

**DUGWELL IRRIGATION IN CHITTOOR
DIST.- ANDHRA PRADESH
(AN EX-POST EVALUATION STUDY)**



**NATIONAL BANK FOR
AGRICULTURE AND RURAL DEVELOPMENT**

REGIONAL OFFICE : HYDERABAD-500 020.

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The National Bank for Agriculture and Rural Development (NABARD) was established on July 12, 1982. The Agricultural Refinance & Development Corporation (ARDC) ceased to exist from that day and its functions were taken over by the NABARD. The subject-schemes were sanctioned by the erstwhile ARDC. For the sake of convenience, the report refers to ARDC although it does not exist anymore.

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FOREWORD

This is the 8th Evaluation Study Report brought out by the National Bank from Andhra Pradesh and 3rd published by the Hyderabad Regional Office. The subject matter of the evaluation study is minor irrigation (dugwells) schemes sanctioned to Andhra Pradesh State Central Cooperative Agriculture Development Bank (APCCADB) for implementation in Chittoor District.

The present study brings out the serious under-financing of the investments due to the restrictive land valuation policy adopted by the bank. The beneficiaries had further exacerbated this deficiency by putting up wells of larger dimensions than could be sustained with the loan amount, resulting in supplementary borrowing. Hence there was need to make realistic assumptions of the unit cost taking into account the actual requirements of local practices apart from ensuring technical guidance to the beneficiaries in the construction of dugwells.

Though the investment for different types of dugwells was found to be financially viable the repayment performance under the schemes has not been upto the levels expected due to lesser repayment periods assumed under the schemes on one hand and lesser incremental income realised owing to frequent droughts experienced in the district on the other. The percentage of overdues as well as defaulters was very high in the case of small farmers compared with others. The higher percentage of debt services liability was reflected in relatively higher percentage of overdues and with the increase in the incremental income there was progressive reduction in the level of overdues. Realising the need National Bank of late has rightly extended the repayment period upto 15 years.

The study also underlines the need to simplify the procedure of receipt and sanction of loan applications and to ensure early completion of the investments.

The coverage of small farmers under the schemes had been quite satisfactory as 80% of the total beneficiaries were small farmers against 60% assumed under the schemes.

**NABARD
REGIONAL OFFICE
HYDRABAD**

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ABBREVIATIONS

APCCADB	:	Andhra Pradesh Co-operative Central Agricultural Development Bank
APSIDC	:	Andhra Pradesh State Irrigation Development Corporation
ARDC	:	Agricultural Refinance and Development Corporation
ID Crops	:	Irrigated Dry Crops
IGPH	:	Imperial Gallon Per Hour
NABARD	:	National Bank for Agriculture and Rural Development
O & M Costs	:	Operation and Maintenance Costs
SC	:	Scheduled Caste
ST	:	Scheduled Tribe

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BASIC DATA SHEET

Type of Investment: Dug Wells
 Scheme Area: Chittoor District
 Financing Bank: Andhra Pradesh Co-operative Central
 Agricultural Development Bank Ltd.

S. no	Particulars	Unit	Dugwells		
			Small farmers	Other farmers	Total
1.	Total population of the wells under the Scheme	Number	1,006	192	1,198
2.	Number of sample wells selected for the study	Number	72	18	90
	a) DEPs	"	25	12	37
	b) DDPs	"	32	6	38
	c) DMPs	"	15	-	15
3.	Cost of investment				
	a) At historical prices (1980-81)	Rupees			
	i) DEPs	"	16,348	19,350	17,322
	ii) DDPs	"	14,272	16,333	14,645
	iii) DMPs	"	7,866	-	7,866
	b) At 1985-86 prices	Rupees			
	i) DEPs	"	23,500	27,500	24,793
	ii) DDPs	"	20,000	24,000	20,632
	iii) DMPs	"	11,000	-	11,000
4.	Average size of cultivated holding	Acres			
	i) DEPs	"	6.56	17.14	10.00
	ii) DDPs	"	6.02	17.05	7.77
	iii) DMPs	"	4.47	-	4.47
5.	Average benefitted area				
	i) DEPs	"	3.23	3.54	3.33
	ii) DDPs	"	3.04	4.33	3.24
	iii) DMPs	"	1.68	-	1.68

BASIC DATA SHEET (CONTD../2/)

S. no.	Particulars	Unit	Dugwells		
			Small farmers	Other farmers	Total
6.	Intensity of cropping	%			
	1) DEPs	"	221	232	225
	ii) DDPs	"	164	169	165
	iii) DMPs	"	173	-	173
7.	Net farm incremental income per acre	Rupees			
	1) DEPs	"	2635 (2998)	2794 (3062)	2700 (3042)
	ii) DDPs	"	1619 (1800)	1982 (2118)	1718 (1948)
	iii) DMPs	"	1604 (1926)	-	1604 (1926)
8.	Net farm incremental income per unit	Rupees			
	1) DEPs	"	8511 (9684)	9891 (10839)	8991 (10130)
	ii) DDPs	"	4922 (5655)	8582 (9171)	5566 (6312)
	iii) DMPs	"	2695 (3236)	-	2695 (3236)
9.	Financial Rate of Return				
	1) DEPs		32 (35)	32 (34)	32 (35)
	ii) DDPs		22 (25)	31 (33)	24 (27)
	iii) DMPs		22 (25)	-	22 (25)

Contd...

BASIC DATA SHEET (CONTD../3/)

S. Particulars no.	Unit	Dugwells		
		Small farmers	Other farmers	Total
10. Additional on farm employment per bene- fitted acre				
	Man days			
i) DEPs	"	86	89	87
ii) DDPs	"	58	66	60
iii) DMPs	"	57	-	57
11. Repayment performance				
	%			
(% of overdues to demand)				
i) DEPs	"	42	2	31
ii) DDPs	"	34	32	33
iii) DMPs	"	63	-	63
12. Total scheme impact				
- Net addition to				
i) Irrigated area	Acre	-	-	2964
ii) Gross value of output at 1985-86 prices	Rs.lakhs	-	-	122.000
iii) Value added at 1985-86 prices	"	-	-	63.82 (72.39)
13. Employment				
a) Recurring	Lakh mandays	-	-	2.13
b) Non-recurring	"	-	-	9.13

NR: 1. Figures in brackets indicate the estimates based on the cost of cultivation excluding the imputed value of family labour.

2. DEPs : Dug wells with Electric pumpsets

DDPs : Dug wells with Diesel pumpsets

DMP's : Dug wells with Mhotes

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