

# An Overview of Action Research Projects



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## **Introduction**

To conduct action research projects on socio-economic problems is one of the mandatory functions of the Academy. Since its inception in 1974 the Academy is involved in implementation of a number of experimental projects in compliance with its mandated objectives. As of now it, has initiated 26 projects. Of them, 19 are completed and the rest are ongoing projects. Out of these seven ongoing projects four are at the terminal stage and the rest three will continue for a few years to come. All these projects may be classified into three categories in terms of the sources of finance: (a) Government projects (6) financed through its Annual Development Programme (ADP);(b) RDA financed projects from its own revenue (5) ; and (c) Aided projects (14) financed either by international agencies or by individual countries. The international agencies include UNDP, UNICEF, FAO, UNCDF, UNCRD, CIRDAP and Helen Keller International and the individual donor countries are Japan and The Netherlands. The completed projects include: Small Farmers and Landless Labourers Development Project; Local Level Planning; Village Child Development Project; Integrated Action for Out-of-School Children and Their Families; Social Forestry in Integrated Rural Development; Water Resources Development for Small Scale Irrigation and Household Purposes; Landless Women Development Project; Development of Destitute Women; Joint Study on Rural Development Experiment; Rural Development Through Village Organisation; Public Health Education; Support for Tube-well Command Area Development; Irrigation Management Programme; Integrated Training, Research and Technology Transfer Under Irrigation Management Programme; Poverty Alleviation Through Social Forestry; Community Empowerment for Poverty Alleviation; Rural Housing Project; Home Gardening Project; Crop Diversification Programme; and Low-Cost DTW with Water Filtration Plant and the ongoing projects include Comprehensive Village Development Programme; Expansion and Modernisation of RDA Demonstration Farm; Socio-Economic Development and Improvement of Quality of Life through Arsenic Free Safe Drinking Water Supply; Action Research Project on Multipurpose Use of Low-cost DTW for Long-term Post Flood Rehabilitation; Seed Health Improvement Project; Women to Women Extension Project; Demonstration Farm; and Model Village in Rural Development. As stated earlier a major thrust of all these experimental projects was on testing some ideas under certain socio-economic conditions to explore their feasibility for upliftment of the rural community. Since its inception it has successfully completed the experiment on 16 fields in this respect and of them, only three have been taken for replication. These are : (a) Village Child Development Project (VCDP); (b) Water Resources Development for Small Scale Irrigation and Household Purposes; and ( c) Small Farmers and Landless Labourers Development. The rest were not taken for replication due to mainly lack of financial support from the concerned agencies. Besides, some of the projects were merged with the new ones or closed due to the withdrawal of financial and technical support from the concerned agencies. The present report concerns the performance of the various action research projects of the Academy. It has been prepared collecting information mainly from the annual reports of the Academy and evaluation reports of the concerned projects published over the years. Besides, in some cases informal discussion was made with the personnel of the selected projects. However, because of the time constraint no field visit has been made to discuss the project beneficiaries in order to crosscheck the situation in the light of field data. Evidently, this report is a sort of review over the past activities rather than an evaluation. The achievements of all the projects are, albeit small, significant. Moreover, the experience of the Academy in respect of action research represents a mixed picture having both success and failure. Here an attempt has been made to give general observations on experiences of the Academy in the fields of different action research projects.

## **General Observations**

### ***Significance of Institutional Forum***

An institutional forum at the grassroot level is essential for streamlining the delivery of goods and services. It serves the purpose by way of effective linkage with various service providers for both technical and financial support to the community in running their development activities. It is also instrumental for resource mobilization of the rural community. As a matter of fact, it becomes helpful for planning and implementation of village development.

### ***Participatory Approach***

The success of any development programmes is heavily contingent upon the active participation of the concerned community. It needs for several reasons — proper identification of needs, formulation of plan on the basis of needs, mobilization of resources, implementation of plan and monitoring and evaluation. So, any development effort underlines the need for participatory approach.

### ***Integrated Approach***

Rural development programme needs to deal with multifarious problems of a community. Any programme concentrating on one or two areas cannot make much headway in respect of rural development because of interrelationships among all the problems. Hence, an integrated approach is necessary for covering all aspects of the rural life. Otherwise, any isolated attempt is likely to go in vain. In consideration of all these facts, it is a necessity for comprehensive approach in order to address the needs of all the segments of a community and this may be able to produce a congenial atmosphere for achieving any development programme. As for the income generating activities among the rural community, there is a need for simultaneous confluence of four things - financial support, training, technical support, if necessary, and promotion of marketing facilities. Any lacking in any of these four factors is likely to affect the implementation of a programme.

### ***Demarcation of Responsibility between Government and NGO***

There is a need for clear demarcation of responsibility for development work between GO and NGOs and in the absence of it, there is a likelihood of confusion leading to conflict and wastage of time and limited resources.

### ***Integration of Women into Development***

As the women constitute half of the community, the successful implementation of any development programme demands the active participation of women in all the stages. So women should be integrated into the mainstream of development. The experience of the Academy through its various experimental projects suggests that the performance of women is always better than that of men in all respects.

## **Achievements**

With this background information on the experience of the Academy, a few words may be made highlighting the achievements done by the individual projects.

### ***Income Generation and Self-employment***

The projects like CVDP and Poverty Alleviation through Social Forestry have successfully created a congenial atmosphere for undertaking income generating activities and awareness for self-employment. These projects have also created an effective demand for micro-credit because of skill training in different areas for the villagers and establishment of effective linkage between the community and the various service providers working in the rural areas. Besides, the utilization of micro-credit and the recovery rate are quite satisfactory. Many of them have become graduated from their previous position after their affiliation to the organizations run by the experimental

projects. A perceptible change has taken place in respect of institution building, health and sanitation and poverty alleviation. The new institutional mechanism devised by CVDP has also streamlined the diffusion of HYV technology among the farmers and this, in turn, has made a significant contribution to the rise in the production of food.

### ***Growing Awareness among Women***

There has been a growing awareness among the rural community especially the women segment of the community. Prior to the introduction of the programme, the people were not aware of the causes of their poverty and as such, they were not interested in improving their socio-economic condition. They were rather xenophobic about any development intervention initiated by outside agencies and they were a bit unresponsive to any development programme. However, this sort of apathy has melted away because of the motivational work through the project.

### ***Success in Transfer of Irrigation Technology***

Irrigation and water management related projects like ITRTT, IMP and TCAD have done a significant achievement in boosting up agricultural production and diversification of crops through improved water distribution system, improvement in the irrigation management programme, construction of appropriate irrigation channel and command area development of an irrigation equipment. Second, the Academy through its Faculty of Irrigation Management (FIM) introduced irrigation management as a multidisciplinary approach covering engineering, agronomical and management aspects as essential components. Over the years, it has also developed five training modules of multidisciplinary approach as a carrier of technology transfer in the field of irrigation management. Apart from imparting training to the officials, it offers training to the project beneficiaries through participatory approach. Third, several appropriate technologies have been devised in the field of irrigation and water management which are worth-mentioning

### ***Buried Pipe Irrigation Model***

It was introduced in 1982. The system has increased the command area of a DTW from 16 ha to 67 ha for the same crop in the same season, which is the highest ever achievement in Bangladesh. As a result, the use of ground water has been reduced from 0.8 million to 0.2 million litres per hour and power consumption reduced from 80 kW to 20 kW and thus this model contributed in saving ground water, protecting environment, maintaining water quality and reducing load on electricity.

### ***Dual Use of DTW Water and Its Replication***

RDA has innovated a model of dual utilization of the same source of water — irrigation and domestic purposes through its pilot project at Shashibadani, Bogra and it is completely new one in this subcontinent. The unique feature of this technology is that it provides safe drinking water to the villages in water scarce regions of the country. Eleven CIRDAP member countries have adopted this technology. Besides, the Jamuna Multipurpose Bridge Authority has implemented it in two of its resettlement villages under the technical supervision of RDA.

### ***Low-Cost DTW and its Multipurpose Use Mode***

Installation cost of a DTW by conventional method is Tk. 1.50 to 2.00 million based on its depth and capacities. Academy has developed low-cost DTW technology and has been able to install the same DTW at a cost of only Tk. 0.325 million using locally available materials. This kind of demand driven DTW having capacity from 10,000-2,00,000 litres/hour proved financially viable and sustainable in the socio-economic context of Bangladesh.

CIWM has developed a Model for Multipurpose use of low-cost DTW to ensure productive use of water for different agro-based activities like irrigation, livestock and poultry rearing, fish culture, food processing etc. In addition, it also serves as a simultaneous source of domestic water supply.

### ***Arsenic-free Safe Water Supply Model***

Presence of arsenic in drinking water has emerged as a national health hazard in Bangladesh. To effectively address the issue CIWM has developed arsenic removal techniques like placement of filter (strainer) at the arsenic-free layer (aquifer) during installation of RDA-developed low-cost DTW and water treatment plant where arsenic-free layer is absent.

### ***Community based Biogas Plant Model***

RDA, Bogra has conducted action research on better solid waste management through community approached bio-gas plant. Two number of bio-gas plants having capacity of 130m<sup>3</sup> each have been constructed at RDA campus. A total number of 19 households (4 storied building), Guest house, DG's Banglaw have been connected under bio-gas facilities. Moreover a 4.6 KVA generator is being operated using bio-gas and electrified a small portion of RDA demonstration farm. The slurry (fermented cow dung & Kitchen waste) produced from bio-gas plant are processed as organic manure and sold at market in a brand of "Palli Joibo Sar" Rural Organic Manure. The model is one of the most environment friendly cheapest renewable energy resources. It's playing an important role for enhancing the productivity of agricultural land and rural livelihood as well. Academy is also purifying biogas impurities (H<sub>2</sub>S; CO<sub>2</sub>; moisture) and bottling bio-gas in cylinder for cooking and inject in vehicle as CNG (Compressed Natural Gas). This modern bio-gas technology creates positive response in development of rural poor. Air pollution and carbon emission are drastically reduced. Considering the merits of this approach Bangladesh government has funded RDA to replicate this model at 112 individual locations over the country through ADP allocation for livelihood improvement of the rural Bangladesh.

### ***Two storied agriculture with direct solar powered irrigation***

The new innovation of RDA is "**two storied agriculture with direct solar powered irrigation system**" minimizes pressure on national power supply grid. Where rice produce as base crop and cucurbit (bottle gourd) crop as 2nd layer crop. Solar panel placed on top layer generates power for lifting ground water using direct sunshine. Adoption of this system increase cropping intensity from 180% to 360% and even 500% in Bangladesh, accelerates rural development.

### ***WOMEN IN SEED ENTERPRENURSHIP***

RDA-model of Women in Seed Entrepreneurship (WISE) model ensures women income to contribute their families. Under this program Women's are trained on quality seed production, processing, preservation and marketing management issues. The trained women established themselves as private entrepreneur thus able to meet up their personal demand and the neighbour farmer as well. RDA branded the model as WISE. As a result of motivation, skill development and market linkage more than ten thousand women are now enjoying sustainable engagement in the seed sector as micro entrepreneurs.

### ***RURAL PLANT CLINIC***

RDA working with rural women leaders to develop them as village Rural Plant Doctor. The Plant Clinic initiative has established Tele Plant Clinic Services for farmers who need the services more but living faraway from the clinics. Plant Doctors are also connected with national plant protection laboratories via mobile phone for seeking advice and diagnostic services. For the first time in the history of Bangladesh the agro-chemical dealers receiving written prescription from the farmers issued by plant doctors.

### ***RDA-Credit for Rural Livelihoods Improvement Model***

In city areas, water supply is subsidized by the government in order to keep the water charge low. But there is no such provision in rural areas and even it is not possible on the part of the government to provide water in rural areas in a subsidized manner as done in the cities. Considering rural water supply as a national priority issue, CIWM has developed a micro-finance model termed as RDA-Credit. The main principle behind the model is to empower rural people in such away that they become financially solvent to pay back system installation and water supply charges.

Besides domestic water use, this credit enables rural people to run economic activities like crop cultivation, horticulture and nursery business, poultry, duckery and goaterly rearing, adopting dairy, pisciculture, homestead gardening, hotel/restaurant/tea-stall business, small/cottage industries and other IGAs having access to safe water. Thus RDA-Credit is helping rural people in achieving investment capacity to earn additional income, improve standard of their living and boosting up their pay back capability of water for charges.

Rate of interest of the RDA-Credit is 11% per annum of which 8% is used for management of credit operations and the rest 3% goes to CIWM.

### ***Proper Linkage between Research and Extension System***

The rapid development of agriculture requires sustained efforts by the agricultural research and extension systems. However, their efforts in this regard are very often constrained by the manpower shortage and inadequate linkage with research institutions. This, in turn, militates against the diffusion of HYV technology in the field of agriculture. Apprehending this constraint on the modernization of agriculture, the Academy has established a demonstration farm intending to disseminate the improved agricultural technologies among the farmers. It conducts trial on the newly developed innovated crop varieties and modern technologies. Apart from this, it conducts research on local problems and develops location-specific technologies. In doing so, the demonstration farm has achieved a considerable degree of success in the diffusion of HYV technologies leading to eventual increase in food production and diversification of crops in the northern region of Bangladesh.

### ***Crop Diversification***

An experimental project like Crop Diversification Programme (CDP) aims at increasing the production of diversified crops such as pulses, oil seeds, potato, mustard, sunflower etc. to encourage the balanced diet. To achieve the above objectives, the Dutch Executing Agency (DEA) and the Academy have jointly conducted variety screening research on diversified crops. A total of about 100 high yielding crop varieties have been marked suitable for different agro-ecological zones of Bangladesh. Locally storage technology for seed potato has also been established. Moreover, there has been a tremendous success in production of disease free potato seeds from TPS and hybrid seeds of maize and sunflower inside the country. Besides, the Academy has arranged a series of field day and workshops in order to demonstrate the results so that the diffusion process of technology can be spurred across the country. As a consequence, the programme has gone a long way in respect of crop diversification in the northern region of Bangladesh.

### ***Institutional Infrastructure and Smooth Access to Different Services***

The experience of experimental projects like SFDP, VCDP, Development of Destitute Women, Landless Women Development, Model Village in Rural Development, Integrated Action for Out-of-School Children and their Families suggests several positive results. First, organisation of the rural poor into small multi-functional group is possible. These groups can form the basis for broad-based organization of the rural poor and it is possible to channel the development inputs to the rural poor through these groups. Second, group discipline and profitability of an economic activities can substitute the tangible collateral security for judging credit worthiness of the rural poor. Third, the

poor are more regular than the rich in repayment of loan. Fourth, the concept of micro-credit in Bangladesh came first through the SFDP and subsequently it has been accepted by many agencies of both GO and NGOs. Fifth, the landless poor women, if organized properly under a common institutional framework having enduring links with various nation-building departments for necessary supports and services in terms of technical and financial backup, can take an active role in the development programmes that are directly associated with production. Sixth, destitute women are more sincere and regular about the repayment of loan. Seventh, Banking transactions of the village-based functional groups are made by the group leaders and this has created confidence and trust among the members in respect of handling Bank Account and group fund. Eighth, maternity services provided to the mothers by the trained Traditional Birth Attendants (TBAs) have reduced the infant mortality and pre-mature death. Ninth, training on nutrition education for the rural mothers has created consciousness among them about the value of locally available foodstuff. Tenth, Maktab education has been reorganized through the introduction of subjects like Arithmetics, Bengali, Personal Hygiene etc. As a result, there has been found an increase in the enrolment of children in the Maktab. This has ultimately increased enrolment of students in the primary schools as well. Eleventh, through groups and associations, the poor can take many useful programmes for education, health, social work and population control. However, the rural power structure can be cajoled into cooperating with or at least remain neutral to the special programmes for the development of the rural poor.

### ***Technology Transfer***

The experience of Home Gardening Project suggests that training on relevant fields has done a significant achievement in technology transfer in respect of vegetables seeds and green vegetables. Because of training, the people of the project area have realised the need for the proper use of the fallow lands in and around their homestead and a total of 135 village nurseries (35 in each thana) have been established in order to facilitate vegetables seeds and green vegetables. Besides, the project activities have made some positive impact on the nutrition status of the people in the project area.

### **Challenges and Difficulties**

The above discussion concentrates on the positive elements of the project experience. However, the Academy has met with several challenges and difficulties in implementation of its action research projects. Some of them may be produced here in brief.

#### ***Job of Replication***

The Academy is not an implementing agency. It can test some ideas through its experimental projects and make necessary recommendations for the subsequent measures. As soon as the experiment ends, its job is over. So the job of expansion lies with the relevant agencies of the government. Except for a few cases, Academy cannot make much headway in this regard.

#### ***Unequal Competition between Government and NGO***

Though the action research projects relating to socio-economic development are able to create a congenial atmosphere in the project areas through its multiple activities, the soft programmes especially the credit programmes of the NGOs in some areas create inconvenience to the smooth implementation of the project. Besides, in the first instance, people are not receptive to the programme. They are rather found xenophobic about any new programme because of their sad experience in the past. As for instance, villagers were reportedly cheated by several local NGOs in the past. So, initially they become skeptical about the sincerity of the project personnel.

#### ***Gender Inequality***

Although destitute women can be organized and their economic condition can be improved through village level informal groups, their main constraints on undertaking any income generating



activities are the lack of adequate credit facilities, absence of sincere support from the male members of their respective families and illiteracy. Besides, most of the time women are misguided by their husbands or male members and even by the village leaders. Finally, destitute women spend maximum amount of their earnings and savings to meet the needs of their children and husbands.

### ***Lack of Ground Rules***

In some of the social sector projects, there does not exist any manual or ground rules for the management of the functional groups. As a result, all the functional groups do not operate and manage their affairs in a unified fashion. As such, proper group dynamics have not been built up and this has resulted in uneven savings and management capabilities of the groups.

### ***Passivity/Apathy***

In some of the past projects there was provision of development activists in different fields but they were not found active in their respective sectors. As for instance, in most of the places under the VCDP the youths trained as Junior Fish Culturists (JFC) did not take interest in fish culture and this resulted in the failure of intensive fish culture programme. Second, several economic activities could not run smoothly in the absence of other supportive elements. The case of the Backyard Poultry Raisers (BPR) under VCDP may be cited as an example. The youths trained as Backyard Poultry Raisers took active interest in backyard poultry raising, but they were handicapped by the non-availability of poultry vaccines according to their needs and as such, the backyard poultry raising programme could not achieve the desired level of success. Third, functional education concept did not draw positive response from the adults, because after day-long hard work in the field they did not find it interesting.

### ***Insufficient Banking Facilities***

Banking service is essential for the deposit of the thrift savings made by the group members. However, the group members in some cases find it difficult to keep their savings in the Bank in the absence of banking facilities within the vicinity of the project villages. In most of the cases these are very far from their locality. Another problem relates to the cooperation of the Bank officials. As the group members' amount of savings is very small, the Bank officials do not consider it profitable or worthwhile forgoing any service in terms of maintaining records in different Books and ledgers and as such, they are in many cases reluctant to open any Account number against the groups for the purpose of depositing their savings in the Bank. So lack of sufficient Banking facilities is really a big problem and it is likely to become more acute in the years to come.

Completed Action research project list is appended in **Appendix-A** and project wise details brief and outcome/output are attached herewith an **Appendix-B**.



## *Appendix-A*

### **Completed Action Research Projects at a Glance**

<b>Sl. No.</b>	<b>Name of the project</b>	<b>Sponsor (s)</b>	<b>Duration</b>	<b>Location &amp; coverage</b>
1.	Small Farmers and Landless Labourers Development project	GOB/FAO/ UNCDF	1976-81	2 Villages: Shabgram, Gokul of Bogra District
2.	Development of Destitute Women	RDA	1977-82	Sadar Thana of Bogra district
3.	Local Level Planning	UNCRD	1980-84	Raigonj Thana of Sirajganj district
4.	Support for Tube-well Command Area Development, North West Bangladesh	FAO/UNDP	1981-83	North-West part of Bangladesh
5.	Village Child Development Project	UNICEF	1981-85	125 Villages of 11 districts of North-West Bangladesh
6.	Irrigation Management Programme (IMP)	GOB/FAO/ UNDP & World Bank	1984-87	All over Bangladesh
7.	Integrated Action for Out-of-School Children and Their Families	CIRDAP	1985-89	Daripara Village Sherpur Thana of Bogra
8.	Landless Women Development Project	RDA	1986-90	One Village named Bogra Sherpur, Bogra
9.	Social Forestry in Integrated Rural Development	CIRDAP	1988-91	2 Villages of Sherpur Thana of Bogra District
10.	Rural Development Through Village Organisation	RDA	1988-1994	One Village named Thoapara and Sherpur, Bogra
11.	Water Resources Development for Small Scale Irrigation and Household Purposes	CIRDAP	1989-92	One Village named Bagulahar of Bogra Sadar
12.	Model Village in Rural Development	CIRDAP	1991-2000	Sherpur Thana of Bogra District
13.	Comprehensive Village Development Programme-2 <sup>nd</sup> phase (CVDP)	GOB	1991-2015	66 Upazilas of 64 districts of Bangladesh
14.	Joint Study on Rural Development Experiment	Japan International Cooperation Agency (JICA)	1992-94	One Village named Aira of Sherpur, Bogra
15.	Public Health Education	RDA	1992-1995	One Village named Joanpur under Sherpur, Bogra.

Sl. No.	Name of the project	Sponsor (s)	Duration	Location & coverage
16.	Crop Diversification Programme	Netherlands Technical Assistance Unit	1992-99	RDA, Demonstration Farm, Bogra
17.	Rural Housing Project.	GOB/UNDP	1993-2003	6 Villages of Sherpur, Bogra
18.	Integrated Training, Research and Technology Transfer Under Irrigation Management Programme.	GOB	1994-99	30 command areas over the country
19.	Poverty Alleviation Through Social Forestry.	GOB	1995-99	2 Villages of Sherpur, Bogra and 2 Villages of Raigonj, Sirajganj
20.	Home Steed Gardening Project	Helen Keller International	1997-1999	RDA, Bogra
21.	Community Empowerment for Poverty Alleviation (CEPA)	GOB/UNDP	1997-2004	25% Villages in Raigonj and Tarash Thanas of Sirajganj District
22.	Action Research Project on Multipurpose use of low-cost DTW for long-term post flood rehabilitation (MUDP)	GOB	1999-2004	18 sites over country
23.	Seed Health Improvement Project (SHIP)	DFID, PETRRA & IRRI	1999-2004	Bogra district
24.	Socio-Economic Development and Quality of Life Through <b>Arsenic Free Safe Drinking</b> Water Supply.	GOB	2001-2006	24 sites over country
25.	Creation of Additional Employment, Increase in Marginal Productivity of Labour in Rural Economic Activities and Poverty Alleviation Through Irrigation and Water Management.	GoB	July 2005 – June 2009	51 sites over country
26.	Rural Plant Clinic in Bangladesh.	Global Plant Clinic (UK)	2005-2013	Over the country
27.	Action Research Project on Increasing Irrigated Area through transferring -model of Irrigation and Water Management Technology in Southern and <b>Hill Districts</b> of Bangladesh.	GoB	July 2006 – June 2010	15 Hill areas of Bangladesh
28.	Women to Women Seed Extension Project	DFID, PETRRA & IRRI	2006-2010	Bogra district
29.	Development and Dissemination of Water Saving Rice Technology in South Asia – Bangladesh	ADB, IRRI, BRRI and PKSF- Partner NGOs	2006-2010	Bogra district
30.	Action Research Project on Command Area Development using Surface Water for Rural Livelihood Improvement by Replicating RDA Technology (ADP).	GOB	2007 – 2015	45 sites over country

<b>Sl. No.</b>	<b>Name of the project</b>	<b>Sponsor (s)</b>	<b>Duration</b>	<b>Location &amp; coverage</b>
31.	Capacity Development for Local Government (CDLG) project funded by SDC.	SDC	2008-2012	RDA, Bogra
32.	Action Research Project on Poverty Alleviation through Livestock Management and Bio-Gas Bottling	GoB	November 2009 - December 2015	112 sites over country
33.	Promotion of Food Security through Soil Fertility Management in Hilly Areas	FS-SFC	2010 – 2012	Sreemongal, Maulavivazar, Rangamati and Bandarban
34.	Replication of RDA-developed WISE Model.	IFC-SEDF	2010-2013	Northern Parts of Bangladesh
35.	RDA-Cornell University Collaborative Raised Bed Technology Expansion Project in the Central West Region of Bangladesh	USDA /Cornell University, USA	2010 - 2013	RDA demonstration farm and Bogra, Naogaon, Joypurhat, Sirajgonj
36.	Establishment of Cattle Research and Development Centre under RDA, Bogra (Revenue Budget)	GOB (Revenue Budget)	July 2011- June 2013	RDA Campus, Pirojpur BAPARD, Gopalganj
37.	Improvement of Rice Based Cropping Systems in Barind areas	BARC (KGF)	September' 2011 to August'2014	Sherpur, Shajahanpur and Shibgonj Upazilas of Bogra district and On station trial at RDA farm, Bogra
38.	Safe Water Supply, Sanitation and Bio-gas Technology for Rural Livelihood Improvement in Climate Victim People of Bangladesh.	GOB	2011-2014	13 Climate Victim Areas
39.	Action Research Project on Integrated Water Management (IWM)	GOB	2011- 2014	78 sites over country

# Completed Action Research Project Profile

## *Appendix-B*

### (1) Project brief:

- A. Name of the Project : **Small Farmers and Landless Labourers Development Project**
- B. Objectives of the project :
  - To organise small farmers and peasants' production groups;
  - To raise income of the small farmers and landless labourers; and
  - To develop mechanism for bottom-up planning.
- C. Financed by : GOB/FAO/UNCDF
- D. Duration of the project : 1976-81
- E. Major Activities of the project :
  - Organisation of groups with the target people;
  - Mobilisation of internal resources by way of thrift savings;
  - Credit distribution for income generating activities; and
  - Motivation about socio-economic development.
- F. Research outcome :
  - Organisation of the rural poor into small multi-functional group is possible. These groups can form the basis for broad-based organisation of the rural poor and it is possible to channel the development inputs to the rural poor through these groups.
  - Group discipline and profitability of an economic activity can substitute the tangible collateral security for judging credit worthiness of the rural poor.
  - Income can be generated if credit is distributed among the organised village people.
  - The poor are more regular than the rich in credit repayment of loan;
  - The concept of micro-credit in Bangladesh came first through SFDP and subsequently it has been accepted by many agencies of both GO and NGOs.

## (2) Project brief:

- A. Name of the Project : **Development of Destitute Women.**
- B. Objectives of the project :
  - To involve the destitute women in income generating activities in order to alleviate their poverty situation.
  - To support the destitute women for enabling them to prove themselves as useful .as men in economic terms, leading to the development of their status in the present patriarchal society.
- C. Financed by : Rural Development Academy, Bogra.
- D. Duration of the project : 19877-82
- E. Major Activities of the project :
  - Formation of groups with the destitute women.
  - Capital formation through thrift savings of group members.
  - Credit programme for income generating activities.
- F. Research outcome :
  - Destitute women can be organised and their economic condition can be improved through village level informal groups or societies.
  - They can undertake income-generating activities with efficiency, if necessary assistance and honest supervision are given to them.
  - The main constraints on undertaking income generating activities by the destitute women are lack of adequate credit facilities, support from the male members of their respective families and illiteracy.
  - Destitute women spend most of their earnings and savings to meet the needs of their children and husbands.
  - Destitute members are more sincere and regular about the repayment of loan.
  - Frequently destitute women are misguided by their husbands or male members and even by the village leaders.

### (3) Project brief:

- A. Name of the Project : **Local Level Planning**
- B. Objectives of the project :
  - To strengthen planning and implementation capabilities of local level officers for integrated rural development.
  - To provide planners, administrators and local leaders at the thana and other key levels of the Government with understanding required for planning and implementation of integrated rural development projects.
- C. Financed by : United Nations Centre for Regional Development (UNCRD)
- D. Duration of the project : 1980-84
- E. Major Activities of the project :
  - Conducting survey
  - Preparation of prototype plan for Upazila and Union level
  - Assist the grass root level people for their self-planning.
- F. Research outcome :
  - The Academy prepared six training and one survey manuals.
  - The Rural Development Academy, Bogra developed some skilled manpower for local level planning and implementation.
  - A prototype plan was prepared for Raigonj Upazila under Sirajgonj District but it was not implemented due to lack of fund. However, subsequently another project titled "Community Empowerment for Poverty Alleviation at the Grass root Level" has been introduced in the same area and this project has accommodated the concept of local level planning into its core activities.

#### (4) Project brief:

- A. Name of the Project : **Support for Tube-well Command Areas Development, North West Bangladesh**
- B. Objectives of the project :
  - To meet up the scarcity of food and nutritional status in North West region of Bangladesh through increase in command area per irrigation equipment.
  - To conduct training for officials of DAE, BADC and BRDB intending to develop them as trainers for farmers related to irrigation.
- C. Financed by : FAO/UNDP
- D. Duration of the project : 1981-83
- E. Major Activities of the project :
  - Organise the member of KSS
  - Conducting training
  - Experimentation on irrigation channel.
- F. Research outcome :
  - The project has, for the first time, set up buried pipe irrigation system in Bangladesh. It is found that on an average a DTW can irrigate 166 acres of land during Boro season whereas the national average per irrigation equipment is 40 acres.
  - Development of a multidisciplinary group of core trainers among the officials of DAE, BADC & BRDB.
  - Increase in command area is possible through efficient use of irrigation equipment and the efficiency can be enhanced through training and the construction of appropriate channel.
  - Buried pipe irrigation system is feasible for Bangladesh from both technical and financial perspectives.
  - There is a need for conducting study on the use of alternative pipe materials to reduce capital cost of buried pipe irrigation system.



**(5) Project brief:**

- A. Name of the Project : **Village Child Development Project.**
- B. Objectives of the project :
  - To develop a model for delivery of basic services for children and women at the village level;
  - To Reduce the first degree malnutrition by 100% and xerophthalmia by 75% in children and anaemia in women and reducing infant, child and maternal mortality by 25%;
  - To increase retention rate of the enrolled children in primary schools and enrollment of out- of- school children;
  - To create opportunities for self-employment of women, youths and landless labourers.
- C. Financed by : UNICEF
- D. Duration of the project : 1981-85
- E. Major Activities of the project :
  - Development of maternity and health services;
  - Primary education for children;
  - Training;
  - Credit programme; and
  - Organisation of functional groups.
- F. Research outcome :
  - Maternity services provided to the mothers by the trained Traditional Birth Attendants (TBA) reduced the infant mortality and pre-mature maternal deaths.
  - Income generation and consciousness about nutrition have been possible among beneficiaries because of simultaneous confluence of credit and training.
  - The project was handed over to BRDB for replication after the experimental stage was over. However, the project activities are still within the same areas and there has been no increase in the number of villages.

## **(6) Project brief:**

- A. Name of the Project : **Irrigation Management Programme (IMP)**
- B. Objectives of the project :
  - To provide training to the field level officials of the implementing agencies aiming at increase in the efficiency of small scale irrigation equipment. Besides, some experiments were conducted for supporting the training activities.
- C. Financed by : GOB/FAO/UNDP and World Bank
- D. Duration of the project : 1984-87
- E. Major Activities of the project:

### **1. Training:**

(a) Four-Week Training Courses for Junior Thana level Officials; (b) One-Week Orientation Course for Senior Thana level Officials; (c) Four-Day Familiarization Course for District Level Officials.

### **2. Adaptive Research:**

(a) Compacted Earthen Channel: Under this component, compacted earthen channels and water control structures were constructed at 14 sites - 12 DTWs, one LLP and one STW through payment of wheat under the Food for Works Programme.

(b) Medium Cost Line Channel: Different types of line channel were constructed on experimental basis at the Demonstration Farm of the Academy and farmers' field in different locations of Bogra and Joypurhat districts applying different designs and using different materials and techniques. The types of line channel constructed were:

- Pre cast CC slab trapezoidal
- Pre-cast CC slab semi-circular
- Cast in-situ CC slab rectangular
- Cast in-situ CC slab trapezoidal

(c) Partial Buried pipe system of Irrigation: Partial buried pipe using PVC pipe was introduced at Eruil DTW of Kahaloo Upazila for testing its suitability. In total 3300 feet pipe of 6 inch diameter was laid underground at 3.5 feet depth and 5,000 feet open compacted earthen channel was constructed.

d) Buried pipe irrigation for STW: Buried pipe irrigation system for a STW with RCC pipe material was installed. With this system the command area of STW during the cultivation of Boro rice can be achieved covering 30 acres of land.

F. Research outcome :

- Area Irrigated: Irrigated area of the DTWs/LLPs under the supervision of IMP has increased to a considerable extent. For exmple, in all the districts the IMP DTWs have irrigated 39.23% more land compared to the Non-IMP DTWs.
- Irrigation cost: Better water management of the IMP DTWs has reduced per acre irrigation cost by 13.46% by comparison with the Non-IMP DTWs.

- Irrigation charge paid by the farmers: The IMP has benefited the farmers in terms of payment of irrigation charge for the use of water. The charge paid by the IMP farmers is less by 18.10% compared to Non-IMP situation.
  - Yield per acreage: The farmers in the IMP DTWs area have increased their crop yield ranging from 9.92% to 24.00% compared to the Non-IMP DTWs.
  - The IMP projects have created opportunities for increase in income, employment, even distribution of benefit etc.
  - Training was a major component of the IMP and it has created awareness among the relevant groups of people about the importance of the irrigation management programme and increased their skill as well.
  - Irrigation management is not a single disciplinary business. It is rather a rather multidisciplinary affair. In the case of existing irrigation equipment owned by the farmers, compacted earthen channel and water control structure constructed with the support/assistance from Food For Works Programme of WFP has raised water distribution efficiency form 40% to 60%. In the case of newly installed equipment or donor-supported partial buried pipe irrigation system has raised efficiency up to 90%. For example, one project of BRDB with GTZ fund developed 29 C/ A with CC pipe materials subsequent to the training on partial buried system from the Academy.
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  - The IMP has created opportunities for increase in income, employment, even distribution of benefit etc.
  - Training was a major component of the IMP and it has created awareness among the relevant groups of people about the importance of the irrigation management programme and increased their skill as well.
  - Irrigation management is not a single disciplinary business. It is rather a rather multidisciplinary affair. In the case of existing irrigation equipment owned by the farmers, compacted earthen channel and water control structure constructed with the support/assistance from Food For Works Programme of WFP has raised water distribution efficiency form 40% to 60%. In the case of newly installed equipment or donor-supported partial buried pipe irrigation system has raised efficiency up to 90%.. For example, one project of BRDB with GTZ fund developed 29 C/ A with CC pipe materials subsequent to the training on partial buried system from the Academy.

**(7) Project brief:**

- A. Name of the Project : **Integrated Action for Out-of-School Children and Their Families**
- B. Objectives of the project :
  - To provide functional training to the out-of-school children.
  - To raise the income of the participating families by providing training and credit.
  - To motivate the parents to limit their family size through the adoption of family planning programme.
- C. Financed by : CIRDAP
- D. Duration of the project : 1985-89
- E. Major Activities of the project :
  - Development of primary health;
  - Providing basic education and functional education;
  - Credit programme for income generating activities.
- F. Research outcome :
  - During the period of programme intervention, the percentage of school going children was about 90% and literacy in the village increased from 13 to 61 percent.
  - It created opportunities for self-implement through income generation activities.

**(8) Project brief:**

- A. Name of the Project : **Landless Women Development Project.**
- B. Objectives of the project :
  - To find out the possibilities of developing the economic condition of the landless poor women
  - Employment generation for the women and children of the landless families.
- C. Financed by : RDA
- D. Duration of the project : 1986-90
- E. Major Activities of the project :
  - Goat rearing
  - Tree plantation
  - Credit programme
  - Sericulture
  - Beef fattening
  - Capital formation
- F. Research outcome :
  - Sericulture has played a dominant role in raising the income of the women. Besides, goat rearing, tree plantation and operation of petty business have become partly successful in raising their income.
  - The landless poor women, if organised properly under a common institutional framework having enduring links with various nation-building departments for necessary supports and services in terms of technical and financial backup, can take an active role in the development programmes that are directly associated with production.

### **(9) Project brief:**

- A. Name of the Project : **Social Forestry in Integrated Rural Development (SFIRD)**
- B. Objectives of the project :
  - To create awareness and interest among the target beneficiaries on the importance of SFIRD.
  - To organize them into groups for collective responsibility and management of SFIRD activities.
  - To generate information through institutional development.
  - To improve the socio-economic condition of the target beneficiaries through various income generating activities identified by them
  - To link their activities with various departments so that their support and services become available to them.
- C. Financed by : CIRDAP
- D. Duration of the project : Three years (June 1988 to May 1999)
- E. Major Activities of the project :
  - Identification of target beneficiaries and formation of groups.
  - Homestead and roadside plantation with active participation of beneficiaries.
  - Nursery Development.
  - Conducting training programmes.
  - Income Generating Activities.
  - Seed money disbursement.
  - Thrift savings.
- F. Research outcome :
  - A benchmark survey was done;
  - By forming groups at village and para level target beneficiaries could be organised and they could be motivated about the importance of afforestation and its future needs.
  - They got familiarised with the species of the fast growing tree and plantation was done through their active participation in the homesteads and roadside areas.
  - Survival rate of plants was relatively high in homestead areas compared to that of the roadside.
  - Training programmes and utilisation of the seed money accelerated the IGAs of the beneficiaries leading to the enhancement of their income and this, in turn, enabled many of them to repay their loan and get back their landed property leased out to the other people.
  - Although target beneficiaries are poor, their habit of capital formation can be generated through the thrift savings.
  - Recommendations were made in its final evaluation to replicate it to other areas through a project for a period of five to seven years.

**(10) Project brief:**

- A. Name of the Project : **Rural Development Through Village Organization**
- B. Objectives of the project : i) Formulation of an infrastructure and formal groups, and local government bodies at the grass-root level (Village-Union-Upazila); and  
ii) Socio-economic Development of the rural people through and assisted by these groups/associations.
- C. Financed by : Rural Development Academy (RDA), Bogra
- D. Duration of the project : 1988-1995
- E. Major Activities of the project : i) Social Mobilization.  
ii) Development of institutional infrastructure group and village association of group.  
iii) Income generating activities.  
iv) Mass literacy programme.
- F. Research outcome : i) Three groups were organised (a) Landless society (Bumihin samity), (b) Rural social welfare society (Dhaopara Grameen Samaj Kalayan Samity) and (c) Youth Society (Dhaopara Subak Samity)  
ii) Capital formation Tk. 5966/-.  
iii) Total 31 dropout children participated in mass literacy programme and these were graduated upto class-III level.  
iv) Group member participated in IGAs like goat, poultry and cow rearing, vegetable gardening, fish cultivation, etc.  
v) Group members jointly leased in one pond for fish cultivation.  
vi) Village organisation (federation of the groups) repair one road within the village and buildup one new earthen road between two cluster (paras) of the village.

**(11) Project brief:**

- A. Name of the Project : **Water Resources Development for Small Scale Irrigation and Household Purposes.**
- B. Objectives of the project :
  - To determine an optimum model of integration of water development activities for irrigation with domestic water supply from a deep tubewell; and
  - To provide insights into the process by which poor communities and the constituencies can be involved in the provision, development and management of water as the basic resource which is considered as essential for improving their socio-economic condition.
- C. Financed by : CIRDAP
- D. Duration of the project : 1989-92
- E. Major Activities of the project : Construction of irrigation channel and water supply system for dual purposes with the active participation of the local people.
- F. Research outcome :
  - The new system has increased efficiency by reducing water losses in the distribution channels.
  - Production has increased due to increase in command area. .
  - Water-borne diseases have significantly reduced following the use of safe water for drinking and other household work from deep tube well in the project area.
  - Opportunities for economic activities like vegetables gardening and nursery have become widened due to the availability of water.
  - The model developed by RDA has already been replicated in eleven CIRDAP member countries.



## (12) Project brief:

- A. Name of the project : **Model Village in Rural Development**
- B. Objectives of the project :
  - To assist the Government to refine its national strategy of integrated rural development by incorporating techniques and problem solving methods developed by the rural community with the use of participatory research and planning;
  - To assist the villagers organise themselves to undertake collective activities to build up a data base for improving the quality of planning, implementation, monitoring and evaluation of their own development.
- C. Financed by : CIRDAP
- D. Duration of the project : 1991-2005
- E. Major Activities of the project : Formation of organisation and financial and technical backup for overall socio-economic development with a special thrust on income generating activities.
- F. Research outcome :
  - The rural poor can be organized into groups and through groups profitable IGAs can be undertaken to improve their socio-economic condition.
  - Group discipline and cohesion among group members can be transformed into group pressure which can easily be utilised for repayment of loan.
  - The implementation of the project has been done with financial support from CIRDAP. As the tenure of the project is over, financial support of CIRDAP is withdraw. In spite of its withdrawal, the village organisation is quite active in respect of all the development efforts. The group members are competent enough to run their development activities because of several reasons - (a) existence of village organisation (b) availability of own capital mobilised by the groups through thrift savings by the members; (c) establishment of effective linkage with various service providers (GO/NGOs) working in the project area.
  - Thrift savings of the rural poor can be accumulated for capital formation. Although the rural poor do not have regular income, they can, if properly motivated, save a good amount.
  - Although most of the rural poor are illiterate, they are not ignorant and indifferent to the future prospect of controlling their family size.
  - With due motivation and regular supply of contraceptives, their family size can easily be kept under control.
  - Training on both skill and human resources development supported by credit has positive impact on production, income and self-employment of the rural poor.

**(13) Project brief:**

A. Name of the project : **Comprehensive Village Development Programme**

**Introduction**

Comprehensive Village Development Programme (CVDP) was initiated by Bangladesh Academy for Rural Development (BARD), Comilla in 1975 in the name of 'Total Village Development Programme' with a view to examine **one village one organization** in a village. The main thrust was given to mobilisation of local resources and its utilization so that the villagers would be self-reliant irrespective of age, sex, class and professions. The project was included in the 3<sup>rd</sup> FYP and renamed as 'Comprehensive Village Development Programme'. In the second phase during the Fourth FYP, Rural Development Academy (RDA), Bogra was involved with the implementation of the project in 1991-92. At this stage CVDP was implemented by BARD and RDA in 40 villages each in Rajshahi and Khulna Divisions and Dhaka, Chittagong and Sylhet Divisions respectively. The Experimental Phase of the project was wound up in June 2004. During the Experimental phase CVDP was able to create some positive results for the betterment of the rural people under the programme. The government was convinced to adopt CVDP as a **model concept** for rural development and recommended for nation-wide replication throughout the country.

The First phase of the national programme was wound up in June 2009. The programme is sponsored by the Rural Development and Co-operative Division of the Ministry of LGRD & Co-operatives. RDA, BARD, BRDB and Co-operative Department are working as implementing agencies. Total number of villages under the programme are 1575 of which RDA covered 300 villages of four Upazilas. Due to outstanding impacts created at the field the government has approved its Second Phase for a period of July 2009-December 2015 comprising 66 Upazilas of 64 districts. Total number of villages under CVDP are 4275. Of those RDA implements in 1020 villages of 16 Upazilas in Rajshahi, Rangpur and Khulna divisions.

B. Objectives of the project:

- To promote overall development of all segments of the population of a village by bringing them under a village – based co-operative organisation
- To develop a replicable rural development model for the country

C. Financed by : Government of Bangladesh under Annual Development Programme (ADP)

D. Duration of the project : 1991- December 2015

E. Major Activities:

- Organization and management activities;
- Increase in income and production and poverty alleviation;
- Women's development through creation of job opportunities for them;
- Rural educational and training activities;
- Health, nutrition and family planning activities;
- Recreation and cultural activities.

F. Research outcome :

This is the terminal year of the project. During the last 14 years the project has succeeded in enabling the beneficiaries to comprehend the core idea of CVDP. As a result, the participation of the villagers in terms of family coverage, membership enrollment, capital accumulation and credit disbursement and its realisation has increased manifold. Their involvement in health and family planning programme, plantation, social welfare activities, celebration of national days etc. has also increased. Several studies show that utilization of credit and training is effective in creating opportunities for employment and income. However, based on the past experience the followings observations may be made:

1. There has been a congenial atmosphere in the project villages as a result of multi-dimensional activities undertaken by the project. But the soft programmes, especially the credit programmes of the NGO's in some villages has caused inconvenience to the smooth implementation of the project. Provision for loans on easy terms by the NGOs was a strong barrier to the formation of CVDP co-operative societies. The villagers, especially the poor people were disinterested to form the societies after knowing the provision of loan activities of CVDP. Though this problem has been overcome through motivational work, they are not entirely free from the influence of soft programme. As a matter of fact, it is difficult to implement a hard programme where the soft one is in implementation.
2. Considering the necessity as well as high demand for credit of the cooperators, the government has allocated Tk. 40.00 lakh (four times more than the initial amount) as seed capital in the third phase. The amount has been disbursed very recently and the concerned beneficiaries have started undertaking different IGAs with this credit money. However, as the project will come to an end in June 1999, there remains little scope for assessing the utilization of credit. The government may think of further extension of the project at least to examine the utilization and impact of the credit programme from wider perspective.
3. The Academy is not an implementing agency and as such the project has to be handed over to someone else. However, after handing over, the nature of the programme underlines the need for continuation of its involvement for sometime so that it may assist the implementors in guiding to keep the programmes in the right direction.
4. A good functional linkage has been developed between the Thana level officials and the co-operators. By now, the cooperators have gained the courage to visit and talk to the concerned officials for necessary support-services. But frequent transfer of the Thana level officials in many cases affects the functional relationship between government department and the cooperative societies. Moreover, involvement of the local UP Chairmen and Members in the project activities has been found a marginal one. For successful implementation of the project, efforts should be made to enhance their participation on many counts.
5. The principle for village selection under CVDP sets that the CVDP must not select a village where BRDB/NGOs were working. But in reality it was very difficult to find out villages absolutely free from any sort of intervention from outside agencies. Even if villages were found, people were not found receptive to the programme. This is ascribed to their sad experience in the past. As for instance, villagers were reportedly cheated by several NGOs in the past. As a result, initially villagers in many cases were skeptical about the sincerity of the

project staff involved in village selection. This has resulted in delay in selection of villages, formation of co-operative societies and undertaking training and other activities.

6. Initially, the villagers appeared to be dependent on others. As a result, they were found more interested in relief and loans than in work. So efforts have been made to divert their attention from relief to work.
7. At the beginning, participation of women in the project activities was quite discouraging. Motivation by the project staff and arrangement of different training programmes at the Academy brought about positive changes in them. Their interest in the society is increasing day by day.
8. The experience of CVDP suggests that one should not be hurry in implementing any experimental project in the social sector. For sustainable results, it is better to follow the principle of “slow but steady” rather than overnight fulfilment of mere target. If so, the spontaneous participation of the cooperators may be ensured leading to sustainable development of the society.

### **Observation**

- a) The institutional base of most of the CVDP co-operatives are being strengthened. These are playing a leading role in the village in a sustainable manner. Capital base is found strong.
- b) About 73% of the societies have shown their worthiness in launching micro credit programme with their own. This helps creating self- employment and generating additional income for the co-operators. Training contributed a lot to achieve this.
- c) The developmental activities such as livestock vaccination, family planning, EPI, sanitation coverage etc. is found successful in a sustainable manner with the help of Upazila level government departments.
- d) CVDP has given emphasis on environment protection through introducing renewable energy like biogas and solar panel. Bio-fertilizer, vermi compost and tricho compost are being used in farming. Plantation also helps environmental protection and income generation.
- e) The second phase of CVDP was wound up in December, 2015. The third phase is under active consideration of the government to be implemented in 162 Upazilas during next four years.

#### **(14) Project brief:**

- A. Name of the Project : **Joint Study on Rural Development Experiment (JSRDF)**
- B. Objectives of the project : The general objective of the project was to pursue problem solving and action oriented experimental approach by identifying the key needs and issues of villages. The ultimate objective was to build up a model of rural development.
- C. Financed by : JICA/GOG
- D. Duration of the project : 1992-95
- E. Major Activities of the project :
  - Unification of the two groups in a village - the traditional social organisation and the economically motivated group for rural development;
  - Reduction of gap between the two prime institutions - Union Parishad and village to promote rural development; and
  - Promotion of villagers' opportunities for non-agricultural job outside the village especially at growth centre.
- F. Research outcome :
  - The project has done much headway in developing a sense of mutual understanding among the villagers. The meeting of the village committee has created a forum for regular interaction among the villagers in respect of identification of various problems and their solutions. The meeting of the village committee is held regularly and the attendance is quite encouraging.
  - There is need for mobilisation of more resources to provide adequate financial and technical support for undertaking socio-economic activities specially by the poor.
  - As regards the dissemination of agricultural technologies, innovative farmers are ready to make contact not only with the public sector but also with this private sector including NGOs.
  - The activities initiated through the project have created an urge among the villagers to solve various problems through joint effort.
  - The topics discussed in the village committee include two areas: community concern and the individual one relating to economic activities. Income generating activities are always the key concern of the poor villagers.
  - The Union may be the basic development unit for integrating government's efforts in rural development.

**(15) Project brief:**

- A. Name of the Project : **Juanpur Public Health Education**
- B. Objectives of the project :
  - To develop consciousness among the villagers about water-sealed latrine and public health.
  - To motivate the villagers for adopting better health practices like using water sealed latrine and safe drinking water.
- C. Financed by : Rural Development Academy, Bogra.
- D. Duration of the project : 1991-95
- E. Major Activities of the project : Supply of the materials for water-sealed latrines among the villagers.
- F. Research outcome :
  - The use of water-sealed latrines is highly satisfactory, as more or less all the family members including their children are regular in the use of their latrines.
  - The prevalence of faecal borne diseases in the household is very negligible.
  - Most of the beneficiaries are conscious about their personal cleanliness.
  - Majority of the beneficiaries are aware of the importance of keeping their latrines clean.
  - Due to installation of latrines the incidence of diseases has declined and there prevails better health environment.

**(16) Project brief:**

- A. Name of the Project : **Crop Diversification Programme**
- B. Objectives of the Project :
  - Introduction of high yielding diversified crops.
  - Variety screening for selection of suitable crop varieties for Bangladesh.
  - Promotion of private sector seed industry in Bangladesh.
  - Realising the use of Hybrid seed technology.
- C. Financed by : The Netherlands Technical Assistance Unit
- D. Duration of the project : 1992-99
- E. Major Activities :
  - Variety screening trial of crops like maize, sunflower, mustard, soybean, sorghum etc.
  - Economic feasibility test of seed treatment technology for different crops
  - Test the potato production from TPS
  - Test the storage technology of potato
  - Hybrid seed production of maize and sunflower.
  - Organisation of National seed and crop fair
  - Arrangement of training, seminar, workshop and field days on seed technology.
- F. Research outcome :
  - A total of about 100 high yielding crop varieties have been marked suitable for different agro-ecological zones of Bangladesh.
  - It has proved that seed treatment of different crops is economically beneficial.
  - It is also proved that disease free potato production is possible from TPS.
  - Locally storage technology for seed potato has been established.
  - It is possible to produce necessary hybrid seed of maize and sunflower internally.



**(17) Project brief:**

- A. Name of the project : **Rural Housing Project.**
- B. Objectives of the project :
  - The major objective of the project was to test the idea of low cost housing among the rural poor in order to explore the possibility of upgrading their socio-economic status; and
  - And the objective was to develop a suitable management system for handling housing loan.
- C. Financed by : UNDP
- D. Duration of the project : 1993-2003
- E. Major Activities of the project :
  - Construction of 100 houses including water-sealed latrines in several villages affiliated to the different ongoing projects of the Academy.
  - Per house expenditure for construction is Tk. 16,500 to be repaid by the beneficiaries within 10 Years by 120 installments-- one installment in every month amounting to Tk. 176 including 5% service charge.
- F. Research outcome :
  - Loan is very essential for IGAs apart from the construction of house. Otherwise repayment of loan has been found difficult.
  - Construction of houses has already opened the opportunity for undertaking new IGAs like poultry, petty business, sericulture, cottage industry and so on.
  - The Academy is now planning to hand over the project to LGED.
  - The project fund is rolling on as revolving fund for construction of further houses. As of now, a total of seven more houses have been constructed with the loan money recovered from the first group of loanees.

**(18) Project brief:**

A. Name of the project : **Integrated Training, Research and Technology Transfer Under Irrigation Management Programme (ITRTT).**

B. Objectives of the project:

The main objective of the project was to carry out action research for proper utilisation of irrigation equipment in the context of contemporary realities and situation in the field of command area development and management of irrigation equipment for expansion of area under irrigation. Another objective was arrangement of training on the basis of reality of small scale water management

C. Financed by : The Government of the People's Republic of Bangladesh under Annual Development Programme (ADP)

D. Duration of the project : 1994-99

E. Major Activities:

**Training:** Providing Training of Trainers (TOT) to the concerned GO/NGO officials and direct training to the farmers engaged in irrigation activities.

**Action research:** To carry out action research on the basis of experiences and lessons learnt from the previous two projects namely TCAD and IMP in the following areas.

- Command area of irrigation equipment;
- Increase in production irrigated acreage; and
- Participation of farmers in irrigation equipment.

F. Research outcome:

- (i) Trainees were sent from different agencies. The agencies were requested to select trainees in compliance with certain criteria as stipulated in the project document. However, in most cases the agencies did not follow the criteria and as such the standard of trainees remained below the desired level.
- (ii) The training programmes organised by the project were found quite effective and the agencies were active in sending a large number of trainees. However, the existing facilities of the Academy could not cope with the increasing load in respect of training.
- (iii) Command area development requires the participation of the farmers both in purchasing the equipment and construction of irrigation channel. So far the farmers are motivated only about procurement, installation and maintenance of irrigation equipment. However, for the development of command area farmers should equally be involved in construction of the improved irrigation channel.
- (iv) The experiments so far made on conveyance system show that ferro-cement channel in the case of open channel and CC pipe in the case of underground channel have produced better results in terms of cost, maintenance, efficiency etc.
- (v) There have been positive reports about the effectiveness of irrigation technology transfer training programmes. For instance, there is sufficient evidence in support of the increase in command area; changes in cropping pattern and land use; and changes in institutional mechanisms. All the pump groups under study perform their job in compliance with all the

desired management principles.

- (vi) Moreover the standard of life and income of the most of the trainees have reportedly increased. As for example, in 1995-96, one of the trained mechanics set up a workshop at a cost of Tk. 2.46 lakh. In that workshop, two workers have been employed each having on an average Tk. 800.00 as wage per month.
- (vii) ITRTT's action research programme, by developing low-cost irrigation channel, has significantly reduced the water conveyance loss and the proper use of water has resulted in the increase of the command area. For example, the command area of a DTW scheme in Tulot Shashibadani has increased from 60 to 140 acres. Besides, there has been a reduction in operation cost from 66 liter diesel/acre (boro rice) to 50 liter/acre along with an increase in yield by three maunds per acre with GKF DTW. In Chalkshekender a STW scheme has covered 32 acres of land compared to its earlier coverage of 5-8 acres of land.
- (viii) Optimum utilisation of irrigation equipment has been ensured. As for example, in some project areas water is also used not only for crop production in dry season but also for household purpose all the year round.
- (ix) In agronomical aspects, new crop seeds have been introduced in all the scheme areas for better yield and there have been positive results in this regard. A year-wise production picture beginning from 1994-95 to 1996-97 shows a higher trend except in some cases. This is because of the adoption of modern practices of cultivation by farmers. Another noticeable point is that the farmers of the project area have gradually begun to move towards the diversification of crops and use irrigation for all kinds of crops as and when necessary.
- (x) ITRTT project has introduced new techniques for proper management of DTW schemes with active participation of the farmers working in group. For example, in Digalgaon and Panchkitta of Comilla district farmers have contributed Tk. 50,000.00 in partial fulfillment of channel construction which cost a total of Tk. 1,80,000.00. This surely demonstrates their active participation in their respective schemes.
- (xi) In recent years irrigation-cum-domestic water supply system developed by the project has drawn the attention of different executing agencies. The Barind Multipurpose Development Authority (BMDA) has already replicated the model in 26 areas on pilot basis and The Local Government Engineering Department (LGED) has also signed MOU with RDA to replicate the technology in its different project sites. Moreover, upon special request from the Jamuna Multipurpose Bridge Authority (JMBA) a total of seven low-cost Deep Tube Wells of the similar models with water filtration plant have been installed in its resettlement area.

**(19) Project brief:**

- A. Name of the project : **Poverty Alleviation Through Social Forestry**
- B. Objectives of the project : To carry out an experimentation on social forestry as a probable way of poverty alleviation and an attempt to develop a replicable model of development in the relevant field.
- C. Financed by : The Government of the People's Republic of Bangladesh under the Annual Development Programme (ADP)
- D. Duration of the project : 1994-99
- E. Major Activities of the project :
- Plantation of fast growing trees in homestead area, fallow land, mosque, school, bank of pond, graveyard and other public places Union Parishad road.
  - Apart from social forestry, a major thrust was on the initiation of complementary income generating activities like livestock, horticulture and nursery development, kitchen gardening etc.
- F. Research outcome : The project has achieved a great deal of success in afforestation, training, organisational management and accumulation of savings.
1. About 1205 members have been organised under 40 groups. Among them 635 are male and 570 female. The achievement rate is 100% as against the PP target. Simultaneously the groups have generated a capital of Tk. 4.29 lac by way of thrift savings and this is 76% compared to the PP target.
  2. Training courses organised under the aegis of the project have been found highly instrumental for motivating the project members. In all 330 (100%) group members as against the PP target were provided with training on different subjects like tree plantation, nursing and maintenance of trees, horticulture and nursery development, kitchen gardening, livestock and poultry rearing.
  3. A total of 55,335 different types of saplings have been planted in four project villages under the afforestation programme. Among them, 21,430 were planted along the roadside and 33,905 in homestead area, ponds' bank and other public lands. The achievement rate of the plantation is 277% as against the PP target.
  4. Various income generating activities have been undertaken under the credit programme for upliftment of the socio-economic condition of the project beneficiaries. By this time, a total of 1,167 members have received credit from the

project fund for running different income generating activities. Among them 615 are male and 552 are female. Besides, three nurseries, eighty nine poultry farms and 173 kitchen gardens have been established in the project villages. All the related members are reportedly getting benefits from these activities in many ways.

5. In general the condition of the planted trees is found good in all respects. But in some cases, trees are affected by diseases and willful damage from some bad people of the community. However, several measures have been taken for treatment and protection of trees in collaboration with the specialist on Horticulture from the Academy, Union Parishad Chairmen and the other local leaders. As a result, mortality rate of the planted trees has been reduced to 2.39%.
6. The project has established linkages with the thana level officials and Union Parishads for getting cooperation and better services.
7. A major thrust of the project was on formation of community organisation intending to organise the targeted poor people into groups. The project has made much headway in forming groups with the target people. Likewise, it has achieved a significant progress in respect of tree plantation programme and self-employment through income generating activities. However, there is still a plenty of scope for tree plantation in the homestead areas and other private and public places of the project area.

**(20) Project brief:**

- A. Name of the Project : **Home Steed Gardening Project**
- B. Objectives of the project :  
  - To equip the rural mass, especially the poor with modern technological know-how of vegetables production through training and practical demonstration.
  - To enhance nutritional status of the rural mass through promotion of year round vegetables production and consumption.
  - To ensure vegetables production as an additional source of income through the sale of additional product.
- C. Financed by : Helen Keller International, Bangladesh.
- D. Duration of the project : 1997-1999
- E. Major Activities of the project :  
  - Production of high quality vegetables seeds at seed farm and village nurseries.
  - Production of vegetables seed and green vegetables for consumption.
  - Motivational training for the project beneficiaries on different technologies of vegetables production and establishment of vegetables garden in homestead areas.
- F. Research outcome :  
  - The project beneficiaries have become aware of homestead resources and a total of 135 nurseries having 25 in each upazila have been established in order to facilitate vegetables seed and green vegetables.
  - A three-day training on vegetables production technologies has been provided for 195 vegetable gardeners and 450 group leaders of the project area. In addition, demonstration of varied food items prepared from soybean have been arranged in 15 villages in order to promote soybean production.
  - The project beneficiaries have also realised the need for the proper use of the fallow lands in and around their homestead.
  - The surplus of the green vegetables is sold in the local market to meet their other needs.
  - The project activities have made positive impact on the nutritional status of the beneficiaries.

**(21) Project brief:**

- A. Name of the project : **Community Empowerment for Poverty Alleviation at the Grassroot Level**
- B. Objectives of the project : The primary goal of this project was to assess the needs and priorities of the people of the project villages and assist them in implementation of the issues to be indicated by the poor and the women in the villages. The project was also intended to establish a process of empowerment that would enable the villagers to organise themselves, mobilise resources, plan and implement the development activities..
- C. Financed by : UNDP/GOB
- D. Duration of the project : 1997-2002
- E. Major Activities of the project :  
2. Formation of village level organisation covering 25% villages of Raigonj and Tarash Upazilas.  
3. Social Mobilisation  
4. Training. Training was one of the most important components of the project. This included training for project personnel, beneficiaries, public representatives and fieldworkers.  
5. Local development fund and seed capital  
6. Development of health, nutrition and sanitation, primary Health Care, Midwifery  
5. Rural infrastructure development (small culverts, roads, reclamation of ponds and other water bodies)  
6. Environmental development programme (supply of inputs for roadside plantation and its preservation).
- F. Research outcome : In all 63 villages have been brought under the project activities. In these villages a total of 306 Village Organisation Groups (VOGs) have been formed representing 145 female groups and 161 male groups. These VOGs have also mobilised Tk. 48.27 lakh through thrift savings. Besides, the VOG members have started a good number of income generating activities with technical backup from the project and the other service providers (GO/NGO) working in the project area.
- ◆ Established 44 centres and educated 1088 illiterate adult women through REFLECT Programme in collaboration with Action Aid Bangladesh.
  - ◆ Established physical infrastructure relating to health and sanitation through installation of 736 hand tube wells and 1996 water-sealed latrines.
  - ◆ Ensured the natural resource management such as Fish cultivation in natural water bodies, afforestation of public lands etc.



**(22) Project brief:**

- A. Name of the project : **Action Research Project on Multipurpose Use of Low-cost DTW for Long-term Post Flood Rehabilitation**
- B. Objectives of the project : The main objective of the project is to introduce multipurpose use of Deep Tube well in the flood prone areas of Bangladesh for changing socio-economic and quality of rural life through command area development for crop production and supplying safe water for household purposes on the basis of RDA-innovated irrigation and domestic water technology. The specific objectives are as follows:
1. To install low-cost demand-based deep tube well according to crops and household water supply.
  2. To reduce capital cost of deep tube well introducing local technology specially RDA-innovated low-cost technology.
  3. To ensure water for irrigation, safe drinking, aquaculture, nursery, cottage industry etc. from the same source of deep tube well.
  4. To protect rural people from water borne diseases and to develop public health through supplying safe water.
  5. To encourage private owner for investment in this type of project; and
  6. To offer training on different income generating activities for efficient use of deep tube well.
- C. Financed by : Government of Bangladesh under Annual Development Programme (ADP)
- D. Duration of the project : 1999-2004
- E. Major Activities : Major activities of the project
- Training :** Providing training to both officials and primary beneficiaries regarding skill development and technology transfer.
- Action Research :**The major components of the action research activities are as follows :
- a. Installation of RDA-developed low-cost DTW.
  - b. Construction of multipurpose overhead tank.
  - c. Installation of underground/buried pipe irrigation distribution system.
  - d. Construction of domestic water supply network.
  - e. Identification and formation of groups.
  - f. Distribution and operation of micro credit among the beneficiaries.

As of now, a total of 15 sites have been developed under a sustainable management units model in the field of minor irrigation projects.

**Micro credit Activities :** Micro credit is another major component of this project. Credit will be disbursed among the group members for initiating different income generating activities like horticulture, nursery, fisheries, small cottage industries, poultry and dairy.

- F. Research outcome :
1. The achievements of the training courses are satisfactory.
  2. The capital cost of RDA-developed DTW ranges from Tk. 60 thousand to Tk. 3.15 lakh depending on different discharge capacity and depth of the well. At least 30-40% cost could be reduced with the same discharge capacity of DTW.
  3. Beneficiaries use the DTW for multiple purposes like irrigation, drinking, domestic, fisheries, livestock, industrial and so on.
  4. There has been direct participation of the community in implementation of the project in the following ways:
    - (a) Deposit of 10% money of the total cost of the irrigation equipment i.e. Tk. 84,000.00 to the Academy;
    - (b) All the expenses incurred for electrical connection are completely borne by the WUA;
    - (c) The cost for internal domestic pipe networks along with the fittings is completely borne by the individual users.
    - (d) The operation and maintenance cost of the project are also borne by the groups.
  5. Different IGA-based sub-groups have been formed and their access to credit in compliance with the set criteria is ensured.
  6. This model has already attracted the attention of different national and international agencies. A Memorandum of Understanding (MOU) has been signed between the World Bank and RDA, Bogra to replicate this model in South Asia Region.

**(23) Project brief:**

- A. Name of the Project : **Seed Health Improvement Project (SHIP)**
- B. Objectives of the Project : To devise appropriate intervention for farmers' capacity building in improving rice seed health management practices.
- C. Financed by : Department for International Development (DFID) in UK through PETRRA project of the International Rice Research Institute (IRRI).
- D. Duration of the Project : April 1999-June, 2004
- E. Major Activities of the Project :
1. Farmers' Participatory Research
    - a) Field research
    - b) On farm seed storage research
  2. Farmer Participatory Training
    - a) Seed cleaning
    - b) Insect and disease identification
    - c) Seed drying machine demo.
    - d) Seed storage techniques
    - e) Cross visit
  3. Farmers' Participatory Eco-technology Development
    - a) Development of Multipurpose seed drying table
    - b) Development of storage techniques
    - c) Promotion of biological additives
  4. Socio-Economic Survey
    - a) Base line survey
    - b) Seasonal survey
    - c) Impact survey
  5. Communication Materials Development
    - a) Electronic
    - b) Paper base
  6. Establish linkage with local government.
  7. Up-scaling strategy development
- F. Research Outcome :
- 1) Increased rice production (10-15%)
  - 2) Decreased production cost and crop management activities
  - 3) Reduced pest pressure
  - 4) Reduced seed rate
  - 5) Increased farmers ' income
  - 6) Ensured equal weight for women

**(24) Project brief:**

- A. Name of the project : **Socio-Economic Development and Quality of Life Through Arsenic Free Safe Drinking Water Supply.**
- B. Objectives of the project : The main objective of the project is to improve the socio-economic condition and quality of rural life through ensuring arsenic free potable drinking water supply by expanding RDA-developed safe water model (filtration plant and low-cost DTW). The specific objectives of the project are as follows:
- i. To install low-cost filtration plant for ensuring potable arsenic free drinking water supply according to the guidelines of WHO/Bangladesh standard.
  - ii. To develop health status of the rural people by increasing per-capita water consumption.
  - iii. To uplift socio-economic status of the rural people engaging them in different income generating activities.
  - iv. To reduce the level of water-borne diseases
- C. Financed by : Government of Bangladesh under Annual Development Programme (ADP)
- D. Duration of the project : 2001-2006
- E. Major Activities : Major activities of the project (July 2002-June 2003)

**Training :**

- ◆ To provide the group members with training on on-farm water management, skill development and technology transfer.
- ◆ To conduct orientation course on arsenic free safe drinking water supply system.

**Action Research:** A total of four sub-project areas have been selected under action research component.

- i) Pirijpur, Godagari, Rajshahi;
- ii) Sayedpur, Sujanagar, Pabna;
- iii) Vangura Bazar, Vangura, Pabna;
- iv) CARB village, Godagari, Rajshahi.

- F. Research outcome : 1. The capital cost of RDA-developed DTW ranges from Tk. 60 thousand to Tk. 3.15 lakhs depending on different discharge capacity and depth of the well. At least 30-40% cost could be reduced compared to traditional one having the same capacity.
2. Beneficiaries are using the DTW water for different

purposes viz, irrigation, drinking, pisciculture, livestock and poultry rearing and also for other domestic and industrial purposes.

3. The overall achievement of the motivational training is found courses effective and satisfactory for the Water Users' Association.
4. The beneficiaries are directly involved in implementation process in the following ways:
  - (a) Deposit of 10% money of the total capital cost of the project i.e. Tk. 1,80,000.00 to the Academy at the initial stage;
  - (b) Cost of electric connection charge is completely borne by the group;
  - (c) The cost for internal domestic pipe networks along with fittings are completely borne by the individual users;
  - (d) The operation and maintenance cost of the project is also borne by the groups;
5. Formation of different IGA-based sub-groups is under way.
6. This model has attracted the attention of different national and international agencies. A Memorandum of Understanding (MOU) has been signed between the World Bank and RDA, Bogra to replicate this model in South Asia Region.

**(25) Project brief:**

- A. Name of the project : **Rural Plant Clinic in Bangladesh**
- B. Objectives of the project : In Bangladesh insects and diseases are real threats to agriculture production causing on an average 20-30% crop losses in farmers' fields. In order to protect crops from damage, farmers are becoming increasingly dependent on the use of highly toxic pesticides used with increasing frequency. In most cases, farmers use pesticides on the basis of recommendations and advice from the local pesticide dealers, who themselves are not generally professionals. Overuse of pesticides comes from a misunderstanding of what is causing the problem, and is often attributed to insect-pests due to their high visibility. Farmers also have common misconceptions, believe all insects to be pests.

In response to the strong demand of the farmers the Rural Development Academy (RDA) in collaboration with the UK based Global Plant Clinic (GPC) started an action research project in March, 2005 and developed three model of Rural Plant Clinics (RPC) in Amrool Union under Shajahanpur Upazilla in Bogra. Each of the RPCs is providing plant health service to the farmers of surrounding 6-8 villages. The clinics are being set-up in the premises of elected women member of Union Parishad who were undergone intensive training on how to organize, run and maintain simple but effective community run Plant Clinic. RPCs are providing written prescription to the farmers for solving their simple plant health problems.

**Objective**

To develop a community owned Rural Plant Clinic model for South Asia.

- C. Financed by : Global Plant Clinic, UK, DAE, AUP
- D. Project Period : **2005-2010**
- E. Research outcome :
  - Organized II plant doctor's monthly conference.
  - Clinic team developed, validated and distributed 100 new fact sheets addressing specific plant health issue.
  - GPC organized electronic data management course for research team at RDA

**(26) Project brief:**

A. Name of the project : **Creation of Additional Employment, Increase in Marginal Productivity of Labour in Rural Economic Activities and Poverty Alleviation Through Irrigation and Water Management.**

**B. Objectives of the project :**

The main objective of the project is to alleviate poverty through quick extension of RDA-developed irrigation and water management model by creating additional employment of the rural people for better rural livelihood.

The specific objectives of the project are as follows:

1. To extend RDA-developed low-cost multipurpose use of DTW model;
2. To extend/replicate RDA-developed low-cost water, filtration plant model for supplying safe drinking water in the rural areas;
3. To ensure highest production through safe water supply, training, and micro-credit assistance;
4. To ensure multipurpose use of water resources like irrigation, drinking water supply, horticulture nursery development, poultry and livestock rearing, fish cultivation, food processing and preservation etc.;
5. To create additional employment for the rural people;
6. To increase additional food production for meeting up incremental national food demand;
7. To ensure proper processing in agricultural production;
8. To ensure proper marketing network including export through co-ordination between production, processing and modern irrigation technology; and
9. To develop socio-economic and quality of life of the rural people.

C. Financed by : Government of Bangladesh under Annual Development Programme (ADP)

D. Project Period 2005-2009

**E. Major Activities:**

**Component of Proposed Activities at a Glance:**

- Installation of Low-cost DTW on the basis of recent technological option developed by RDA, Bogra;
- Construction of multipurpose overhead tank;
- Construction of low-cost buried pipe irrigation system;
- Construction of networks for safe drinking water supply;
- Cropping technology transfer through demonstration and training;
- Installation of nursery and production of vegetables;
- Developed livestock, poultry and fisheries farm with community Bio-gas plant;

- Introduction of agrobased small industry;
- Provision of multi-dimensional training to the different target group;
- Distribution of seed capital among the beneficiaries;
- Identification of appropriate credit operation system;

**F. Research outcome :**

**Lesson Learnt :**

5. On the basis of IGA training cum RDA credit facility, micro entrepreneurship have been developed in the project area.
6. Beneficiaries are using the DTW water for different purposes i.e. irrigation, drinking, pisciculture, livestock and poultry rearing and also for other domestic and industrial purposes.
7. The beneficiaries are directly involved in implementing the project in the following ways:
  - (e) Deposited 10% of the total capital cost of the project i.e. Tk. 2,20,000.00 to the Academy at the initial stage;
  - (f) Cost of electric connection charge is completely borne by the management group;
  - (g) The internal domestic pipe networks along with fittings are completely done by the individual users;
  - (h) The operation and maintenance cost of the sub-project are also borne by the groups;

**Future Plan**

- i. The total capital cost of the project will be recovered within 10 years;
- ii. The project activity will be extended in another areas through project cost recovery; and
- iii. The project activity will be monitored and continued through CIWM by its own income for sustainability.

**Observations**

1. Employment generations have already been started on agro based sectors in the sub-project areas.
2. On the basis of IGA training cum RDA-credit facility, micro entrepreneurship have been developed in the sub-project area.
3. Beneficiaries are using the DTW water for different purposes i.e. irrigation, drinking, pisciculture, livestock and poultry rearing and also for other domestic and industrial purposes.
4. The overall achievement of the training course is quite satisfactory.



**(27) Project brief:**

A. Name of the Project : **Action Research Project on Increasing Irrigated Area through Transferring RDA-model of Irrigation and Water Management Technology in Southern and Hill Districts of Bangladesh.**

B. Objectives of the project :

The main objectives of the project is to meet up increasing demand of food and provide food security for uplifting the socio-economic condition of the rural people by transferring RDA-model of irrigation and water management technology in the non irrigated areas of Southern and Hill District Areas.

The specific objectives of the project are as follows:

- i. To explore the possibility of the best use of surface and sub-surface water irrigation in the non irrigated area;
- ii. To undertake exploratory drilling for finding best aquifer for DTW installation;
- iii. To install observation well for ground water monitoring;
- iv. To demonstrate and disseminate RDA-model (multipurpose use of water resources) for irrigated command area development;
- v. To conduct training programmers for stakeholders on skill development IGAs for their capacity building and poverty alleviation.
- vi. To enhance food production by increasing irrigated area within the project area;
- vii. To ensure enhanced crop production by selecting appropriate cropping patterns in the costal and hill areas.

C. Financed by : GoB

D. Duration of the project : 2006-2010

E. Major Activities of the project :

- Explore surface and sub-surface water irrigation in the non irrigated area;
- Exploratory drilling for finding best aquifer for DTW installation at hilly areas.
- Installation of observation well for ground water monitoring.
- Demonstrate and disseminate RDA-developed irrigation and water management technology.
- Skill development training programmes
- Crop production by selecting appropriate cropping patterns in the costal and hill areas.

F. Research outcome :

- Targeted training and action research sites are achieved.
- Employment generations have already been started on agro based sectors in the sub-project areas.
- On the basis of IGA training cum RDA-credit facility, micro entrepreneurship has been developed in the sub-project area.
- Irrigation coverage under the proposed area will contribute to additional food production in Bangladesh.
- A study shows that irrigation coverage was about 10% in Hill districts. By introducing RDA-technology, a total of eight sites have already been successfully completed under its action research activities.

**(28) Project brief:**

A. Name of the project : **Action Research Project on Command Area Development using Surface Water for Rural Livelihood Improvement by Replicating RDA Technology.**

B. : **Objectives of the project :**

The project mentioned above is an ADP funded project. The project period was 5 years (July 2007 – June 2012) and the total cost was Tk .1490.82 lakh. Total 25 sub-project sites were developed over the project period. Considering its potentials, the project was revised to Tk. 2821.52 lakh to expansion of the project activities in another 20 sites of southern districts. This project is being implemented by the CIWM of RDA, Bogra.

**Main Objectives**

The main objectives of the project is to upliftment of socio-economic status of rural people for better livelihood through-

- a) Increased food production by efficient use of surface water.
- b) Creation of additional employment opportunity.

**Specific objectives**

- i. Expectable increase of crop production by efficient use of surface water through installation of buried pipe irrigation system.
- ii. Increase of food production to meet up the demand of increased population of 21<sup>st</sup> century.
- iii. Undertaking of different kinds of training of income generating activities to create additional employment opportunities.
- iv. Reduction of irrigation cost and load shedding by saving electricity power consumption.
- v. Maintenance of ecological balance of ground water resources by strengthening surface water irrigation management.

C. Financed by : Government of Bangladesh under Annual Development Programme (ADP)

D. Project Period 2007-2015

- E. Major Activities :
  - Infrastructure development for command area development and drinking water supply.
  - IGA Training.
  - Credit operation

- F. Research outcome : A total no of 45 Surface Water Sub-projects out of 45 sites have been completed for the period. On the other hand facility developed on 20 sub-project areas.

**Observations**

- Targeted training and action research sites are achieved.
- Employment generations have already been started on agricultural sectors in the sub-project areas.
- On the basis of IGA training cum RDA-credit facility, micro entrepreneurship have been developed in the sub-project area.
- RDA-model of water resources development using surface water have been resulted very encouraging.
- Crop yield increased from 16 mounds/bigha to 26 mounds/bigha in Kaliakour Surface water supply Sub-Project, Bogra site, because of using surface water and buried pipe irrigation system.

**(29) Project brief:**

A. Name of the project : **Capacity Development for Local Government (CDLG)**

B. Objectives of the project : **Institutional analysis of RDA and some progress**

The Organizational Assessment Study completed for RDA in 2008 showed highly qualified staff, well maintained premises and financial resources. Scope of the research activities are limited and not responsive enough to actual issues and new trends. Generally, research findings are not sufficiently reflected in the design of training courses and training is generally driven by outsiders. Human resources need to be reinforced and capacities enhanced. RDA does not possess systematic longer term vision and organizational strategy in place to guide major activities and management decisions over the forthcoming seven years.

The key findings and recommendations in the organizational assessments of RDA in 2008 and progress in 2012 can be summarized as follows:

**Mission and Strategy**

The Vision, Mission, Goals and Values are not well articulated. RDA has an agreed short or long term strategic plan that has been prepared with the involvement of its important external stakeholders and recent development as follows:

**RDA's Vision is:**

To be a Centre of Excellence for Rural Development

**RDA's Mission is:**

- To evolve rural development models and approaches to address social, economic and technical challenges
- To build the capacity of rural development experts, practitioners, and change agents
- To promote climate change resilient development
- To contribute poverty reduction in rural communities through economic development and income generation
- Transforming RDA into new horizon.

C. Financed by : SDC (Report from R & E Division).

D. Project Period : 2008-2012

- E. Major Activities : 10 to 15% courses offered are self initiated open entry courses and the rest are tailor made. Modern participatory training methods are not always used and it is necessary to revisit the training methodologies and approaches and update them with the current trends and requirements and in particular ensuring practical field visits. RDA offers a Post Graduate Diploma in Rural Development in collaboration with a renowned national university (BSMRAU). RDA has an extensive well managed demonstration farm that gives opportunities for a lot of practical training and replication and testing of new technologies. SDC financed for few training program for RDA faculty members.
- F. Research outcome : RDA has over their history developed many development models which were taken up by the government and NGOs for nation wide implementation. Present research is linked with the Millennium Development Goals (MDGs) and NSAPR-II. Faculty members spend relatively much more time on training and less on research and action research.

### (30) Project brief:

- A. Name of the project : **Action Research Project on Poverty Alleviation through Livestock Management and Bio-Gas Bottling (Revised)**
- B. Objectives of the project : This project is an ADP funded project. This project has already been revised. As per approved RDPP the total No. of sites will be 112 instead of 12. The project cost is Tk. 5155.74 lakh instead of Tk. 1161.40 lakh. This project will continue upto June 2014. This project is being implemented by CIWM, RDA, Bogra.

#### **Main objectives:**

To reduce poverty through developing skilled manpower on different IGAs by conducting training and training-match RDA-credit as well as producing renewable energy.

#### **Specific objectives:**

- i. To impart different types of IGAs training on livestock management, bottling of Bio-gas and organic manure production;
- ii. To ensure income generating activities by supplying RDA-Credit programme on simple terms and conditions.
- iii. To save electric power and natural gas.
- iv. To generate localized electricity at the sub-project sites for changing the lifestyle of the project beneficiaries and
- v. To uplift over all socio-economic condition of the rural people.

- C. Financed by : Government of Bangladesh under Annual Development Programme (ADP)
- D. Project Period : Nov. 2009- Dec. 2015
- E. Major Activities :
  - i) Construction of bio-gas plant for generating bio-gas;
  - ii) Installation of bio-gas operated generator and power supply network for supplying localized power supply in each project area;
  - iii) Ensure facility of mobile Bio-gas bottling plant;
  - iv) Installation of low-cost DTW for ensuring water supply for drinking as well as domestic purpose;
  - v) Conduct IGAs training for capacity building specially on beef fattening, homestead gardening, horticulture and nursery development, livestock management;
  - vi) Distribute hazard free cattles among the beneficiaries for beef fattening on traditional lease basis;
  - vii) Ensure training-match RDA credit program to the beneficiaries for under taking different types of IGAs;
  - viii) Ensure continuous monitoring and evaluation of the project activity;
  - ix) Dissemination of technology through organizing several workshops and seminars.
- F. Research outcome : ✓ Community biogas technology might be one of the best

ways for meeting up energy crisis in Bangladesh.

- ✓ Community based organic manure production & utilization is very much effective for soil health improvement and quality crop production.
- ✓ In the northern territories of Bangladesh where the solar intensity is very high, solar thermal power plant can be installed for both photovoltaic and solar thermal technology, Bangladesh is a perfect location.
- ✓ RDA developed Community based Biogas Plant (CBP) and Two-storied Agriculture with Solar Irrigation System found as the best options to be replicated at each village of Bangladesh for sustainable technology as a means of socio economic change in rural livelihood.

### **Observation**

For more development, quick extension, popularization and replication of RDA's experience in the field level and as well as new technologies of renewable energy, Board of Governors (BoG) of RDA has been approved RERC under the administrative control of RDA.

**(31) Project brief:**

A. Name of the project : **Replication of RDA-developed WISE Model**

B. Objectives of the project:

**Background**

Traditionally, farmers in Bangladesh grow a crop for consumption and or commercial purposes and save a portion as seed. Much of this seed is contaminated with disease, insects and weed seed and never comes under quality test. Continuous use of such poor seed is leading to declining yield and as a result millions of farmers are not getting the best out of their trusted seed and also are the last in line to access new seed material. On the other hand availability of quality seed is very much limited (only 18 %) compared to the total seed requirement in Bangladesh.

Women being half of the total population, of which 80 percent live in rural Bangladesh have been playing important roles in agricultural development. Traditionally, women in rural Bangladesh are highly involved in seed management activities but their contributions are undervalued and lack access to seed technology. This picture gives clear policy indication to open doors for women in seed sector development of the country.

Recognizing the core need of women participation in all kind of seed related activities RDA has made commendable initiative in the field of farm level seed technology development popularly known as *Maria Seed Technology Model*. Further, taking one step forward through extensive action research RDA innovated *Women in Seed Entrepreneurship (WISE) Model* and validated in two different locations. It was observed that the women have demonstrated effective knowledge adoption, improved production practices and raised household income and able to operate seed business beyond their community market boundaries.

C. Financed by : IFC-SEDE

D. Project Period : 2010-2013

E. Major Activities :

- Training : 1000 women, 1000 farmers
- Production and marketing input support was extended to 1000 rural women.
- Leadership training has been provided to WISE Group leaders (100)
- Marketed 166 mt. high quality rice seed and 5 mt. high quality vegetable seed and yield increased 20%.
- “Charer Narir Beez Babosa” and telecasted in several occasions through BTV.
- Several Linkage workshops were organized for WISE leaders and Private Seed Companies. Local seed dealers, high officials of BRAC, Unique seed, ACI etc was participated in the workshop and made decision to buy seed from rural women.

F. Research outcome : To develop women entrepreneurship in seed business.



**(32) Project brief:**

- A. Name of the project : **Development and Dissemination of Water Saving Rice Technology in South Asia – Bangladesh**
- B. Objectives of the project : **Objectives**  
To develop and disseminate proven water saving rice technology
- C. Financed by : ADB, IRRI, BIRRI and PKSF-Partner NGOs
- D. Project Period : 2006-2010
- E. Major Activities : Training and Field demonstration.
- F. Research outcome :
  - RDA conducted 5 On-farm and one On-station mother trials to select water saving rice lines in Boro obtained from IRRI.
  - RDA conducted 8000 baby trials in Boro season covering 1020 villages, 81 upazila and 21 districts in collaboration with 30 PKSF- Partner NGOs.
  - RDA organized 6 PVS workshop and trained 900 farmers.
  - Partner NGOs provided training to 1500 farmers.

### **(33) Project brief:**

A. Name of the project : **RDA-Cornell University, USA Collaborative Water Saving Raised Bed Project for the Central-West Region of Bangladesh**

B. Objectives of the project : Raised Bed (RB) technology is a novelty in the world of resource saving agro-technologies for the small farm dominant countries like Bangladesh. This is a system technology consisting of bed and furrow and based on the applied concept of raising crops on beds. A bed former (BF) machine is central to this technology that simultaneously makes bed and furrow on even untilled soil, mixes fertilizer and sows seed on the bed in a single run. This technology is capable to provide multiple economic benefits especially to the struggling resource-poor farmers. It raises crop productivity in one hand, and reduces input cost, on the other. Yield increase takes place thanks to the ‘border effect’ on the on-bed crop. Virtually all crops of food, feed and fiber nature can be grown with this technology.

Launched in 2010 and funded by USDA-FFP Bangladesh Program of the Cornell University, USA, the Raised Bed Project is being implemented by RDA in Bogra, Joypurhat, Naogaon and Sirajganj districts.

#### **Main objectives**

- a) Enhancing agricultural production technology for small farmers by providing training on the raised bed technology, and
- b) Assisting agribusiness development to support farmer technology adoption through development of machinery and provision of loans to tillage service providers.

#### **Specific objectives**

- i. Arrange demonstrations of the Raised Bed (RB) technology model in the farm of the selected Lead farmers (LF) in the command area with the crops of farmer and local interest.
- ii. Organize Field days in the demo fields to demonstrate the results and in-situ Farmers’ Field School (FFS) to train farmers in the RB technology.
- iii. Promote crop diversification with the HVCs applying RB technology at those sites where cropping intensity is still low and scope exists to boost farmer income.

- iv. Centrally arrange separate RB technology demos at the RDA farm in each season involving a large number of seasonal crops to demonstrate the results to the LFs of the command area and the local farmers.
- v. Hold special training courses centrally at RDA for the LFs on the BF operation and maintenance.
- vi. Organize experience sharing visits of the LFs to the similar activity areas of the RWRC Rajshahi sites.
- vii. Locally develop BF manufacturers to promote agribusiness in this area.
- viii. Conduct loan program for the farmers interested in purchasing the BF+PT machines to facilitate RB tillage service in the fields of the adopters of this technology and raise their income thereof.
- ix. Produce print materials (leaflet, brochure, poster, festoon etc) and electronic materials (video CD) for publicity and use of this technology for the wider clientele.
- x. Ventilate the project output via media (print, CD and TV) and workshops and seminars to the wider clients: farmers, policy makers, rural development practitioners, agro-service agents, private agribusiness companies, and so on to popularize the merit of the RB technology.

C. Financed by : USDA/University, USA

D. Project Period : 2010-2013

- E. Major Activities :
- During the early, mid and late Rabi season of 2012-13, a total of 33 new demo sites were selected including 18 in Bogra, 7 in Joypurhat, 5 in Naogaon and 3 in Sirajganj district.
  - At those sites 42 LFs were selected including 20 in Bogra, 7 in Joypurhat, 7 in Naogaon and 8 in Sirajganj district on whose farms, a total of 44 demos were arranged including 25 on potato, two on maize, 14 on boro, and one each in wheat, coriander leaf spice and aroid.
  - 21 different crops were demonstrated on the RB in the command area in the reporting period.
  - In addition, two RB trials on maize in collaboration with the Syngenta Company's Bogra branch were arranged at its two sites of Bogra district.
  - Centrally at the RDA farm, demos on 20 different crops were held of non-rice crops and rice.
  - Training course on the BF Operation & Maintenance was arranged for 67 LFs in two batches at RDA.
  - For farmers' experience sharing, a batch of 24 selected LFs

were taken to two of the RB Extension sites (one each in Puthia and Charghat upazilas) of RWRC Rajshahi.

- Field days were held at all sites at crop maturity which were attended by a total of 1094 visitors including farmers, DAE extension agents, agribusiness holders, professionals of agricultural and rural development institutions.
- Documentation materials such as posters, brochures and leaflets and a video on the project activities were developed and distributed at every relevant event including RDA APC.
- As routine work, loans were distributed to the new buyers of the BF+PT sets and loan repay drive was continued.
- An RB Tech Stall was set up at the 'International Winter RDA Tech Fair 2012' held in the RDA premises where visitor turnout was about 8000.
- RB tillage service to the new adopters of the technology in the command area was rendered by the 22 BF+PT set owners of different villages as per their own plan.

F. Research outcome : RAISED BED FARMING is a conservation agriculture started in RDA demonstration farm in collaboration with Cornell University, USA.

#### Bed Planting Technology

1. Increase yield 20%
2. Save irrigation water 30-42%
3. Improve N fertilizer efficiency
4. Reduced production cost by minimum tillage
5. Buffers drought and flood (climate change)

Success of the RB Technology, insist Govt. to replicate the technology in wide scale through a new GoB funded project

#### **Observation:**

- RB technology is spreading its promises to the farmer's field and machine manufacturers' lab alike.
- As true for every new technology extension, patience is needed for capturing wider attention of the farming community towards mass adoption of this technology.
- For the benefit of the poor majority farmers of Bangladesh, RDA should continue the expansion efforts of this multiple benefit technology through government or donor support since the project has ended in last May.

**(34) Project brief:**

A. Name of the project : **Establishment of Cattle Research and Development Centre under RDA, Bogra-Revenue Budget**

B. Objectives of the project :

This is a revenue funded programme. Its duration is 2 years (July 2011 – June 2013). Its total budget is Tk. 660.50 lakh. Under this program main cattle development centre will be finalized at RDA campus at Bogra. Another 2 sub-centres will be established in 2 district of Bangladesh.

**Main objective**

Increasing of meat and milk production per location through improvement of cows and buffalos by modern breeding technique.

**Specific Objectives**

- i. Increasing of milk production from 200 litres to 500 litres per lactation of buffalo through artificial breeding technique in Char and Upkul area.
- ii. Hybrid cow production of Frizian and Zarsey through artificial breeding in remote area and improvement of quality and quantity of milk from 250 litres to 5000 litres.
- iii. Supply of balanced diet for cows and buffalos.
- iv. Increased production of green grass (foder) and taking steps for marketing.
- v. To undertake various trainings for technology transfer.
- vi. Establishment of cattle improvement centre and sub-centres.

C. Financed by : GOB

D. Project Period 2011-2013

E. Major Activities:

- Establishment of the three centres (Main center at RDA, Bogra, another At part from this one sub-center is situated on BAPARD (Bangabandhu Academy for Poverty Alleviation and Rural Development) Campus Kotalipara under Gopalganj district of Dhaka Division. Another sub-center is situated at Jujkhola village of Pirojpur Sadar Upazila under Pirojpur district of Barishal Division
- Establishment Artificial Insemination (AI) Diagnostic Laboratory at RDA, Bogra.
- Cattle Training rearing and development training.

F. Research outcome:

- Establishment of three centres under this programme.
- The main center established at RDA-Farm.
- Instruments, equipment and accessories for Artificial Insemination (AI) Diagnostic Laboratory have been completed.
- Apart from this total 130 participants were provided training on different issues e.g. cattle management, silage production Artificial Insemination (AI) according to target of the project. After receiving training they are working as AI Technician in their respective areas.

**(35) Project brief:**

- A. Name of the project : **Improvement of Rice Based Cropping Systems in Barind Areas.**
- B. Objectives of the project : Bangladesh is an agricultural country with the most densely populated area. Bangladesh has been experiencing food deficiency of about 1.5 million tons every year. Intensification of crops cultivation and poor soil management creates yield gap for rice and other crops. Simultaneously, farmers of Bangladesh are loosing for low productivity and non use of high value crops in rice based cropping system. The soil management practices with rice based high value cropping systems can create an opportunity to boost up farmers profitability. The proposed research area is under the Barind Tract where water scarcity and ground water level is lowering day by day. Under this condition expert of agriculture suggest that promising rice variety with high value crops is a good option for this area. Research intervention will be directed towards improving system productivity in the pre dominant cropping systems involving at least 15 farmers at each location. Farmers, members (CIG) if available, will be selected, motivated and trained to adopt improved production practices growing MV rice and component crops and using best management practices including optimum doses of fertilizer, good seed, manures and compost. On-firm trails will be undertaken for yield and profitability compared between researches managed plots and farmers' managed plots at each location. One bigha of land will be under trial per farmers. It is expected that the project will be demonstrate, establish and upscaling for achieving productivity and profitability in the level Barind tract.
- Specific objective(s) of the Project:**
- a) Selection and validation of improve methods and technology packages for increasing yields of rice, maize, potato in major rice based, and
- b) Increasing system productivity of major rice- based cropping systems in 3 upazila of Bogra districts
- C. Financed by : Krishi Gobeshona Foundation (KGF)  
BARC, Farmgate, Dhaka-1215.
- D. Project Period : September'2011 to August'2014
- E. Major Activities :
- F. Research outcome : It is expected that:
- 1) Farmers will be introduced with the modern crop varieties of rice-based cropping systems;
  - 2) Soil fertility will be improved with the effective use of organic matter;
  - 3) Dissemination of the new cropping pattern among the farmers;
  - 4) Livelihoods of the farmers will be improved; and
  - 5) The additional food production in fact increased food security in the country.

**(36) Project brief:**

A. Name of the project : **Action Research Project on Integrated Water Management (IWM)**

B. Objectives of the project : This is an ADP funded project. Its duration is 3 years (January 2011- December 2013). The project cost is Tk. 5982.00 lakh. This project is being implemented by CIWM, RDA, Bogra. Under this project a total of 75 sites will be developed.

**Main Objectives**

- 1) To reduce the poverty level through RDA-developed Integrated Water Resources Management (IWRM) and market-led livelihood promotion intervention in rural areas of Bangladesh.

**Specific objectives**

- i. To ensure integrated use of surface and sub-surface water for irrigation, potable water supply, fisheries, nursery development, beef fattening, poultry rearing, horticulture and homestead gardening etc. and non-farm activities;
- ii. To ensure highest agricultural production through efficient (90%) and economic use of water resources as well as training and credit support;
- iii. To generate additional employment/income through better access in integrated water resources management and
- iv. To introduce community-base bio-gas for better waste management and organic manure production as well as for hygiene promotion and changing the lifestyle of the project beneficiaries.

C. Financed by : Government of Bangladesh under Annual Development Programme (ADP)

D. Project Period : 2011-2014

E. Major Activities : **Training**  
Training is one of the major components of project. There was a provision for providing training to the project beneficiaries to make them skill on their field of interest and improvement of their socio-economic level. A total of 2290 beneficiaries have been trained up which is over the target of 2290 (100%) for the year 2012-13. The cumulative trained person is 5033 out of 8721(58%) upto the current financial year.

F. Research outcome : A total of 18 Sub-projects out of 18 sites (100%) have been completed for the year 2012-13. The cumulative total 36 out of 75 sites (48%) have already been completed upto the current financial year.

**(37) Project brief:**

- A. Name of the project : **Safe Water Supply, Sanitation & Bio-gas Technology for Rural Livelihood Improvement in Climate Victim People of Bangladesh**
- B. Objectives of the project : The above mentioned project is a climate change trust funded project. Its duration is 3 years (July 2011 - June 2014). The project cost is Tk 1398.00 lakh. This project is being implemented by CIWM, RDA, Bogra. A total of 13 sites (one site from one district) will be implemented under this project within the project period. The specified districts are Chittagong, Rangamati, Cox-Bazar, Khulna, Satkhira, Barguna, Pirojpur, Jamalpur, Mymensingh, Kishorgonj, Bogra, Madaripur and Netrokona.

**Main Objectives**

Livelihood improvement for climate victim people through RDA-developed water management technology.

**Specific objectives**

- i. To ensure potable (life saving) water supply for livelihood improvement;
- ii. To develop environment friendly waste management system for environmental safety;
- iii. To ascertain better livestock management;
- iv. To reduce poverty through developing skilled manpower on different IGAs by conducting training;
- v. To improve socio-economic level of the resource poor farmers' through training-match RDA-credit with micro saving program.

- C. Financed by : GOB
- D. Project Period : 2011-2014
- E. Major Activities : Training is one of the components of project. There was a provision for providing training to the project beneficiaries to make them skill on their field of interest and improvement of their socio-economic level. A total of 200 people out of 200 (100%) project beneficiaries in the project area.
- F. Research outcome : A total of 5 sub-projects out of 5 sites have been completed for the year 2012-2013. Cumulative total 10 out of 13 (77%) have already been completed up to the current financial year.