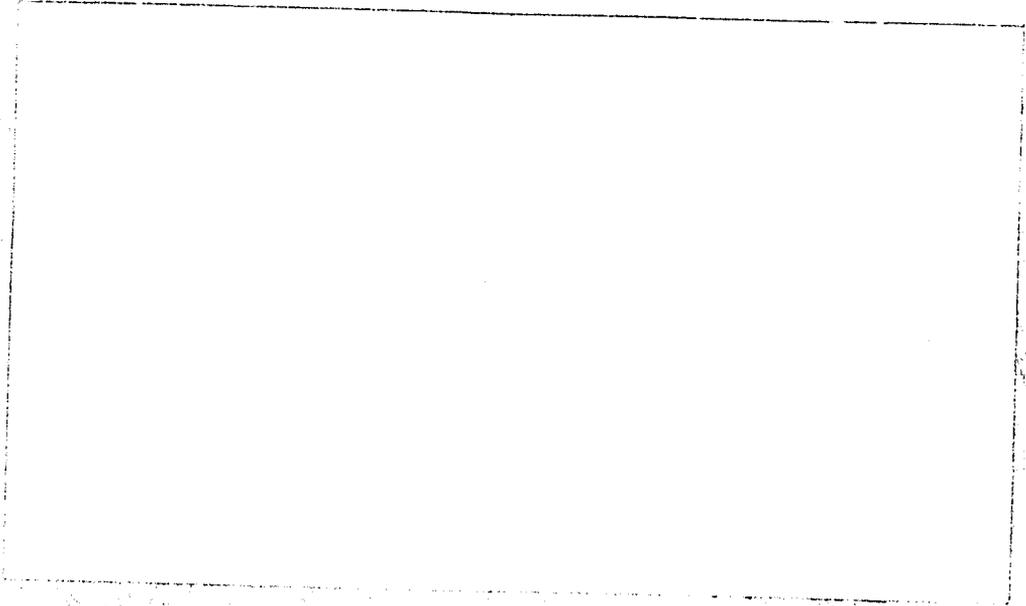


PN-ABN-259 Eng. Office

**MINISTRY OF MAHAWELI DEVELOPMENT
MAHAWELI AUTHORITY OF SRI LANKA**



Mahaweli Economic Agency

Mahaweli Engineering and Construction Agency

MARD/MDS PROJECTS

DAI

Pimburatiwewa
via Polonnaruwa

Development Alternatives, Inc.
Colorado State University
Oregon State University
Harza Engineering Co.
Post-harvest Institute
for Perishables

FUNDED BY THE GOVERNMENT OF SRI LANKA & USAID

PN-ABN-259
ISA 20776

MONITORING & EVALUATION
PROGRESS REPORT
MARD/MDS
MARCH 1991

COMPILED BY
DR. SUSAN EXO

DEVELOPMENT ALTERNATIVES, INC.
MARD/MDS PROJECTS
PIMBURETTEWA

MARCH 1991

**MAHAWELI AGRICULTURE
AND RURAL DEVELOPMENT PROJECT
AND
MAHAWELI DOWNSTREAM SUPPORT PROJECT
PROGRESS REPORT
MARCH 1991**

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Correction

March 15, 1991

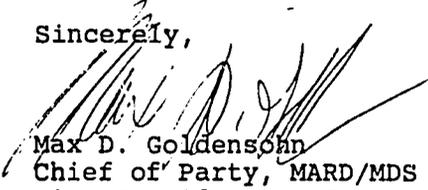
Dear Reader:

It is necessary to make a minor correction in "Monitoring and Evaluation Progress Report; MARD/MDS; March 1991" compiled by Dr. Susan Exo.

On page 30, the number in the column labeled: the Value of System B Production (Gross Return) and the row labeled: Total System B Production is incorrect. The correct number is 17,407,092, not 11,990,000. In the column labeled: Percent of Total Value Exported; and the row labeled: Total System B Production, the correct percentage is 12.3, not 17.8.

Thank you for your kind attention to this matter.

Sincerely,



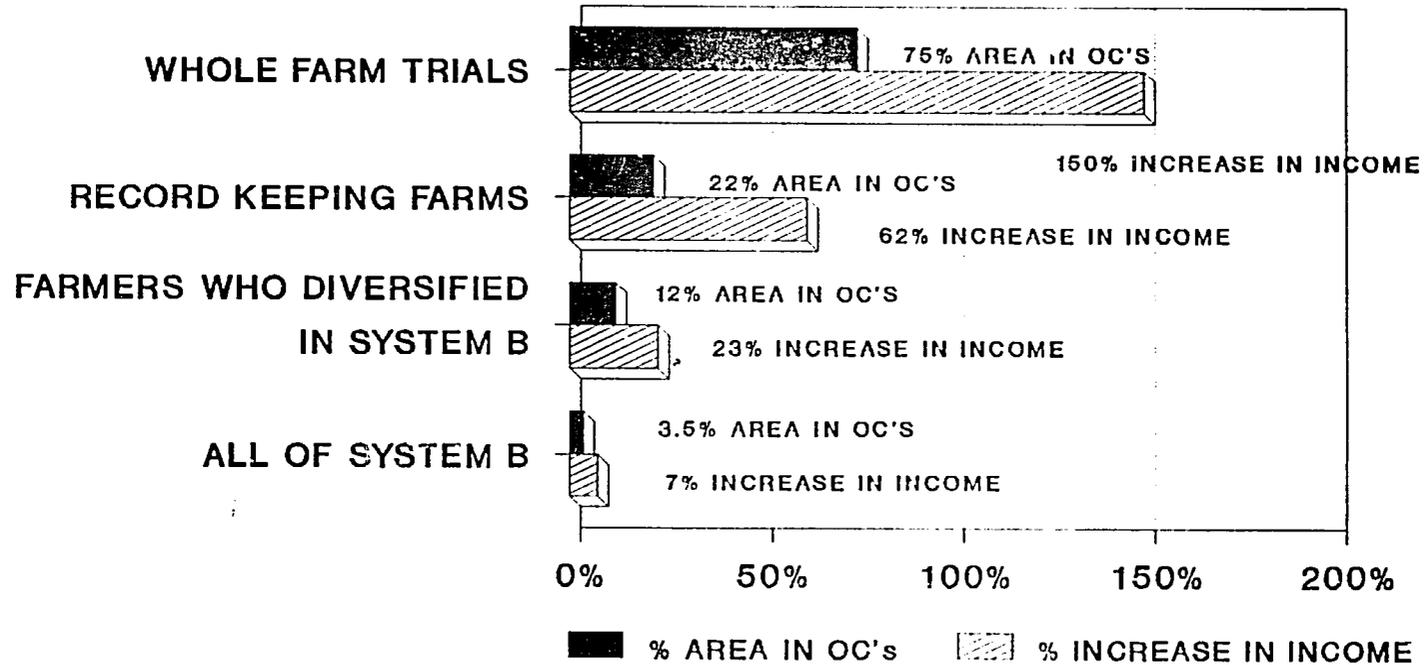
Max D. Goldenson
Chief of Party, MARD/MDS
Vice-President, DAI

MARD

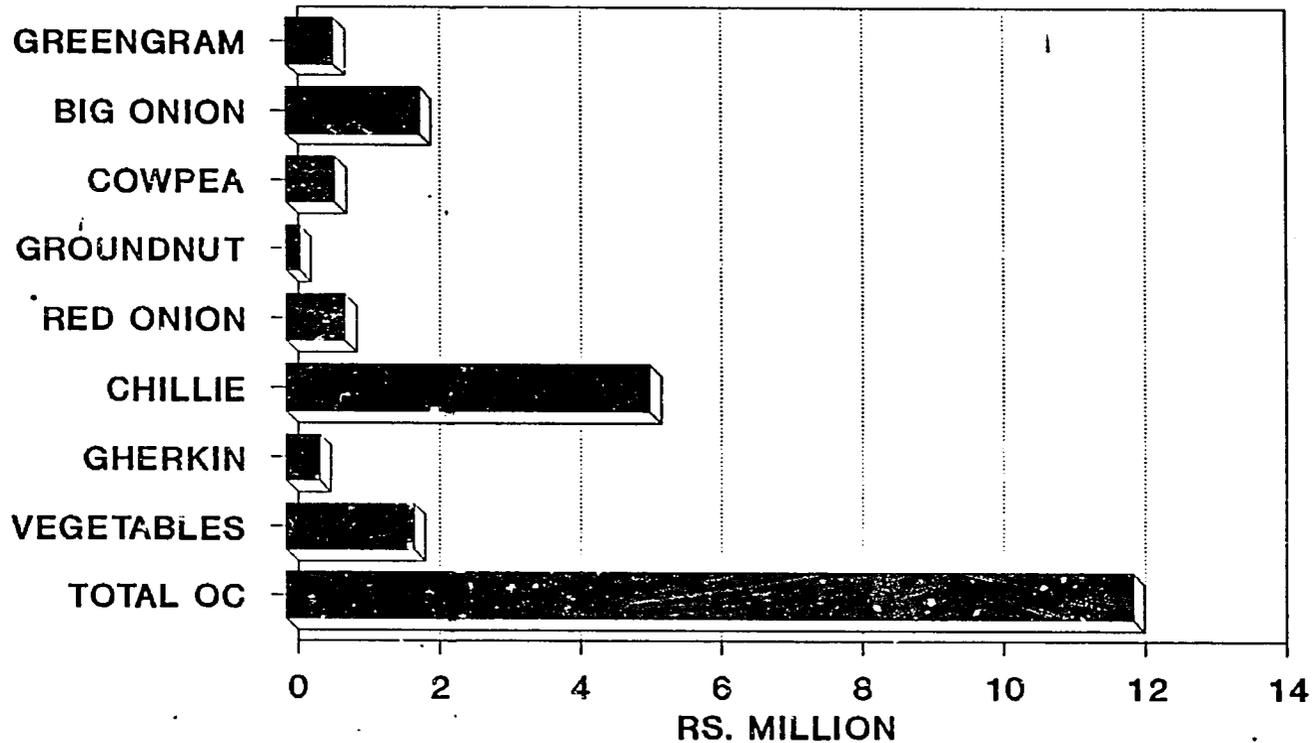
PROGRESS INDICATORS

**AVERAGE NET FARMER FAMILY INCOME IN SYSTEM B WILL
BE INCREASED BY 50 PERCENT OVER INCOME FROM
PADDY CROPS**

INCREASES IN INCOME FROM DIVERSIFICATION SYSTEM B; YALA 1990

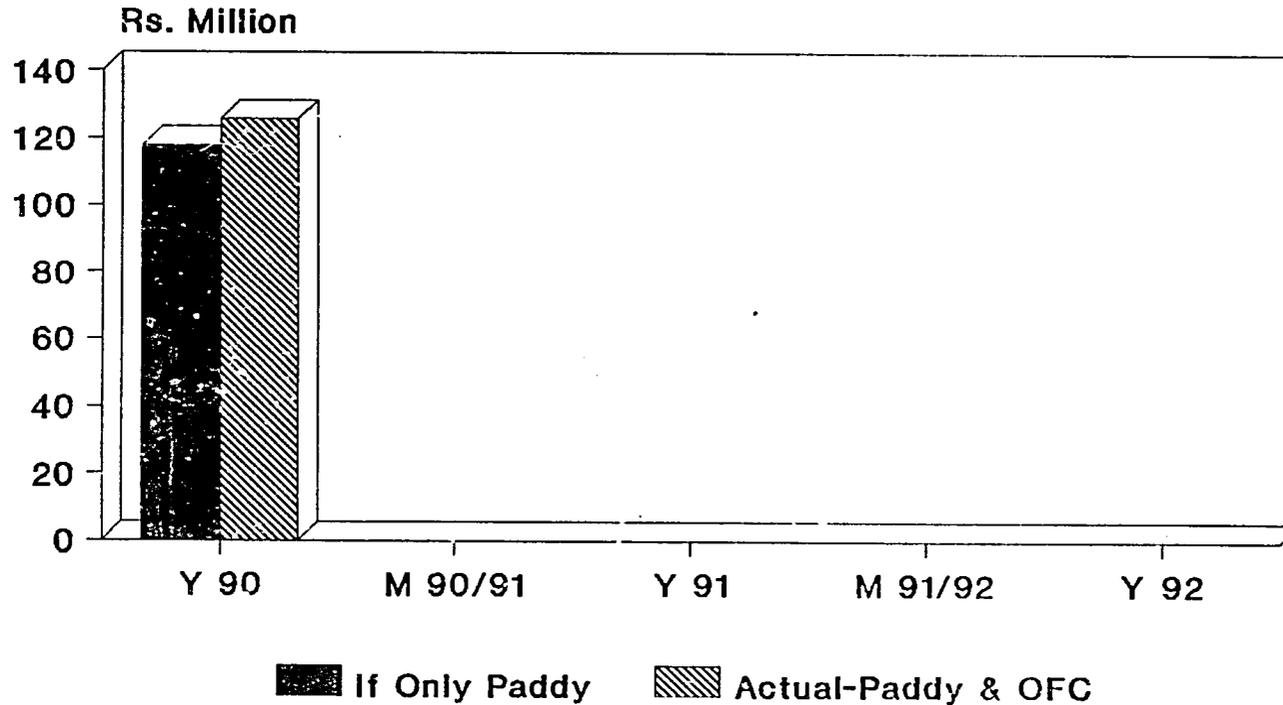


TOTAL SYSTEM B RETURN FOR OC SETTLER FARMERS - YALA 1990



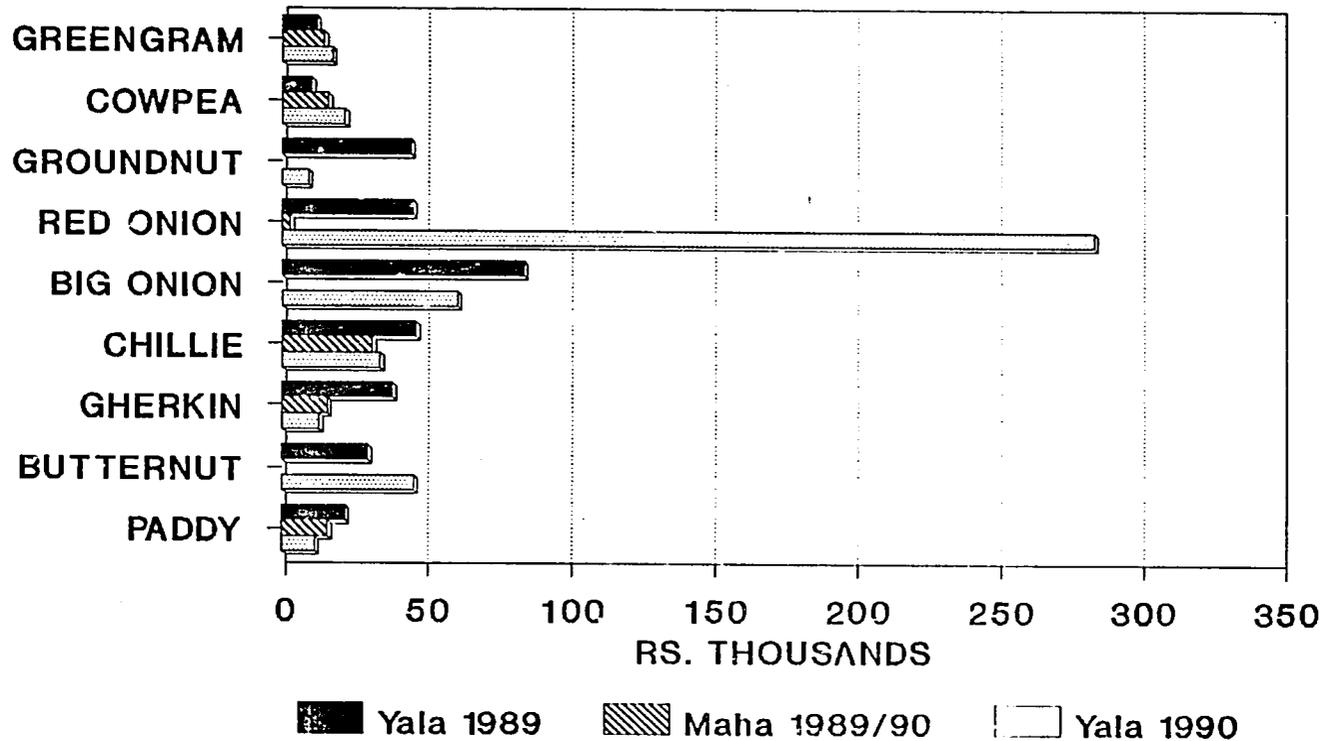
DATA FROM CULTIVATION CENSUS AND
FARM MANAGEMENT RECORD KEEPING

TOTAL NET RETURN FROM SYSTEM B CULTIVATION

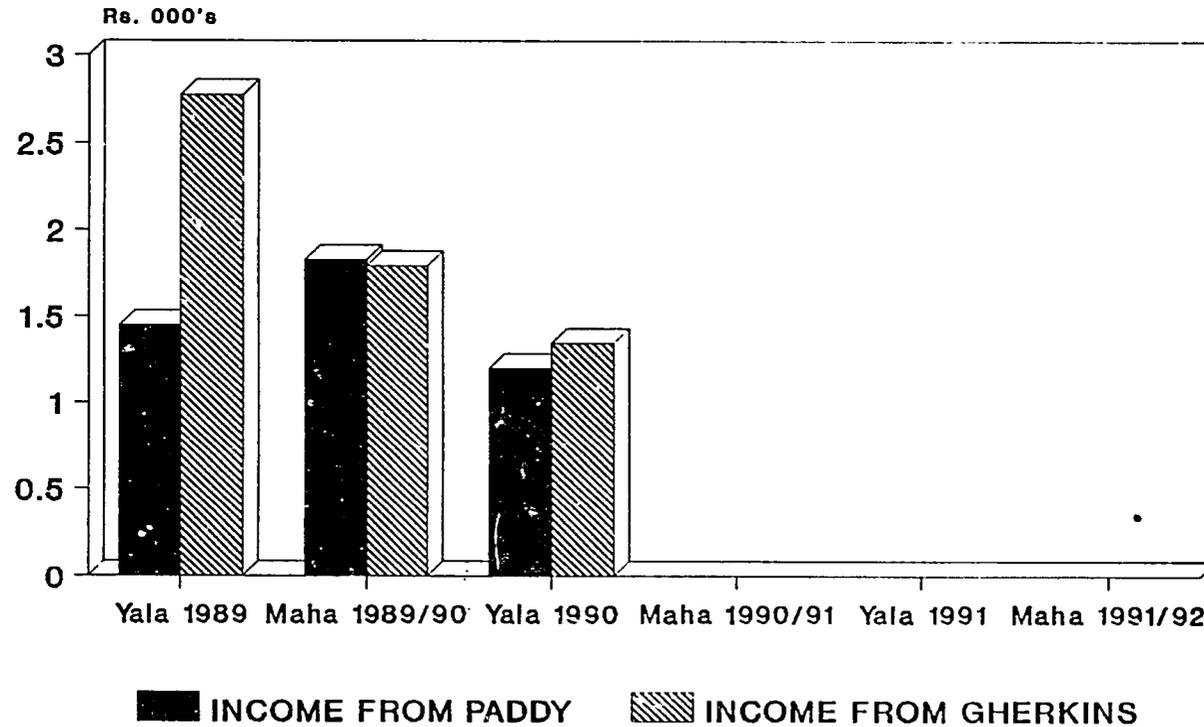


DATA FROM CULTIVATION GENSUS AND
FARM MANAGEMENT RECORD KEEPING

AVERAGE NET RETURN PER HECTARE SETTLER FARMERS



AVERAGE NET INCOME FOR GHERKINS AND PADDY PER AVERAGE GHERKIN PLOT



**PROGRESS REPORT ON AGRICULTURAL PRODUCTION IN SYSTEM B
DATA FROM CULTIVATION CENSUS**

HECTARES CULTIVATED—SETTLER FARMERS—IRRIGATED PLOTS

YALA	19 90		19 91		19 92		19 93	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Paddy	8,967.6	96.5%						
Green gram	38.3	0.4%						
Black gram								
Cowpea	31.4	0.3%						
Groundnut	20.3	0.2%						
Red onion	2.9	0.0%						
B. onion	30.8	0.3%						
Butternut	6.8	0.1%						
Chillie	150.7	1.5%						
Maize	5.4	0.1%						
Soya bean								
Gherkins	36.7	0.4%						
Zucchini	2.9							
Other Vegetables	36.1	0.3%						
Total	10,329.9	100.0%						

MAHA	19 90		19 91		19 92		19 93	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Paddy								
Green gram								
Black gram								
Cowpea								
Groundnut								
Red onion								
B. onion								
Butternut								
Chillie								
Maize								
Soya bean								
Gherkins								
Other Vegetables								
Total								

**PROGRESS REPORT ON AGRICULTURAL PRODUCTION IN SYSTEM B
DATA FROM CULTIVATION CENSUS**

AVERAGE YIELD PER HECTARE (Kg)-SETTLER FARMERS-IRRIGATED PLOTS

YALA	1990	1991	1992	1993	1994
Paddy	3,331				
Green gram	950				
Black gram					
Cowpea	1,140				
Groundnut	856				
Red onion	10,163				
B. onion	5,992				
Butternut	7,836				
Chillie	752				
Maize					
Soya bean					
Gherkins	4,594				

MAHA	1990/91	1991/92	1992/93	1993/94	1994/95
Paddy					
Green gram					
Black gram					
Cowpea					
Groundnut					
Red onion					
B. onion					
Butternut					
Chillie					
Maize					
Soya bean					
Gherkins					

**PROGRESS REPORT ON AGRICULTURAL PRODUCTION IN SYSTEM B
DATA FROM CULTIVATION CENSUS**

AVERAGE NET RETURN PER HECTARE--SETTLER FARMERS--IRRIGATED PLOTS

YALA	1990	1991	1992	1993	1994
Paddy	11,403				
Green gram	17,289				
Black gram					
Cowpea	21,790				
Groundnut	9,197				
Red onion	283,895				
B. onion	61,157				
Butternut	46,053				
Chillie	34,232				
Maize					
Soya bean					
Gherkins	12,791				
Other Vegetables	50,000				

MAHA	1990/91	1991/92	1992/93	1993/94	1994/95
Paddy					
Green gram					
Black gram					
Cowpea					
Groundnut					
Red onion					
B. onion					
Butternut					
Chillie					
Maize					
Soya bean					
Gherkins					
Other Vegetables					

**PROGRESS REPORT ON AGRICULTURAL PRODUCTION IN SYSTEM B
DATA FROM CULTIVATION CENSUS**

TOTAL SYSTEM B NET RETURN (000 RS.)-SETTLER FARMERS-IRRIGATED PLOTS

YALA	1990	1991	1992	1993	1994
Paddy	113,661				
Green gram	661				
Black gram					
Cowpea	685				
Groundnut	186				
Red onion	826				
B. onion	1,866				
Butternut	312				
Chillie	5,157				
Maize					
Soya bean					
Gherkins	470				
Other Vegetables	1,807				
Total Net Return	125,651				
Total Net Return If Only Rice Grown	117,792				
Increase in Net Return	7,859				
Percent Increase	6.7%				
Average Increase per farm growing OC	2.67				
Percent increase over paddy for those farmers growing OC	23.4%				

**PROGRESS REPORT ON AGRICULTURAL PRODUCTION IN SYSTEM B
DATA FROM CULTIVATION CENSUS**

TOTAL SYSTEM B NET RETURN (000 RS.)-SETTLER FARMERS-IRRIGATED PLOTS

MAHA	1990/91	1991/92	1992/93	1993/94	1994/95
-------------	----------------	----------------	----------------	----------------	----------------

Paddy
 Green gram
 Black gram
 Cowpea
 Groundnut
 Red onion
 B. onion
 Butternut
 Chillie
 Maize
 Soya bean
 Gherkins
 Other Vegetables
 Total Net Return
 Total Net Return If Only Rice Grown
 Increase in Net Return
 Percent Increase
 Average Increase per farm growing OC
 Percent increase over paddy for those
 farmers growing OC

PROGRESS REPORT ON AGRICULTURAL PRODUCTION IN SYSTEM B MEA SYSTEM B DATA

HECTARES CULTIVATED-SETTLER FARMERS-IRRIGATED PLOTS

YALA	1988		1989		1990		1991		1992		1993	
	Number	Percent										
Paddy												
Green gram	38.3	ERR	125.8	ERR	4.6	ERR						
Black gram												
Cowpea	62.4	ERR	116.1	ERR	8.9	ERR						
Groundnut	4.5	ERR	1.6	ERR	0.6	ERR						
Red onion	34.9	ERR	53.3	ERR	0.2	ERR						
B. onion	17.8	ERR	30.1	ERR	2.4	ERR						
Butternut												
Chillie	326.3	ERR	293.3	ERR	20.5	ERR						
Maize												
Soya bean												
Gherkins					4.6	ERR						
Zucchini												
Other Vegetables	3.8	ERR	11.7	ERR	7.8	ERR						
Total												

MAHA	1988/89		1989/90		1990/91		1991/92		1992/93		1993/94	
	Number	Percent										
Paddy												
Green gram												
Black gram												
Cowpea												
Groundnut												
Red onion												
B. onion												
Butternut												
Chillie												
Maize												
Soya bean												
Gherkins												
Other Vegetables												
Total												

PROGRESS REPORT FOR OUTGROWERS CULTIVATION IN SYSTEM B

GHERKINS	Yala 1989	Maha 89/90	Yala 1990	Maha 90/91	Yala 1991	Maha 91/92	Yala 1992
----------	-----------	------------	-----------	------------	-----------	------------	-----------

Total Number of Outgrowers	86	143	350	0			
Total hectares cultivated	6.05	16.34	36.73	0.00			
Total Production (kg.)	42,076	140,162	138,672	0			
Total Income (Rs.)	435,205	383,516	1,771,578	0			

PER HECTARE STATISTICS

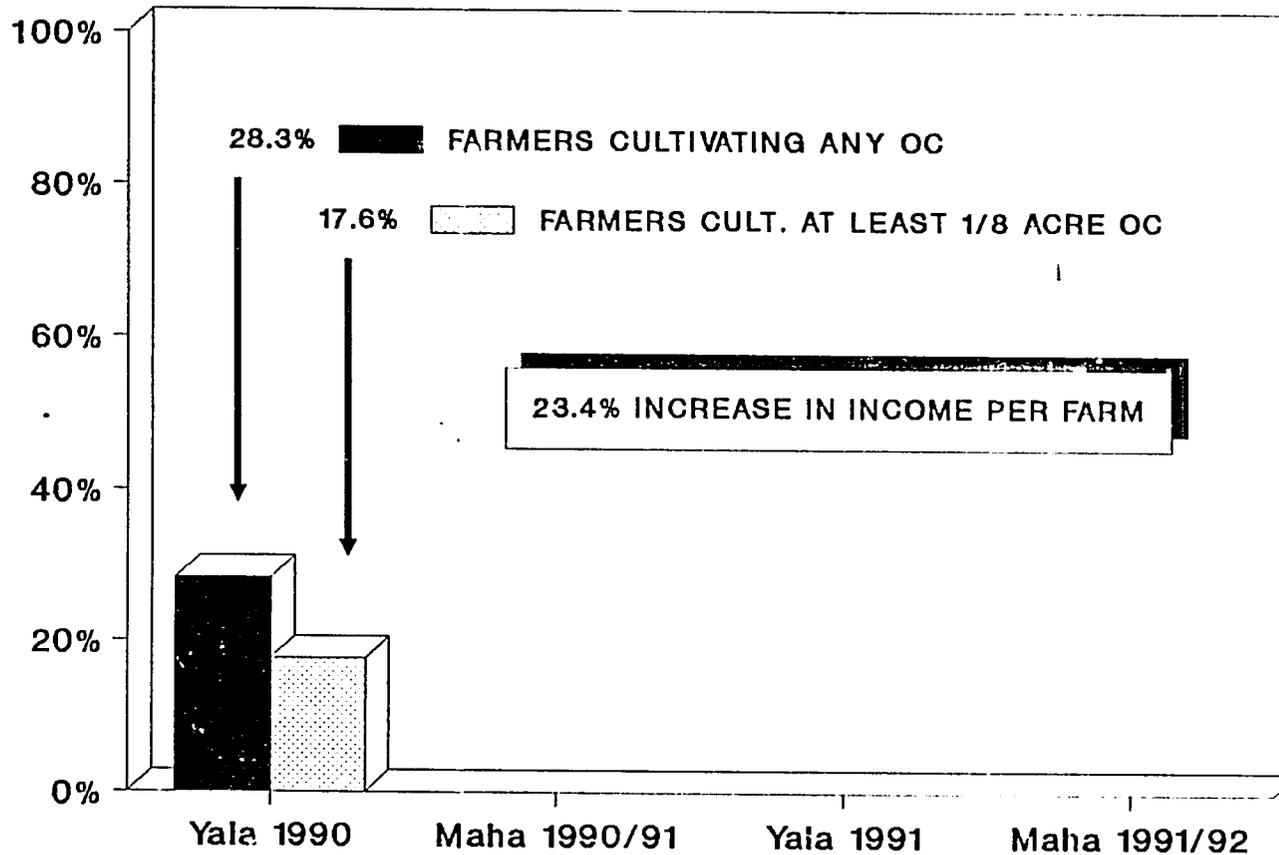
Gross income per hectare	71,667	50,410	58,517			
Cost of production per hectare (sample)	32,207	34,745	45,726			
Net income per hectare	39,460	15,665	12,791			
Avg. paddy net income per hectare	20,578	15,961	11,403			

PER PLOT STATISTICS

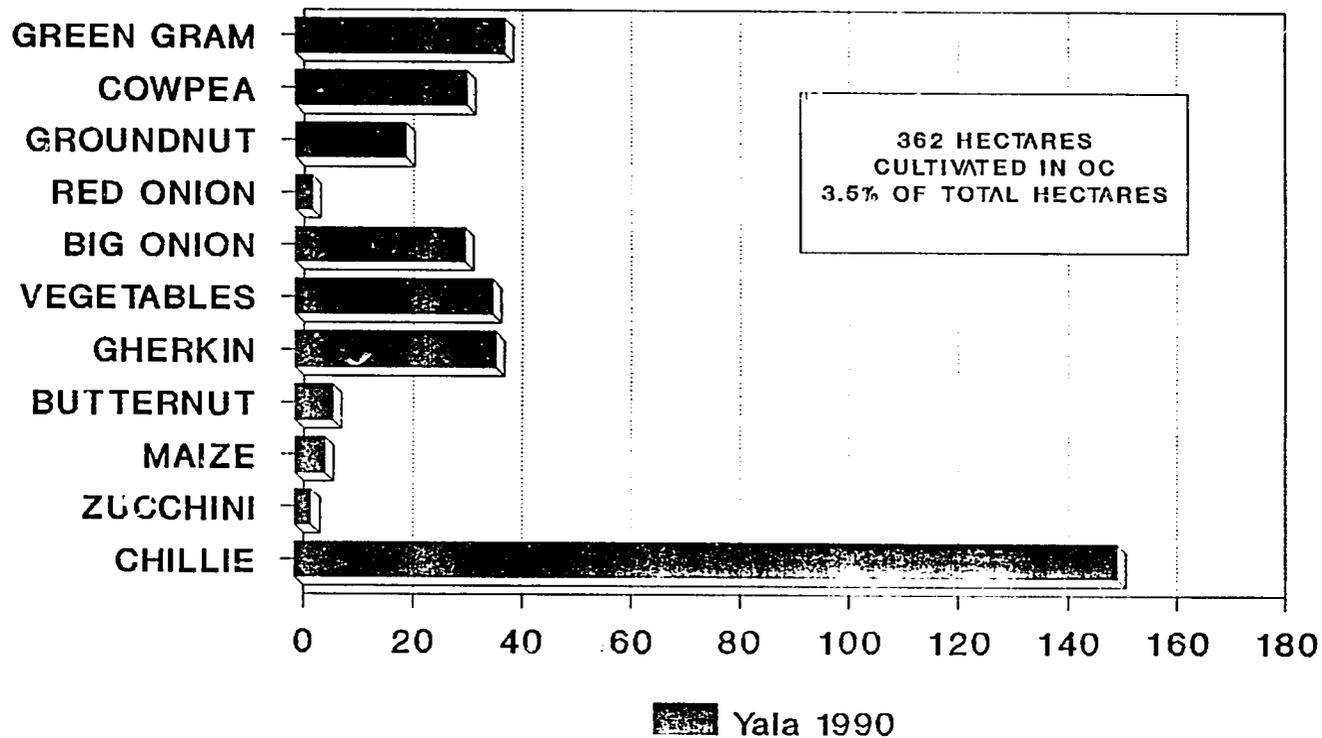
Avg. plot size (ha.)	0.07	0.11	0.10			
Avg. Gross Income	5,042	5,760	6,141			
Avg. cost of production per plot	2,266	3,970	4,799			
Average net income for gherkins	2,776	1,790	1,342			
Avg. net income for same area in paddy	1,448	1,824	1,197			

**15 PERCENT OF THE MAHA FARMERS AND 85 PERCENT OF THE
YALA FARMERS WILL CULTIVATE DIVERSIFIED CROPS ON AT
LEAST 1/8 ACRE OF THEIR IRRIGATED LOT**

INDIVIDUAL FARMER CULTIVATION OF OC'S



YALA HECTARES CULTIVATED IN OFC SETTLER FARMERS



PROGRESS REPORT FOR PERCENT OF FARMERS CULTIVATING CROPS OTHER THAN PADDY (OC'S)

SYSTEM B

YALA	1990	1991	1992	1993	1994
Total farmers in System B	10,412				
Number of farmers cultivating some OC's	2945				
Percent of farmers cultivating some OC's	28.3%				
Number of farmers cultivating at least 1/8 acre of OC's	1,828				
Percent of farmers cultivating at least 1/8 acre of OC's	17.6%				
Percent increase in net income per farm for growing OC	23.4%				

MAHA	1990/91	1991/92	1992/93	1993/94	1994/95
Total farmers in System B					
Number of farmers cultivating some OC's					
Percent of farmers cultivating some OC's					
Number of farmers cultivating at least 1/8 acre of OC's					
Percent of farmers cultivating at least 1/8 acre of OC's					
Percent increase in net income per farm for growing OC					

ON-FARM TRIALS

MONITORING REPORT FOR ON-FARM TRIALS

CROP	OFT PLANTED	OFT HARVESTED	NUMBER AND PERCENT OF HARVESTED TRIALS THAT:*							
			<u>SHOWED NET RETURN GREATER THAN PADDY</u>		<u>SHOWED NET RETURN GREATER THAN OTHER FARMERS GROWING CROP</u>		<u>SHOWED LOWERED UNIT COST OF PRODUCTION</u>		<u>SHOWED HIGHER THAN NORMAL YIELD FOR SYSTEM B</u>	
			NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT

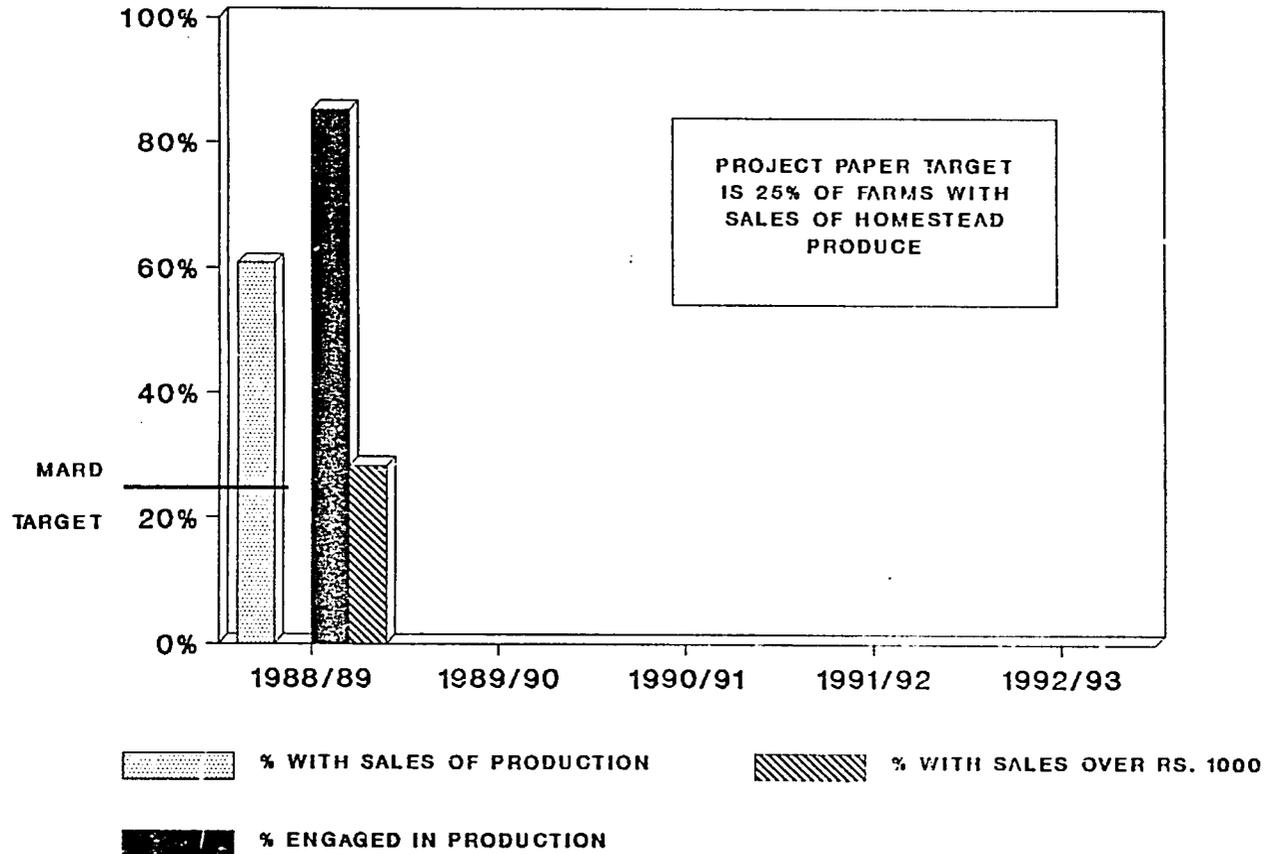
YALA 1991

Greengram
Groundnut
Chillies
Big Onion
Maize
Millet
Sorghum
Soyabean
Tomato
Acorn Squash

MAHA 1991/92

**25 PERCENT OF THE FARMER HOUSEHOLDS IN SYSTEM B
WILL ENGAGE IN COMMERCIAL PRODUCTION ON
THE HOMESTEAD**

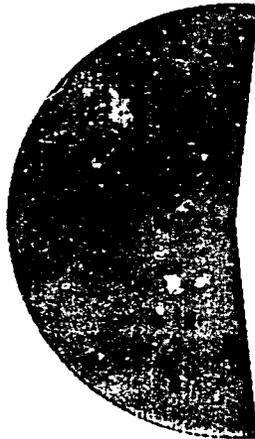
HOMESTEAD PRODUCTION IN SYSTEM B



SALES FROM HOMESTEAD PRODUCTION (RS.) TOTAL FOR MAHA 1988/89 AND YALA 1989

LESS THAN 1,000

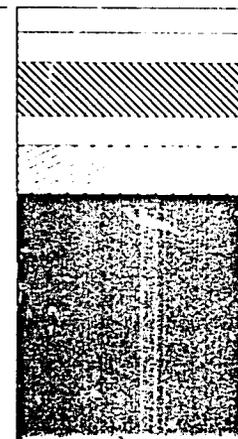
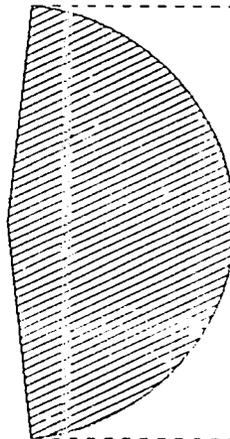
53%



MORE THAN

1,000

47%



10,000-22,700 6%

5,000-9,999 7%

4,000-4,999 12%

3,000-3,999 7%

2,000-2,999 11%

1,000-1,999 57%

PROGRESS REPORT FOR COMMERCIAL PRODUCTION ON THE HOMESTEAD

	1988/89	1990/91	1992/93	1994/95
Percent of families not engaged in any homestead production	14.9%			
Percent of total families engaged in at least one homestead production activity	85.1%			
Percent of total families with sales from at least one homestead production activity	60.8%			
Percent of families engaged in at least one homestead production activity with sales from at least one homestead production activity	71.4%			
Percent of families with commercial production on their homestead plot of at least Rs. 1000	28.4%			

DATA OBTAINED FROM BASELINE AND FOLLOW-UP SURVEYS—BASELINE SAMPLE SIZE: 370 FARMS

PROGRESS REPORT FOR COMMERCIAL PRODUCTION ON THE HOMESTEAD

	1988/89	1990/91	1992/93	1994/95
--	---------	---------	---------	---------

SPECIFIC CROPS CULTIVATED ON THE HOMESTEAD

OTHER FIELD CROPS

Percent of families with cultivation	58.1%
Percent of families with cultivation cultivation who sold produce	4.7%
Average value of sales	671

VEGETABLES

Percent of families with cultivation	39.5%
Percent of families with cultivation cultivation who sold produce	4.1%
Average value of sales	475

DATA OBTAINED FROM BASELINE AND FOLLOW-UP SURVEYS-BASELINE SAMPLE SIZE: 370 FARMS

PROGRESS REPORT FOR COMMERCIAL PRODUCTION ON THE HOMESTEAD

	1988/89	1990/91	1992/93	1994/95
--	---------	---------	---------	---------

FRUITS

Percent of families with cultivation	67.6%
Percent of families with cultivation who sold produce	52.8%
Average value of sales	602

DAIRY

Percent of families raising	2.2%
Percent of families raising who sold produce	87.5%
Average value of sales	3,811

PROGRESS REPORT FOR COMMERCIAL PRODUCTION ON THE HOMESTEAD

	1988/89	1990/91	1992/93	1994/95
--	---------	---------	---------	---------

POULTRY

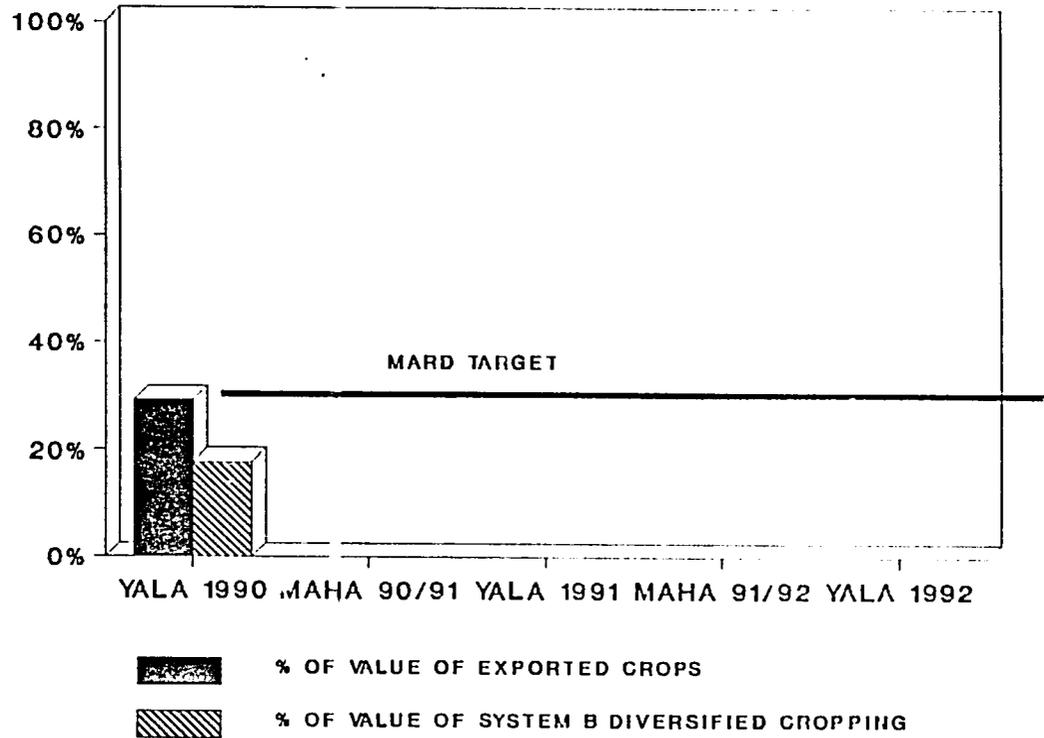
Percent of families raising	3.2%
Percent of families raising who sold produce	91.7%
Average value of sales	4,291

LIVESTOCK

Percent of families raising	1.4%
Percent of families raising who sold produce	100.0%
Average value of sales	7,600

**30 PERCENT OF THE VALUE OF DIVERSIFIED
CROPPING EACH YEAR WILL BE EXPORTED
FROM SRI LANKA**

PERCENT OF SYSTEM B DIVERSIFIED CROP PRODUCTION EXPORTED FROM SRI LANKA

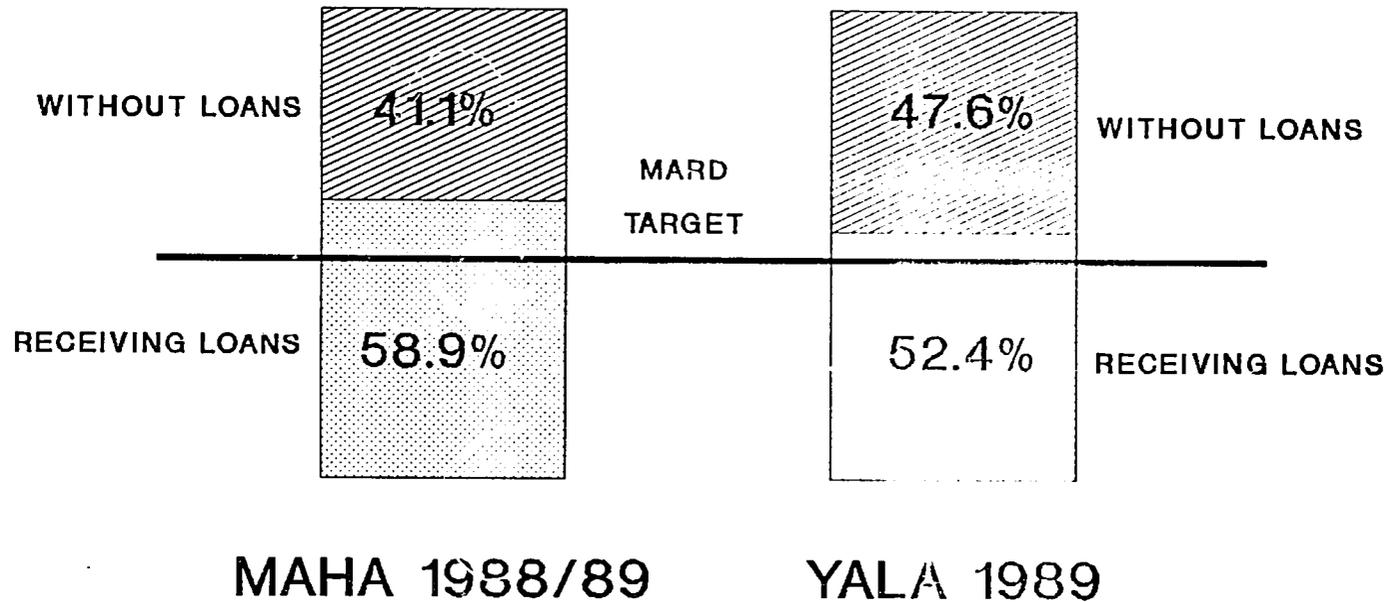


**PROGRESS REPORT ON EXPORT OF SYSTEM B
DIVERSIFIED CROP PRODUCTION**

	TOTAL EXPORTED (KGS.)	VALUE OF SYSTEM B PRODUCTION (GROSS RETURN) (RS.)	VALUE OF SYSTEM B PRODUCTION EXPORTED (GROSS RETURN) (RS.)	PERCENT OF TOTAL VALUE EXPORTED
YALA 1990				
ZUCCHINI	1,209	230,044	12,090	5.3%
VEGETABLES	1,826	2,709,750	18,179	0.7%
B. ONION	15	2,490,022	90	0.0%
GHERKIN	168,738	2,106,466	2,106,466	100.0%
TOTAL FOR CROPS EXPORTED	171,788	7,306,238	2,136,825	29.2%
TOTAL SYSTEM B PRODUCTION	171,788	11,990,000 <i>17,407,092</i>	2,136,825	17.8% <i>12.3%</i>

**50 PERCENT OF THE FARMERS WILL REGULARLY
RECEIVE PRODUCTION CREDIT WHEN NEEDED WITH AN
AVERAGE REPAYMENT RATE OF 90 PERCENT**

PERCENT OF FARMERS RECEIVING LOANS IN SYSTEM B



DATA FROM BASELINE SURVEY

PROGRESS REPORT ON FORMAL AND INFORMAL CREDIT IN SYSTEM B

BANK OF CEYLON, ARALANGANVILA

Season	Disbursements		Recoveries		
	No. of Recipients	Amount (Rs.)	Amount (Rs.)	Number	Percent
1987 Yala	2,453	9,987,456	6,309,608	1,425	58.1%
87/88 Maha	2,249	11,607,800	5,460,903	941	41.8%
1988 Yala	1,114	5,585,562	2,765,846	563	50.5%
88/89 Maha	943	5,740,466	4,922,166	784	83.1%
1989 Yala	919	7,077,010	6,386,114	803	87.4%
89/90 Maha	1,286	11,268,446	9,025,415	1,065	82.8%
1990 Yala	1,465	12,484,330	7,993,223	892	60.9%
90/91 Maha	1,764	17,468,222			
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

Source: PMU, Bank of Ceylon, Aralanganvila

PEOPLES' BANK, WELIKANDA

Season	Disbursements		Recoveries		
	No. of Recipients	Amount (Rs.)	Amount (Rs.)	Number	Percent
1987 Yala	259	964,525	931,164	248	95.8%
87/88 Maha	1,441	9,159,672	6,234,694	724	50.2%
1988 Yala	867	4,878,480	3,180,681	433	49.9%
88/89 Maha	1,097	7,782,240	6,796,160	842	76.8%
1989 Yala	1,087	10,116,250	9,197,840	925	85.1%
89/90 Maha	1,358	14,097,600	11,120,060	1,001	73.7%
1990 Yala	1,543	15,613,370	8,951,515	792	51.3%
90/91 Maha	1,370	18,788,350			
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

Source: PMU, Peoples' Bank, Welikanda

PROGRESS REPORT ON FORMAL AND INFORMAL CREDIT IN SYSTEM B

ELLEWEWA INTEGRATED DEVELOPMENT SOCIETY

Season	Disbursements		Recoveries		
	No. of Recipients	Amount (Rs.)	Amount (Rs.)	Number	Percent
1987 Yala					
87/88 Maha	212	257,178	226,252	189	89.2%
1988 Yala	346	453,471	364,639	273	78.9%
88/89 Maha	150	94,430	84,400	133	88.7%
1989 Yala	64	129,037	83,528	19	29.7%
89/90 Maha	59	108,453	108,453	59	100.0%
1990 Yala	81	164,921	164,972	81	100.0%
90/91 Maha					
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

Source: Ellewewa Integrated Development Society

DIMBULAGALA COOPERATIVE

Season	Disbursements		Recoveries		
	No. of Recipients	Amount (Rs.)	Amount (Rs.)	Number	Percent
1987 Yala	57	305,530	937,495	54	94.7%
87/88 Maha	69	441,072	256,200	60	87.0%
1988 Yala	61	435,446	217,439	48	78.7%
88/89 Maha	55	407,057	358,539	53	96.4%
1989 Yala	62	392,034	313,065	63	101.6%
89/90 Maha	152	807,831	700,585	143	94.1%
1990 Yala	64	620,447	516,096	57	89.1%
90/91 Maha					
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

Source: Dimbulagala Cooperative

PROGRESS REPORT ON FORMAL AND INFORMAL CREDIT IN SYSTEM B

TOTAL FORMAL CREDIT, SYSTEM B

Season	Disbursements		Recoveries		
	No. of Recipients	Amount (Rs.)	Amount (Rs.)	Number	Percent
1987 Yala	2,769	11,257,511	8,178,267	1,727	62.4%
87/88 Maha	3,971	21,465,722	12,178,049	1,914	48.2%
1988 Yala	2,388	11,352,959	6,528,605	1,317	55.2%
88/89 Maha	2,245	14,024,193	12,161,265	1,812	80.7%
1989 Yala	2,132	17,714,331	15,980,547	1,810	84.9%
89/90 Maha	2,855	26,282,330	20,954,513	2,268	79.4%
1990 Yala	3,173	28,883,068	17,625,806	1,822	57.8%
90/91 Maha	3,134	36,256,572			
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

BASELINE SURVEY DATA ON CREDIT

TOTAL LOANS	Percent of Sample Receiving Loans	Average Rs. Borrowed	Percent repaying at least 90%	Average Monthly Interest	Average Annual Interest
88/89 Maha	58.9%	5,139	92.0%	4.8%	57.8%
1989 Yala	52.4%	5,567	87.9%	4.6%	55.2%
89/90 Maha					
1990 Yala					
90/91 Maha					
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

SOURCES OF CREDIT

FRIENDS/ RELATIVES	Percent Of Total Loans*	Average Rs. Borrowed	Percent Rs. Repaid	Average Monthly Interest	Average Annual Interest
88/89 Maha	20%	3,949	85.5%	5.5%	66.0%
1989 Yala	19%	4,372	89.5%	5.3%	63.6%
89/90 Maha					
1990 Yala					
90/91 Maha					
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

BASELINE SURVEY DATA ON CREDIT

CO-OPS	Percent Of Total Loans*	Average Rs. Borrowed	Percent Rs. Repaid	Average Monthly Interest	Average Annual Interest
88/89 Maha	5%	3,967	100.0%	1.7%	20.8%
1989 Yala	5%	3,390	100.0%	1.3%	15.0%
89/90 Maha					
1990 Yala					
90/91 Maha					
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

BANKS	Percent Of Total Loans*	Average Rs. Borrowed	Percent Rs. Repaid	Average Monthly Interest	Average Annual Interest
88/89 Maha	58%	6,075	94.7%	1.5%	18.0%
1989 Yala	57%	6,500	90.1%	1.5%	18.0%
89/90 Maha					
1990 Yala					
90/91 Maha					
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

DATA OBTAINED FROM BASELINE AND FOLLOW-UP SURVEYS--BASELINE SAMPLE SIZE: 370 FARMS

BASELINE SURVEY DATA ON CREDIT

CREDIT AGENT	Percent Of Total Loans*	Average Rs. Borrowed	Percent Rs. Repaid	Average Monthly Interest	Average Annual Interest
88/89 Maha	0%	0	NA	NA	NA
1989 Yala	0%	0	NA	NA	NA
89/90 Maha					
1990 Yala					
90/91 Maha					
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

PRIVATE MONEY LENDER	Percent Of Total Loans*	Average Rs. Borrowed	Percent Rs. Repaid	Average Monthly Interest	Average Annual Interest
88/89 Maha	16%	3,467	76.4%	16.8%	201.6%
1989 Yala	16%	3,141	79.6%	15.9%	191.2%
89/90 Maha					
1990 Yala					
90/91 Maha					
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

DATA OBTAINED FROM BASELINE AND FOLLOW-UP SURVEYS—BASELINE SAMPLE SIZE: 370 FARMS

BASELINE SURVEY DATA ON CREDIT

DIMBULAGALA CO-OP	Percent Of Total Loans*	Average Rs. Borrowed	Percent Rs. Repaid	Average Monthly Interest	Average Annual Interest
88/89 Maha	0%	2,500	100.0%	2.5%	30.0%
1969 Yala	1%	7,250	100.0%	2.0%	24.0%
89/90 Maha					
1990 Yala					
90/91 Maha					
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

THRIFT	Percent Of Total Loans*	Average Rs. Borrowed	Percent Rs. Repaid	Average Monthly Interest	Average Annual Interest
88/89 Maha	0%	0	NA	NA	NA
1989 Yala	1%	26,000	100.0%	2.3%	27.0%
89/90 Maha					
1990 Yala					
90/91 Maha					
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

DATA OBTAINED FROM BASELINE AND FOLLOW-UP SURVEYS-BASELINE SAMPLE SIZE: 370 FARMS

BASELINE SURVEY DATA ON CREDIT

OTHER	Percent Of Total Loans*	Average Rs. Borrowed	Percent Rs. Repaid	Average Monthly Interest	Average Annual Interest
88/89 Maha	1%	3,500	47.1%	7.3%	87.6%
1989 Yala	1%	3,625	45.1%	7.3%	87.0%
89/90 Maha					
1990 Yala					
90/91 Maha					
1991 Yala					
91/92 Maha					
1992 Yala					
92/93 Maha					

* 96 percent of the respondent farmers had only one loan

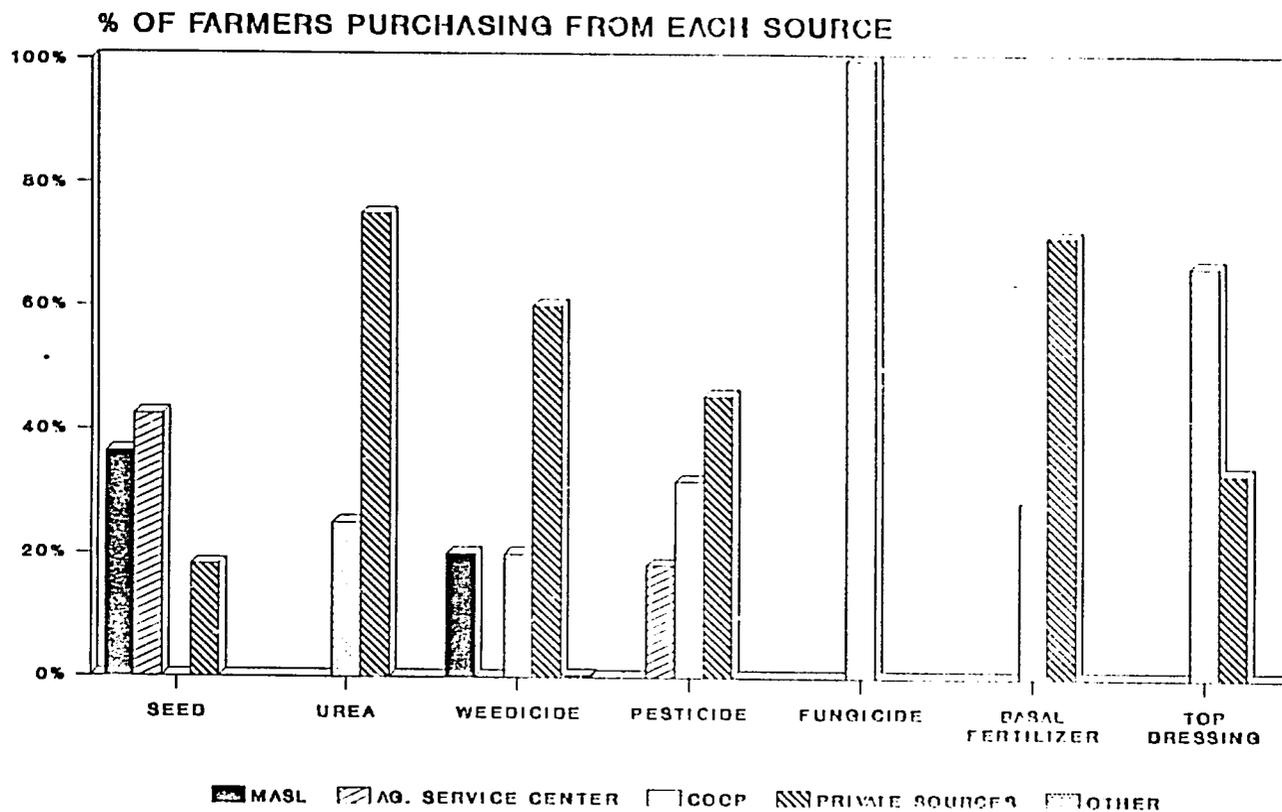
DIFFICULTY IN RECEIVING CREDIT

Percent of Sample With Problems Receiving Credit	REASONS FOR PROBLEM:				
	Credit Not Given At Right Time Number	Did Not Know Procedure	No Cooperation Of Gov't Officials	In Default To Bank	Other
1988/89	0.0%	33.3%	33.3%	22.2%	11.1%
1989/90					
1990/91					
1991/92					
1992/93					

DATA OBTAINED FROM BASELINE AND FOLLOW-UP SURVEYS—BASELINE SAMPLE SIZE: 370 FARMS

**FARMERS WILL BE LINKED WITH MULTIPLE
SELLERS OF AGRICULTURAL INPUTS**

SOURCE OF AGRICULTURAL INPUTS FOR OC'S IN MAHA 1988/89



PROGRESS REPORT ON SOURCES OF AGRICULTURAL INPUTS

PERCENT OF FARMERS PURCHASING FROM:

MAHAWELI AUTHORITY	AGRICULTURE SERVICE CENTER	COOPERATIVE	PRIVATE SOURCES	OTHER	PERCENT AVAILABLE ON TIME	AVERAGE DISTANCE FROM FARM (MI)
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SEEDS

Paddy

Maha 1988/89	13.0%	4.9%	4.3%	38.4%	39.3%	92.5%	1.0
Yala 1989	14.2%	5.0%	4.2%	39.0%	37.6%	93.3%	1.0
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

OC

Maha 1988/89	36.4%	42.4%	0.0%	18.2%	0.0%	100.0%	1.9
Yala 1989	14.3%	35.7%	28.6%	21.4%	0.0%	100.0%	1.9
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

DATA OBTAINED FROM BASELINE AND FOLLOW-UP SURVEYS-BASELINE SAMPLE SIZE: 370 FARMERS

PROGRESS REPORT ON SOURCES OF AGRICULTURAL INPUTS

PERCENT OF FARMERS PURCHASING FROM:

MAHAWELI AUTHORITY	AGRICULTURE SERVICE CENTER	COOPERATIVE	PRIVATE SOURCES	OTHER	PERCENT AVAILABLE ON TIME	AVERAGE DISTANCE FROM FARM (MI)
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WEEDICIDE

Paddy

Maha 1988/89	1.0%	0.3%	80.3%	18.4%	0.3%	76.2%	1.3
Yala 1989	0.3%	0.7%	82.3%	16.4%	0.3%	75.9%	1.3
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

OC

Maha 1988/89	20.0%	0.0%	20.0%	60.0%	0.0%	80.0%	1.1
Yala 1989	0.0%	20.0%	60.0%	20.0%	0.0%	100.0%	1.1
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

PROGRESS REPORT ON SOURCES OF AGRICULTURAL INPUTS

PERCENT OF FARMERS PURCHASING FROM:

	MAHAWELI AUTHORITY	AGRICULTURE SERVICE CENTER	COOPERATIVE	PRIVATE SOURCES	OTHER	PERCENT: AVAILABLE ON TIME	AVERAGE: DISTANCE FROM FARM (MI)
PESTICIDE							
<u>Paddy</u>							
Maha 1988/89	0.5%	0.9%	80.3%	18.3%	0.0%	75.1%	1.2
Yala 1989	0.5%	0.9%	82.4%	16.2%	0.0%	72.1%	1.2
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							
<u>OC</u>							
Maha 1988/89	0.0%	18.2%	31.8%	45.5%	0.0%	100.0%	1.0
Yala 1989	0.0%	6.7%	53.3%	33.3%	0.0%	100.0%	1.0
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

DATA OBTAINED FROM BASELINE AND FOLLOW-UP SURVEYS--BASELINE SAMPLE SIZE: 370 FARMS

PROGRESS REPORT ON SOURCES OF AGRICULTURAL INPUTS

PERCENT OF FARMERS PURCHASING FROM:

MAHAWELI AUTHORITY	AGRICULTURE SERVICE CENTER	COOPERATIVE	PRIVATE SOURCES	OTHER		PERCENT: AVAILABLE ON TIME	AVERAGE DISTANCE FROM FARM (MI)
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FUNGICIDES

Paddy

Maha 1988/89	0.0%	0.0%	90.0%	10.0%	0.0%	100.0%	0.7
Yala 1989	0.0%	0.0%	83.3%	16.7%	0.0%	100.0%	0.7
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

OC

Maha 1988/89	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	1.0
Yala 1989	0.0%	0.0%	0.0%	0.0%	0.0%	NA	1.0
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

PROGRESS REPORT ON SOURCES OF AGRICULTURAL INPUTS

PERCENT OF FARMERS PURCHASING FROM:

MAHAWELI AUTHORITY	AGRICULTURE SERVICE CENTER	COOPERATIVE	PRIVATE SOURCES	OTHER	PERCENT: AVAILABLE ON TIME	AVERAGE DISTANCE FROM FARM (M)
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BASAL FERTILIZER

Paddy

Maha 1988/89	0.4%	0.4%	85.5%	12.9%	0.8%	71.1%	0.9
Yala 1989	0.4%	0.4%	87.4%	11.5%	0.4%	69.0%	0.9
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

OC

Maha 1988/89	0.0%	0.0%	28.6%	71.4%	0.0%	85.7%	1.5
Yala 1989	0.0%	0.0%	50.0%	0.0%	0.0%	100.0%	1.5
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

PROGRESS REPORT ON SOURCES OF AGRICULTURAL INPUTS

PERCENT OF FARMERS PURCHASING FROM:

	MAHAWELI AUTHORITY	AGRICULTURE SERVICE CENTER	COOPERATIVE	PRIVATE SOURCES	OTHER	PERCENT: AVAILABLE ON TIME	AVERAGE: DISTANCE FROM FARM (M)
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UREA

Paddy

Maha 1988/89	0.3%	0.0%	84.2%	14.9%	0.6%	72.8%	1.0
Yala 1989	0.9%	0.3%	84.2%	14.1%	0.6%	71.6%	1.0
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

OC

Maha 1988/89	0.0%	0.0%	25.0%	75.0%	0.0%	100.0%	0.9
Yala 1989	0.0%	25.0%	50.0%	25.0%	0.0%	100.0%	0.9
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

PROGRESS REPORT ON SOURCES OF AGRICULTURAL INPUTS

PERCENT OF FARMERS PURCHASING FROM:

MAHAWELI AUTHORITY	AGRICULTURE SERVICE CENTER	COOPERATIVE	PRIVATE SOURCES	OTHER	PERCENT: AVAILABLE ON TIME	AVERAGE DISTANCE FROM FARM (MI)
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TOP DRESSING

Paddy

Maha 1988/89	0.3%	0.0%	83.1%	16.0%	0.6%	71.8%	1.0
Yala 1989	0.9%	0.6%	83.2%	14.7%	0.6%	71.0%	1.0
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

OC

Maha 1988/89	0.0%	0.0%	66.7%	33.3%	0.0%	100.0%	1.2
Yala 1989	0.0%	0.0%	75.0%	25.0%	0.0%	100.0%	1.2
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

PROGRESS REPORT ON SOURCES OF AGRICULTURAL INPUTS

PERCENT OF FARMERS PURCHASING FROM:

MAHAWELI AUTHORITY	AGRICULTURE SERVICE CENTER	COOPERATIVE	PRIVATE SOURCES	OTHER	PERCENT AVAILABLE ON TIME	AVERAGE DISTANCE FROM FARM (KM)
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OTHER

Paddy

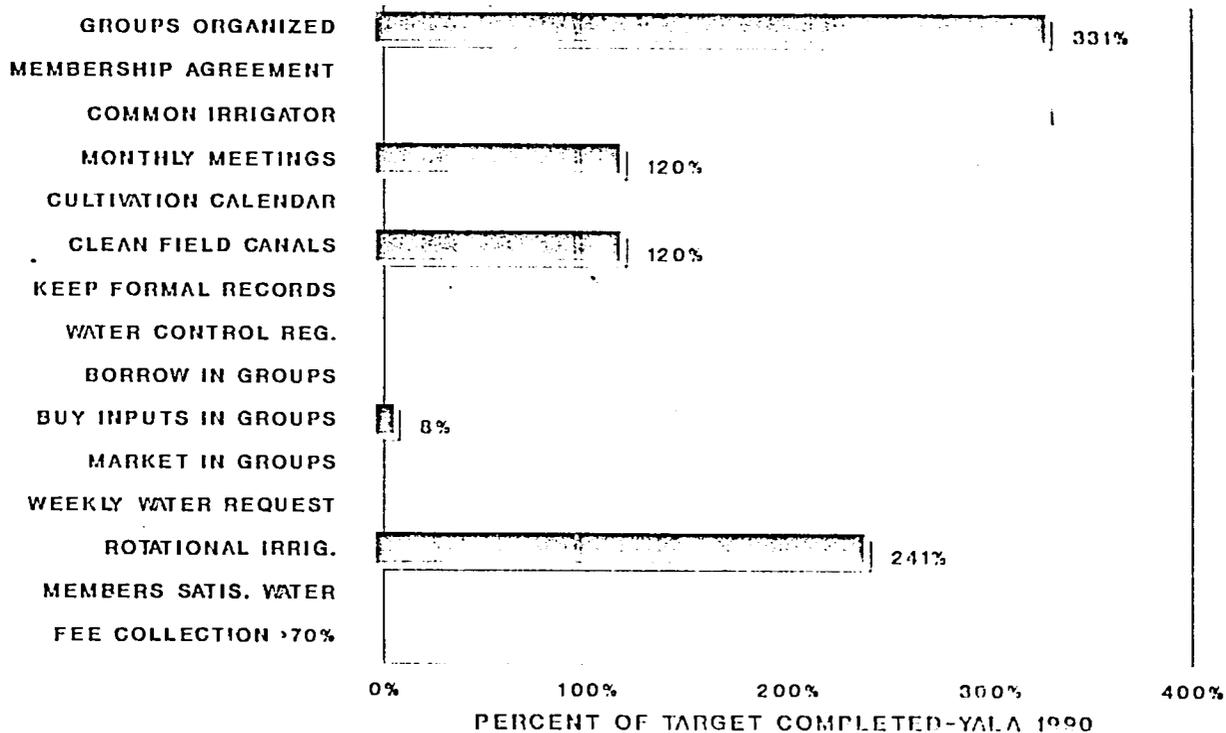
Maha 1988/89	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.4
Yala 1989	0.0%	0.0%	0.0%	0.0%	0.0%	NA	0.4
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

OC

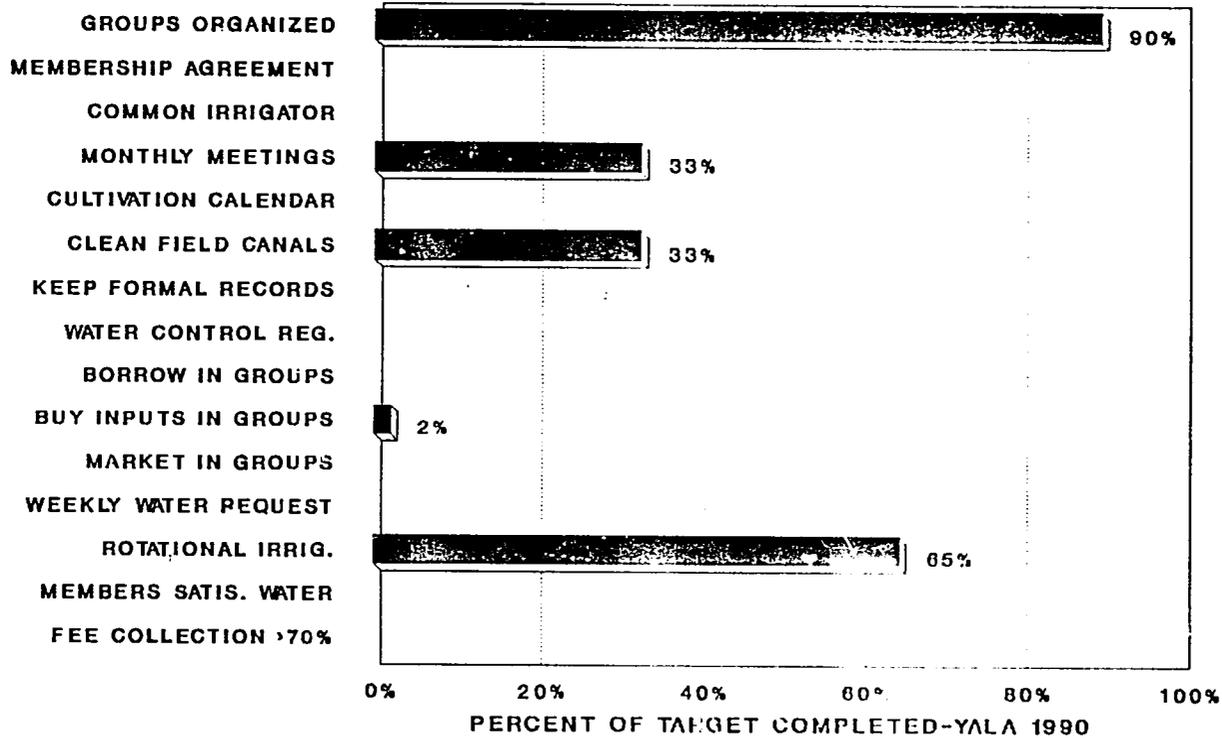
Maha 1988/89	5.6%	11.1%	11.1%	66.7%	0.0%	94.4%	1.4
Yala 1989	0.0%	0.0%	31.3%	68.8%	0.0%	100.0%	1.4
Maha 1989/90							
Yala 1990							
Maha 1990/91							
Yala 1991							
Maha 1991/92							
Yala 1992							
Maha 1992/93							

**250 TURNOUT GROUPS WILL BE MANAGING AGRICULTURAL
PRODUCTION AND WATER DISTRIBUTION**

FARMER ORGANIZATIONS TURNOUT GROUPS MARD PROJECT PAPER TARGET



FARMER ORGANIZATIONS TURNOUT GROUPS ALL TOG TARGET



PROGRESS REPORT ON STRENGTHENING TURNOUT GROUPS

TURNOUT GROUP INDICATORS	<u>CUMULATIVE PROGRESS--1990</u>			<u>TARGETS</u>	
	NUMBER	PERCENT OF MARD TARGET	PERCENT OF ALL TOGS	MARD PROJECT PAPER	ALL TOGS
NUMBER OF TURNOUT GROUPS THAT:					
Are reorganized/organized:	827	331%	90%	250	921
a. Membership agreement signed and enforced	NA	0%	0%	250	921
Hold monthly meetings	301	120%	33%	250	921
Prepare and submit seasonal cultivation calendar to the Unit Task Force	NA	0%	0%	250	921
Clean field channels every month	301	120%	33%	250	921
Keep formal records (accounts, activities minutes, dues collection, etc. that are available for scrutiny)	NA	0%	0%	250	921
Practice rotational irrigation:	602	241%	65%	250	921
a. Install water control regulators on farm inlets, drop and check structures	NA	0%	0%	250	921
b. Duties of common irrigator rotated	NA	0%	0%	250	921
c. Submit weekly request for water	NA	0%	0%	250	921
Borrow cultivation loans in groups	NA	0%	0%	250	921
Buy farm inputs in groups	19	8%	2%	250	921
Sell farm produce in groups	NA	0%	0%	250	921
Collect irrigation service fees	NA	0%	0%	250	921

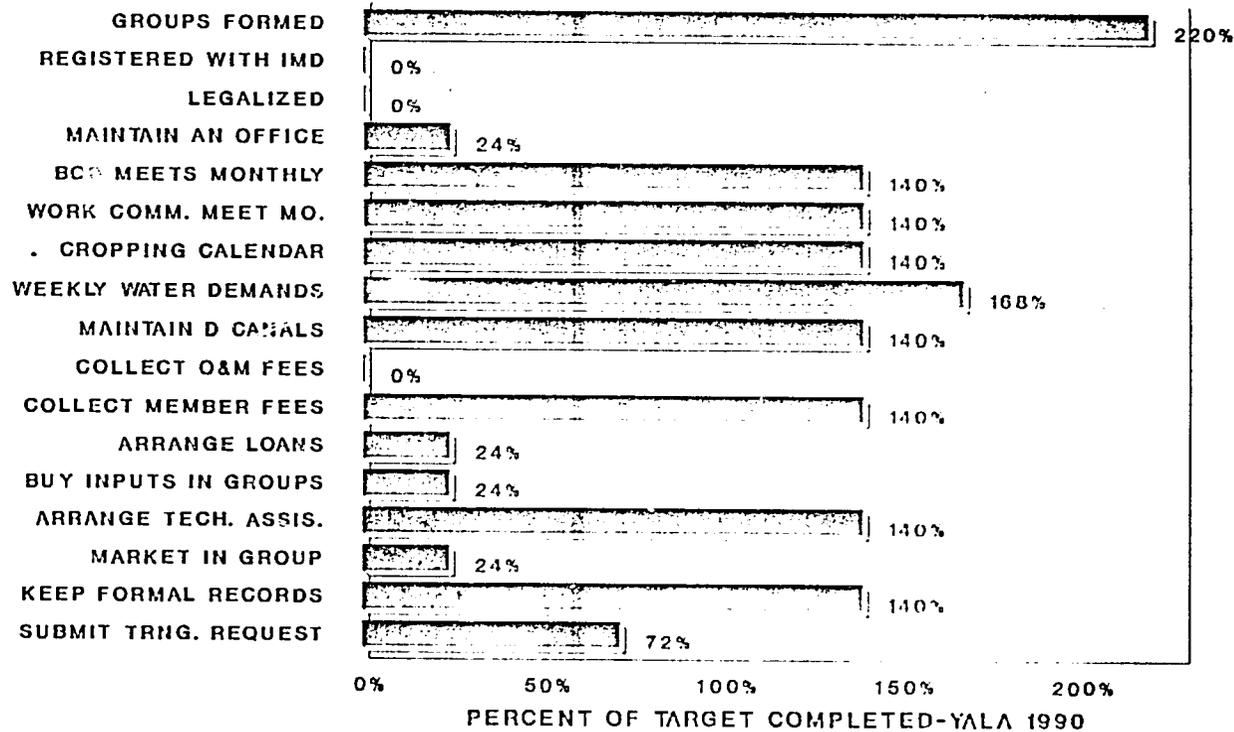
NA - DATA NOT YET AVAILABLE

25 UNIT LEVEL FARMER ORGANIZATIONS WILL BE COLLECTING FEES AND HANDLING OPERATION AND MAINTENANCE WORK AND SERVING AS THE MAIN CHANNEL FOR FARM CREDIT, AGRICULTURAL TECHNOLOGY AND MARKETING ASSISTANCE

FARMER ORGANIZATIONS

UNIT LEVEL FARMER ORGANIZATIONS

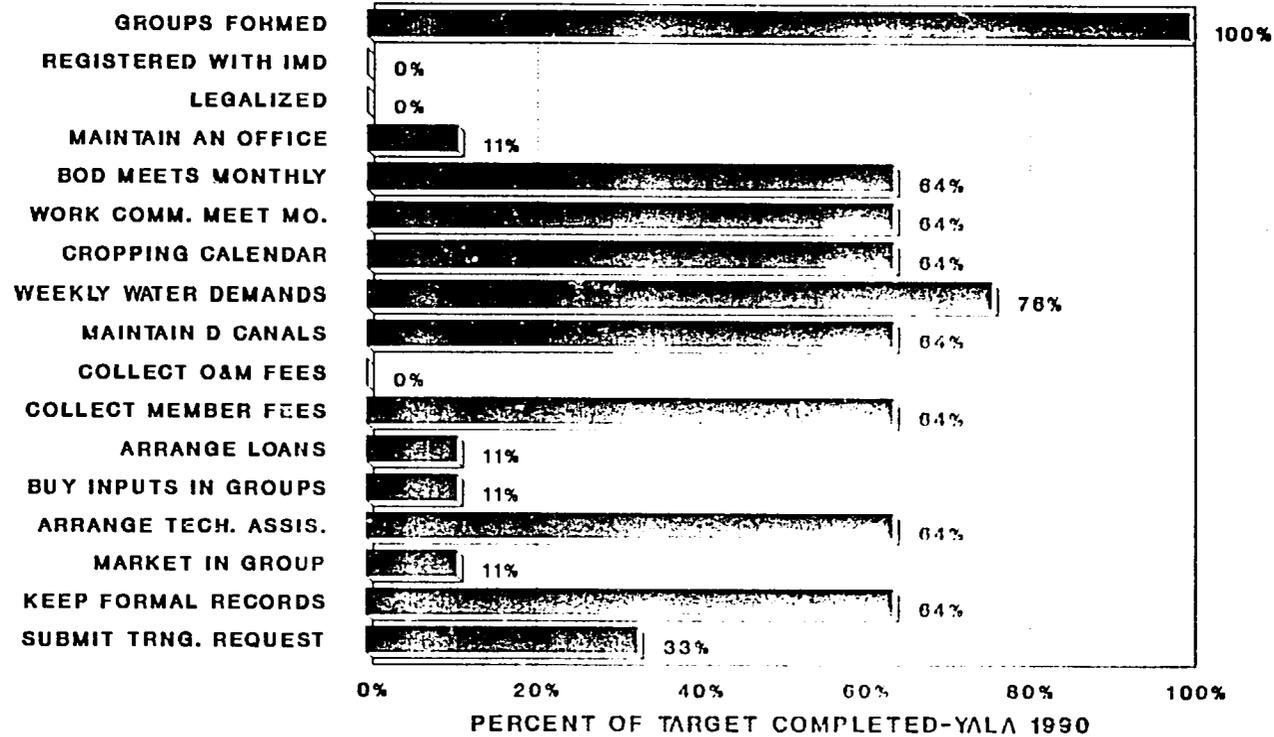
MARD PROJECT PAPER TARGET



FARMER ORGANIZATIONS

UNIT LEVEL FARMER ORGANIZATIONS

ALL ULFO TARGET



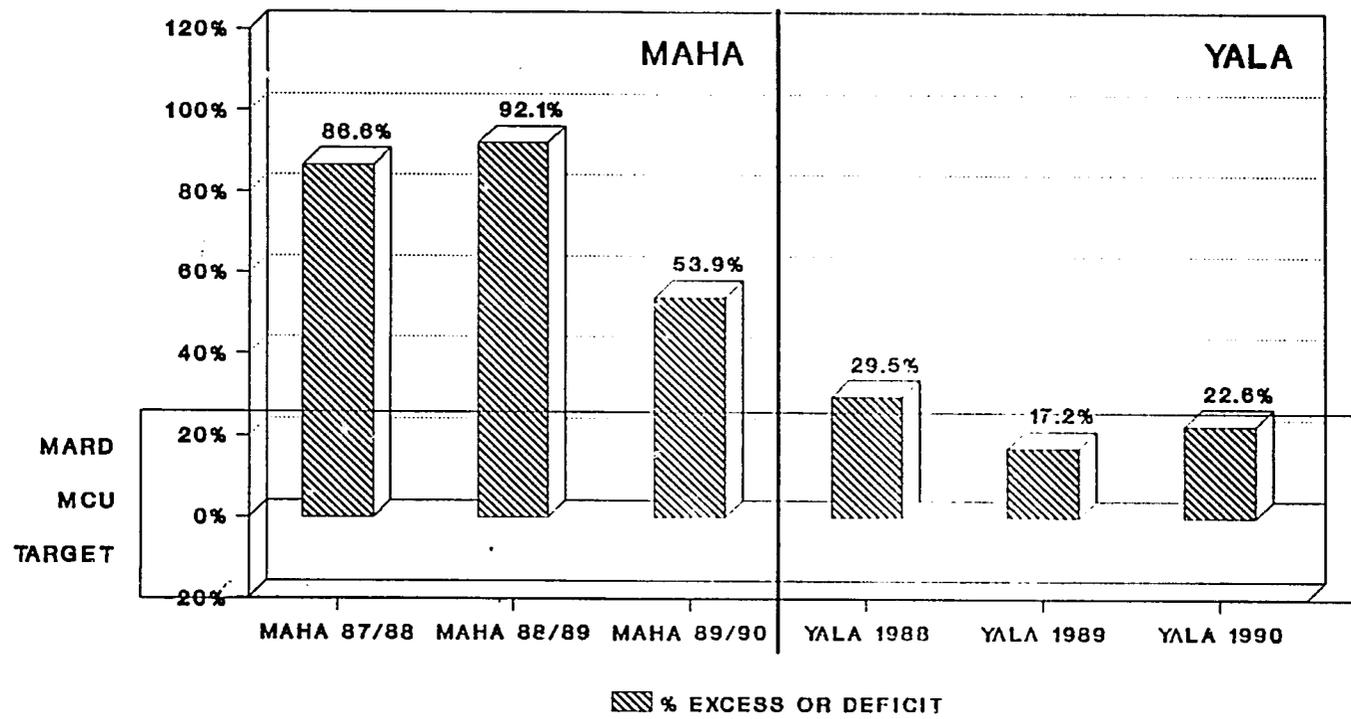
PROGRESS REPORT ON STRENGTHENING UNIT LEVEL FARMER ORGANIZATIONS

UNIT LEVEL INDICATORS*	<u>CUMULATIVE PROGRESS-1990</u>		<u>TARGETS</u>		
	NUMBER	PERCENT OF MARD TARGET	PERCENT OF ALL ULFO	MARD PROJECT PAPER	ALL ULFO
NUMBER OF UNIT LEVEL ASSOCIATIONS THAT:					
Are formed	55	220%	100%	25	55
Are registered with IMD	0			25	55
Are legalized	0			25	55
Maintain office	6	24%	11%	25	55
Board of Directors meet monthly	35	140%	64%	25	55
Work Committees meet monthly	35	140%	64%	25	55
Submit cropping calendar	35	140%	64%	25	55
Submit aggregate water demands weekly	42	168%	76%	25	55
Clean, desilt and repair D-canal	35	140%	64%	25	55
Collect O&M fees	0			25	55
Collect membership fees	35	140%	64%	25	55
Arrange cultivation loans for members	6	24%	11%	25	55
Purchase farm inputs for members	6	24%	11%	25	55
Arrange technical assistance for members	35	140%	64%	25	55
Members sell produce in group	6	24%	11%	25	55
Keep formal records, accounts, activities and accomplishments, minutes of meetings and collections of fees and dues	35	140%	64%	25	55
Submit request for training	18	72%	33%	25	55

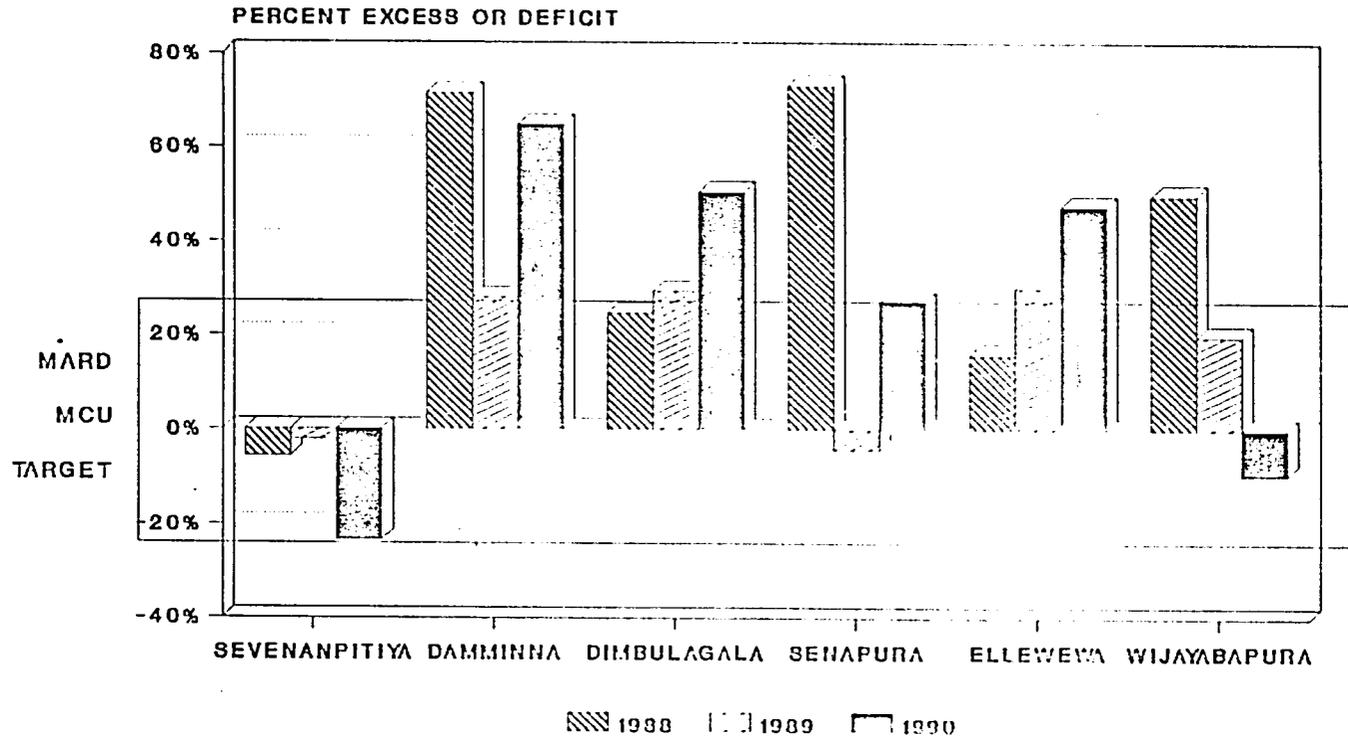
*DOES NOT INCLUDE SENAPURA BLOCK

**MCU PROVISION OF WATER TO EACH BLOCK AS MEASURED
AT THE BRANCH CANAL WILL BE ADEQUATE + OR -
20 PERCENT OF THE AGGREGATED DOWNSTREAM
REQUIREMENTS AS CALCULATED BY MEA**

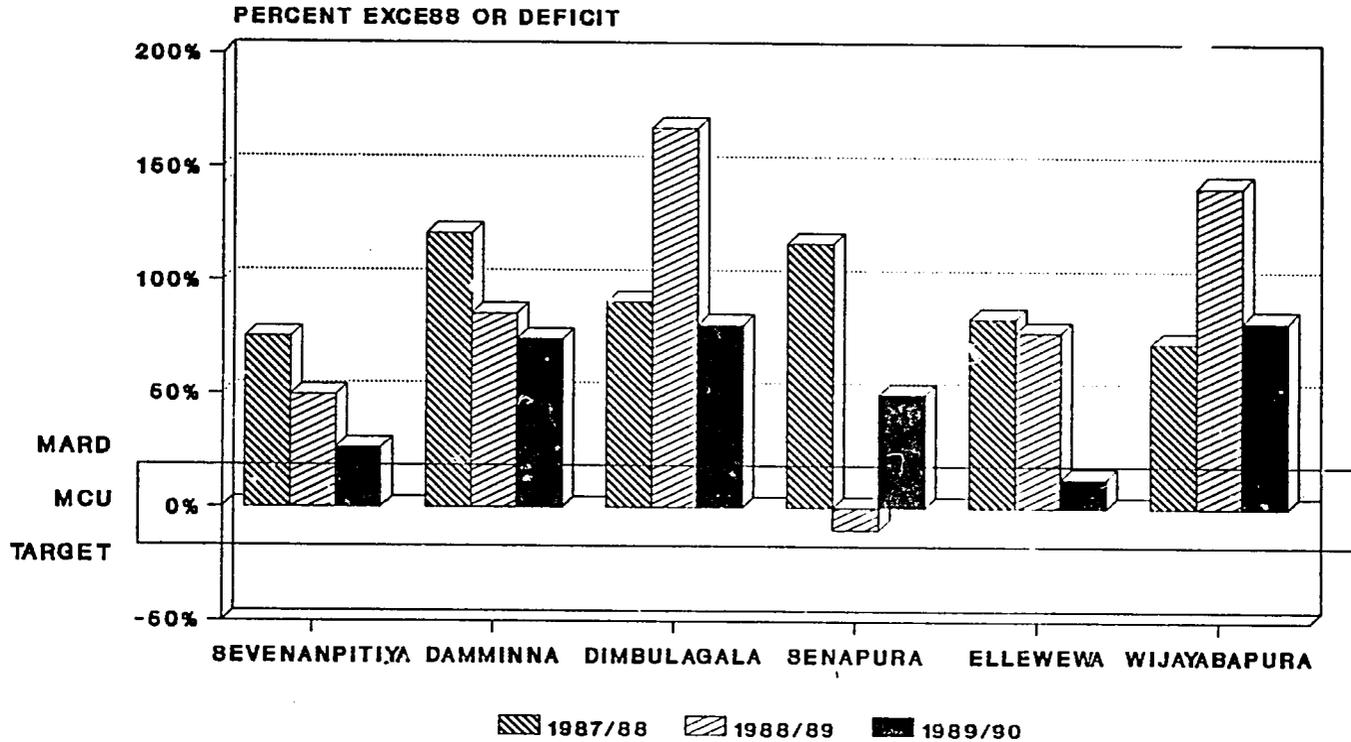
MCU PROVISION OF WATER AT THE BRANCH CANAL: SYSTEM B



MCU PROVISION OF WATER AT THE BRANCH CANAL: YALA



MCU PROVISION OF WATER AT THE BRANCH CANAL: MAHA



PROGRESS REPORT ON MCU PROVISION OF WATER TO MEET AGGREGATED DEMAND

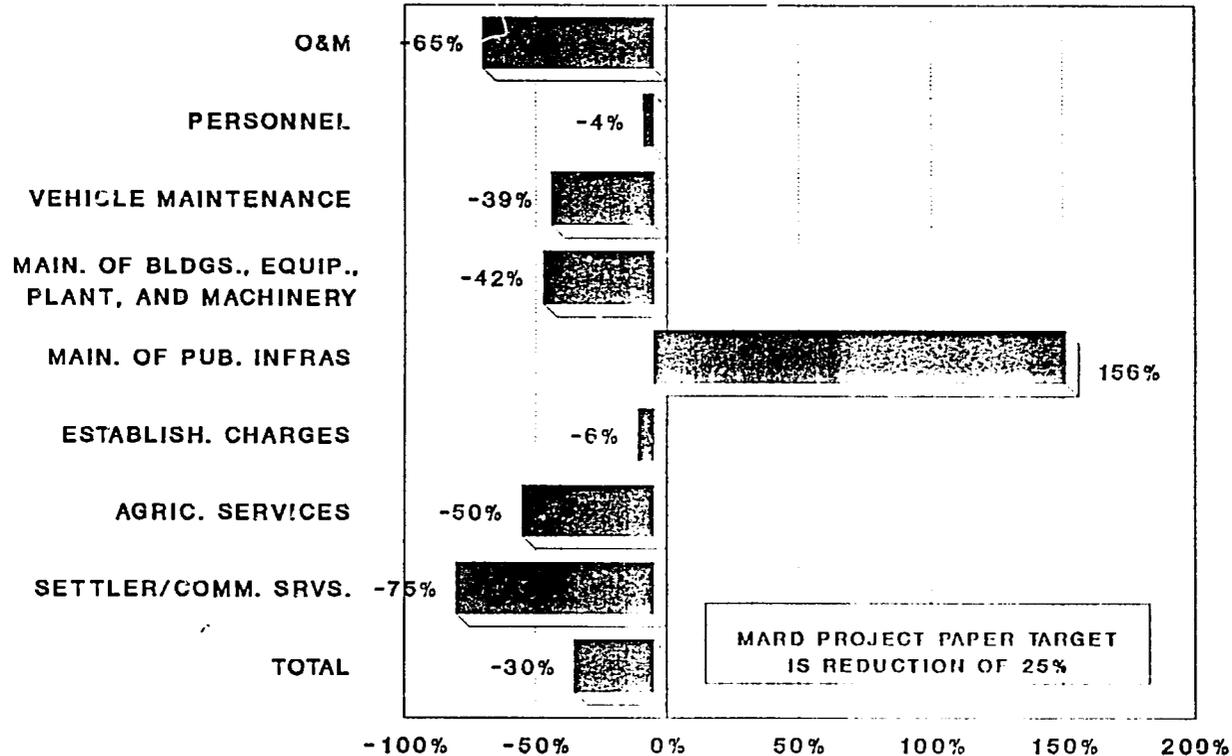
YALA	SEVANAPITIYA	DAMMINNA	DIMBULAGALA	SENAPURA	ELLEWEWA	WIJAYADAPURA	TOTAL
YALA REQUIREMENT	2.0 M						
MAHA REQUIREMENT	1.3 M						
YALA 1988							
IRRIGATED AREA (HA.)	1,631.00	1,015.45	1,825.05	221.50	1,801.70	1,910.00	8,437.70
WATER SUPPLIED (M-HA.)	3,081.71	3,481.92	4,540.92	767.14	4,176.66	5,811.14	21,859.49
MILLION CUBIC METERS REQUIRED	32.62	20.31	36.50	4.43	36.09	38.60	168.75
MILLION CUBIC METERS PROVIDED	30.82	34.82	45.41	7.67	41.77	58.11	218.59
PERCENT EXCESS OR DEFICIT	-5.53%	71.45%	24.41%	73.17%	15.72%	49.77%	29.53%
YALA 1989							
IRRIGATED AREA (HA.)	1,901.00	1,164.00	2,025.43	1,409.00	1,947.00	2,158.97	10,605.40
WATER SUPPLIED (M-HA.)	3,718.40	2,976.91	5,231.60	2,700.77	5,052.60	5,167.12	24,857.40
MILLION CUBIC METERS REQUIRED	38.02	23.28	40.51	28.18	38.94	43.18	212.11
MILLION CUBIC METERS PROVIDED	37.18	29.77	52.32	27.01	50.63	51.67	248.57
PERCENT EXCESS OR DEFICIT	-2.20%	27.87%	29.15%	-4.16%	30.01%	19.67%	17.19%
YALA 1990							
IRRIGATED AREA (HA.)	2,016.58	1,092.99	1,843.30	1,424.40	2,030.95	1,897.00	10,314.22
WATER SUPPLIED (M-HA.)	3,083.78	3,597.35	5,546.95	3,610.05	6,019.40	3,441.48	25,299.02
MILLION CUBIC METERS REQUIRED	40.33	21.86	35.87	28.49	40.80	37.94	206.28
MILLION CUBIC METERS PROVIDED	30.84	35.97	55.47	36.19	60.19	34.41	252.99
PERCENT EXCESS OR DEFICIT	-23.54%	64.56%	50.46%	26.72%	47.54%	-9.29%	22.64%

**WATER SUPPLY WILL BE TIMELY AND EQUITABLE
IN ACCESS IRRESPECTIVE OF LOCATION
OF THE FARMER IN THE TURNOUT**

**DATA COLLECTION EFFORTS WERE
NOT SUCCESSFUL SO THERE ARE NO
DATA AVAILABLE TO MEASURE THIS
INDICATOR**

**RECURRENT COSTS OF THE IRRIGATION SYSTEM
BORN BY THE GOVERNMENT OF SRI LANKA
WILL BE REDUCED BY 25 PERCENT**

PERCENT CHANGE IN RECURRENT COSTS OF THE IRRIGATION SYSTEM 1988-1991 (IN CONSTANT RS.)



**PROGRESS REPORT ON RECURRENT COSTS
OF THE IRRIGATION SYSTEM**

BUDGET CATEGORY	RS. 000'S		PERCENT CHANGE
	1988	1991 (IN 1988 RS.)	
OPERATIONS AND MAINTENANCE	6,161	2,170	-65%
PERSONNEL EMOLUMENTS	21,836	20,959	-4%
MAINTENANCE OF VEHICLES	7,740	4,719	-39%
MAINTENANCE OF BUILDINGS, EQUIPMENT, PLANT AND MACHINERY	4,856	2,831	-42%
MAINTENANCE OF PUBLIC INFRASTRUCTURE	200	512	156%
ESTABLISHMENT CHARGES	1,907	1,792	-6%
AGRICULTURAL SERVICES	1,855	927	-50%
SETTLER/COMMUNITY SERVICES	2,187	538	-75%
OTHER-MISC.	4,580	1,699	-63%
TOTAL	51,375	36,147	-30%

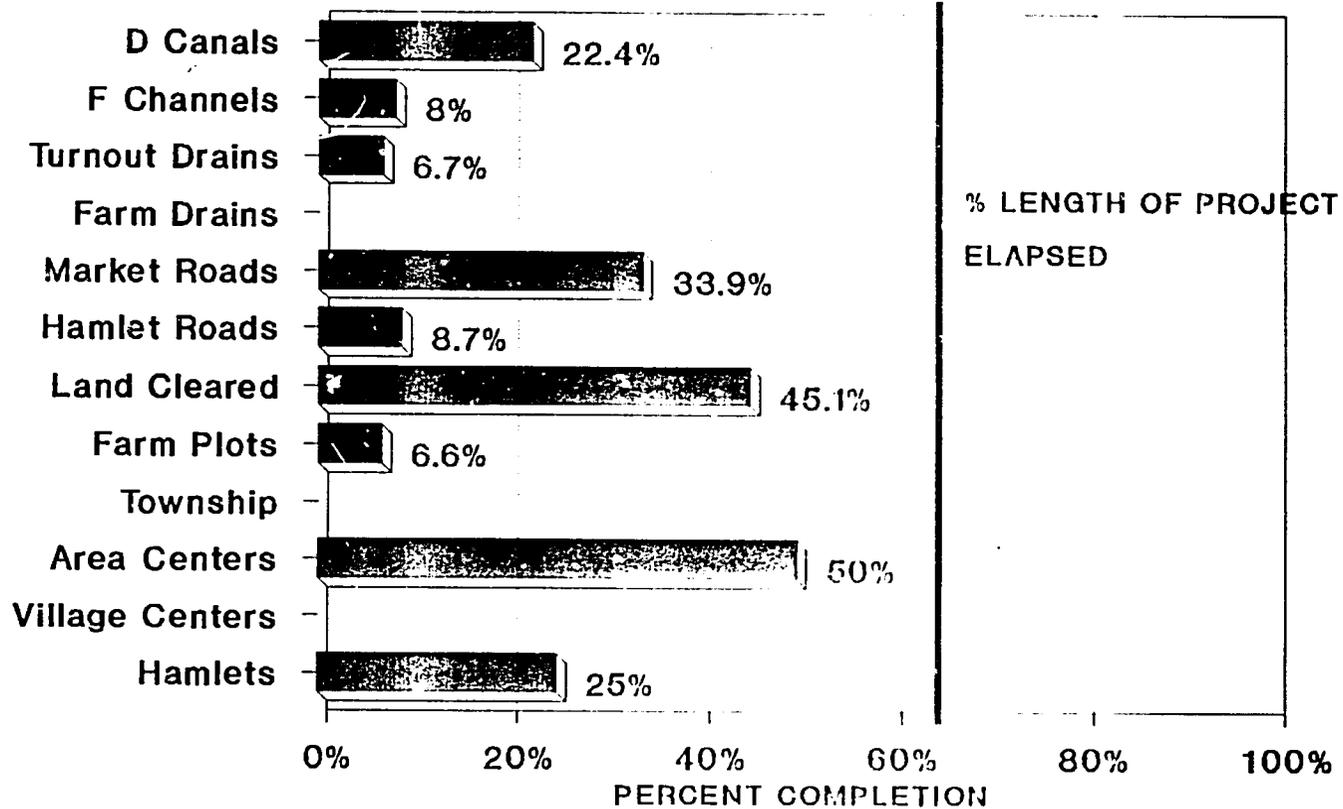
MDS

PROGRESS INDICATORS

**COMPLETE THE SETTLEMENT INFRASTRUCTURE
ON THE LEFT BANK OF SYSTEM B**

1990 MDS PROGRESS REPORT

COMPLETION OF SETTLEMENT INFRASTRUCTURE



**PROGRESS REPORT FOR MDS COMPLETION OF THE SETTLEMENT INFRASTRUCTURE
IN ZONE 4A OF THE LEFT BANK IN SYSTEM B**

CUMULATIVE PROGRESS:

TARGET	1989		1990		1991		1992	
	Completion	Percent of Target						
143 kms. of D canals	16 kms.	11.2%	32 kms.	22.4%	kms.		kms.	
311 kms. of F channels	19 kms.	6.1%	25 kms.	8.0%	kms.		kms.	
415 kms. of turnout drains	5 kms.	1.2%	28 kms.	6.7%	kms.		kms.	
370 kms. of farm drains	0 kms.		0 kms.		kms.		kms.	
54.5 kms. of market roads	17 kms.	30.9%	18.5 kms.	33.9%	kms.		kms.	
207 kms. of hamlet roads	12 kms.	5.8%	18 kms.	8.7%	kms.		kms.	
5,763 has. of land cleared	2,379 has.	41.2%	2,600 has.	45.1%	has.		has.	
4,516 has. of developed irrigated farm plots	265 has.	5.9%	299 has.	6.6%	has.		has.	
1 Township	0 twsp.		0 twsp.		twsps.		twsps.	
2 area centers	1 ctrs.	50.0%	1 ctrs.	50.0%	ctrs.		ctrs.	
2 village centers	0 ctrs.		0 ctrs.		ctrs.		ctrs.	
15 hamlets all with electricity, plumbing, sewage, and public buildings	1 hmlts.	6.7%	4	25.0%				