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Mobilization of Financial Resources for Sustainable Groundwater Farmer Managed Irrigation Systems in Bangladesh

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Abstract

In Bangladesh ground water Farmer Managed Irrigation Systems (FMISs) include deep tubewells (DTWs) and shallow tubewells (STWs). This paper examines the present approaches to mobilization of financial resources for DTW and STW FMISs and finds that they are inefficient and inequitable. The paper, while arguing for continuing the present approaches, makes suggestions for minimizing inefficiency and inequity. Among others, the suggestions include strengthening farmer organizations, improving irrigation and water management, and encouraging private sector participation in financing capital and O & M costs of FMISs.

Introduction:

According to a 1991 census of irrigation (Bangladesh CIDA-AST, 1991), ground water irrigation covers 60 percent of the total irrigated area of 6.46 million hectares. Almost all (98.5%) of this ground water irrigation coverage is through the use of deep tubewells (DTWs) and shallow tubewells (STWs). The DTWs and STWs are largely managed by farmers, although much of the stock of DTWs is owned by government agencies and rented to farmers' groups. Those DTWs owned by farmers were typically financed through loans from public financial institutions. STWs are almost entirely farmer owned, some bought by cash and others through loans. In addition to the purchase or rental costs of equipment, farmer managed systems face operation and maintenance expenses that generally range between Taka 3300 and 4800 (US\$ 63 and 123) per hectare (depending on irrigation coverage and other factors) during the Boro (winter rice) season.

The mobilization of financial resources for paying rents and capital costs as well as for meeting the operation and maintenance expenses of tubewells is a very important determinant of the sustainability of groundwater farmer managed irrigation systems (FMISs) in Bangladesh. There is growing concern over the issue as the record of loan installment and rental payment by irrigation groups has been problematical and the varied methods of charging farmers to cover costs have raised questions about both equity and efficiency. It is in this context that the present paper proposes to examine some of the issues associated with financial resource mobilization in groundwater FMISs.

Paper Objectives:

The broad objective of the paper is to contribute to the development of an appropriate approach to resource mobilization for sustainable groundwater systems

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managed by farmers. More specific objectives include: a) the identification of existing resource mobilization approaches and methods; b) an examination of their performance records, strengths and weaknesses; and c) the suggestion of possible ways to promote more productive, efficient and equitable methods of financial resource mobilization for sustainable groundwater FMISs.

The paper utilizes primary data collected under the recently completed IIMI-IRRI project on Irrigation Management for Rice Based Farming Systems. This data, collected in the Rajshahi and Thakurgaon regions of Bangladesh, is supplemented by secondary information gathered from other sources. DTW irrigation systems is emphasized with contrasts being drawn between farmer managed and agency managed systems.

Resource Mobilization

Approaches and Issues

In a situation where irrigation systems are initiated and developed first by the government agencies and then turned over to farmers for management, there can be three interrelated approaches to resource mobilization for financing irrigation development programmes. They are (a) cost recovery, (b) benefit from irrigation and (c) ability to pay. The choice of a particular approach or particular combination of approaches depends on a government's objectives in regards to irrigation development and on how that development fits in with broader national development efforts.

In general, the cost recovery approach is seldom fully followed in the sense of recovering the entire capital and O & M costs from farmer groups. In almost all countries subsidies are provided to cover a portion of irrigation costs. While the justifications put forward for this cost approach are fairly clear, its application has posed some problems (Small, Adriano, Martin, Bhatia, Shin and Pradhan 1989). For various reasons such as corruption inefficiency and inappropriate project analyses, the officially reported costs in many projects may be substantially higher than the real costs. The question might then be posed as to why farmers should pay for costs which were not really necessary for the provision of the services received.

Even if the costs are fully necessary for the provision of irrigation, farmers cannot pay them if the incremental benefit due to the irrigation that they receive is less than such cost payment. It is in this context that the benefit approach is considered along with cost approach for resource mobilization.

In some places, members of farmer groups may really receive incremental benefits but they still might not be able to pay the full cost or even of the O&M costs because their general level of income is too low. In such circumstance, a case can be made for either total or partial subsidy. Thus the ability to pay also becomes important in determining resource mobilization strategy.

The other related issues that are generally considered in formulating resource mobilization policy relate to economic efficiency, the generation of

public savings and to equity. Finally, political feasibility and administrative capability must be considered in deciding resource mobilization strategy.

In situations where irrigation systems are both developed and managed by farmers, the farmers as a group have no alternative to following a full cost recovery approach for resource mobilization for sustaining their systems. Within the group, there might be differences in individuals' contributions to cost recovery on consideration of differences in benefits received or differences in economic conditions, but as a group the farmers must mobilize resources to cover full costs.

Present Approaches to Resource Mobilization in Bangladesh

In Bangladesh, the objectives of the irrigation development program have been to increase national food production and income as well as the production of subsistence farmers. In line with these objectives, in the early stage of irrigation development the government heavily subsidized irrigation development programs including ground water FMISs. Neither cost recovery approach nor benefit approach was followed in any significant way to finance irrigation development. As the use of irrigation has gained popularity among farmers, the government has begun to gradually reduce its subsidy on irrigation although increased food production has remained the key objective of irrigation development. The underlying reasons for reducing the subsidy are to ease budgetary pressures and to increase efficiency. For gravity irrigation systems the government policy is to recover O & M costs from the users while for minor irrigation systems which include ground water FMISs, the policy is to recover both O & M and capital costs. The government has, in fact, adopted a vigorous privatization program to minimize public participation in the development of FMISs.

Ground Water FMISs and Resource Mobilization:

As has been mentioned before, ground water FMISs include DTW and STW irrigation. The Bangladesh Agricultural Development Corporation (BADC) was the pioneering government agency to initiate and develop DTW and STW FMISs in the country. While BADC still plays a major role in the DTW FMIS sector in several ways, its role in the STW FMIS sector has substantially diminished recently. Private traders and commercial banks have taken over much of the role of BADC in STW FMIS development and expansion. In DTW FMISs also, BADC's activities are diminishing gradually.

DTW FMISs

At present there are different categories of DTW FMISs functioning in the country under BADC initiative. For each category, there is a distinct method of resource mobilization. The present paper covers Rental, BIADP and Private FMISs because the relevant information are available on these from a recent IIMI-IRRI study.

Rental DTW FMISs: Rental DTW FMISs are heavily subsidized by the government. In the mid seventies the subsidy constituted 70 percent of total

costs, in the early eighties it was 68 percent and at present it is about 62 percent (Table 1). Over the years all of the indirect O & M costs and around 95 percent of the capital costs have been subsidized. The farmers' groups however have been substantially financing direct O & M costs from their own sources. In fact, at present they are financing all of the O & M costs. Every year before the start of irrigation season farmers' groups make estimates of their O & M costs for the season and decide an area-based (per hectare) fee to be collected from the irrigators. The fee is collected in two to four installments. The first installment is collected before starting irrigation and the last after the harvesting of crops. The collection efficiency of this fee is generally very high and the total fee collected exceeds O & M costs by an amount sufficient to pay BADC rent. This is evidenced from the six rental DTW groups studied in an IIMI/IRRI research project (Table 2 and 3). The rates of subsidy on total costs, as mentioned earlier, has been calculated assuming payment of rent by farmers' groups to BADC. In practice, in many cases, farmers' groups have not been paying rent for years. The IIMI-IRRI study groups, for example, did not pay their rents for a number of years.

Sometimes it becomes difficult for farmers groups to mobilize financial resources in advance to meet O & M costs and this leads to poor irrigation performance. In order to help the farmers in this respect, the Rajshahi Krishi Unnayan Bank (RAKUB) in collaboration with the International Fund for Agricultural Development (IFAD) started a project in the country in the early eighties. Under the project arrangements, rental DTW farmer groups receive credit from RAKUB to finance direct O & M costs and pay BADC rent. In one of the IIMI/IRRI studied upazilas RAKUB started the project in 1984-85 with 16 rental DTW FMISs. The performance of the credit program has not been satisfactory. The recovery rate of the credit has fallen from 100 percent in 1984-85 to 55 percent in 1988-89 (Table 4) and some groups do not now receive any credit because their loan repayment record is very poor. BADC, however, was able to get its rent from the group through the Bank as part of the total credit was ear-marked for paying rent. Because of the fall in recovery rate, RAKUB might close the project soon. IFAD support for the project has already been withdrawn.

In pursuance of the policy of privatization of the minor irrigation sector the rental system was officially discontinued in 1980. BADC however, could not dispose of all the DTWs supplied under the program. At least until recently, there have been approximately 12,000 rental DTWs in continued operation.

BIADP DTW FMISs: BADC has a special Barind Integrated Area Development Project (BIADP) in the Rajshahi area. Under the project arrangement, farmers' groups get DTWs from the project for management and operation for irrigation. About 85 percent of the capital cost is financed by the project and the entire direct O & M costs are borne by the farmers' groups. For the collection of the 15 percent of the capital costs and indirect O & M costs, the project has introduced a new method. It charges from the farmer an annual fee which is based on estimated rather than actual irrigated area under different crops in a year. For each crop there is specific fee rate (Table 5). There is provision for rebates if the fee is paid before certain specified dates. Farmers' groups are not allowed to use a DTW unless they have paid in full the fee charged by the project. Thus the farmers' groups have to mobilize financial resources to pay

the project its annual fee as well as to meet direct O & M costs. To collect the financial resources, they follow the same method as the rental DTW groups. Before the beginning of the irrigation season, farmer groups make an estimate of the total expenses and decide on an area-based fee (per hectare) to be collected from the irrigators. There is some flexibility in the irrigation fee decided upon by farmers' groups. If the fee initially decided upon falls short of total costs, the shortage can be recovered from the farmers. As with rental DTW farmers groups, the collection efficiency of the fee is very high and total collection exceeds total expenses considerably. Six groups studied by the IIMI-IRRI project achieved 100 percent efficiency in fee collection in 1991 (Table 2), and the amount collected exceeded total costs by an amount of Tk.19,892 per well (Table 3).

Private DTW FMISs: Under the privatization programme of the government, BADC has started selling DTWs to government sponsored farmers' cooperatives, NGO supported farmers groups, informal farmers' groups and private individuals at a highly subsidized price. A DTW without subsidy at current market prices would cost about Tk.6,00,000. BADC is selling it to farmers at Tk.1,75,000, thus subsidizing 61 percent of the cost. Considering farmers' inability to mobilize even this subsidized cost, the government has asked the nationalized banks, specially the agricultural development banks, to provide medium term credit to farmers to enable them to buy DTWs from BADC. The loan carries a 16 percent interest per year and is payable in 9 years in 17 installments. The major buyers of the DTWs are BRDB (Bangladesh Rural Development Board) promoted farmers cooperatives. As of the 1990-91 financial year, these coopeatives have bought 12,407 DTWs which is about 40 percent of the DTWs fielded in the country (BRDB 1991). Once the DTWs are bought and commissioned, the responsibility of operation and maintenance of the wells lies with the farmers' group. Before the start of an irrigation season farmers' groups make an estimate of total expenses for the year/season which include O & M costs and loan installments to be paid to the bank and charge each farmer an area-based irrigation fee. The fee is collected in several installments in either cash or kind. Some groups collect fees in both cash and kind. The collection efficiency is also very high in this system and total collection exceeds the total estimated costs. Unfortunately, however, the farmers' groups have not been repaying their loans --- leading to a very poor recovery rate of credit in this sector. The BRDB sponsored groups have repaid only 19 percent and 17 percent of the total amounts due respectively in 1989-90 and 1990-91 (BRDB 1990-1991)². The BKB (Bangladesh Krishi Unnayan Bank) recovery rate has declined over the years and it was less than 10 percent in 1990-91 (Table 6). The RAKUB recovery rate was better being 45 percent (Table 7).

The IIMI/IRRI project studied three private DTWs in the Rajshahi area. The groups' performance corroborates what has been noted above. These groups charged the farmers an area-based irrigation fee to meet their costs. One group collected fees in cash, one in kind (paddy) and the third group in either cash or kind. The collection efficiency of fees was 97 percent in 1991 and the total fee collected exceeded the O & M costs by an amount of Tk.56,714 per well which

² BRDB recovery rate has been calculated on the total loans for DTWs, STWs and LLPs (Low lift pump)

was more than the amount needed to pay back loan installments averaging about Tk.40,000.00 (including interest). Of the three groups, however, only one has paid its loan installments in full and the two other groups have paid less than one percent of their loans.

STWs FMISs:

STW FMISs were also initiated by BADC. Unlike DTWs however, STWs were sold to farmers' groups from the very beginning of BADC's program. Initially, STWs were sold on a hire-purchase basis. Under this system, the buyers paid 10 percent of the price as down payment and the rest in five equal annual installments. No interest was charged on the balance amount. Some maintenance expenses were borne by BADC. All other O & M costs were borne by farmers. Under this program the subsidy received by farmers amounted to 31 percent of total costs (Khan 1980). The terms and conditions of the hire-purchased systems were changed subsequently which reduced the subsidy from 31 percent to 19 percent (Khan 1980). As the hire-purchase system did not work well primarily because of BADC's inability to collect loan repayments from farmers' groups, the system was discarded. STWs are now sold to farmers by BADC as well as by private traders at full cost in both cash and credit. There are now about 288,000 STWs fielded in the country for irrigation purposes.

Since STWs are sold at full cost and farmers bear all O & M costs, theoretically there is no subsidy involved in this sector. There is, however, a large implicit subsidy because the recovery rate of STW loans has been found to be very low. The BKB recovery rate has fallen sharply over the years and it was only 5.6 percent in 1990-1991 (Table 6). The RAKUB recovery rate was also low being 6.4 percent in 1991 (Table 7).

Agency-Managed DTWs:

Agency-managed ground water irrigation systems are much less efficient in resource mobilization than are those run by farmer groups. In addition to financing the entire capital cost of such systems the government also subsidizes O & M costs substantially. The IIMI/IRRI research project studied the NBTP (North Bangladesh Tubewell Project) which is the largest ground water agency-managed project in Bangladesh. It was found that the government subsidized 100 percent of capital cost and, if the irrigation fee charged were assumed to be collected in full, the government subsidy to O & M costs would be 93.5 percent. Fees however, have not at all been collected in full. Average fee collection efficiency from the year 1984-85 through 1988-89 was only 24 percent only (Table 2).

Strengths and Weaknesses of Resource Mobilization Approaches and Methods

The discussions in the preceding sections reveal a number of strengths and weaknesses of the various financial resource mobilization approaches examined in regards to the sustainability of ground water FMISs. The heavy subsidies and liberal credit support have resulted in a rather impressive expansion of ground water FMISs, especially STW systems. The farmers' groups, on their part, have followed a policy of cost recovery aiming at mobilizing financial resources to

pay for the costs for which they were responsible. Their method of mobilization has been effective and efficient. Their collection efficiency of fees has been very high --- close or equal to 100 percent --- and they have been mobilizing enough resources to meet all O & M costs as well as pay rents and loan installments (whether or not they actually paid the latter two).

The resource mobilization approaches, however, suffer from some serious weakness which may well constrain the sustainability of the FMISs. First, a culture of dependancy has been developed. To subsidize irrigation development government had to mobilize resources. Since mobilizing resources from domestic sources was a relatively harder task for various reasons, the government opted for the easier source, that of foreign aid. Now when foreign donors are pressing the government to mobilize domestic resources, the government is unable to respond very positively. The farmers, on their part, have become dependent on the government and tend to resist any proposal for reduction of subsidies. Many of those working in the elaborate network of irrigation bureaucracy that has been created over the years to implement the subsidized program, for fear of losing their own positions and status, tend also to sympathize with the farmers. Now the sustainability of a foreign aid dependent subsidized program may face serious problems if the foreign aid is disrupted for some reason. This is true especially in the context of the present day tight foreign aid environment. Even if subsidies are provided from national resources they probably cannot be continued indefinitely. It has been noted that loans provided by the banking systems to buy DTWs and STWs and meet O & M costs have remained largely unrepaid. If the banking systems fail to realize money from the farmers groups (or farmers groups do not repay their loans) money will not be available to continue the credit programs. As a result, sustainability of FMISs will suffer. According to the Bangladesh-CIDA-AST minor irrigation census, 30 percent of the DTWs and 6 percent of the STWs in the country were out of operation in 1991. A major reason for this non-operation has been BADC's or farmer groups' problems in financing the repair of major mechanical breakdowns.

A second area of weakness of the present resource mobilization system, which follows substantially from the first, is that it is not very productive. Subsidies, both explicit and implicit, have contributed to the inefficiency of FMISs. They are being utilized much below their capacity. Also, because of inefficient management, yield and production of irrigated crops are low leading to low farmer income. Systems with under-utilized capacities and low farmers' income are less productive in resource mobilization for sustainability than are more productive systems.

Third, present resource mobilization methods tend to be inequitable. It has been seen that the total fee collected by the farmers' group management is in excess of the direct O & M costs that they incur. The excess fee is ostensibly collected to pay rent or repay bank loans. But both rent and loan installments have remained largely unpaid. Where does the money go? Field observations show that the excess money is not shared by all members. It is pocketed by a handful of group leaders. Further, it has been noted that the defacto ownership of the subsidized irrigation equipment is, in many cases, enjoyed not by all members of the group but by a few persons who dominate the management.

As to the methods applied by the farmers groups to collect irrigation fees, the cash method is less efficient and less productive than collection in kind. Collection in kind can take place in two ways: collecting a fixed amount of crops per unit of land (per acre) irrespective of yield and collection of a certain proportion of the total yield. The former method can be productive but tends to be inequitable while the latter method is both productive and equitable. The BIADP system of collecting fee from the farmers by the project is efficient but not particularly productive. Under this system, farmers have to pay BIADP's annual fee all at a time before irrigation is started. Thus BIADP is assured of full collection of its fee. But those groups which fail to mobilize resources in time do not get tubewell water to irrigate their land. Thus a number of DTWs remain idle during the irrigation season. Further, farmers have to pay fees for all seasons during a year even if they grow a crop in only one season. Thus the system is inequitable --- but from BIADPs resource mobilization point of view the system can be seen as a success. Part of the confusion here may be in the name. Perhaps the charge should be called an annual equipment rent rather than an irrigation fee.

The weaknesses of the approaches to financial resource mobilization are explained by a number of factors in addition to those of subsidies and collection methods. Among them are the following: a) many farmer organizations suffer from problems such as factionalism and large farmer domination which result in inadequate participation of a cross-section of farmers in the management of their organizations; b) broad categories of farmers are not always aware of the financing mechanisms or of their responsibilities in the payment of rent or credit as they are not clear about the ownership of irrigation equipment; c) irrigation and water management methods are generally inefficient --- leading to inadequate farmer water control and wastage of water; d) the contact and communication between farmers and irrigation agency and bank officials is inadequate; e) management of credit by nationalized banks is generally inefficient, partly due to the lack of competition from a private banking system in the country; and f) the successive governments in the country have frequently exempted farmers from credit repayment --- a practice which decreases incentives for groups to repay their loans.

Suggestions and Conclusion

In Bangladesh return to investment in irrigation, including investment in ground water FMISs, is high (World Bank 1978, Hakim et al 1991). However, since the level of living of farmers is generally very low and the country has yet to achieve self-sufficiency in food grains, a policy of full cost recovery cannot yet be supported. It is also not politically feasible. A portion of the cost of ground water FMISs, especially the capital cost of DTW FMISs, may well need to be subsidized if such technologies are to be applied at all. Such subsidies however, could be reduced gradually. Further, in order that farmers can continue to buy DTWs at subsidized prices and STWs at full costs, farmer groups will need to have access to credit. Credit may also be given to FMISs to cover O & M costs.

There are serious consequences on the sustainability of FMISs of the inefficiency and inequity in the existing system of financing. Such inefficiency and inequity can be reduced substantially --- leading to improvements in the

management of FMISs and management of credit. Specific suggestions in this respect include a) strengthening farmer organizations to ensure participation of a cross-section of farmers in the management of their organizations, b) creating awareness among common farmers about the mechanism of financing of their systems and ownership of their systems, c) introducing improved irrigation and water management methods through research and action research and disseminating the results through training, d) increasing contact and communication between farmers and irrigation agency and bank officials, e) encouraging participation of private banks to finance FMISs, and f) discouraging indiscriminate exemptions of credit repayment by the government.

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Table 1: Estimated Rates of Subsidy on Rental DTW FMISs

Year of Estimates	Subsidy on Capital Cost (%)	Subsidy on Direct O & M Costs (%)	Subsidy on Indirect O & M Costs (%)	Subsidy on Total Costs (%)
1978 ^a	95.2	7.2	100	70
1980 ^b	96.2	13.6	100	65.7
1991 ^c	94.4	nil	100	62.0

a = Estimates by World Bank (1978)

b = Estimates by Hamidur Rahman Khan (1980)

c = Estimates by Present paper

Table 2: Irrigation Fee Collection Efficiency of Different Categories of IIMI-IRRI Studied DTW FMISs and Agency Managed DTW Project

FMISs	Period	Collection Efficiency (%)
Rental	1991	91
BIADP	1991	100
Private	1991	97
Agency Managed (NBTP)	1984-85 to 1988-89	24

Collection Efficiency = Total Fee Collected divided by Total Fee Collectible

FMISs = Farmers Managed Irrigation Systems

DTW = Deep Tubewell

STW = Shallow Tubewell

NBTP = North Bangladesh Tubewell Project

Table 3: Irrigation Fee and O & M Costs in Different Categories of IIMI-IRRI Studied DTW FMISS 1991

Category of DTW FMISS	Irrigation Fee in Taka/Hectare	Income from Irrigation Fee in Taka/DTW	O & M Costs in Taka/Hectare	O & M Costs in Taka/DTW	Surplus of Income from Irrigation Fee Over O & M Cost in Taka/DTW
Rental	4026	62564	3320	51592	10972
BIADP	7264	60944	4893	41052	19892
Private	6621	119244	3472	62530	56714

FMISS = Farmer Managed Irrigation Systems

DTW = Deep Tubewell

STW = Shallow Tubewell

BIADP = Barind Integrated Area Development Project

Table 4: Recovery of RAKBU Loan to Rental DTW FMISs of Mohanpur Upazila for Meeting O & M Costs (in Hundred Thousand Taka)

Year	Amount of Loan Disbursed	Amount Recovered with Interest	Recovery Rate (%)
1984-85	14.92	15.02	100.7
1985-86	10.81	10.04	93.6
1986-87	11.42	9.40	82.5
1987-88	9.50	5.39	56.8
1988-89	10.23	5.60	55.9

Source: RAKUB Mohanpur Branch Office, Mohanpur, Rajshahi

RAKUB = Rajshahi Krishi Unnayan Bank
 FMISs = Farmer Managed Irrigation Systems
 DTW = Deep Tubewell

Table 5: Irrigation Charge Imposed by BIADP on Farmer Groups

	Discharge of Deep Tubewell (In Cusec)		
	1.20-1.50	1.51-1.75	1.76-200
Minimum Irrigated Acreage on Which Charge is Imposed (hectares)	18.22	21.86	24.29
Assessed Irrigation Charge ^a (taka)	10126	12150	13500
Charge Payable with 20% Rebate (if paid by 31 January)	8100	9720	10800
Charge Payable with 10% Rebate (if paid by 15th February)	9121	10935	12150

BIADP = Barind Integrated Area Development Project
 DTW = Deep Tubewell

^a = At the rate of Taka 555.75 per hectare per year, Taka 259.35 for Boro, Taka 74.11 for Aman and Taka 222.30 for Aus. The fees collected by farmer groups from farmers include charge to be paid to BIADP and also direct O & M Costs of irrigation.

Source: Bangladesh Agricultural Development Corporation (BADC) Deed of Agreement (undated)

Table 6: Recovery of BKB Loan for DTW and STW Purchase (In hundred Thousand Taka)

Year	DTW			STW				
	Amount Disbursed	Amount ^a Due for Recovery	Amount Recovered	Recovery Rate (%)	Amount Disbursed	Amount Due for Recovery	Amount Recovered	Recovery Rate (%)
1985-86	160.21	81.48	69.39	85.2	2037.30	3310.02	2439.93	73.7
1986-87	65.4	176.03	138.32	78.6	482.75	2783.12	1552.10	55.8
1987-88	30.26	218.93	99.67	45.5	786.97	3378.57	1876.24	55.5
1988-89	27.63	683.95	82.15	12.0	1278.61	12807.69	1210.76	9.6
1989-90	109.06	946.94	151.24	16.0	445.21	16071.92	1476.72	9.2
1990-91	343.34	1059.74	103.62	9.8	179.19	22938.15	1186.80	5.6

^a = Amount due for Recovery = Overdue + Recovery

BKB = Bangladesh Krishi Unnayan Bank

DTW = Deep Tubewell, STW = Shallow Tubewell

Source = Bangladesh Krishi Unnayan Bank, Dhaka

Table 7: Recovery of RAKUB Loan for DTW and STW Purchase

Category of Well	Amount Disbursed (1-7-1990 to 31-12-1991)	Amount Due for Recovery (1-7-1990 to 31-12-1991) ^a	Amount Recovered As on 31.12.91	Recovery Rate (%)
DTW	180.38	164.98	74.38	45.0
STW	44.64	23500.22	1512.80	6.4

^a = Amount due for Recovery = Overdue plus Recovery

RAKUB = Rajshahi Krishi Unnayan Bank

DTW = Deep Tubewell, STW = Shallow Tubewell

Source: RAKUB Head Office, Rajshahi