

**REPORT ON**  
**MONITORING AND REVIEW**  
**OF**  
**RESEARCH PROJECTS**  
**UNDER**  
**COMPETITIVE GRANTS PROGRAM (CGP)**

**Submitted to:**

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## ACRONYMS AND ABBREVIATIONS

<b>AEZ</b>	<b>Agro-Ecological Zone</b>
<b>AHDP</b>	<b>Association of Human Develop Program</b>
<b>ARF</b>	<b>Agrarian Research Foundation</b>
<b>ARS</b>	<b>Agricultural Research Station</b>
<b>AWD</b>	<b>Alternate Wetting and Drying</b>
<b>BARC</b>	<b>Bangladesh Agricultural Research Council</b>
<b>BARI</b>	<b>Bangladesh Agricultural Research Institute</b>
<b>BAU</b>	<b>Bangladesh Agricultural University</b>
<b>BAURES</b>	<b>Bangladesh Agricultural University Research System</b>
<b>BCSKS</b>	<b>Bittohin Chasi Samaj Kalloyan Sangstha</b>
<b>BINA</b>	<b>Bangladesh Institute of Nuclear Agriculture</b>
<b>BISHL</b>	<b>Best Institute for Saving Helpless and Landless</b>
<b>BMI</b>	<b>Body Mass Index</b>
<b>BRRRI</b>	<b>Bangladesh Rice Research Institute</b>
<b>BSMRAU</b>	<b>Bangobandhu Saikh Mujibor Rahman Agricultural University</b>
<b>CASEED</b>	<b>Center for Agriculture &amp; Sustainable Environment Entrepreneurship</b>
<b>CC</b>	<b>Cross-Cutting</b>
<b>CDB</b>	<b>Cotton Development Board</b>
<b>CDMS</b>	<b>Chinispur Dipsikha Mahila Samity</b>
<b>CGP</b>	<b>Competitive Grant Program</b>
<b>CHT</b>	<b>Chittagong Hill Tracts</b>
<b>CI</b>	<b>Co-Investigator</b>
<b>CIG</b>	<b>Common Interest Group</b>
<b>CONP</b>	<b>Concern on National Problems</b>
<b>CVASU</b>	<b>Chittagong Veterinary and Animal Science University</b>
<b>DAE</b>	<b>Department of Agricultural Extension</b>
<b>DLS</b>	<b>Department of Livestock Services (MOFL)</b>
<b>DTW</b>	<b>Deep Tube Well</b>
<b>ED</b>	<b>Executive Director</b>
<b>EFADF</b>	<b>Environment Friendly Agricultural Development Foundation</b>
<b>FGD</b>	<b>Focus Group Discussion</b>
<b>FMD</b>	<b>Foot and Mouth Disease</b>
<b>FR</b>	<b>Farm Reservation</b>
<b>GB</b>	<b>Governing Board</b>
<b>GO</b>	<b>Government Organization</b>
<b>GOB</b>	<b>Government of Bangladesh</b>
<b>HRC</b>	<b>Horticulture Research Centre</b>
<b>HYV</b>	<b>High Yielding Variety</b>
<b>IPNS</b>	<b>Integrated Plant Nutrient System</b>
<b>JCF</b>	<b>Jagarani Chakra Foundation</b>
<b>KGF</b>	<b>Krishi Gobeshona Foundation</b>
<b>LRI</b>	<b>Livestock Research Institute</b>
<b>M&amp;E</b>	<b>Monitoring and Evaluation</b>
<b>MABFO</b>	<b>Muslim Aid Bangladesh Field Office</b>
<b>MOA</b>	<b>Ministry of Agriculture</b>
<b>MoU</b>	<b>Memorandum of Understanding</b>
<b>MP</b>	<b>Muriate of Potash</b>
<b>MUAC</b>	<b>Mid Upper Arm Circumference</b>
<b>NARS</b>	<b>National Agricultural Research System</b>
<b>NGO</b>	<b>Non-Government Organization</b>
<b>NJF</b>	<b>Nareer Jonno Foundation</b>
<b>NR</b>	<b>Natural Resource</b>

<b>NSTU</b>	<b>Noakhali Science and Technology University</b>
<b>OFRD</b>	<b>On-Farm Research Division</b>
<b>OM</b>	<b>Organic Matter</b>
<b>PHKS</b>	<b>Pathahara Kalyan Sangstha</b>
<b>PI</b>	<b>Principal Investigator</b>
<b>PO</b>	<b>Program Officer</b>
<b>PPR</b>	<b>Peste des Petits Ruminants</b>
<b>PRC</b>	<b>Pulse Research Centre</b>
<b>PSTU</b>	<b>Patuakhali Science and Technology University</b>
<b>PVC</b>	<b>Polyvinyl Chloride</b>
<b>RARS</b>	<b>Regional Agricultural Research Station</b>
<b>RDA</b>	<b>Rural Development Academy</b>
<b>RDRS</b>	<b>Rangpur Dinajpur Rural Service</b>
<b>SPS</b>	<b>Social Progress Services</b>
<b>SRC</b>	<b>Spices Research Centre</b>
<b>SSURA</b>	<b>Society for Sustainable Development in Rural and Urban Areas</b>
<b>STB</b>	<b>Soil Test Based</b>
<b>STW</b>	<b>Shallow Tube Well</b>
<b>SUS</b>	<b>Social Upliftment Society</b>
<b>T.Aman</b>	<b>Transplanted Aman</b>
<b>TMUF</b>	<b>Trinmul Manobik Unnayan Forum</b>
<b>TOR</b>	<b>Terms of Reference</b>
<b>TSP</b>	<b>Triple Super Phosphate</b>
<b>WUE</b>	<b>Water Use Efficiency</b>

## **Executive Summary:**

Krishi Gobeshona Foundation (KGF), a Government sponsored non-profit organization was established in 2007 under the Company Act for providing grants and technical supports to researchers working in Government, Non-government and Public sector Organizations engaged in agricultural research and development. One of the important functions of KGF is to encourage and promote short to medium term research that has potentials to generate, validate, refine, up-scaling and adoption of technologies for increasing production and enhancing food security through Competitive Grants Program (CGP). Under the second call for CGP, KGF Board approved 38 projects for implementation in two phases in May and September, 2011. These projects are now under different stages of implementation. Periodical monitoring is essential for successful implementation of a project. Monitoring of CGP project is a regular activity of KGF professionals. However, KGF Board decided to have an Independent Monitoring by experts as a complementary to internal monitoring of KGF.

The Independent Monitoring Team was formed with eight specialists and they were divided into four groups each having two experts. During field visit one KGF Senior personnel was attached as Facilitator. The projects are scattered throughout the country and as such the locations are divided into four regions e.g. Northern, Southern, Eastern and central. Based on the locations four teams visited the respective areas, collected the required information using prescribed Desk and Field Monitoring Formats. The Monitoring Team reviewed reports of the PIs and collected field data. These data were analyzed and a final Monitoring Report was prepared.

Of the 38 monitored projects, 25 belonged to Crops, 2 to Natural Resources, 2 to Cross-Cutting, 7 to Livestock and 2 to Fisheries Sub-sectors. Again, a total of 22 projects have been awarded in the first phase which are fielded in May-June, 2011 and all the project completed 6 months for implementation. A six months Progress Report has been received from most of the Coordinator/ Principal Investigators. The monitoring team, before undertaking the site visit, reviewed the inception as well as Half-yearly progress report. Of the 22 projects, 14 are on Crops, 2 on Natural Resources, 01 on Cross-cutting, 4 on Livestock and 01 on Fisheries-Sub-sectors.

Monitoring reports indicated that most of the projects are in the line of their planned activities. In cropping pattern experiment, in some cases, planting of rabi crops was delayed due to cultivation of long-duration T.Aman rice which will ultimately hamper the timely transplantation of Boro rice. This happened may be due to late intervention of the PIs in selecting T.Aman variety. Thus in the second cycle, the PIs should be careful in selecting short-duration T.Aman rice variety as well as to select short-duration mustard variety and other rabi crops intended to fit in T.Aman-Mustard/Vegetables -Boro cropping pattern. In few cases PIs delayed in implementing the project which will be evident from the monitoring report (Chapter-3). One PI in Crops sub-sector and one PI of Cross-Cutting sub-sector did not submit the half-yearly progress report. As a whole the performance of the project can be rated as satisfactory.

As many as 16 projects have been offered in the 2<sup>nd</sup> phase, of which 11 belonged to Crops, 01 to Cross-Cutting, 03 to Livestock and 01 to Fisheries sub-sectors. These projects started functioning from September-October, 2011 and all the trials are in the initial stage. Of the 11 projects under Crops sub-sector, one PI did not submit the Inception report and one PI has declined to continue the project. All other projects are functioning well. In Livestock sub-sector, one PI did not submit the Inception report. In brief, it can be said that all the projects under 2<sup>nd</sup> phase are running as per their work schedule.

The project under 2<sup>nd</sup> call which were started functioning from May and September, 2011 could not focus any significant result yet, thus at this stage project wise performance can not be evaluated rather this report indicated whether the project activities are in the right direction or not. However, current information and status of each project have been stated in a summarized form in Chapter-3 as well as the recorded information using Desk and Field monitoring formats are appended in the annexure.

In few cases it appears that full cooperation and understanding between lead and collaborating organization(s) are lacking. However, during the field visit by the monitoring team the matters of difference have been well discussed and suggested ways to overcome the problems. It is hoped that the present situation will improve and the planned activities will not suffer, rather the trial will run smoothly and properly. The issues are discussed in monitoring report (Chapter-3) and KGF should take initiative to resolve the problems as early as possible.

All the 38 projects are designed in a way to continue for 3 years and only 3-6 months have been passed, therefore KGF has enough time and scope to rectify the issues and bring the programs in right direction. The awarded projects, in the opinion of the members of independent monitoring team, are vital and adhere to national problems and if implemented properly will certainly contribute in the production and productivity of crops, livestock and fisheries sub-sectors which ultimately improve the food security of the country.



## **1. Introduction**

Krishi Gobeshona Foundation (KGF), a Government sponsored non-profit organization was established in 2007 under the Company Act for providing grants and technical supports to researchers working in Government, Non-government and Private sector Organizations engaged in agricultural research and development. One of the important functions of KGF is to encourage and promote short to medium term research that has potentials to generate, validate, refine, up-scaling and adoption of technologies for increasing production and enhancing food security through Competitive Grants Program (CGP).

Monitoring and Evaluation (M&E) are integral tools for managing and assessing the efficiency and effectiveness of investment in agricultural research and development (R&D). It also helps to rectify /modify the strategy /actions for effective implementation of the projects. Periodical monitoring, review and progressive evaluation of the implemented projects were done to ensure that inputs deliveries, work schedules, targeted outputs and other required actions are proceeded according to time schedule. A project monitoring format for both desk and field was developed by KGF. Review of project implementation progress report which included physical, technical and financial performance were the basis for desk monitoring, while office/ site visit, discussions with relevant persons and examination of relevant records were the basis of field monitoring.

Under the 2<sup>nd</sup> call for CGP, KGF Board approved 38 projects for implementation in 2 phases i.e. in May and September, 2011. These projects are now under different stages of implementation. KGF professionals monitored almost all the projects periodically following a monitoring format. To compliment information on the progress of implementation, KGF Board decided to undertake an independent monitoring of 38 CGP projects being implemented by the different NARS institutions, agricultural universities and NGOs. To this effect, KGF commissioned a multidisciplinary monitoring team with some fixed terms of reference. The present report is the outcome of activities of the monitoring team.

## **2. Methodology:**

KGF selected 8 experts to undertake the monitoring and evaluation activities of 38 projects. The project implementing sites are scattered throughout the country irrespective of thematic areas. Thus, for monitoring purpose the sites of projects implementation were divided into four regions namely, (i) Northern, (ii) Eastern, (iii) Southern and (iv) Central. Each region is assigned to a team composed of two experts and with one senior member of KGF as Facilitator. The formation of monitoring team is shown in Annexure-1 and their Terms of Reference is given in Annexure-2.

### **Monitoring Approach Tools:**

KGF has already developed a Format for both Desk and Field Monitoring. Each team was provided with the Format, Inception and Progress reports, and necessary information. Each team visited the locations of the experimentation. They met the beneficiary farmers where possible and collected their opinions regarding the performance of the technology. The team also monitored the physical and financial records of the respective projects.

### **Data Compilation and Reporting:**

The filled in Monitoring Format of both Desk and Field was compiled, reviewed and analyzed. Finally, a summary report was prepared for each project. The draft final report was prepared after compiling the individual summary reports. Opinion of the KGF professionals was included in the final report.

### **3.0: Monitoring Reports:**

#### **3.1: Reports of Projects under First Phase:**

##### **3.1.1: Crops Sub-Sector:**

###### **3.1.1.1: Rice Production in Drought Prone Areas of Bangladesh (Project ID No. C-1.12)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project site on 13/01/2012 BSMRAU, Salna is implementing project. The main objective of the project is to identify rice varieties adoptable to drought condition and also to improve soil fertility for sustainable rice production.. The physical and the technical progress so far made may be considered as satisfactory. Survey to identify reasons for low yield of rice, conducting field trials using 6 potential HYV and local varieties of rice and seven trials with minimum tillage and conducting training as per activity plan of 6 months have been completed. Use of poultry manure might have affected T.Aman rice and may also affect subsequent mustard crop. Thus well decomposed poultry manure need to be applied in the field in the next crop season. The financial progress is only 59% of the released fund. The detail monitoring report is provided in Annexure-3

###### **3.1.1.2: Yield gap minimization in rice using Integrated Crop and Resource Management (ICRM) practices at selected locations in Bangladesh (Project ID No. C-1.21)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited Sherpur area on 05/01/2012 and Gazipur area on 09/01/2012. The main objective of the project is to minimize yield gap of rice using integrated crop resource management practices. BRRI is acting as lead organization while SPS as collaborating organization. BRRI will work at 5 upazilas of 3 districts while SPS will work at 4 upazilas of 2 districts. The schedule activities of the projects for 6 months have been completed except recruitment of personnel. T.Aman rice was harvested in all locations and the collected data are now under compilation at the Coordinator's office. The seedlings of Boro rice were grown and transplantation has been started. It can be said that the project is running as per work plan. However, the monitoring team suggests that (a) recruitment of field staff should be done as early as possible, (b) the concered personnel from BRRI should visit SPS activities at Sherpur and Jamalpur districts at lest 2-3 times during experimentation, (c) the coordinator pointed out the fund for TA/DA is inadequate; but the budget was prepared and submitted by the coordinator and (d) close cooperation and understanding between BRRI and SPS in respect of technical and financial matters are necessary. Detail monitoring report is shown in Annexure-4.

###### **3.1.1.3: Crop intensification in northern region of Bangladesh through up-scaling the production of short duration rice and mungbean (Project ID No. C-2.11)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project site on 11/01/2012. BSMRAU is the lead organization and RDRS and JHUMKA are 2 collaborating organizations. The main objective of the project is to increase cropping intensity of northern region by growing short duration rice and mungbean varieties having four crops in a year. All activities planned for 6 months have been properly undertaken. But it is suggested that mustard variety should be short-duration and need to be planted early. Moreover, attention should be given in weed management and other cultural operations. The detail monitoring report is provided under Annexure-5

#### **3.1.1.4: Development of Intensive Cropping System in Two Coastal Districts for Increasing Production (Project ID No. C-2.20)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project sites on 11/01/2012 and 12/01/2012. PSTU is the lead organization and ARF is the collaborating organization. The main objective of the project is to increase production in tidal flood plain through improving cropping system by incorporating up-land crops like maize, sesame and chickpea. The physical, technical and financial progress so far made has been in consistence with work plan, but they did not hold the inception workshop. Moreover, for fitting maize and chickpea after T.Aman rice, early recession of surface water is the major determinant. The detail monitoring report is shown in Annexure-6

#### **3.1.1.5: Validation and up-scaling of maize after T.Aman rice in two southern districts (Project ID No. C-3.1)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project sites on 04/01/2012 BARI is the lead organization and Energy pac Agro. Ltd. is the collaborating organization. The main objective of the project is to increase cropping intensity and system productivity through adaptation of hybrid maize in fallow –rice cropping pattern and also to increase production of T.Aman rice by introducing HYV. The locations of the project are Satkhira and Khulna districts. Initially there was some problems in sites selections, but finally the sites are properly slected. Cultivation of T.Aman has been completed and the data are under process. In some locations maize has been sown in time but in some cases the crop will be late. However, due considerations are necessary in the areas like training of farmers, staff recruitment, selection of short duration T.Aman variety, close supervision of the trials. Immediate actions need to be taken to meet the above activities by the implementing agencies. The detail monitoring report is shown in Annexure-7

#### **3.1.1.6: Intensification of rice based cropping system incorporating short duration oilseed mustard varieties (Project ID No. C-4.1)**

The project started functioning from May, 2011 and the half-yearly progress report has not been submitted. The monitoring team visited the project sites on 15/01/2012. BAU is the lead organization while BCSKS is the collaborating organization. The main objective of the project is to increase cropping intensity by incorporating mustard in between T.Aman and Boro rice. In such case two factors play vital role i.e selection of short duration T.Aman variety and short-duration mustard variety. In deigning the project both the factors were considered, but in implementation, there was deviation. Instead of growing several mustard varieties as included in the work plan, only one variety was grown. Moreover, selection of farmers' field was not appropriate to test rice based cropping patterns. However, in the coming season short-duration rice variety for T.Aman and all varieties of mustard included in the work plan should be taken and also appropriate land is to be selected. The physical and financial activities are functioning well. The detail monitoring report is shown in Annexure-8

### **3.1.1.7: Yield gap reduction through short duration rapeseed-mustard and sesame varieties under existing cropping system (Project ID No. C-4.9)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project sites on 15/01/2012. BARI is implementing the project. The project sites are scattered in the areas like Sirajgoanj, Sherpur and Chapainawabgonj districts. The main objective of the project is to introduce short-duration mustard variety and sesame and to increase yield through adaption of improve production technologies. All planned activities for first two quarters were completed. The detail monitoring report is shown in Annexure-9

### **3.1.1.8: Variety Selection and Integrated Crop Management for Yield Gap Minimization in Mustard and Sesame in the High Ganges River Floodplains (Project ID No. C –5.5)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project sites on 01/01/2012 and 02/01/2012. BARI is the lead organization while CHETONA is the collaborative organization. The main objective of the project is to fit mustard and sesame in the cropping pattern and also to reduce yield gap by adapting integrated crop management practices. The physical, technical and financial progress so far made are in accordance with the proposed activity plan. Short-duration T.Aman rice varieties were included followed by short-duration mustard variety. The existing mustard crop is satisfactory and Boro rice can be cultivated in time. Inception workshop, base line survey and training of participating farmers and technical staff have been completed. Activities so far accomplished indicate that the project is on right track which will lead to achieve the project objectives. The detail monitoring report is presented in Annexure-10

### **3.1.1.9: Validation and up-scaling of mungbean and lentil technologies in the rice based cropping system in Bangladesh (Project ID No. C-6.8)**

The project started functioning from May, 2011 and the half yearly progress report has been submitted. The monitoring team visited the project sites on 01/01/2012 and 02/01/2012. BARI is the lead organization and three organizations namely BSMRAU, SSURDA and PHKS are associated with the project as collaborating organizations. There are three objectives such as to study the yield potentiality of short-duration lentil and mungbean varieties in the farmers' field, to adopt lentil as relay crop in rice field and to include short duration mungbean variety in existing cropping patterns in the north west regions. The project sites included Gopalganj, Jessore, Jhenaidah, Gaibandha, Rangpur and Kurigram districts. The monitoring team could visit only Jessore and Jhenaidah districts. The overall performance of the project is not satisfactory. A number of constraints were observed by the monitoring team, for example, the appointed field staffs are not posted at the project sites, the coordinator is facing serious problem in handling funds, the activities of BSMRAU could not be started due to long absence of PI and so on. The planned activities are not implemented properly. Moreover, the crop condition is not good. The coordinator is apprehending doubt to implement the project properly. Again, the specific objectives set in the inception report are completely different from that of half-yearly progress report. However, immediate intervention is necessary to resolve the issues stated above. The detail monitoring report is shown is Annexure-11.

### **3.1.1.10: Validation and up-scaling of improved pulse production technologies for crop intensification (Project ID No. C-6.9)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project sites on 12/01/2012 & 13/01/2012. BARI with two collaborating organizations namely AFR and TMUF is implementing the project at six locations such as RARS, Rahamatpur, Barisal, Jhalakathi, Madaripur, Tangail and Mymensingh. The main objective of the project is to screen varieties and advance lines of lentil, chickpea, mungbean and blackgram against major diseases and also to validate improved pulse production technologies. The proposed activities for first two quarters are implemented by BARI and NGO components. In majority cases, the sowing is late in farmers' field. On-station trials are satisfactory. However, the physical, technical and financial progress so far made are in consistent with project activity plan. The investigators should be careful in planting pulse crops timely in the next season. The detail monitoring report is provided in Annexure-12

### **3.1.1.11: Standardization of protocol, and in vitro production of BARI kala-3 & BARI kala- 4 plantlets and their validation trial at hilly areas (Project ID No. C-7.12)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project sites on 08/01/2012. BARI with two research stations at Ramgarh and Raikhali and Plant Tissue Culture Laboratory of Mustofa Group & Industries at Oodalia Tea Estate, Nazirhat, Chittagong is implementing the project. The main objective of the project is to standardize protocol for in-vitro production of two varieties of banana presently grown in hilly areas and to improve capacity for production of tissue-cultured banana plantlets of private and public organizations. The activities are going as per work plan. Shoot tips of BARI Kala-3 and 4 were collected and now under multiple shoot production culture stage in the Bio-technology laboratory of BARI. Other activities like staff recruitment, Inception workshop and trainings have been completed. Procurement of research inputs are in progress. When sufficient plantlets are produced, they will be transferred to the selected sites of hill districts. However, purchase of a stand-by generator is urgently needed for continuous supply of power in the laboratory. The detail monitoring report is shown in Annexure-13

### **3.1.1.12: Rhizome Rot Disease of Ginger and its Management (Project ID No. C-9.6)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project sites on 02/01/2012 and 08/01/2012. BARI is implementing the project selecting five locations namely Nilpharmari, Rangpur, Bogra, Gazipur and Khagrachari. The main objective of the project is to identify the microorganisms associated with rhizome rot of ginger and to develop appropriate management technologies. One hundred diseased samples from five locations were collected, indexed, preserved and now under the process of isolation and identification. So far three pathogens namely *Pythium*, *Fusarium* and *Sclerotium* were identified. While collecting the disease samples from different locations, they also collected the data on severity of the disease. All records are maintained properly. However, it was observed that the investigators are less serious in performing their activities like preservation of the collected materials. Replacement of one CI is necessary as he left for higher studies. The detail monitoring report is appended under Annexure-14

### **3.1.1.13: Management of coconut mite (Project ID No. C-11.1)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project sites on 01/01/2012. BARI is implementing the project at Sadar upazila of Jessore district. The main objective of the project is to develop an appropriate management practices for controlling coconut mite. The project area covers 6 villages having 576 ha, 438 households and about 3500 coconut plants. All planned activities are performed properly. Cleaning of the plants, foliar application with Omite and botanicals as well as root zone application with neem oil cake and tricho-compost are in progress. The farmers showed keen interest and demanded for more training. The activities so far done are in consistent with the project work plan. The detail monitoring report is shown in Annexure-15

### **3.1.1.14: Selection and application of BPH management technologies in Sirajgong (Project ID No. C-13.2)**

The project started functioning from May, 2011 and the half-yearly progress report has not been submitted. The monitoring team visited the project sites on 15/01/2012. BRRI is implementing the project at Tarash, Sirajgonj. The main objective of the project is to develop and validate suitable technologies for the management of Brown Plant Hopper of Rice. Bench mark survey and field trials are under progress. Field Assistant has been recruited and necessary logistics are procured. As half-yearly progress report was not submitted the other activities planned for first two quarters could not be ascertained. However, the monitoring team reported that the overall progress of the project at par with work plan. The team also suggested to provide one bicycle for field staff for effective supervision of the scattered field trials and also to arrange/hire a room to be used as shelter cum meeting points of farmers. PI can take necessary action in this respect. The detail report of the monitoring team is appended under Annexure-16

## **3.1.2: Natural Resources Sub-Sector:**

### **3.1.2.1: Validation of drought management techniques for sustainable crop production in the high barind tract (Project ID No: NR-15.22)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project sites on 12/01/2012. OFRD, BARI, Barind, Rajshahi is implementing the project. The main objective of the project is to increase cropping intensity and crop productivity through appropriate drought management techniques in high Barind tracts of Bangladesh. There were three locations namely Nachole, Godagari and Shapahar of Chapainawabgonj, Rajshahi and Naogaon districts respectively. There were 90 participatory farmers in each location. Inception workshop, farmers training, logistics procurement have been completed. One field day was organized. Three crops namely chickpea, potato and wheat have been successfully grown after T.Aman rice (variety BINA dhan-7) and the crops conditions are good. BINAdhan-7 gave 30% higher yield than Shawarna. The project is running well. However, the detail report of monitoring team is shown in Annexure-28

### **3.1.2.2: Testing, Validation and up-scaling of Water Saving Technology in Rice Production (TWST) (Project ID No: NR-16.15)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project sites on 11/01/2012. BRRRI is implementing the project. The main objective of the project is to maximize rain water utilization, to minimize conveyance loss and to increase water use efficiency in rice production. The project sites are Dhamorhat upazila of Naogaon and Hossainpur upazila of Kishoregoanj districts. The study covers 80 participatory farmers and 80 associated farmers, four pond, 1 DTW and 8 STW covering an area of 21.4 ha per year. Scientific personnel were appointed, selection of professional expert is in the process and the records are maintained properly. Two farm reservoirs have been selected but excavation could not be done due to rain. However, two supplemental irrigations were given from existing FR. Yield increase of T.Aman rice due to supplementary irrigation was 21.33%. Setting of check valves in STW was not done. Again connecting PVC pipes in DTW could not be completed. However, it is suggested that all incomplete activities need to be done before Boro season. The detail report of monitoring team is shown in Annexure-29

### **3.1.3: Cross-Cutting Sub-Sector:**

#### **3.1.3.1: Development of an integrated rice- fish production system in lower Meghna river floodplain of Noakhali and Lakshmipur districts (Project ID No: CC-25.1)**

The project started functioning from May, 2011 and the half-yearly progress report has not been submitted. The monitoring team visited the project sites on 04/01/2012 and 05/01/2012. OFRD, BARI, Noakhali together with NSTU, Noakhali is implementing the project. The main objective of the project is to improve the system productivity through incorporation of modern varieties of rice and fish in lower Meghna floodplain areas. The locations of the project are Sonaimori, Begumgonj, Noakhali sadar, Subornachar and Ramgati upazilas. The numbers of targeted families are 2000. Baseline survey, site selection, group formation, recruitment of scientific personnel have been completed. Fish culture in T.Aman rice field has been done. The planned activities are progressing well. The detail report of monitoring team is shown in Annexure-30

### **3.1.4: Livestock Sub-Sector:**

#### **3.1.4.1: Development of cost –effective complete feed formula for the productive and reproductive performances of buffaloes (Project ID No: L-17.4)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team met PI on 03/01/2012. BAU, Mymensingh with BCSKS is implementing the project. The main objective of the project is to develop a low cost feed formula for increasing production of milk and meat and also reproductive performances of buffaloes in the country. The project locations are Mymensingh, Sylhet, Noakhali, Pabna and Rajshahi. The targeted farmers are 30 and buffaloes are 40. Staff recruitment, inputs procurement, sites selection, farmers training have been completed. Survey on available feed resources, feeding and management system by using a structured questionnaire has been completed. Chemical analysis of nutritive values of feed sources in the laboratory is continuing. The actual trials will commence from March, 2012. However, the detail report of monitoring team is shown in Annexure-32



### **3.1.4.2: Maximizing HYV fodder production of different species through improved management practices (Project ID No: L -18.4)**

The project started functioning from June, 2011 and the half-yearly progress report has been submitted. The monitoring team visited Daudkandi area on 14/01/2012 and Bhuapur area on 20/01/2012. BLRI is the lead organization and CASEED and LRI are the collaborating organizations. The main objective of the project is to increase and popularize HYV fodder crops and thereby increase milk productivity of cows. There are four locations of the project namely Daudkandi, Chandina, Bhuapur and Dakop upazilas covering 200 community farmers having 200 cows (50 farmers per site, and total land coverage was set 45 ha). As per agreement CASEED will implement the project at Daudkandi and Chandina, while BLRI will undertake activities at Bhuapur and Dakop. CASEED did not start any work, BLRI fielded the demonstration at Dhaudkandi. But the farmers selection, site selection were not appropriate. Moreover, majority of cases, the crop condition is not good. However, selection of new farmers and lands will be necessary and it should be completed immediately. Again the activity at Chandina should start soon. The activity at Bhuapur is better, many but not all farmers were selected properly. Crop condition in majority of cases, is good, but again efforts should be made to improve the activities by selection of appropriate farmers and lands for growing fodder. There is a position for research associate who will do Ph.D by using the data generated through the project. Thus the project activities should be redesigned so that it will fulfill the requirements of the Ph.D dissertation. All the points above were thoroughly discussed with Coordinator and the Ph.D student. However, the detail report of monitoring team is shown in Annexure-33

### **3.1.4.3: Investigation on calf diseases and development of mitigation measures (Project ID No: L-19.2)**

The project started functioning from June, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project site on 01/01/2012. CVASU, Chittagong is the lead organization and BLRI and AHDP are collaborating organizations. The main objective of the project is to identify major causes of calf diseases and to reduce calf mortality of both cattle and buffalo by adopting appropriate mitigation measures. The location of the project included two upazilas each from Chittagong , Dhaka and Sylhet districts and in each upazila there are four villages, two for target and two for control. 60-65 calves from each village have been included, thus the total calves under the project comes to 1440-1560. Inception workshop, baseline survey, farmers selection, appointment of project personnel were completed. Conducting survey with structured questionnaire on calves' mortality is going on. However, the detail report of monitoring team is shown in Annexure-34

### **3.1.4.4: Clinicopathological and serological surveillance of Foot and Mouth Disease (FMD) and Peste des Petits Ruminants (PPR) and adopt preventive measures against them at Shakipur and Madhupur Upazila (Project ID No: L-20.4)**

The project started functioning from May, 2011 and the half-yearly progress report has been submitted. The monitoring team visited Madhupur site on 04/01/2012. BAU is the lead organization while TMUF is the collaborating organization. The main objective of the project is to perform Sero-surveillance of FMD and PPR in Ruminants and evaluate immune response against FMD and PPR vaccines and also to develop appropriate vaccination schedule and doses intervals to prevent the diseases. The project locations are Shakipur and Madhupur upazilas of Tangail district. The number of beneficiary farmers are 160. Baseline survey, site selection, farmers selection, staff recruitment were completed. Inception workshop and farmers training are

yet to be undertaken. Vaccination and laboratory investigation are going on. The progress of the activity is lying behind the schedule. Close cooperation and participation of lead and collaborating agency are essential. During field visit the matters are thoroughly discussed and necessary actions were identified and a schedule for implementation of different activities has been suggested. It is expected that from now on the schedule activities will be implemented as per plan. However, the detail report of monitoring team is shown in Annexure-35

### **3.1.5: Fisheries Sub-Sector:**

#### **3.1.5.1: Diversification of Carp Polyculture Integrating Snail (*Viviparus sp*) Shing, (*Heteropneustes sp*) Culture in Cage in Ponds of Adviasi Households (Project ID No. F-22.1)**

The project started functioning from June, 2011 and the half-yearly progress report has been submitted. The monitoring team visited the project site on 04/01/2012. BAU, Mymensingh with BISHL, Nokla, Sherpur is implementing the project. The main objective of the project is to increase production of carps in polyculture pond and to increase production of Shing in cage system. The location of the project is Nalitabari, Sherpur. The number of participatory farmers is 80 and the number of ponds is 32. Field staff has been recruited; project sites and farmers are selected. Farmers' training is under going as per work plan. The cages for shing culture are under preparation and actual trial will start from March, 2012. However, the detail report of monitoring team is shown in Annexure-39

## **3.2: Reports of Projects Under Second Phase**

### **3.2.1: Crops Sub-Sector**

#### **3.2.1.1: Testing, validation and up-scaling of cotton-rice intercropping in Chittagong Hill districts (Project ID No. C-1.2)**

The project was submitted by Cotton Development Board and it was approved under second phase. The Inception report has not yet been submitted. According to the monitoring team, PI is planning to start the activities of the project in the up-coming growing season of cotton, April, 2012. The report of the monitoring team is appended under Annexure-17

#### **3.2.1.2: Improvement of appropriate rice based cropping systems in Barind areas (Project ID No. C-1.11)**

This is one of the projects under second phase and started functioning from August, 2011. The Inception report has been submitted. The monitoring team visited the project site on 11/01/2012. RDA, Bogra is implementing the project with two collaborating organizations namely OFRD, Bogra, BARI and Shuranjana Social Service Association, Bogra. There are three project sites such as Sherpur, Shajahanpur and Sibganj upazilas of Bogra district. The main objective of the project is to select and validate improved methods and technology package for increasing yields of rice, maize, potato and to increase system productivity of major rice based cropping systems. The planned activities are either completed or in progress. Scientific and other staffs were appointed. Selection of locations and farmers were completed. FGDs were conducted. Due to cultivation of long duration T.Aman rice, planting of potato and mustard has been delayed which ultimately delay the planting of Boro rice. It is suggested to use short-duration. T.Aman

rice in the coming season. Financial records keeping is inadequate. Fund release is necessary. The detail report of monitoring team is shown Annexure-18

### **3.2.1.3: Minimizing yield gaps in rice-based cropping systems in three northern districts (Project ID No. C-1.26)**

This is a project under second phase and started functioning from September, 2011. The inception report has been submitted. The monitoring team visited the project site on 11/01/2012. BARI is the lead organization while Padakhep is the collaborating organization. The project sites are Mithapukur upazila of Rangpur district, Ulipur upazila of Kurigram district and Shibganj upazila of Bogra district. The main objective of the project is to reduce yield gap through increasing yields of rice, potato and mustard in major rice-based patterns by adopting improved technologies. The recruitment of project staff and selection of farmers and field have been completed. The training of the farmers is conducted. Field trials are set in the farmers' field. Due to late harvest of T.Aman rice there was delay in planting potato and mustard which will delay the planting of Boro rice. It is suggested to use short-duration T.Aman rice and also short duration mustard variety in the next season. However, the detail report of monitoring team is provided in the Annexure-19

### **3.2.1.4: Productivity enhancement through improved management practices, tools and techniques (Project ID No. C-1.27)**

This is a project under second phase and the Inception report has been submitted. The project started functioning from September, 2011. The monitoring team visited the project sites on 09/01/2012. BARI in association with SUS is implementing the project. The main objective of the project is to increase crop productivity through improved management practices. Two locations namely Dhamrai and Singair have been selected for experimentation. Project activities cover five areas such as validating improved tillage practices for growing crops, screening of mustard varieties to fit in T.Aman-Boro cropping pattern, evaluation of short duration HYV of T.Aman, integrated nutrient management for different cropping patterns and enhancement of yield and productivity of major cropping patterns through improved management practices. Sites and farmers selection were completed and the experiments were set in the field. Crop condition is good. They could not procure tractors and USG applicators, could not hold Inception workshop and farmers training. However, they were advised to complete the activities at the earliest. Moreover, short- duration T.Aman rice variety is to be selected in the next season. The detail report of monitoring team is shown in Annexure-20

### **3.2.1.5: Crop intensification through incorporating quick growing fruits and vegetables into existing cropping systems in Jhalakati and Patuakhali districts (Project ID No. C-2.19)**

This is a project under second phase but no Inception report has been submitted. The monitoring team visited the project sites on 11/01/2012 and 12/01/2012. OFRD, BARI, Patuakhali is implementing the project. The main objective of the project is to improve cropping systems incorporating quick growing high-value fruits and vegetables in the existing cropping systems. Baseline survey and FGD have been completed. Several vegetables were grown, but not in the proper field, as there is problem to get suitable land. Inception workshop and farmers training could not be held. Soil samples were collected but no analysis has been done. It is suggested that PI should explore to find out appropriate land for proper experimentation and also use short – duration T.Aman variety. However, the detail report of monitoring team is appended under Annexure-21

### **3.2.1.6: Maximization of crop yield in T. Aman-Mustard-Boro cropping pattern by Agronomic Manipulation (Project ID No. C-4.5)**

This is a project under second phase and started functioning from September, 2011. The Inception report has been submitted. The monitoring team visited the project site on 04/01/2012. BAU in collaboration with CONP is implementing the project. The main objective of the project is to increase system productivity by adopting improved crop production technologies in T.Aman-mustard-boro cropping patterns. Two sites namely Dhanbari and Kalihati upazilas of Tangail district have been selected. The plots having BINA-7 variety of T.Aman rice have been selected and mustard variety BARI sharisha-14 has been grown. The crop condition is good and Boro can be cultivated in time. Ten sites at Dhanbari and eight sites at Kalihati have been selected. Soils are collected and now under analysis. All activities of the project are running well. The detail report of monitoring team is shown in Annexure-22

### **3.2.1.7: Yield maximization of mustard and sesame through improved package of production practices in some selection areas of the country (Project ID No. C-5.2)**

This is a project under second phase and started functioning from September, 2011. The inception report has been submitted. The monitoring team visited the project site on 01/01/2012 and 02/01/2012. BINA is the lead organization while JCF and MABFO are two collaborating organizations. The main objective of the project is to identify and upscale suitable mustard and sesame varieties and to increase system productivity by adopting improved production technologies. The project sites are Bagherpara upazila of Jessore district, Modhukhali upazila of Faridpur district, Kotchandpur upazila of Jhenidah district, Alamdunga upazila of Chuadanga district, Lohagara upazila of Narail district and Sadar upazila of Kushtia district. A total of 150 farmers will participate in the trial. Sites selection, farmers selection and training of farmers have been completed. Necessary inputs for on-farm trials have been procured. Recruitment of project staff have been completed. Mustard crop is under cultivation. Crop condition is good in all locations except Lohagara upazila of Narail district. It is suggested to change the site of experimentation at Lohagara as this site is not suitable for following T.Aman –mustard-boro cropping pattern. Planned activities are going well. However, the detail report of monitoring team is shown in Annexure-23

### **3.2.1.8: Maximization of watermelon yield in Rangamati and Chittagong districts through wilt diseases management (Project ID No. C-7.6)**

This is a project under second phase. The Inception report has not been submitted. The monitoring team visited the project site on 02/01/2012. It is reported that PI has declined to continue the project and in this respect a letter of refusal has been sent to KGF authority. The report of monitoring team is appended under annexure-24

### **3.2.1.9: Validation and up-scaling of year round pineapple production technology in hilly areas (Project ID No. C-7.9)**

This is a project under second phase and started functioning from September, 2011. The Inception report has been submitted. The monitoring team visited the project site on 03/01/2012 and 06/01/2012. BARI with two research stations at Khagrachari and Ramgarh, and a collaborating organization namely Nareer Jonno Foundation, Sreemongal is implementing the project at Joydebpur and Hilly districts. The main objective of the project is to evaluate and upscale the year round pineapple production technology in the hilly areas. Two varieties of pineapple namely Honey queen and Giantkew were planted along and across the hills. It is the initial stage of the experimentation. The physical and financial progresses are satisfactory. Staff recruitment, baseline survey, site selection, farmers selection have been completed. However, the detail report of monitoring team is shown in Annexure-25

### **3.2.1.10: Integrated management of major diseases of brinjal and tomato in Jamalpur & Sherpur districts (Project ID No. C-8.14)**

This is a project under second phase and started functioning from September, 2011. The inception report has been submitted. The monitoring team visited the project site on 05/01/2012 and 06/01/2012. RARS, Jamalpur, BARI is implementing the project. The main objective of the project is to develop effective technology for controlling major diseases of brinjal and tomato. The project sites are two locations of Sherpur district and two locations of Jamalpur district. Total numbers of participating farmers are 25. It was observed that the treated plots showed significantly low incidence of diseases in both crops. The farmers are very much interested to adapt the management practices demonstrated in their fields. Sites selection, baseline survey, farmers selection, training to the farmers have been completed. Staff recruitment was done and all records are maintained properly. However, the detail report of monitoring team is shown in Annexure-26

### **3.2.1.11: Development of Management Package for Powdery Mildew of BAU kul and apple kul (Project ID No. C-12.1)**

This is a project under second phase and started functioning from September, 2011. The inception report has been submitted. The monitoring team visited the project site on 03/01/2012. Agrotechnology discipline of Khulna University is the lead agency and Pathikrit and FADF are the collaborating organizations to implement the project. The main objective of the project is to survey the occurrence and severity of powdery mildew disease of Apple kul and BAU kul, to characterize the pathogens and to develop appropriate control measures of the disease. The locations of the project are Khulna, Jessore and Natore districts. Fifteen farmers' orchards were selected for each location. Recruitment of manpower, inputs procurement, selection of orchards and farmers have been done. Two Inception workshops were held, one at Khulna and the other at Boraigram, Natore. Epidemiological survey of the disease has been done. The disease samples were collected and the pathogen was identified in the laboratory. Spray experiments have been setup in all selected orchards and the data recording is going on. The activities of the project is running as per work plan. However, the detail report of monitoring team is shown in Annexure-27

### **3.2.2: Cross-Cutting Sub-Sector**

#### **3.2.2.1: Development of integrated crop-fish production system using ditch-and-dyke method in low lying areas of Jhalakati and Bogra region (Project ID No: CC-25.2)**

This is a project under second phase and started functioning from September, 2011. The Inception report has been submitted. The monitoring team met the PI on 17/01/2012 and collected the information. BSMRAU, Salna is implementing the project. The main objective of the project is to increase system productivity in low lying areas by adapting Ditch and Dyke method for both crop and fish culture. The project sites are Jhalakati sadar and Rajapur upazilas of Jhalakati district and Gabtoli upazila of Bogra district. Site selection, farmer selection, manpower recruitment have been completed. One Ditch-Dyke system has been completed at Jhalakati sadar. However, the planned activities to achieve the objectives of the project will be started soon. The detail report of monitoring team is shown in Annexure-31

### **3.2.3: Livestock Sub-Sector**

#### **3.2.3.1: Least cost feed formulation for poultry through the production of fermented yeast product from locally available feed resources (Project ID No. L-17.1)**

This is a project under second phase and started functioning from September, 2011. The inception report has been submitted. The monitoring team visited the project site on 03/01/2012. CVASU, Chittagong is implementing the project. The main objective of the project is to develop least cost fermented yeast-based ration for poultry. The estimated number of poultries is 1500. Base line survey has been completed. One research associate has been appointed. The activity of production of fermented yeast product is going on in the laboratory. Other activities will be taken up as per work plan. This is actually the initial stage of the project. However, the detail report of monitoring team is shown in Annexure-36

#### **3.2.3.2: Formulation of cost effective and cheaper diet for chicken and ducks substituting costly grains by per boiled rice polish (Project ID No. L-17.14)**

This is a project under second phase and started functioning from December, 2011. The inception report has not been submitted. The monitoring team visited the project site on 03/01/2012. BAU, Mymensingh is implementing the project. The main objective of the project is to assess the effects of different levels of dietary PRP and Phytase on meat and egg production of poultry as well as to recommend a cost effective and cheaper diet. Both field and laboratory studies will be undertaken. The project is at the very initial stage. Actually no activity except selection of two PhD students, one partime poultry technician and accountant has been undertaken. It is suggested to start activities as per work plan immediately. However, the detail report of monitoring team is shown in Annexure-37

#### **3.2.3.3: Calf mortality in large and small holder cross breed dairy Cattle: Epidemiological and Pathological investigation and mitigation (Project ID No. L-19.7)**

This is a project under second phase and started functioning from October, 2011. The Inception report has been submitted. The monitoring team visited the project site on 03/01/2012. BAU with PROSHIKA as collaborating organization is implementing the project. The main objective of the

project is to identify Epidemiological factors those influence calves morbidity and mortality, to identify causal Etio-pathological agents and to control calves diseases. The project sites are Moktagacha upazila of Mymensingh district and Shajadpur upazila of Sirajgonj district. Field enumerators have been recruited, trained and posted in two upazilas. Inception meetings with different stakeholders are completed. Laboratory has been organized for analysis of data. Questionnaire for baseline survey has been developed but survey not yet started. Farmers selection and group meetings are continuing. However, the activities are in progress and are in line as per work plan of the project. The detail report of monitoring team is shown in Annexure-38

### **3.2.4: Fisheries Sub-Sector:**

#### **3.2.4.1: Adaptation of high valued fish species shing (*Heteropneustes fossilis*) culture technology for maximizing production in three Agro-Ecological zones of Bangladesh(Project ID No. F-21.20)**

This is a project under second phase and started functioning from September, 2011. The Inception report has been submitted. The monitoring team visited the project site on 12/01/2012. BSMRAU, Salna is the lead organization while CASEED, Dhaka and CDMS, Norshingdi are the collaborating organizations. The main objective of the project is to standardize location specific stocking density of Shing in monoculture for increased production. The project sites are Norshingdi, Hobigonj and Sirajgonj districts. The participatory farmers are 9 in each site and 150000 fingerlings in each site in each year. The area of demonstrated ponds are 2.10-2.73 ha. The site selection has been completed, some of the equipments have been procured and others are in process. All records are maintained properly at BSMRAU and CDMS, but CASEED has not yet been started any of their activity. It is suggested to run the project properly following the work plan for individual agency. However, the detail report of monitoring team is shown in Annexure-40

#### **4. Recommendations:**

The monitoring teams visited 38 projects of the 2<sup>nd</sup> call. Of 38 projects, 24 completed six months and 16 completed three months of implementation. Upon desk and field monitoring, the monitoring teams recommends the following:

- 4.1. Such monitoring at the initial stage would help to correctly identify the implementing status, to bring the program activities in right track, if there is any deviation, and to identify the actual problems faced by the implementing agencies. Thus such type of monitoring should be made as a part of regular monitoring.
- 4.2. Monitoring and evaluation program, internal and independent, of the on-going projects should be a regular activity of KGF. Internal monitoring should be conducted along the whole length of implementation at an interval of 5-6 months, while independent monitoring should be conducted once in a year after the commencement of the project when the activities are still in the field and PIs have submitted their progress reports.
- 4.3. The suggested actions pointed out by the monitoring teams in the report need to be well taken care by KGF in order to mitigate the problems at the earliest.
- 4.4. It is necessary to hold a training program for all Coordinators/PI/Accountants on maintaining financial and accounting registers properly and uniformly by all.

#### **5. Acknowledgement:**

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