KRISHI GOBESHONA FOUNDATION (KGF)

Report on Independent Monitoring & Evaluation of KGF BKGET 2nd Call CGP Projects, CRP Hill and Other Projects

07 May 2017

Submitted to: Dr. Wais Kabir Executive Director Krishi Gobeshona Foundation BARC Complex, Farmgate, Tejgaon, Dhaka-1215 Submitted by: **Dr. Sk. Md. Abdus Sattar** House No. F-203/4 Hakkani Housing Society Uttar Chhababithi, Gazipur-1700 and Team Leader Independent Monitoring Team of KGF BKGET 2nd Call CGP Projects, Pilot Projects and Other Projects

Abbreviations

BARC	Bangladesh Agricultural Research Council	
BARI	Bangladesh Agricultural Research Institute	
BAU	Bangladesh Agricultural University	
BCR	Benefit Cost Ratio	
BKGET	Bangladesh Krishi Gobeshona Endowment Trust	
BRRI	Bangladesh Rice Research Institute	
BSMRAU	Bangabandhu Sheikh Mujibur Rahman Agricultural Univerity	
CE	Community Enterprise	
CEA	Community Enterprise Approach	
CGP	Competitive Grants Program	
CSO	Chief Scientific Officer	
CVASU	Chittagong Veterinary and Animal Science University	
DAE	Department of Agricultural Extension	
DLS	Department of Livestock Services	
GO	Government Organization	
HYV	High Yielding Variety	
IWM	Institute of Water Modeling	
IWMD	Irrigation Water Management Division	
KGF	Krishi Gobeshona Foundation	
KU	Khulna University	
M&E	Monitoring and Evaluation	
NGO	Non-Government Organization	
OFRD	On-farm Research Division	
PI	Principal Investogator	
PIR	Project Inception Report	
PPR	Public Procurement Rules	
PR	Progress Report	
PRA	Participatory Rural Appraisal	
PSO	Principal Scientific Officer	
PTOS	Power Tiller to Seeder	
RARS	Regional Agricultural Research Station	
RU	University of Rajshahi	
SAAO	Sub-Assistant Agricultural Officer	
SAU Dhaka	Sher-e-Bangla Agricultural University, Dhaka	
SAU Sylhet	Sylhet Agricultural University, Sylhet	
SO	Scientific Officer	
SSO	Senior Scientific Officer	
SSURDA	Society for Sustainable Development for the Rural and Urban Area	
TAC	Technical Advisory Committee	

Table of Contents

Topic	Page
COVER PAGE	1
ABBREVIATION	2
TABLE OF CONTENTS	3
SUMMARY	4
INTRODUCTION	7
METHODOLOGY	8
SURVEY FINDINGS	9
Sub-Sector 1: Crops	10
Sub-Sector 2: Livestock	26
Sub-Sector 3: Fisheries	34
Sub-Sector 4: Farming Systems	39
Sub-Sector 5: Apiary (Bee Keeping)	42
Sub-Sector 6: CRP-1 Hill Agriculture	44
Sub-Sector 7: Climate Change	57

Summary

KGF has been implementing 27 KGF BKGET 2nd Call CGP projects, Pilot projects, CRP Hill Agriculture and Others projects with the funding from BKGET since early 2015. To monitor progress of the projects it engaged a 10-member team to conduct independent monitoring and evaluation of these projects in April 2017. Accordingly, the team conducted the concurrent M&E of the projects during April-May, 2017 based on prescribed Field, Desk and Financial monitoring formats and prepared a report on the M&E of these 27 projects and presented in this document. The projects are clustered in to eight as follows:

No.	Sector	No. of Projects	Project code
1	Сгор	9	TF15-SF/15, TF16-WM/15, TF22-PS/15, TF27-
			SF/15, TF32-SF/15, TF35-SF/15, P-10, Others-1,
			Others-3
2	Livestock	6	TF17-EM/15, TF18-EM/15, TF19-EM/15,
			TF20-EM/15, TF21-DL/15, TF24-EM/15
3	Fisheries	2	P-13, TF30-AP/15
4	Farming Systems	1	TF33-ARI/15
5	Apiary (Bee keeping)	1	TF26-ARI/15
6	CRP Hill Agriculture-I	5	CRP Hill Agriculture-1 (Components I to V)
7	CRP-III	1	Strengthening Sugarcane R&D in CHTs
8	Climate Change	2	CRP-II (Crop Modeling) and
			GHGE: Modeling greenhouse gas emission
			from rice field

During M&E emphasis was given to physical, technical and financial progress made during the implementation period. Physical activities are those related to preparation for the technical work and are done commonly by almost all project holders. These activities include (1) selection of site and participating farmers, (2) collection of baseline information, (3) holding inception workshop and preparation and submission of inception report, (4) recruitment of project staff, (5) purchase of required research inputs and equipment for laboratory, field and office, (6) conducting ToT and or farmers' training, (7) holding field days and preparation, production and distribution of leaflets and booklets, and preparation and submission of progress reports. Technical activities are (1) conducting field trials and lab experiments, data collection and analyses, knowledge and skill development of farmers and other stakeholders through meetings, field level workshops and trainings. Besides these, all records for proper financial management were reviewed.

Summing up the observations made on all projects the following points are worth mentioning:

Observations	Remarks & Suggestions		
Physical	• Physical progress made by most projects is satisfactory. However, activities of some		
progress	projects are either stopped at some locations (TF35-SF/15) or progressing at a very slow		
	rate (TF30-AP/15).		
	• Baseline survey was conducted with only the participating farmers and cannot be regarded		
	as Baseline survey rather RRA to get very preliminary information required for		
	developing Inception Report (all projects) which resulted in:		
	failure to capture real baseline situations of the area or region (all projects)		
	wrong selection of project site (e.g. TF35-SF/15 at Sherpur and Melandah, TF22-		
	PS/15 at Singair) leading to rejection of the technology by farmers.		
Technical	All Projects		
progress	• Technical progress made by all the projects is satisfactory.		
	• Economic analyses for all the technologies approaching maturity (the termination date)		

	should be done before making recommendation
Duri to u 1	Should be done before making recommendation.
immediate	TE15 SE(15
attentions by KGF/Researc hers	 IF15-SF/15 This project cannot be regarded neither as an experiment nor a block demonstration. Experimental unit is so large (165 decimal) that variability within the unit cannot be controlled. Likewise, this is not a demonstration plot since researchers are testing more than two technologies instead of one. Technology should have been tested on-station with detailed analysis of the required ecosystems and cost-benefit analysis thereof. This project is a follow up program of the researchers (the Co-PI) implemented at the same sites with almost similar treatments. The researchers should be able to formulate specific technology that will help farmer most. A follow up program can be taken up for up scaling of the outcome of this project through a competent development partner such as DAE, with the backstopping of the researchers.
	<u>TF16-WM/15</u>
	Maize is a popular crop in the northern and farmers already have developed a market system since mid-nineties. As such, the researchers could no dig out the facts related to farmers' worries about selling white maize in the local market.
	<u>TF17-ARI/15</u>
	• The Project developed technologies very fruitful for the entrepreneurs. The appropriate development partners (DLS or DAE) should be encouraged to put up business in the line. DLS can work for capacity building of the potential entrepreneurs.
	<u>TF19-EM/15</u>
	Progress of the physical activities is very slow. Only two activities are being implemented within a year and half period. Only some 384 farmers out of targeted 1067 in 20 villages is completed and is continuing. Some farmers are trained in bio-security measures but they could not prepare for implementing the activities as yet. The researchers claimed to have completed 60% activities up to March 2017 but this did not match with the monitoring team's observation.
	<u>TF22-PS/15</u>
	 Farmers grew vegetables and other rabi crops as intercrop in sugarcane of the research plots in the northern region. This violates the principles of treatments under test. The researchers should look into whether these vegetables are becoming alternate hosts for the diseases organisms. Individual plot size at all locations is very large (30 decimal) and highly undulated and or sloppy at Manikganj only. Thus, researchers had no answer how they could control soil heterogeneity and moisture variability causing deference in crop growth.
	<u>TF26-ARI/15</u>
	Researchers had been trying to develop an Apiary at SAU Dhaka since 2015 but progress is slow due to delayed allocation of land for the Apiary by SAU. Up-scaling of Bee Keeping and production of bee products could not be started on wider scale.
	TF27-SF/15
	Experimental units are very large (0.8 to 1.08 ha) and thus the program cannot be regarded as experiment rather these are <i>block demonstrations</i> at the farm level. With the information available now the researchers should be able to formulate a technology for up-scaling in collaboration with appropriate development partners.

	<u>TF30-AP/15</u>
	Progress of work is very slow. Only a few ponds have been excavated during last about 18 months. Major flaws exist in planning for excavation of ponds. Instead, the researchers could start research work in the existing ponds of the participating farmers. Cost incurred during the preparatory phase (mostly baseline survey, purchases, travel, training etc.) and staff salaries seem illogical.
	Confusion exists about the date o commencement of the project. According to the MOU the project has commenced on 1 st Sept 2015 (refer to Inception Report) but the Progress Reports say the project commenced a week earlier i.e. 25 August 2015.
	<u>TF33-ARI/15</u>
	This is the only project for haor areas and is being implemented successfully. More projects like this should be taken in haors.
	<u>TF35-SF/15</u>
	The researchers completed all the project activities planned for the first cropping cycle at all locations. During the second crop cycle farmers of Sherpur and Jamalpur rejected the planned cropping pattern and switched back to their traditional cropping pattern. Farmers told he monitoring team that the targeted cropping pattern is not at all profitable and they will not accept it. Therefore, the project should be deemed to have closed and funding to these two sites has to be stopped immediately.
	<u>CRP-I: Hill Agriculture (Component-I)</u>
	The project made little progress even after utilizing >72% of the project money received so far during the last 38 months. Seven out of 23 watersheds have so far been delineated using satellite images and are mapped in GIS. Designing and construction of control structures are not touched yet.
Financial	Financial progress achieved is satisfactory and varies from 95-99%.
progress	

Introduction

KGF invited short term CGP proposals based on BARC research priority under BKGET fund. In response, 13 GO organizations in collaboration with or without NGOs submitted proposals. Upon recommendations of the TAC, KGF Board approved 2nd Call CGP projects which are being implemented in different locations across the country since two to three years back. KGF engaged a 10-member team to conduct independent concurrent monitoring of 27 BKGET funded projects. Accordingly, the team conducted the concurrent M&E of the projects during March-April, 2017 using the structured formats supplied by KGF. A report on the M&E of these 27 projects prepared based on Field, Desk and Financial monitoring is presented in this document.

Team Composition

A ten-member team was engaged for conducting Independent Monitoring and Evaluation of the projects. Most of them are retired scientists of the various institutions under the National Agricultural Research Systems (NARS) and the Department of Agricultural Extension (DAE), having long two to three decades of track records in agricultural research and extension, teaching and rural development. The team composition was as follows:

Sl. No.	Name	Qualification/Designation	Position
1	Sk. Md. Abdus Sattar	Ph.D. in Agronomy, Former Head of Agronomy Div., BRRI	Team Leader
2	Md. Liaquat Ali	M.Sc. (Vet. Sc.), Former Director, DLS	Member
3	Mukul Chandra Roy	M.Sc. in Agril. Extension, Former DG, DAE	Member
4	Gouranga Ch. Chanda	Ph. D. (Agril. Econ.), MBA, Prof. of Dairy & Poultry Sci., CVASU, Chittagong	Member
5	Gayanath Sarker	Ph.D. Economics, Individual Consultant	Member
6	Md. Abdul Baset	Ph.D. Agril. Economics, Former CSO, Agril. Econ. BARI	Member
7	Md. Saifuzzaman	Ph.D. Crop Physiology, Former CSO, WRC, BARI	Member
8	Md. Abul Quasem	M.Sc. Ag. Engineering, Former PSO, Agri. eng., BRRI	Member
9	Alamgir Safiul Alam	DVM, Former Director, DLS	Member
10	M. Bazlur Rahman	Ph.D. in Agronomy, Former PSO, Agronomy Div., BRRI	Member

Team mobilization

The team was supplied with the Project Inception Report and a half yearly/annual Progress Report(s). After reviewing these documents the team had two discussion sessions to decide upon the approach and scheduling of monitoring. Five two-member groups were formed and assigned to cover the Divisions of the country listed below for rapid completion of the work.

Monitoring was done in two steps; .Desk monitoring and Field monitoring. Desk monitoring was done using the prescribed format supplied by KGF to collect relevant project information, both technical and financial, from the desk of the concerned Principal Investigators/Coordinators. Field monitoring was done using a prescribed format, also supplied by KGF, to collect information related to progress of field trials, data collection, issues related to project implementation.

Group No.	Group Leader & Member	Division(s) to cover
1	S. A. Sattar (Leader) & Md. Liaquat Ali	Dhaka & Mymensingh
2	Mukul Chandra Roy (Leader) & Gouranga Ch. Chanda	Chittagong
3	M. A. Quasem (Leader) & M. Bazlur Rahman	Rajshahi & Rangpur
4	Gayanath Sarker (Leader) & M. Saifuzzaman	Chittagong & Sylhet
5	M. A. Baset (Leader) & Alamgir Safiul Alam	Barisal & Khulna

In order to minimize travel across country work was distributed per group as follows:

Group	Districts	Projects to be covered for	
NO.		Desk monitoring	Field monitoring
	Dhaka	TF16-WM/15, TF21-EM/15,	TF16-WM/15
		TF26-ARI/15, TF27-SF/15	TF21-EM/15
		TF35-SF/15, CRP-II	TF22-PS/15
1		P-10, P-13	TF27-SF/15
-		Others-1, Others-2, Others-3	TF35-SF/15
	Mymensingh	TF15-SF/15, TF17-ARI/15	TF15-SF/15, TF17-ARI/15
		TF18-EM/15, TF19-EM/15	TF18-EM/15, TF19-EM/15
		TF24-EM/15	TF24-EM/15
2	CHTs	CRP-I except Desk monitoring of	TF16-WM/15, TF22-PS/15
2		Component III & IV)	CRP-III
	Rajshahi	TF20-EM/15, TF22-PS/15	TF20-EM/15, TF22-PS/15
		TF30-AP/15, CRP-III	TF24-EM/15, TF27-SF/15
3			TF35-SF/15
	Rangpur & Dinajpur		TF16-WM/15, TF27-SF/15
			TF35-SF/15
	Chittagong	CRP-I (Component III & IV)	TF24-EM/15, Orhers-1
4			TF16-WM/151, TF27-SF/15
	Sylhet	TF33-ARI/15	TF33-ARI/15
	Barisal/Bhola	TF32-SF/15	TF32-SF/15, P-13
5			Others-3 (ACIAR)
5	Khulna		TF26-ARI/15
			Others-3 (ACIAR)

Methodology

The survey team was provided with the project documents such as the Inception Report and the latest halfyearly/annual progress report by KGF. The team made a thorough review of these documents and took note on the indicators of progress per activity and other relevant information given by the researchers. Groups made field visits guided by the concerned PIs to observe the physical progress of the planned activities made by the researchers and the data book being maintained by the field level research staff. The surveyors also talked with the participating farmers, whoever were available, to get their reactions on the project. Information on a project implemented at multi location sites were collected from different sites and were compiled for the concerned project.

Date of monitoring

In-house review of relevant documents supplied by KGF was done during third week of March. Field and desk monitoring were done during March 29 to April 17, 2017.

Survey Findings

Sector-1: Crops

Project Code TF15-SF/15	12
Project Code TF16-WM/15	13
Project Code TF22-PS/15	15
Project Code TF27-SF/15	16
Project Code TF32-SF/15	18
Project Code TF35-SF/15	19
Project Code P-10	21
Project Code Others-1(Sea weeds)	23
Project Code Others-3 (ACIAR)	25

C1		
SI. No.	Project related key information	Suggestions/Overall Comments
1	Project No. & Title: TF15-SF/15	Key Observations:
	Improvement of soil fertility and crop productivity through nutrient management and conservation agriculture in the triple cropping pattern. Implementing Organization: Bangladesh Agricultural University (BAU) Mymensingh	Conventional tillage plus farmers' production practices and strip tillage with STB fertilizer practices termed as Conservation Agriculture (CA) have been tested in on-farm trials at Dhonbari and Muktagachha since July 2015 to study their effects on the productivity of T. Aman-Mustard-Boro cropping pattern. This trial is a continuation of on-station trial at BAU farm but with different cropping pattern.
	(Dre), wyneisiigi	Salient Findings:
	Name & Address of PC/ PI PI: Dr. M. Zahiruddin. Prof. of Soil Science	• Program was developed following an inception workshop participated by all collaborative farmers and DAE field staff.
	Project Location(s):1. BAU farm2. Muktagachha, Mymensingh3. Dhonbari, Tangail	 Sixty farmers were trained before execution of the field trials and 100 farmers attended in four field days First and second crop cycles are completed, crop yields have been recorded in a computer database, initial soil samples were collected and analyzed before the first crop evale and the results are being used to colculate STP.
	 Project duration: 36 months Date of Commencement: 12 March 2015 Total budget: Tk. 49,71,700/= Date of Monitoring: 06-07 April, 2017 Specific Objectives: Improve/maintain soil fertility status under intensive cropping systems through nutrient management and conservation agriculture practice. Increase system productivity of the research sites. Improve farmers' knowledge and skill in conservation agriculture practices. 	 event and the results are being used to calculate STB fertilizer rates subsequently Required project staff and equipment have been procured timely
		 Eighty percent of the fund received so far has been consumed Results received so far indicate 10-15% increase of productivity with 8-10% reduction in crop production cost due to CA.
		Overall Comments
		Investigators completed satisfactorily the activities planned during this reporting period (March 2015 to March 2017).
		Financial progress:
	Activities Planned for the Monitoring Period (Marc 2015 to March 2017): 1. Organize Inception workshop	Total fund received Tk. 1,780,800/= and expenditure incurred TK. 1,749,061/=; the progress being 98.2% up to March 2016.
	2. Site selection, collection and analysis	Specific Suggestions:
	 of soil samples Conducting on-station and on-farm trials Data collection an analysis Conduct farmers' training with distribution of leaflets among farmers Holding field days Preparation of Reports 	 Field observations indicate that experimental units are too large (165 decimal) to control the variability in an experimental unit in the farmers fields. Increased productivity of the cropping pattern claimed may not be attributed to incorporation of 30% rice stubbles (crop residues). Researchers may consider to quantify the amount of stubbles being retained, their pattern of decomposition and nutrient release pattern under alternate upland and lowland conditions. The researchers may consider reducing the plot size. Two similar fields could be selected for on-farm trials instead of spreading the treatments over 10-12 farmers' fields.

		Dr. Sk. Md. Abdus Sattar & Dr. Md. Liaquat Ali
		Name and Signature of the Monitoring Officer(s)
Sl.	Project related key information	Key Observations, Salient Findings with
No.		Suggestions/Overall Comments
2	Project No. & Title: TF16-WM/15	Key Observations:
	Collection, evaluation and introduction of	Implementation of the project began on March 25, 2015.
	white maize for human consumption in	Research sites of Barisal are closed during the next year
	Bangladesh.	(2016-2017 crop seasons). Research work is being
	Implementing Organization: Sher-e- Bangla Agricultural University (SAU), Dhaka Bangladesh Agricultural Research Institute (BARI) Agrarian Research Foundation (ARF)	continuing in the northern region. Coordinator completed almost all activities planned for this period. The activities included are collection of seeds from home and abroad, selection of new sites in the northern region, conducting training of farmers and setting up of field trials to evaluate the collected varieties and to develop agronomic practices. Field days were conducted as per plan.
	Name & Address of PC/ PI	Salient Findings:
	PC: Dr. Md. Jafar Ullah, Prof. of	1. New research sites have been selected in Kaharol,
	Agronomy, SAU, Dhaka	Birganj & Khanshama of Dinajpur, Debigonj of
	PIs:	Panchagarh, Nilphamari and Paglapir of Rangpur sadar.
	Agronomy SAU Dhaka	2. Farmers training in the new sites are completed
	2 Dr Md Ali Akbar ARF	5. Insect pest attack in some fields was observed 4. Among the hybrid lines tested PSC-121 performed well
	3. Dr. Md. Abu Zaman Sarkar, BARI	5 A good number of field trials are established in BARI
		(Debigoni) and SAU farm. Dhaka and trials in 50 farmer
	Project Location(s):	fields in Bandarban.
	Dinajpur, Nilhamari, Debiganj, Rangpur,	6. Fifty farmers of Thawaiyangya Para, Joy Mohan Para,
	Bandarban.	Mongpru Chhara, Charai Para, Baki Chhara,
	Project duration: 26 months	Tungkshyang Para, and Kemolong Para. Next trials are
	Date of Commencement: 25 March 2015	already made ready for growing maize in Jhum.
	Total budget : Tk. 1.98.05.000/=	low quality seeds of white maize
	Date of Monitoring: 02-06 April, 2017	low quanty seeds of white maize
		Overall Comments
	Specific Objectives: 1 To collect evaluate and select white	The researchers completed 60% of the activities planned for
	maize variety/varieties for production	the reporting period successfully. Maize is a popular crop in
	in Bangladesh;	the northern and farmers already have developed a market
	2. To delineate areas where white maize	system since mid-nineties. As such, the researchers could
	to be grown in the country;	not dig out the facts related to farmers' worries about selling
	3. To develop agronomic practices for	duration of reporting KGE should clarify this to the
	growing white maize in the hills and	researchers of all projects.
	plain land; and 4 To mobilize formers in taking white	
	maize as a staple food.	Financial progress:
	r	Fund received up to 31 March, 2017 Taka 56,27,000.00 and
	Activities Planned for the Monitoring	expenditure Taka 53,69,435.00. The progress is 95.42%.
	reriod (Mar 2015 to Nov 30, 2016):	
	2 Site selection for conducting field trials	Specific Suggestions:
	in different ecosystems	The researchers may consider organizing various farmers'
	3. Development of management practices	forums simultaneously with the field trials to make them
	for growing in hills and plain land	aware of the characteristics of white maize and various
	4. Conduct farmers' & officers' training	usages of white maize.

5. Seed production for the selected	
varieties.	
6. Holding field days	Group-1, 3 and 4 members.
7. Potential food items to be developed	Name and Signature of the Manitoring Officer(s)
with quality assessment	Name and Signature of the Monitoring Officer(s)
8. Preparation of Reports	

S1	Project related key information	Key Observations Salient Findings with
No.		Suggestions/Overall Comments
3	Project Code & Title: TF22-PS/15	Key Observations:
	Productivity enhancement of <i>goor</i> and chewing type Sugarcane through management of major diseases in non-mill zones.	Visited the Singair site of Manikganj and three others in northern districts where mostly ratoon crops were growing. The crop appeared o be disease-free. Sites selected are all good except at Manikganj. Most fields in northern region
	Implementing Organization: Bangladesh Sugarcane Research Institute (BSRI)	were intercropped with vegetables and other rabi crops but not at Manikganj. At Manikganj, farmers switched over to boro from sugarcane 30 years back in Manikganj. The site selected is basically a boro area with usual cropping patterns of Mustard -Boro- T. Aman: and Boro-Jute-T.
	Name & Address of Coord. & PI Coordinator: Dr. Md. Shamsur Rahman, Head of Plant Pathology Division.	aman and no other sugarcane fields were found around. According to DAE there are more than 600 ha land under sugarcane in the Upazila which are somewhere in other regions of the upazilas.
	PIs : Dr. Md. Shamsur Rahman, BSRI & Dr. Md. Ibrahim Talukder, Research Coordinator, Krishibid Somobay Soceity	Salient Findings:
	Ltd. (KSSL)	1. Six new farmers have been selected during year-2 and research plots established
	 Project Location(s): 1. Singair of Manikganj district 2. Sadar of Sirjganj district 3. Shibganj of C. Nawabganj District 4. Kalia of Narail district 	 Data on disease incidents are observed regularly and are being recorded every month. Management practices applied as per program and all intercultural practices are well done Newly selected farmers are trained
	5. BSRI farm	Overall Comments
	Project duration: 36 months Date of Commencement: 01 Sept 2015 Total budget: Tk. 12,344,000/= Date of Monitoring: 10-12 April, 2017	Farmers grew vegetables and other rabi crops as intercrop in sugarcane of the research plots in the northern region which was not covered in the treatments stated in project proposal.
	 Specific Objectives: 1. Develop appropriate management package to minimize major diseases of sugarcane 2. Increase productivity of the main and ratoon crops of sugarcane 	Individual plot size at all locations are very large (30 decimal) and highly undulated and or sloppy at Manikganj only. Thus, researchers had no answer how they could control soil heterogeneity and moisture variability causing deference in crop growth.
	3. Improve farmers' knowledge and skill in disease management of sugarcane	Financial progress:
	Activities Planned for the Monitoring Period (Sept. 2015 to August 2016):	Fund received Tk. 64,57,700/= & expenditure incurred Tk. 64,28,177/=; the progress being 99.5% during the reporting period (up to February 2017)
	 Preparation of Inception Report Selection of research sites & farmers 	Specific Suggestions:
	 Schedulin of research sites & faithers Conduct benchmark survey Conduct SAAO & farmers' training Conduct field & on-station trials & collection of pertinent data 	Site selection at Manikganj is not appropriate. The researchers should selected field in the area of the upazila where sugarcane is grown.
	o. Furchase of equipments7. Preparation & submission of half yearly progress reports	Dr. S. A. Sattar & Dr. Md. Liaquat Ali Name and Signature of the Monitoring Officer(s)

SI. Project related key information	Key Observations, Salient Findings with
No.	Suggestions/Overall Comments
 4 Project Code & Title: TF27-SF/15 Adaptation of improved soil fertility management practices for variable soil conditions under intensive cropping systems Implementing Organization: Bangabandhu Sheikh Mujibur Rahman Agricultural University (BSMRAU), Gazipur Name & Address of Coord. & PI PC: Dr. GKM Mustafizur Rahman, Prof. of Soil Science, BSMRAU PI: 1. Dr. GKM Mustafizur Rahman & 2. Md. Yeaminur Rahman, Director SSURDA Project Location(s): Khetlal (Joypurhat), Sonatala (Bogra), Badarganj (Rangpur), Faridpur sadar, and Trisal (Mymesingh) Project duration: 36 months Date of Commencement: 01 July 2015 Total budget: Tk. 1,14,88,200/= Date of Monitoring: 02-06-& 17 April 2017 Specific Objectives: 1. Increase crop yield and systems productivity under variable soil 	 Key Observations: Improved soil fertility management practices for 3 to 4 cropping patterns are tested in low pH soils (Khetlal, Sonatala and Badrganj) and arsenic polluted soils (Faidpur sadar and intensely cultivated soil (Bhaluka). Treatments employed varied with locations due to variations in soil characteristics and incorporation of crop residues (either rice straw or lentil straw) and Biochar; compared with farmers' practices. These treatments are expected to increase or maintain soil fertility and increase crop yields resulting in higher system productivity. Salient Findings: Baseline survey was done at all the selected locations to collect information on existing crops and cropping patterns, and farmers' fertilizer management practices by the associated organization in consultation with the PC Sites along with 20 participating farmers at each location were selected. Eight pre-project sol samples from each block were collected and analyzed for characterizing soils of the sites The participating farmers (10 from each block) and all the field research staff were trained during the inception workshop at each location. A total of 20 field trials were conducted using the dominant cropping patterns and soils are stored in computer database.
 Improve/sustain soil fertility; Improve knowledge and skill of farmers on improved soil fertility management under intensive cropping systems; and Recommend improved soil fertility management package for intensive crop production system. Activities Planned for the Monitoring Period (July 01 to June 30, 2016): Conducting baseline survey Selection of sites, fields and farmers Holding Inception workshop followed by preparation of Inception Report. Recruitment of required project staff Training of farmers an research staff Procurement of required research inputs 	 Overall Comments The researchers complete the activities planned for the period successfully. However, experimental units are very large (0.8 to 1.08 ha) and thus the program cannot be regarded as experiment rather these are block demonstrations at the farm level Financial progress: Fund received Tk. 55,89,457/= & expenditure incurred Tk. 54,40,606/=; the progress being 97.3%. Specific Suggestions: 1. Considering the size of the experimental units the program can neither be regarded as experiment nor demonstration. Variability of such larger experimental unit (?) cannot be controlled by any means. 2. The title of the experiment should be rephrased as 'Adoption ofcropping systems'

7.	Conducting field trials and pot trials	Dr. Sk. Md. Abdus Sattar & Dr. Md. Liaguat Ali
8.	Collection of crop & soil data, data	Name and Signature of the Monitoring Officer(s)
	storage and analysis.	······································
9.	Reporting	

Sl.	Project related key information	Key Observations, Salient Findings with
No.		Suggestions/Overall Comments
5	Project Code & Title: TF32-SF/15	Key Observations:
	Integrated nutrient management for intensive cropping in coastal and charland area of Bhola district.	Copping intensity in charland areas of Bhola is higher compared to elsewhere in the coastal region. Maintaining soil fertility in a systems of intensive cropping is a challenging job Researchers attempted to maintain soil
	Implementing Organization: Bangladesh Agricultural Research Institute (BARI)	fertility through integrated nutrient management (INM) practices (use of soil test based (STB) fertilizer application.
	Name & Address of Coord. & PI PI: Md Shahidul Islam SSO OFRD	Salient Findings:
	Bhola	1. Study locations, research sites and participating farmers are selected
	Project Location(s): Sadar, Daulatkhan, Charfashion & Manpura Upazila of Bhola	 Conducted baseline survey followed by holding the inception workshop & prepared the Inception Report. Conducted training of field staff and participating farmers.
	Project duration: 36 months Date of Commencement: 01 Sept., 2015 Total budget: Tk. 46,67,880/= Date of Monitoring: 17-18 April 2017	 Established field trials in the selected sites as per plan. Field Days were arranged in all crop seasons Collection and analysis of soil samples from the experimental fields, both before and after field trials. Collection, storing and analyzing data from field trials
	Specific Objectives:	are going on as per plan 8. Preparation of Reports
	 To develop an improve soil fertility management package for intensive cropping system in the coastal and charland areas of Bhola District To increase crop yield and system productivity under intensive crop 	Financial progress: Fund received Tk. 25,41,216/= & expenditure incurred Tk. 24,74,407/=; the progress being 97.4%.
	production 3 To conserve/improve soil fertility	Overall Comments
	 4. To increase knowledge and skill of farmers adopting intensive cropping in the charlands of Bhola district. 	The project will continue for three crop cycles. Only 1 st cycle has been completed. Between the two cropping patterns one was incomplete due to damage of wheat by rain.
	Activities Dlanned for the Monitoring	Specific Suggestions:
	Activities Planned for the Monitoring Period:: Selection of research sites and farmers Inception workshop -Pre-experiment soil collection and test -Field trial -Applying INM approach -Training	 Remaining two field days should be organized as soon as possible. KGF may consider to take program for up-scaling of the project outputs allover he coastal regions having similar ecosystems and are being intensively cultivated.
	 -Field days -Field equipment: - Lab equipment - Data collection, analysis and report writing - Publications 	Dr. Md. Abdul Baset & Dr. Alamgir Shafiul Alam Name and Signature of the Monitoring Officer(s)Dr.

S1.	Project related key information	Key Observations, Salient Findings with
No.		Suggestions/Overall Comments
6	Project Code & Title: TF35-SF/15	Key Observations:
	Integrated nutrient management for sustaining soil fertility and productivity under intensive cropping systems Implementing Organization: Bangladesh Agricultural Research Institute	Techniques of sustaining soil fertility and productivity of the cropping systems through integrated nutrient management were studied. The techniques include incorporation of crop residues, particularly of some legumes, fitted into the cropping pattern in some intensively cultivated areas across the country.
	(BARI)	Salient Findings:
	 Name & Address of Coord. & PI Coord. Dr. A. S. M. Mahbubur Rahman Khan, CSO, OFRD, BARI, Gazipur PI: 1. Dr. M. Akkas Ali, PSO, OFRD, BARI, Gazipur 2. A B M Shamsul Alam, Agril. Coordinator, Social Progress Services (SPS), a Jamalpur based local NGO. Project Location(s): Sherpur (Sadar), Jamalpur (Melandah), Bogra (Gabtali), Rangpur (Lahirirhat under Sadar), Rajshahi (Mohanpur & Godagari). Project duration: 36 months Date of Commencement: 18 Nov. 2015 Total budget : Tk. 1,38,51,600/= Date of Monitoring: 5 – 8 April 2017 Specific Objectives: 1. Develop and recommend an improved soil fertility management package for location specific three or four cropping patterns 	 Six research sites in 6 uazilas as per program selected together with participating farmers have been selected baseline information on crops and cropping practices through FGD was completed Necessary equipment hve been purchased and research inputs are being purchased as per program during the crop seasons. Soil samples (initial) have been collected and got analyzed by the nearby local labs of SRDI . Farmers and relevant field research staff are trained Field trials were conducted successfully at all locations during the first cropping cycle. During the second crop cycle farmers rejected the test cropping pattern and went back to their traditional practice at two locations—Sherpur sadar and Melandah of Jamalpur organized and supervised by SPS, the local NGO. However, farmers of these two locations received all inputs (seed & fertilizers) for the second crop cycle from the project. Necessary data are being collected, stored both in register and computer database, and analyzed.
	 Increase crop yield and system 	Total fund received Tk. 44,26,272/= & expenditure incurred Tk. 33,76,379/=; the progress being 76.3%.
	productivity under intensive crop	Overall Comments
	 Conserve/improve soil fertility status under intensive crop production system Improve knowledge and skill of the farmers on improved soil management practices under intensive crop production system. 	The researchers completed all the project activities planned for the first cropping cycle at all locations. During the second crop cycle farmers of Sherpur and Jamalpur discontinued the planned cropping pattern (Sharisah/Mung-T. aus-T. aman) and switched back to their traditional cropping pattern (Boro-Jute-T. aman).
	Activities Planned for the Monitoring	Specific Suggestions:
	 Period (18 Nov. 2015 to 18 Nov., 2016): Selection of research sites and collaborating farmers at all locations Conduct planning workshop and preparation of Inception report Conducting baseline survey on crops 	Since farmers of Sherpur sadar and Melandah of Jamalpur rejected the planned project activities the project sites should be closed and funding should be stopped immediately.

	and cropping practices at each	
	locations	
4.	Purchase of small equipment and research inputs	
5.	Collection and analysis of soil samples	
6.	Conducting farmers' training	
7.	Conducting field trials	
8.	Data collection and analysis	
9.	Preparation of reports.	
		Md. Abul Quasem & Dr. Sk. Md. Abdus Sattar
		Name and Signature of the Monitoring Officer(s)

1. Io.	Project related key information	Key Observations, Salient Findings with Suggestions/Overall Comments
	Project Code & Title: P-10	Key Observations:
	Rhizome rot disease of Ginger and its management	The program is being accomplished in two stages—up scaling of proven technologies and validation of improved technologies developed by the researchers. DAE field
	Implementing Organization: Bangladesh Agricultural Research Institute (BARI)	level officers are directly involved in both the stages with the technical advice of the researchers. Farmers expressed their satisfaction on the outcomes of the project and were
	Name & Address of Coord. & PI Dr. Akita Ayub, CSO Plant Pathology	ginger.
	Division	Salient Findings:
	 Project Location(s): <u>For Up scaling: (8 upazilas)</u> 1. Sadar & Kishoreganj upazila of Nilphamari 2. Badarganj & Taraganj upazila of Rangpur 3. Shahjahanpur & Sibganj upazila of Bogra 4. Ghatail and Modhupur upazila of Tangail For Technology Validation (6 upazilas): 	 About 80-90% farmers could identify the disease and learned the techniques of disease control Some farmers are trained to achieve the highest skill and became voluntary Local Service Provider (LSP) for training of the fellow farmers of their areas. About 75% farmers are able to identify healthy seed (seed rhizome). Most farmers learned that use of inputs (fertilizers) is also associated with control of disease and accepted the technology.
	1. Dimla & Domar upazilas of	Overall Comments
	 Nilphamari Sadar & Aditmari upazilas of Lalmonirhat Muktagachha & Bhaluka upazilas of Mymensingh 	The researchers and DAE field officer implemented the project satisfactorily creating much enthusiasm among the farmers.
	Data of Commancement: 25 Dec. 2015	Specific Suggestions:
	 Date of Commencement. 25 Dec. 2013 Date of Monitoring: 9 & 17 April 2017 Specific Objectives: Accelerating extension process of a proven technology on rhizome rot disease management of Ginger Evaluating the appropriateness of the diseases management technology in other Ginger growing areas Improving knowledge and skill of the 	The researchers may consider to search for more cheaper technologies (develop disease resistant variety, soil amendments etc.) to reduce the cost of costly inputs.
	local level extension personnel and farmers on disease management of ginger as a whole.	Md. Abul Quasem, Dr. Bazlur Rahman, S. A. Sattar & Liaquat Ali
		Name and Signature of the Monitoring Officer(s)Dr.
	 Activities Planned for the Monitoring Period (16 Nov. 2015 to 15 Nov. 2016): 1. Selection of sites and collaborating farmers 2. Recruitment of required project staff 3. Purchase of lab equipment and research inputs 4. Training of farmers, SAAOs and 	

	UAOs of he concerned upazila	
5.	5. Conducting field trials and	
	demonstrations	
6.	6. Organizing Field Days	
7.	7. Collection and analysis of data	
8.	8. Preparation of Reports	

Sl.	Project related key information	Key Observations, Salient Findings with
No.	<u> </u>	Suggestions/Overall Comments
No. 8	 Project Code and Title: Others-1 (CEP-II-Sea weed): Capacity building for conducting adaptive trials on Seaweed cultivation in coastal region. Implementing Organization(s): Bangladesh Agricultural Research Council (BARC) Name & Address of Coordinators/PIs: Coordinator: Dr. Md. Aziz Zilani Chowdhury, Member Director (Cops). BARC 	Suggestions/Overall CommentsKey Observations:Seaweeds are rich in nutrients, vitamins, antioxidants, bioactive compounds and are being used as food for centuries in China, Korea and Japan. People of Bangladesh are not aware of the importance and potentials of seaweeds except a few living in the Saint Martin Island (SMI) who collect drifted seaweeds, especially <i>Hypnea</i> <i>musciformis</i> , dry it and sell to local markets. Few researchers and an NGO, Coast Trust, have tried to grow <i>Hypnea</i> and <i>Caulerpaon</i> floating ropes in SMI .This project aims to create and support development of
	 Principal Investigator(s) (PIs): 1. Dr. Abdul Aziz, Prof. of Botany, Dhaka University (discontinued since) 	obstacles initially at the selected site of Teknaf. The research got momentum after shifting the site to new location at Co'z Bazar.
	30 June 2016 and appointed as	Salient Findings:
	 Consultant) 2. Dr. Md. Mahbubur Rahman Khan, CSO & Head, OFRD, BARI 3. Dr. Kabir Uddin Ahmed, PSO, BARC Co-Investigator(s): 1. Dr. Md. Kamrul Hasan, PSO, OFRD, BARI 2. Mr. Mostaq Ahmed, SSO, OFRD, BARI Project Location (s): Noapara, Teknaf (01 Jan. to 30 June 2016) then transferred to Nuniarchhara, Cox's Bazar. 	 Baseline survey was done, pertinent data are collected and selection of participating farmers are completed Potential species of seaweeds are identified and preserved. Seed production of most selected seaweeds species failed in the nursery except two which are adapted to the water tank outside of the laboratory. Natural habitats of seaweeds and its farming possibility along the coast of Teknaf and Cox's Bazar are identified Year round Seaweed production methods in nursery developed Processing, preservation and nutrient values of the selected Seaweeds determined Skilled human resources for Seaweed farming have been developed.
	Date of Commencement: 01 Jan. 2016	Financial Progress
	Total budget: Tk. 26,702,000/= Date of Monitoring: 12 April 2017	Fund received is Tk. 13,613,968/= and expenditure incurred is Tk. 11,392,511/= during the reporting period; the progress being 83.7%.
	Specific Objectives:	Overall comments
	 Mapping/situation analysis of seaweed farming along the Teknaf /Cox's Bazaar coast Screening potential species for farming along the coast primarily land-based in a nursery (open water farming with 	The research accomplished during the reporting period is satisfactory. Some problems exist in developing the Laboratory. The lab equipments, specially the Laminar Flow and Autoclave, purchased are of low quality and now almost unusable. KGF may look into the matter.
	floating 'single line will be tried) using	Specific suggestions
	 Year round seaweed production, including studying the studying the 	Three organizations are involved in the project. It is not clear who will be in charge of the laboratory being developed at Cox's Bazar. Operation and management of

biology of multi-step seed production of some delicate seaweed species in the laboratory	the Lab should be in the hand of a competent scientist of any organization, unless otherwise specified yet.
Activities planned for the monitoring period : (January to December 2016)	
 Conducting benchmark survey on existing methods of production and selling of Seaweed, and livelihoods of the farmers 	
2. Site selection for trials	
3. Collection of seaweeds, screening and selection of promising ones.	
4. Production seed	
5. Cultivation by floating method	
6. Capacity building through establishing a lab fully equipped in the field level	
 Training of field level staff and farmers on production technologies for seaweeds. 	
	Dr. Gayanath Sarker & Dr. M. Saifuzzzaman
	Name and Signature of the Monitoring Officer(s)

Sl.	Project related key information	Key Observations, Salient Findings with
No.		Suggestions/Overall Comments
9	Project Code and Title: Others-3 (ACIAR-KGF) Project. Cropping systems intensification in the salt affected coastal zones of Bangladesh.	Key Observations: CSIRO Australia is implementing the project with funding from ACIAR through four partners, BARI, BRRI, IWM and KU. The project is designed to gather information on
	 Implementing Organization(s):from Bangladesh: 1. Bangladesh Agricultural Research Institute (BARI) 2. Bangladesh Rice Research Institute (BRRI) 3. Institute of Water Modeling (IWM), Dhaka 4. Khulna University (KU) Name & Address of Principal/Co- Investigator (BRRI & BARI): Coordinator: Dr. Md. Ansar Ali, Director (Research), BRRI PI: Dr. Md. Abdur Razzaque, Head, Irrigation Water Management Div., BARI 	characteristics and availability of groundwater in the saline ecosystems of the coastal region (objective-1) and to study soil and water salinity dynamics as well as to assess pre- and post-monsoon potential of extracting groundwater suitable for irrigation (objective-2). These information will be used to formulate package of practices required for increasing cropping intensity in the coastal region (objective 3). Irrigation engineers of BARI and BRRI could start the project activities in May 2016 and completed some preliminary activities. IWM is undertaking studies on modeling soil and surface water salinity, soil moisture dynamics and groundwater dynamics in Borguna Similarly, the agronomists too started about the same time and completed some field trials to test some crops and cropping patterns at the target locations. Salient Findings:
	Project Location (s): Amtoli (Polder 43/1), Borguna Dacope (Polder 31),, Khulna	 Two polders, one each in Borguna and Khulna, are selected with the participating farmers in December 2015.
	Project duration: 48 months (Nov., 2015 to Oct, 2019) Date of Commencement: 16 April 2016 Total Budget: Tk. 88,00,000/= Date of Monitoring: 12 April 2017	 Organized Inception workshop and prepared the Inception Report in April 2016. Project scientists are selected and trained in impact pathway analysis Collected initial data on surface and ground water salinity and developed preliminary water balance
	Specific Objectives:	model lumped with salt balance.5. Conducted preliminary simulation exploring current
	 Developing sub-regional scale understanding of the surface and groundwater resources, groundwater recharge/discharge mechanisms, and their trends in three case study polders representing the range of salinity conditions across the coastal zone. Developing a detailed understanding of the salt and water dynamics of the case study polders and model pre- and post- monsoon groundwater abstraction regime that improve groundwater quality and availability during the dry 	 APSIM response OFRD agronomists started with relaying Khesari in t. aman rice (BR10, BR11, BRRI dhan34) and at Pankhali under Dacope, Khulna. Screening vegetables on the dykes of gher (2016 season) also done at Khatail & Tildanga of Dacope, Khulna. Testing hybrid Maize (BARI Maize-9) sown using PTOS (Dec., 2016) at Sikandar khali of Amtoli under Barguna district Testing sunflower and corn at varying salinity levels were done to select suitable one(s) to fit into Sunflower/Maize – T. aman pattern at Amtoli, Barguna.
	 Indentifying superior cropping options and polder water and salt management strategies through field evaluation and co-learning with farmers. 	Financial Progress ACIAR delivered fund to partners of Bangladesh (BARI and BRRI) through KGF with a separate arrangement with the latter. A total of Tk. 39,85,278/= has been transferred

Activities planned for the monitoring period : (12 April to March 2016)	to these organizations until March 2017. Details of utilization of fund by BARI and BRRI is not available yet.
 Selection of research sites and participating farmers Preparation of Inception workshop through field level inception workshop. Training of project scientists, field research staff and participating farmers. Conduct planning workshop and prepare annual work plan Conduct field trials on cropping systems x management options. Collect and analyze all available data on surface and ground water salinity, climatic data and crop response to salinity. Reporting. 	Overall Comments Implementation of the project is rather complex. The two organizations of Bangladesh are working again in partnership with several Research Divisions of the respective institutes. It is very difficult to distinguish the type of activities undertaken by the irrigation engineers, agronomists and soil scientists. The first two objectives are supposed to be addressed by the irrigation engineers. But the engineers do little work on the two objectives and are spending more time in doing agronomic trials. Specific Suggestions: Irrigation engineers should take up studies on soil moisture, surface water and groundwater dynamics in the coastal region to produce outputs which would be the inputs for the modelers of IWM and agronomists to design cropping patterns and crop production.
	Dr. Abdul Baset, Dr. Almagir & Dr. S. A. Sattar Name and Signature of the Monitoring Officer(s)

Sub-Sector-2: Livestock

Project Code	TF17-ARI/15	28
Project Code	TF18-EM/15	29
Project Code	TF19-EM/15	31
Project Code	TF20-EM/15	32
Project Code	TF21-DL/15	33
Project Code	TF24-EM/15	34

Sl.	Project related key information	Key Observations, Salient Findings with
NO.		Suggestions/Overall Comments
10	Project No. & Title: TF17-ARI/15 Refining and validation of BAU-Bro chickens	Required blood samples from sire and dam lines for DNA isolation and marker analysis is going on. Phenotypic data have been collected and farmers from one test location
	Implementing Organization: Bangladesh Agricultural University	were selected and trained.
	 (BAU), Mymensingn Name & Address of PC/ PI PI: Dr. Md. Ashraf Ali, Prof. of Poultry Science Project Location(s): Department of Poultry Science, BAU and four districts (Mymensing, Jamalpur, Rangpur and Rajshshi) Project duration : 36 months 	 Salient Findings: 1744 chicks hatched from sire and dam lines and parents during March-April 2015. 400 blood samples were collected from the generation 5 and DNA was isolated from all samples. Already 55 polymorphic markers in sire and dam lines have been screened. Collection of phenotypic data up to 35 weeks of age has been completed. Genetic homogeneity in parental lines (among four lines) of BAU Bro-chicks were studies using six
	Date of Commencement: 11 March 2015 Total budget: Tk. 1,61,07,610/= Date of Monitoring: 05 April, 2017	 primers. Seventy to 80% homogeneity has been acheiveed. Fifty farmers have been selected from Mymensingh district from whom baseline data on broiler farming collected
	 Specific Objectives: Molecular characterization of sire and dam lines of BAU-Bro strains with microsatellite markers Refinement of growth and reproductive traits of BAU-Bro sire and dam lines through marker assisted selection. Dissemination and popularization of of 	 The selected farmers are trained and 18,093 chicks have been distributed among the trained farmers of four districts and other clients like PKSF and farmers from Kushtia. Two new Incubators have been installed and it is expected that production will go up to 5000 per week. Procurement of Incubator and Centrifuge is completed.
	and BAU-Bro chicks to farmers.	Overall Comments
	Activities Planned for the Monitoring Period (Marc 2015 to March 2017):	Researchers completed successfully the activities planned for the first year
	 Organize Inception workshop and preparation of Inception Report. Multiply selected sire and dam lines. Phenotypic data collection 	Financial progress : Fund received Tk. 43,35,400/= & expenditure incurred Tk. 40,80,649.45; the progress being 94.1%
	4. Blood and tissue samples collection	Specific Suggestions:
	 DNA Isolation. Microsatellite marker analysis. Marker-trait association analysis Selection of male and female lines based on BLUP. Line crossing to produce parents and BAU-Bro broiler 	This is a viable project and the researchers may consider to scale up the technology through development of Local Service Providers (LSPs) across the country in collaboration with development partners like DAE and or other competent agencies.
	 9. Farmers training 10. Field trials at selected sites 11. Procurement of equipment and chemicals. 	Dr. Sk. Md. Abdus Sattar & Dr. Md. Liaquat Ali Name and Signature of the Monitoring Officer(s)

Sl. No.	Project related key information	Key Observations, Salient Findings with Suggestions/Overall Comments
11	Project No & Title: TF18-EM/15	Key Observations:
	Exploring epidemiology, anthelmintic resistance and genetic diversity of some common gastrointestinal nematodes of small ruminants in Bangladesh	This is completely a laboratory based basic research project aimed to generate epidemiological information of the blood feeding GI nematode affecting small ruminants, particularly sheep and goat. Researchers almost completed the targeted activities of the first two years.
	Bangladesh Agricultural University	Salient Findings:
	(BAU), Mymensingh Name & Address of PC/ PI PI: Dr. Md. Zahangir Alam, Prof. of Demotively and Exception of Materia	 A total of 2,808 (2,166 from goat and 642 from sheep) frpm even regions of Bangladesh have been examined. Important GI nematode parasites of sheep and goat has been identified
	Science	3. Average prevalence of the parasite is 62%; the highest being in Rangpur (73.7% and the lowest in agnail (45.1%).
	Project Location(s): Department of Parasitology, Faculty of Veterinary Science, BAU, Mymensingh Epidemiological study locations: 7 districts	 Prevalence and geographical distribution of the parasite have been worked out. GI nematodes are most prevalent in public (ca 74%) than in private (54.4%) farms
	(Mmensingh, Tangail, Rajshahi, Rangpur, Jhenaidah, Bhola, Rangamati.	6. Risk factors of the disease have also been identified.7. Multiple antihelminthic resistances have been detected.
	Project duration: 36 months Date of Commencement: 23 March 2015 Total budget: Tk. 6,680,000/=	Overall Comments The researchers could successfully complete the activities
	Date of Monitoring: 05 April 2017	planned for the period timely.
	 Specific Objectives: 1. Investigation of common GI nematodes of small ruminants in targeting detailed epidemiological 	Financial progress: Tk. Total fund received Tk. 30,95,300/= & expenditure incurred Tk. 29,41,086/=; the progress being 95.0%
	information of the parasites	Specific Suggestions:
	 Investigation on anthelmintic resistance of GI nematodes of small ruminants Molecular characterization of blood feeding GI nematode <i>Haemonchus</i> <i>contortus</i> to find out genetic 	The information generated should be used to formulate management package for the farmers. But we did not see nay program like this. The researchers may design another project, if necessary, to achieve the objective
	variability, parasite transmission patterns and drug resistant genes.	
	 Activities Planned for the Monitoring Period (August 2015 to October 2016): 1. Define terms of reference 2. Staff recruitment 3. Holding inception workshop & preparation of Inception Report 4. Purchase of required inputs, equipments and furniture 5. To design study sampling strategy 	
	and preparation of survey tools6. Collection and examination of	Dr. Sk. Md. Abdus Sattar & Dr. Md. Liaquat Ali Name and Signature of the Monitoring Officer(s)

samples and data collection	
7. Epidemiological data analysis	
8. Preparation of reports	

C1		
SI.	Project related key information	Key Observations, Salient Findings with
INO.		Suggestions/Overall Comments
12	Project No. & Title: TF19-EM/15	Key Observations:
	Community engagement in bio-security	The researchers took too much time to get prepared for the
	(CEB) for the prevention of infectious	project activities and started almost about a year later than
	diseases of poultry based on	the targeted time due to some problems with availability of
	epidemiological risk analysis.	fund from the BAURES. This likely to delay the
		completion of the project. The project aims to develop
	Implementing Organization: Bangladesh Agricultural University	capacity of the community through a Community
	(BAID) Mymensingh	Engagement in Bio-security (CEB) model developed
	(Drto), wynensnigh	earner. We found some farmers including some local
	Name & Address of PC/ PI	trained in his security practices. It is expected that under
	PI: Dr. Md. Rafigul Islam. Prof. of	the leadership of these I SPs capacity development of the
	Pathology, Faculty of Veterinary Science	community in CFB will be enhanced
		community in CED will be emaneed.
	Project Location(s):	Salient Findings:
	Department of Pathology, BAU (Lab) and	
	Farmers' fields in Bhaluka (Mymensingh)	1. Survey on disease risk factors and bio-security practices
	and Sakhipur (Tangail)	are surf going on. A total of 304 faillers have been surveyed out of 1062 targeted in 20 villages of two
		upazilas According to the researchers 60% of the
	Project duration: 36 months	activities planned up to March 2017 are completed
	Date of Commencement: April 2015	however, this does not match with our field
	Lotal budget: 1K. $84,03,000/=$	observations.
	Date of Monitoring: 06-07 April 2017	2. Collaborating farmers including the intending LSPs
	Specific Objectives:	have been selected and trained in risk analysis and bio-
	1 Identification of risk factors for	security practices. But famers did not start the intended
	infectious poultry diseases and gaps in	activities yet for some obvious reasons.
	bio-security practices	3. Fifty data collectors have been recruited and trained.
	2. Designing an approach for CEB based	Other personnel such as Accountant, Lab Attendant and
	on epidemiological risk analysis	community animal health workers have been recruited.
	3. Field trial and fine tuning of CEB	4. Molecular diagnostic protocols for several diseases
	model.	nave been developed while laboratory tests are in
		progress for doing the same for other important diseases.
	Activities Planned for the Monitoring	Overall Comments
	Period :	
	1. Recruitment of staff	The project is being implemented rather slowly, the reasons
	 Selection of research sites Survey on risk factor bio scourity. 	could not be assessed. Preparation for physical activities
	practices	are completed and some progresses have been made
	4 Training of data collection staff	Sausiacionny.
	5 Data collection	Financial progress: Reporting period has not been
	6. PRA on disease transmission risk	mentioned in progress report Reviewing all documents it
	mapping & community engagement in	appears that total fund received Tk 9 73 $555 = \&$
	bio-security	expenditure Tk. 8,19,388/=: the progress being 84.1%
	7. Procurement of equipment and inputs	
	8. Optimization of diagnostic protocols	Specific Suggestions:
	9. Designing CEB approach	KGF needs to do a strong monitoring of the activities to
	10. Stakeholders training on CEB	accomplish the project. However, KGF may extend the
	11. Analyzing impact of CEB in disease	time without any additional fund.
	prevention	
	12. Holding workshop and Seminar	Dr. Sk. Md. Abdus Sattar & Dr. Md. Liaquat Ali
	13. Reporting	Name and Signature of the Monitoring Officer(s)

S 1	Project related key information	Key Observations Salient Findings with
No	Troject related key mormation	Suggestions/Overall Comments
13	Project No & Title: TF20-EM/15	Key Observations:
	Studies of pigeon diseases in northern	Implementation of the project began in January 2015. The
	Bangladesh.	researchers are trying to determine the incidence of pigeon
		diseases and their causal agents from the data (should be
	Implementing Organization:	information not data) given by the farmers to the Research
	University of Rajshahi	Fellow (Ph.D. Student). Protocol was developed with the
		Hajee Danesh University of Science and Technology,
	Name & Address of PC/ PI	Dinajpur to help in laboratory analysis of the disease
	PI: Dr. Md. Jalal Uddin Sarder, Pfoi. of	sample. The project activities are being carried over in the
	Animai Husbandi y & Vetermary Science	second term at the same location.
	Project Location(s): Rajshahi sadar (Paba	Salient Findings:
	& Narkelbaria), Pabna sadar (Ishurdi) and	1. Studies began in the sites selected before and collected
	Baraigram of Natore (Banpara).	information on the prevalence of disease and pigeon
		rearing practices.
	Project duration: 24 months	2. Samples of diseases were collected from the sick birds
	Total budget: Tk 2 000 000/=	and were examined clinically in the Veterinary Lab of the university as well as in the Lab of Heige Densch
	Date of Monitoring: 10-11 April 2017	University of Science and Technology Dinainur
	8 I I	3. Causal organisms are identified in the samples
	Specific Objectives:	collected from both the infected and dead birds and
	1 Determine the incidence of nigeon	from the fecal and blood samples.
	diseases	4. Disease management packages developed from testing
	2. Stud the clinic-pathological of some	drugs, housing environment for safety and sanitation,
	pigeon diseases.	and deworming
	3. Develop appropriate control strategies	5. Farmers were trained in disease management.
	for pigeon diseases.	
		Overall Comments
	Activities Planned for the Monitoring	The researches are making good progress and completed
	1 Selection of study sites and farmers	the planned activities satisfactorily. However, the
	2 Baseline survey of the extent of pigeon	monitoring team could not assess the extent of physical
	mortality and apparent causes thereof.	work done due to non-availability of a Logical Framework
	3. Identification of common diseases of	which should have been in the inception Report.
	pigeon in the study area	Financial progress:
	4. Developing clinico-pathological	Total fund received The 694 500/- and arm and the
	methods of disease identification.	101sai 1010 received 1K. $084,300/=$ and expenditure incurred Tk. $675,000/=$: the progress being 98.6%
	mortem findings.	
	6. Studies on socio-economic aspects of	Specific Suggestions:
	pigeon rearing.	The project is ending in this month(April 2017). The
	7. Collection and analysis of samples	researcher may be asked for a final report.
	from diseased birds of the study areas.	Mr. Md. Abul Quegom & Dr. Md. Declur Debrear
	8. Preparation of reports.	Name and Signature of the Monitoring Officer(s)
		rame and Signature of the Monitoring Officer(8)

~1		
SI. No.	Project related key information	Key Observations, Salient Findings with Suggestions/Overall Comments
14	Project No. & Title: TF21-DL/15	Kev Observations:
	Use of probiotic to improve nutritional value of rice straw and its impact on Dairy Cow production. Implementing Organization: Bangabandhu Sheikh Mujibur Rahman Agricultural University (BSMRAU), Gazipur.	The researchers completed pre-treatment preparatory works such as recruitment of staff, preparation of Inception report following an inception workshop, purchase of equipments and required research inputs and evaluation of probiotic compositions during the first year. Actual treatment of dairy cows started since mid-next year. Dairy cows were fed with probiotics-treated rice straw for enhancing their production. Other research activities are going on as per planned program.
	PI: Dr. Abu Sadaqua Md Salim Prof. of	Salient Findings:
	 PI: Dr. Abu Sadeque Md. Selim, Prof. of Animal Science and Nutrition Project Location(s): Deptt. of Animal Science and Nutrition, BSMRAU, Gazipur Project duration : 36 months Date of Commencement: 15 April 2015 Total budget: Tk, 80,00,000/= Date of Monitoring: 17 April 2017 Specific Objectives: To improve the nutritional values of rice straw using probiotics; To determine the in-vivo digestibility of probiotic treated rice straw in crossbred dairy cow; and To evaluate the effect of treated rice straw on milk yield, milk composition and health status of crossbred dairy cows. Activities Planned for the Monitoring Period (April 2015 to March 206): Recruitment of required staff Inception workshop and preparation of Inception Report Purchase of equipment & other inputs Evaluation of probiotics composition Rice straw treated with probiotics/locally available microbes Chemical analyses of straw samples- both treated and untreated. Preparation of reports. 	 Recruitment of staff, holding of Inception workshop and preparation of Inception report were completed as per plan Purchase of equipment is complete and that of research inputs is going on as per plan and will continue up to 3rd year. Actual treatment of dairy cows started since mid-2016 and will continue. Growth of microbes on selected media has been worked out Biochemical tests on rice straw have been done as pere program Evaluation of microbiological quality of probiotics revealed that microbial load ranges from 10⁶-10⁸ cfu/g. Average composition of rice straw has been reviewed Methods of treating rice straw has been developed Overall Comments The researchers completed all activities planned for the first year successfully. Research work planned in the second year are going on smoothly an are expected to be completed in time. Financial progress: Fund received Tk. 28,31,000/= & expenditure incurred Tk. 8,67,850/ =; the progress being 30.6%. Specific Suggestions: The newly developing Lab has to be developed as soon as possible. The researchers may look for suitable donor to support if not available from KGF.
		Dr. Sk. Md. Abdus Sattar & Dr. Md. Liaquat Ali Name and Signature of the Monitoring Officer(s)

C1	Draiget related low information	Var Observations Solient Firdings with
SI.	Fibject related key information	Suggestions/Overall Comments
15	Designet Code & Titles TE24 ENA/15	Key Observations:
15	Project Code & Title: TF24-EIV/TS Epidemiological and patho-biological investigation of repeat breeding syndrome and development of strategies for improving the fertility of repeat breeder dairy cattle Implementing Organization: Bangladesh Agricultural University (BALD) Mymensingh	The researchers selected research sites as per program and farmers. Research staff and farmers were trained and baseline information was collected from 300 farmers across the study locations. Test animals were selected, examined and pertinent data were collected. Treatments were imposed after standardization of methods. Two protocols were developed for experiments and used for improvement of fertility of repeat breeding cattle (RBC).
	(Dre), wyneisiigi	Salient Findings:
	Name & Address of Coord. & PI PI: Dr. Nasrin Sultana Juyena, Prof. of Surgery and Obstetrics Project Location(s):	 Seven farms and 300 participating farmers were selected as per program for baseline data collection Research staff (RF and RAs) were trained in data collection Inception report was prepared following an inception
	 Gazaria & Srinagar of Musnhiganj Shahjadpur of Sirajganj Potiya of Chittagong Commercial farms in Savar & Military farms (Dhaka) and Bhaluka (Mymensingh) 	 workshop with the project staff, KGF & other stakeholder representatives and selected farmers 4. Across the selected locations 117 RB were identified and prevalence of RB Cows were 20.9%; prevalence was more in Fas studied Frishian (F x L) cross 5. All aspets of hemato-biochemicals of RBC were lower than normal cows (as control experimental unit).
	Project duration: 36 months Date of Commencement: 01 Sept. 2015 Total budget : Tk. 98,58,000/= Date of Monitoring: 05-14 April 2017 Specific Objectives:	 6. Microbes present in deep vaginal swap of RBC was higher than normal cows. 7. 6 calves are delivered from 75 pregnant RB cows during the reporting period. 8. After the first stage of treatment 49.56% RBs became
	1. To identify and determine the causes	pregnant.
	and associated factors of repeat	Overall Comments
	 breeding syndrome through epidemiological and patho-biological investigation 2. To find out proper treatment for report breeders heifers and cows 	The researchers completed all activities planned successfully and the initial findings are encouraging. The researchers are happy with the research capacity developed.
	Activities Planned for the Monitoring Period (Sept. 2015 to Mar. 2017):	Financial progress : Fund received Tk. 49,26,418/= & expenditure incurred Tk. 35,24,780/=; the progress being 71.5% up to March 2017
	1. Survey of baseline situations	
	 Recruitment of research staff Procurement of research inputs & 	Specific Suggestions:
	 equipment 4. Training of RF and RA and farmers 5. Selection of farms & animals, formation of groups and data collection 6. Formulating treatments & management strategies & their applications 7. Collection and analyses of data 	The initial findings of the project is encouraging. The researchers should ensure that the findings are translated into extension messages in various forms for use by the development workers at the end of the project.
	8. Reporting	Dr. Sk. Md. Abdus Sattar & Dr. Md. Liaquat Ali Name and Signature of the Monitoring Officer(s)

Sub-Sector-3: Fisheries

TF30-AP/15 P-13

<u>S1</u>	Project related key information	Key Observations Salient Findings with
No	Tiojeet related key miormation	Suggestions/Overall Comments
16	Project Code & Title: TF30-AP/15	Key Observations:
Sl. No. 16	 Project related key information Project Code & Title: TF30-AP/15 Sustainable development of aquaculture in the north-west Bangladesh under climate change scenario. Implementing Organization: University of Rajshahi & Suranjana Social Service Association (SSA), Bogra. (Associate Organization) based in Bogra. Name & Address of Coord. & PI PI: Dr. Md. Istiaque Hossain, Assoc. Prof. of Fisheries Project Location(s): Paba & Charghat-Bagha of Rajshahi & Sadar upazila of Bogra Project duration: 36 months Date of Commencement: 01 Sept. 2015 Total Budget: Tk. 1,67,93,000/= Date of Monitoring: April 07 & 12, 2017 Specific Objectives: Improve water retention capacity of seasonal ponds; Identify appropriate stocking density, feeding and management strategies in the model ponds for poly culture to increase pond productivity Improve knowledge and skill of fish farmers of northwest Bangladesh on pond management and fish poly culture technology. 	 Key Observations, Salient Findings with Suggestions/Overall Comments Key Observations: Pond fisheries dominate in the region but with low productivity. due to poor management and failure of the farmers to maintain adequate stocking density and water level in the pond, water quality and control of diseases of fishes. However, the region has no problem of soil/water salinity but pH related problems may exist. The researcher developed this project to help farmers of the region with proper fish production technologies. Despite release of fund in time the researchers could not start the planned activities during the first year of operation. The monitoring team found four out of nine ponds have been excavated during 18 months of project period in Bogra and the rest five are under process. The salient findings of the implementation of the project are given below Salient Findings: Recruitment of project staff completed Inception workshop was held and inception report has been prepared and submitted. Selection and excavation of pond is going on after passing of two dry seasons. The researchers hastily started excavating pond almost at the end this current dry season. Four ponds out of 9 in Bogra and 12 ponds out of 18 in Rajshahi are complete up to the date of monitoring. However, we found the excavation work is going on. No research work has been started yet. Nevertheless, the first annual report gives an account of research outputs that have already been produced?. [page 11, section (ii)] without having any field study conducted. Baseline information have been collected and documented.
	 Period (Sept. 2015 to Mar. 2017) Recruitment of project staff Selection of pond Incention workshop, group formation 	and by now 16 ponds out of 27 have been excavated. Cost incurred during the preparatory phase (mostly baseline survey, purchases, travel, training) and staff salaries seems illogical.
	 Inception workshop, group formation, conducting baseline survey and selection of beneficiaries. Training of staff and selected 	The project could work with he existing farmers' ponds of the areas rather than digging new ponds for the farmers. Such activity will not sustain in the long run.
	 beneficiaries 5. Exchange visits 6. Preparation of pond, hole digging and covering with organic matter 7. Purchase and release of fish fries in the ponds 	Confusion exists about the date o commencement of the project. According to the MOU the project has commenced on 1 st Sept 2015 (refer to Inception Report) but the Progress Reports say the project commenced a week earlier e.i, 25 August 2015.
	ponds	

8. Regular meeting with farmers for	Financial progress:
 motivation 9. Fish harvest and production monitoring by field staff 10. Collection of data on production and consumption of fish 11 Record keeping and data analysis 	Budget allocation in the Inception report and expenditure statement both in annual and second half yearly reports are highly incomprehensive to me. An expert Accountant of KGF? may review it.
11. Record Reeping and data analysis	specific Suggestions.
	KGF may conduct a special monitoring to get detailed information on the up to date project activities undertaken and how the fund is being used.
	Md. Abul Quasem & Dr. Md. Bazlur Rahman
	Name and Signature of the Monitoring Officer(s)

<u>S1</u>	Project related kow information	Kay Observations Salient Findings with
SI.	riojeet related key miormation	Suggestions/Overall Comments
17	D. L. G. L. A. MUL. D. 12	Very Observations:
1/	Project Code & Title: P-13	Key Observations:
	Adaptation of community enterprise	The main driving force of the project is community
	approach in tidal floodplains for crop-fish	approach so that conflicts of the vested interest person(s)
	culture-Jhalokati Model	of the area are resolved to make use of the collective
		efforts for successful implementation of the project. Major
	Implementing Organization:	technical inputs are available from the Doudkandi pilot
	Shikkha Shastha Unnayan Karzakram	site as well as the crop-fish production system using ditch
	(SHISUK)	& dyke method in tidal floodplain of Jhalokati model. The
		project aims to convert the low productive coastal
	Name & Address of Coord. & Pl Coord Md Zillyn Dokmon Droiget	lowlands of the tidal floodplain into highly productive
	Coord. Md. Zillur Kanman, Project	lands through crop fish productive systems. The
	Maghazar Dhaka	researchers completed the field activities planned for the
	Play Four different Pla from he Assoc	first year and are continuing with the planned activities for
	Organizations (Deptt. of Fisheries &	the second year.
	Dhaka University)	Salient Findings:
		1 Descent sites with the establishis leaders of the target
	Project Location(s)	1. Research sites with the catalytic readers of the target
	Bishnudia of sadar Jhalokati Uttampur of	2 Baseline survey of the potential floodplains of the
	Rajapur and Jhanjhania of Nazirpur upazila	target locations are done
	of Perojpur.	3 Selected leaders together with some lead farmers of
	51	the target communities are motivated through
	Project duration: 36 months	exposure visits to Doudkandi model site
	Total budget: Tk. 14, 898,060/=	4. Inception report was prepared following an inception
	Date of Commencement: 01 Feb. 2015	workshop with the local leaders, elite farmers and
	Date of Monitoring: 01 April 2017	representatives of the local development organizations
		5. Required field staff are recruited.
	Specific Objectives:	6. Training of the participating farmers, field staff and
	1. Adaptation of community enterprise	community leaders are completed to inspire adoption
	approach of aquaculture in tidal	of the community enterprise models.
	floodplain ecosystem	7. Facilitated the formation and management of the
	2. Evaluating variations in community	community enterprise
	enterprise approach adaptation in the	8. Supported development of the required infrastructure,
	floodulain	repairing and renovation of dykes in the second year
	2 Foster lesson learning from the action	and fitting nets on the control structures to check
	research for wider replication	Outilow of fishes
	research for wheel replication	9. Collection and analyses of soil and water samples in the leb of Co. PL from Dhoke University
	Activities Planned for the Monitoring	10 Supported and facilitated the stocking and fish culture
	Period.	11 Data collection and processing
		12 Preparation and submission of two annual progress
	1. Site selection and benchmark survey	reports (1 st & 2 nd)
	2. Identify catalytic agents of the target	
	communities & Community meetings	Financial progress:
	for mobilization	A total of Tk. 8,261,796/- has been utilized out of total Tk.
	3. Conduct baseline survey	11,437,460/- received. during the reporting period (01
	4. Exposure visits of community leaders	February 2015 to 31 st January 2017); the progress being
	to Doudkandi pilot area	72.2%.
	5. Recruitment of project staff	Overall Comments
	6. I raining of community personnel in	
	project management activities	The researchers completed all the planned activities
	/. Facilitating formation of community	satistactorily. However, the total fish output this year was

enterprise	e and management thereof	less due to disruption of embankment and loss of fishes.
 Providing stocking, of enterp meeting, Facilitate communi Data coll Reporting 	g technical support for fish culture and management rise operations like board AGM etc. e decision making by the ity ection and processing	A dam has been constructed in the project area which is using by local people, students and others. All Share holders are participating in project implementation activities. Executive committee are sitting together to take all decision for smooth running of the project. Farmers received training. Income expenditure statement are shown to all share holders.
III. Reporting	Þ	Specific Suggestions:
		The project already demonstrated successfully the benefits of the community enterprise approach. These knowledge and skill have to be scaled up in similar ecosystems in the coast and beyond.
		Lack of coordination and mutual trust among the shareholders, and competition for leadership among them was observed. The implanting agency should take more coordinating roles for sustainable community approach.
		Dr. M. A. Baset, Alamgir Shafiul Alam & S. A Sattar Name and Signature of the Monitoring Officer(s)

Sub-Sector-4: Farming Systems TF33-ARI/15 41 39

S1.	Project related key information	Key Observations, Salient Findings with
No.		Suggestions/Overall Comments
18	Project Code & Title: TF33-ARI/15	Key Observations:
	Farm productivity improvement in haor areas through integrated farming systems approach	Project implementation has just completed one and half a year. On-farm trials are being conducted as per plan. It was reported and some were seen that all of the relevant data on
	Implementing Organization: Sylhet Agricultural University (SAU) Sylhet Name & Address of Coord. & PI PI: Dr. Md. Abul Kashem, Prof. of Soil	trials, cost and return were collected, recorded and analyzed. Data analysis and interpretation made clearly indicates that implementation progress made so far would expect to achieve specific objects of the project at the end. Though the project would run around two years more, yet activities completed and outputs so far achieved are contributing towards the objectives.
	Science	
	Project Location(s):	Salient Findings:
	 Noagaon, South Sunamgnj, Sunamganj Bahadurpur, Sunamganj sadar, Sunamganj. 	 Project Personnel were deployed following BSRI/KGF procedure and posted in the working area of the project. All lab, field & office equipment were purchased, except oven
	Project duration: 36 months Date of Commencement: 01 April. 2015 Total budget: Tk. 1,85,24,000/- Date of Monitoring: 17-18 April 2017	 Inputs for the trials of the reporting period were procured Inception workshop was organized and Inception Report was prepared. Farmers and sites for field trials were selected
	Specific Objectives:	6. Field trials involving crop-livestock-fish culture for two
	 Develop/refine location-specific appropriate technologies for farming system in haor Increase farm productivity through integrating crop-livestock and fisheries. Diversify farming and non-farming activities for <i>in situ</i> employment generation as well as develop value chain and market linkage Capacity building of the participating farmers for efficient natural resources management for sustainable systems productivity. 	 seasons completed and is being continuing for the third season. 7. Fertilizer doses for the recent HYV rice are being evaluated by a Ph.D. fellow. 8. Comprehensive farming of semi-scavenging poultry and duck, sheep and milch cow rearing, beef fattening, hazard free fish drying, vegetable and fruit cultivation. Overall Comments The researchers completed the planned activities successfully. They escaped the recent flood in <i>haor</i> due to timely establishment of the crops. However, the subsequent
		activities may be affected. Integrated farming system technologies contributed most to farm productivity. In future, there are ample scopes to introduce and popularize new fish drying de-worming and vaccination technologies
	Activities rianned for the Monitoring Period.:	for cattle.
	 Selection of research sites and farmers Conducted survey to collect baseline information 	Financial progress:
	 Farmers are trained in project activities 	Total fund received Tk. 8,403,200/= & expenditure incurred Tk. 77,84,132.50; the progress being 92.6%.
	4. Conducting field trials in haor for testing crops and crop varieties	Specific Suggestions:
	(mustard, rice & vegetables) 5. Homestead production	 The project authority should introduce modern varieties of fruits among the farmers.
	6. Improvement of fish drying system	• As fund utilization was comparatively good and fund

7.	Deworming and vaccination of cattle and poultry	release was only 45.36 percent, KGF should release enough fund as per need of the project authority.
8.	Demonstrating milk production, beef fattening and poultry rearing system	 The project should develop a plan for dissemination of the technologies.
9.	Collection of data on marketing channels and value changes of fishes, rice productivity and profitability in <i>Dekhar haor</i>	• The project authority should have a contingency plan to overcome the risks associated with natural disasters like flash flood.
10.	Monitoring of price fluctuation of agricultural products and inputs	
11.	Identifying management and socioeconomics of fishing community in <i>Dekhar haor</i>	Dr. Gayanath Sarker & Dr. M. Saifuzzaman Name and Signature of the Monitoring Officer(s)
12.	Observation of changing in the soil fertility of <i>haor</i> areas over time	
13.	Collection, storage and analysis of data	
14.	Preparation of Reports	

Sub-Sector-5: Apiary (Bee Keeping)

TF26-ARI/15

S 1	Project related key information	Key Observations Salient Findings with
No.	roject related key mormation	Suggestions/Overall Comments
19	Project Code & Title: TF26-ARI/15	Key Observations:
17	Validation and up scaling of bee keeping practices for improving yield and quality of bee products. Implementing Organization: Sher-e-Bangla Agricultural University (SAU), Dhaka Name & Address of Coord. & PI	Three treatments being studied are (1) Control (Traditional bee keeping practice with single box), (2) Wooden box with super and (3) Poly hives box with super. Boxes and bee hives are transferred to a location based on availability
		of sources of honey (flower). Major resources are Sirajganj (mustard flower), Gazipur (lichi flower) and Satkhira (multiflowers like Khalisha, Kakra, Baen, Geoa etc.). Bee boxes are brought back to SAU apiary once in a year for doorth monocompatt and the curle is repeated.
	PI : Dr. Mohammad Sakhawat Hossain, Assoc. Prof. of Entomology	Salient Findings:
	Assoc. Prof. of Entomology Project Location(s): Gazipur (Mid-February to March) Satkhira (April to mid-May) SAU Dhaka (mid-May to mid-November) Sirajganj (mid-November to mid-February)	 Baseline survey revealed the non-availability of breeding of queen bee, pollen and propolis production. Four research sites with 20 bee keepers at each locations are selected. Twenty bee keepers at each location are trained on utilization of queen excluder, healthy queen, propolis traps and mesh, and improved bee keeping practices
	 Date of Monitoring: 05-xx April 2017 Specific Objectives: 1. Improve quality and yield of bee products 2. Enhance capacity of bee keepers Activities Planned for the Monitoring 	 and lab equipment Different types of bee boxes are procured from home and abroad and are being used as peer treatment The participating bee keepers are provided with research inputs like moden bee boxes, pollen trap, propolis mesh, Queen excluder, healthy queen, feeder not and honey extractor, frames etc.
	 Period (Sept. 2015 to Mar. 2017): 1. Conducting baseline survey on local bee keeping practices 2. Site selection and renting of area in 	 Two half yearly progress reports are prepared and submitted to KGF
		Overall Comments
	 three districts for research Collection of bee stocks from different parts of Bangladesh. Training of participating bee keepers Demonstration and utilization of pollen 	The researchers competed the planned research work satisfactorily. However, development of an Apiary in SAU was planned last year which is under process now with the allocation of land for this facility. Up scaling program has not yet been tried.
	traps, propolis trap, and different types of bee boxes in SAU apiary to collect various bee products from target regions.	Financial progress : Total fund received Tk. 96,38,900/= & expenditure incurred Tk. 90,18,401/=; the progress being 93.56%.
	6. Improvement of SAU Apiary and	Specific Suggestions:
	 research field 7. Report writing 8. Publications (leaflets, posters, booklets etc.) 9. Organize workshop/seminar 	 The researchers should take necessary steps for production of technology packages for further scale up in collaboration with competent development organizations. Local potential fabricators should be trained to produce poly hive boxes with super. Linkage of local bee keepers with external market for
		marketing various bee products and quality honey. Md. Abul Quasem Dr. Md. Bazlur Rahman Name and Signature of the Monitoring Officer(s)

Sub-Sector-6: CRP-I: Hill Agriculture

Component-I	46
Component-II	48
Component-III	50
Component-IV	52
Component-V	54
CRP-III	56

C1	During the state of the state o	V Observetions Colient Findings with
SI. No	Project related key information	Suggestions/Overall Comments
20	Project Code & Title: CPD I: Hill	V
20	A grigulture	Key Observations:
	Component-I: Watershed Management	Component-I is devoted to watershed management for
	for Sustainable Agricultural Production	sustainable agricultural production in the three hill
		districts. The programs are performed under three
	Implementing Organization(s):	Program Implementation Units (PIUs). Delineation of
	BARI, BSMRAU and CDB	watershed areas is done by PI-2 under PIU-II,
		Construction of control structures and characterization of
	Principal Investigator/Coordinator	the ecosystems are done by PI-1 under PIU-1, and Conseity building of the formers is done by PI 2 under
	Name & Address:	
	1. Dr. Munshi Rashidul Hasan, CSO-In-	F10-III.
	Charge of HARS, BARI, Khagrachari	Most of the major important activities (designing,
	(PIU-1)	construction and characterization of watersheds) have not
	2. Prof. M.Rafiqul Islam, Deptt. Of	been touched yet and less important activities are given
	Agronomy, BSMRAU, Gazipur (PIU-	priority. Work is being done on a peace meal basis
	2) 2 Mr. Mong Sanua Marma, SSO, CDP	Ignoring the sequence of activities that should have been followed. Project planner foiled to give the strategie plan
	Bandarhan (PIII-3)	of implementation and thus performance of the project
	Dundurbun (110-5)	has been seriously constrained by improper project design
	Project Location (s):	lack of skilled manpower for designing watershed.
	1. Rameri Para of Bandarban Sadar	frequent changes of PL etc making progress far below the
	2. Comilla Tila, Golakana Parta, Eit	target. However, an account of the progress made so far is
	Chhari, Zero Mile (Uttar Mohal	listed below.
	Chhara) and Pratap Para of	
	Khagrachhari	Salient Findings:
	3. Rupai Khal, Lalchhari Para of	1. Area of 7 out of 23 targeted watersheds have been
	Ramgarh, Khagrachhari.	delineated and mapped using remote sensing and GIS
	Product densetions (0 months (0 st. 2012)	notwork (ii) stream elevation (iii) delineated
	to Sept. 2018)	herwork, (II) stream elevation, (III) defined to
	Total hudget: Tk 38 845 195/=	2 Twenty one water cool Suction numps (1-4 HP) with
	Date of Commencement: October 2013	engine and accessories and 12 plastic reservoir tanks
	Date of Monitoring: 10 April 2017	are purchased
		3. Two rain water reservoirs (earthen dam) constructed
	Specific Objectives:	and one existing dam has been renovated.
	1. Delineation of area for watershed in all	4. Baseline survey was done to collect information on
	the project locations and characteriza-	existing crops and cropping practices in the selected
	tion thereof.	watershed.
	2. Construction of watersheds	5. Forty farmers have been selected at each watershed
	initiation and domestic usage	and are trained in crop production packages.
	(these are not objectives rather activities)	have been constructed
	(mese are not objectives fatter activities)	7 Irrigation scheduling and water requirement of Malta
		and Cauliflower have been assessed.
	Activities planned for the monitoring	8. Climatic data are available from the HARS,
	period:	Khagrachhari.
	1. Recruitment of staff and procurement	9. Necessary staff and equipments are purchased.
	of equipment	
	1. Delineation of potential area for	Financial progress
	watershed using remote sensing	Total Fund received: Tk. 17,377,596/- & total expenditure
	technologies and spot verifications.	incurred is Tk. 12,520, 109/-; the progress being 72.05
	2. Designing and construction of dams for	%. However, not all financial records are being

3.	selected watersheds with control structures Characterization of the watersheds for assessing and exploring their	maintained properly by the PI-3. Inappropriate fund utilization was observed such as renovation of office building and purchase of motor cycle, camera and Laptop without prior approval of the authority).
4.	Selection of farmers and capacity building for adoption of improved crop	Overall Comments:
5.	production packages. Determination of crop water requirement and irrigation schedule	The project made little progress even after utilizing $>/2\%$ of the project money received so far.
6.	Rain water harvest in rooftop reservoirs	Specific Suggestions:
7. 8.	Data collection on water flow of selected streams (Chharas) Collection of climatic data from climate observatory of HARS Stations	An expert civil and an irrigation engineer having knowledge in watershed designing should be engaged immediately The sequence of activities should have been (a) delineating watershed areas, (b) designing and construction of water control structures (c) characterization of the ecosystems, (d) selection and training of participating farmer, (e) development of crop production technologies suitable for various ecosystems, and (f) technology dissemination.
		Mukul Chandra Roy & Dr. Gouranga C. Chand Name and Signature of the Monitoring Officer(s)

<u>S1</u>	Project related key information	Kay Observations Salient Findings with
No	roject related key miormation	Suggestions/Overall Comments
21	Project Code & Title: CRP-I: Hill	Kay Observations:
21	Agriculture Component-II: Sustainable land management	This component deals with harnessing the potentials of hill agriculture: enhancing crop production through sustainable management of natural resources. The is being
	Implementing Organization(s): BSMRAU, SAU and BARI	implemented by three project Implementation Units (PIUs) such as OFRD, BARI Bandarban is PIU-1, Soil Science Deptt. of SAU, Dhaka is PIU-2 and Soil Science Deptt. of PSMPAU Gazinur as the PIU-3 as well as the
	 Principal Investigator/Coordinator Name & Address: 1. Dr. AJM Sirajul Karim, Prof. of Soil Science, BSMRAU, Gazipur (PIU-3) 2. Dr. Alok Kumar Paul, Prof of Soil Science, SAU, Dhaka (PIU-2) 3. Mr. Mostak Ahmed, SSO, BARI, Bandarban (PIU-1) 	Coordinating body for all PIUs. All the PIUs have almost similar activities directed to developing, testing and validation of crop production technologies suitable for the hilly region. BSMRAU and SAU Dhaka characterized the hill soils at different elevations. They analyzed soil samples to assess physicochemical properties of land and soil in relation to developing agronomic management packages for enhancing crop production in the highly specialized hilly areas.
	Bandarban sadar, Rangamati Sadar and	Salient Findings:
	Khagrachhari Sadar	1. A total of 136 soil samples were collected and analyzed
	Project duration: 60 months (Oct., 2013 to Sept. 2018) Total budget: Tk. 38, 845, 195/= Date of Commencement: October, 2013 Date of Monitoring: 6-10 April 2017	for the basic soil physical, chemical and hydraulic properties, and nutrient statusNutrient dynamics in continuous and periodical jhum cultivation are studiedSoil loss under local tillage practice and jhum
	 Specific Objectives: 1. Development and delivery of land management technologies for sustainable crop production in the hills 2. To restore/maintain and enhance soil fertility for sustainable agriculture in the uplands 3. To create awareness among the farmers 	 Agronomic practices for various crops including fruits and vegetables are being developed long th hill slopes at different elevations. All the PIUs recruited required manpower and purchased equipments and other research inputs PIs of all the PIUs meet in meetings regularly to share progress made and to discuss about problems and solutions thereof.
	and adoption of sustainable land	Financial progress
	management in the hills and valleys Activities Planned for the Monitoring Period:	Total fund received is Tk, 20,736, 900/= and expenditure incurred during the reporting period (Oct. 2015 to Sept. 2016) is Tk. 11, 828, 854/= ; the progress being 57%.
	hydraulic properties of soil	Overall Comments:
	 Evaluation of the extent of spatial and temporal soil loss in hills and valleys under variable soil and crop 	This component made good progress of all the planned activities satisfactorily.
	management systems	Specific Suggestions:
	 Conducting on-station and on-farm trials Develop, select and validate improved agronomic management actions for 	Fund should be released in time and internal coordination among different components as well as different PIUs are needs to be strengthened further.
	agronomic management options for arresting soil degradation including the reduction of soil loss5. Development of land management	It is not possible for the PIs to monitor field condition regularly from such a along distance. The main working force of the PIs to do this job is the gradate students.

	technologies for continuous crop	Fellowship for PhD program is offered for two years only
	production without fallowing in jhum	which is insufficient and thus needs to be extended up to
	system	three years
6.	Production and application of	
	compost to improve soil organic	
_	matter and water holding capacity	
7.	Evaluation of fertilizer requirements	
	for cotton and rice grown in uplands	
~	in intercropping system	
8.	Development of doses and methods of	
	fertilizer application for fruits and	
	vegetables grown in uplands and	
	valleys in dry season as well as rainy	
	season	
		Mr. Mukul Chandra Roy & Dr. Gouranga C. Chand
		Name and Signature of the Monitoring Officer(s)

SI.	Project related key information	Key Observations, Salient Findings with
No.	rojeerrended key mornadon	Suggestions/Overall Comments
22	Project Code and Title: CRP-I: Hill	Key Observations:
N. No. 12	 Project Code and Title: CRP-I: Hill Agriculture Component-III: Development and delivery of intensive crop production technologies for hill agriculture. Implementing Organization(s): BARI, BSMRAU, CDB & SAU Principal Investigator/Coordinator: Name & Address: 4. Dr. Mohammed. Amin, CSO, RARS, BARI, Hathazari, CL & also PI of , PIU-1 5. Dr. Nasimul Bari, Prof. of Agronomy, BSMRAU, Gazipur, PI of PIU-2 6. Dr. Kamrul Hasan, SSO, CDB, Khamarbari, Dhaka, PI of PIU-3 7. Dr. Z. A. Firoz, PSO, HTARS, BARI, Ramgarh, Khagrachari, PI of PIU-4 8. Dr. Md. Abdul Latif, Prof. of Entomology, SAU, Dhaka, PI of PIU-5 	Suggestions/Overall Comments Key Observations: Implementation of the project activities are in the hands of five PIUs. PIU-1 deals with up-scaling of crops and fruits in the hill districts. PIU-2 has a modest program on weed management in various cropping practices in the hilly areas. PIU-3 undertakes studies on cotton cultivation in the hill districts. PIU-4 conducts research on development of technologies for agricultural development in the hill districts and the PIU-5 is implementing research on pest management in various cropping patterns in the hilly project areas. This is the biggest forum for agricultural research leading to formulation and packaging of agricultural technologies for the hill ecosystems conducted by five agencies. Effective coordination among the PIUs is very much needed to translate these findings into technology packages. But the monitoring team found inadequate coordination among the PIUs
	SAU, Dhaka, PI of PIU-5	Calicut Findings.
	Project Location(s):	Salient Findings:
	 Project duration: 60 (Oct. 2013 to Sept. 2018) Total budget: Tk. 38, 845, 195/= Date of Commencement: October 2013 Date of Monitoring: 05 to 14 April 2017 Specific Objectives: 1. To improve the existing jhum cultivation system 2. To identify location specific alternative cropping system for hill slope 	 Cultivation of banana, malta, papaya and vegetables are up scaled among large number of farmers. Productivity of mango and litchi increased through improved management practices. Black pepper, summer tomato and panikachu are introduced in the hill region. Weed management technologies for boro, vegetables appropriate for jhums and valleys are being developed. Screening of cotton varieties, including American cotton, are done and best varieties are selected for use in jhum. Optimum sowing time of cotton varieties are validated
	3. To develop management practices for quick growing fruits in the hill slope	 Fertilizer management packages for rice - cotton
	 To adjust vegetables cultivation techniques suitable for hill slopes and valleys 	 Pest management packages for mango, litchi and vegetables in the hill ecosystems are being developed. Field staff required for regular field visits and data
	5. 10 improve cultivation techniques for cereals (maize & others) suitable for hilly areas	 Field start rectance for regular field visits and data collection is inadequate Field personnel should have more orientation about
	6. To develop technique for soil fertility enhancement in hill soils	their jobs an responsibilities.PIs related to weed and Pest management should have
	7. To identify suitable cotton variety for hill farming	trials in their target sites.
	8. To assess socio-economic impact of the new interventions.	Financial progress:
		A total of Tk. 29,782,709/= was given to the CL of which Tk. 26,702,917/= have been utilized during the reporting period (Oct. 2015 to Sept. 2016); the progress being

Activities Planned for the Monitoring Period:	89.7%.
 Up-scaling of black pepper, banana, malta, papaya and vegetables as per Khagrachari Model Increasing yields of Mango and Litchi through best practice Introduction of modern varieties/lines of maize, country bean, summer tomato and panikachu Development of appropriate weed management strategy for jhum cultivation system Screening of cotton cultivars in the hill slope Determination of planting /sowing time and spacing for cotton-rice and cottonmaize intercropping in the hill slope Determining fertilizer dose and application methods for component crops in jhum intercropping Development of pest management practices for crops in jhum Selection, testing and validation of vegetables in the valleys and lower hills. 	 Overall Comments: The researchers implemented the planned research program satisfactorily. Most of the researchers, particularly PIU-1, should have given more time in technology generation rather than spending time on upscaling. DAE and other development partners, if any in the region, should have been in the forefront for upscaling with a strong backstopping of the researchers. Specific Suggestions: Monitoring should have been done in the peak crop seasons separately or each of the PIUs. More in-depth studies on pest management including weed, both on hills and in valleys, is needed. More frequent field monitoring by the PIs, especially PIU-2, would ensure better results The project people (SOs and SAs) should be well-oriented about the project activities and the probable outcomes.
	Name and Signature of the Monitoring Officer(s)

<u>C1</u>		
SI.	Project related key information	Ney Observations, Salient Findings With
1NO. 22	Project Code & Title: CDD I: 11:11	Kay Observations:
23	A grigulture	Key Observations.
	Component-IV: Entrepreneurship and value chain development for linking farmers with markets	The program is being implemented by two separate PIUs; one from RARS, Hathazari and another from SAU, Dhaka in the three hill districts to achieve common goals for entrepreneur-ship and value chain development for linking the local entrepreneurs and farmers to markets in hill tracts
	SAU Principal Investigator/Coordinator	and beyond. Besides these, status of existing products on value addition to the various farm products are also studied. The potential entrepreneurs and farmer are trained market
	Name & Address:	promotion activities.
	 Dr. Mohammed Jamal Uddin, SSO, RARS, Hathazari, Chittagong. CL & PL of PULL 	Salient Findings1. Benchmarks survey was done to capture present
	 Dr. Mizanul Haque Kazal. Prof. of Development and Poverty Studies, SAU, PI of PIU-II 	 livelihood patterns of th farmers of the three districts. A total of 20 Producers' organizations (Fruits and vegetables) each comprising of 10-15 farmers and 20 Farmer Marketing Organizations (FMG) each
	Project Location (s): Three hill districts	comprising of 4-5 farmers have been formed in the 3 hill districts (7 at Khagrachari, 10 at Bandarban and 3 at Bangamoti)
	Project duration: 60 (Oct. 2013 to Sept. 2018) Total budget: Tk. 38, 845, 195/= Date of Commencement: October 2013 Date of Monitoring: 5-13 April 2017 Specific Objectives:	at Rangamati) A total of 14 outlets have been opened for sale of fruits and vegetables (6 outlets rented by the component. The rest 8 outlets are opened from farmer' own motivation with the facilitation of PIU-I and run by farmers themselves). A total of 1000 printed selling bags with component identity have also been distributed to outlets
	 To assess, develop and upgrade existing supply/value chain of selected vegetables and fruits and linking hill farmers with market To develop value added product applying post harvest technologies and measure the business performance. 	 Farmers including private nursery owners (135 nos.) have been trained Plastic crates (480 nos.), BARI mango harvester (150 nos.), budding knives (60 pieces), secateurs (60 pieces), leaflet on post-harvest management of mango (1000 pieces), training manual on post-harvest management of mango, banana and pineapple including manual on
	 Activities Planned for the Monitoring Period (Oct. 2015 to Sept. 2016) 1. Formation of producers' organization and marketing group 2. Conduct benchmark survey 2. Analyza and ungrada axisting supply 	private nursery management and development have been distributed to farmers and nursery owners.6. For value chain development of banana a total of 200 fruit protection bags have been distributed to 8 banana growers and are being used in the orchards
	/value chain of selected fruits and	Financial progress:
	vegetables4. Assessing post harvest losses of farm products	Taka 6, 573, 015 has been utilized out of Tk. 7,171,100 received during the reporting period (Oct. 2015 to Sept. 2016); the progress being 71.7%.
	 Identifying local post harvest process technologies of selected fruits and vegetables 	Overall Comments:
	 Arrange farmers' training on post- harvest management for farm products. Establish market linkage for selected 	The project is making progress at relatively slow rate. Not all activities planned for the reporting period are completed, particularly by the PIU-II.
	truits and vegetables8. Setting up sale center/outlets in the	No information was available as to who will do the activity

 local market places for targeted farm products. 9. Assessing marketable and marketed surplus of selected fruits and vegetables 10. Identifying existing entrepreneurs in agribusiness and factors affecting it in CHTs. 11. Identifying potential entrepreneurs and their constraints, risk, strength and opportunities for improving agribusiness 12. Organize training on different enterprises 13. Arrange FGDs/workshops, seminars to take follow-up action for developing entrepreneurs 14. Establish Farmers' Marketing Group (FMGs) for linking with markets in the CHTs and beyond 	to achieve the objective 2. Neither the PC/PIs has capacity to do this activity nor it has been contracted to a partner with required qualification. Specific Suggestions: Limited time (about a year) is available to complete the project activities. The researchers, particularly the PI of PIU-II should be more active to complete the planned activities in time.
	Mr. Mukul C. Roy & Dr. Gouranga C. Chand Name and Signature of the Monitoring Officer(s)

Sl	Project related key information	Key Observations, Salient Findings with
No.	rejectrolated key mornation	Suggestions/Overall Comments
24	Project Code and Title: CRP-I. Hill	Key Observations:
	Agriculture	2
	Component-V. Project coordinating and	Providing Guidance, technical and financial management
	management unit	support are provided to the implementing agencies
1		Research and management activities of all researchers
	Implementing Organization(s): KGF	/program performing units are coordinated through field
		visits, holding periodical meetings and workshops with the
	Principal Investigator/Coordinator	researchers and provided necessary supports for timely completion of the work. Helping researchers through
	Name & Address.	creating favorable environment in consultation with the
	Dr Md Jalal Uddin Sarker Coordinator	local farmers and elites.
	HARS Campus, Khagrachari	
		Salient Findings:
	Project Location (s):	• Procurement of office equipment completed
	Khagrachari, Rangamati and Bandarban	Recruitment of project staff was done
	-	• Appointment of four guards is not done in fear of loxal
1	Project duration: 60 (Oct. 2013 to Sept.	pressure?
	2018)	Organized training and workshop
	Total budget: Tk. 38, 845, 195/=	Organized coordination meeting
	Date of Commencement: October 2013	 Conducting concurrent M&E/Field visits
1	Date of Monitoring: 12 April 2017	• Documentation of project outputs is done on routine
1		basis
	Specific Objectives:	
1	1 To facilitate and coordinate the project	Financial progress:
	implementation through providing	Total fund received Tk. 13,204,522/= and expenditure
	technical and financial assistance.	incurred Tk. 12,256,580/=; the progress being 92.8 [^] during
	2. Planning and execution of human	the reporting period (Oct 2015 to 12 April 2017)
	resources development plan of the	
1	program executing agencies	Overall Comments:
1		The Coordinator arrest to have 1501 1 1 1 1
	Activities Planned for the Monitoring	ine Coordinator appeared to have little knowledge about
	Period : Oct. 2015 to Sept. 2016.	and responsionities. He had very little
1		nrincipal investigators
1	1. Ensuring Procurement of Uffice	principui involibuoro.
	manpower for his office.	Specific Suggestions:
	2. Organizing procurement and financial	• KGF should have developed an effective Terms of
	management workshop	References for the Coordinator based on which the
	3. Procurement of Technical and	Inception Report be revised.
1	Accounting Support Service-Accounts	• KGF may see why th Coordinator could not appoint
	Officer cum Office Supervisor-1	office guards
1	The second secon	• At least one monthly coordination meeting with the
	conservation and management for	participation of all Component leaders, PIs and
1	farmers (8 batches 25 participants pert	Technical staff should be arranged at the field level to
1	batch)	resolve any constraints being faced by the researchers
	5. Organizing special training on project	
1	demanding issues	
	6 Organizing special workshon/meeting	
1	7. Organizing Coordination	
	meeting/workshop (one in each year)	
L		
		F.2

8. Organizing Annual Progress Workshop	
(one in each year)	
9. Conducting Concurrent M&E/ Field	
visit	
10. Organizing half yearly and annual	
meeting for PMC	
11. Documentation of Project outputs	
	Mr. Mukul C. Roy & Dr. Gauranga C. Chand
	Name and Signature of the Monitoring Officer(s)

Sl.	Project related key information	Key Observations, Salient Findings with
No.		Suggestions/Overall Comments
25	Project Code and Title: CRP-III: Hill	Key Observations:
	Agriculture. Strengthening Sugarcane R&D in the Chittagong Hill Tracts	Establishing a Sugarcane Research Station in the name of Crossing Center in Bandarban hill district was the prime objective of the project. During the initial phase the project
	Implementing Organization(s) : Bangladesh Sugarcane Research Institute (BSRI), Ishurdi, Pabna	is trying to explore the productive potential of the hilly region through a series of tests and field trials. Evaluation of physical and socio-economic factors related to this effort are going on. Acquisition of one acre land took about a year (order was issued from the office of the DC Bandarban on
	Name & Address of Coordinators: Coord: Dr. M. Khalilur Rahman, DG PI: Dr. Md. Amzad Hossain, Director	20.04.2017).and BSRI authority is preparing for the required physical development of the center as per plan.
	(Research) Project Location (s):	On-farm trials are being conducted as planned. All of the relevant data on sugarcane and intercrops, cost and return
	Bandarban, Rangamati and Khagrachhari	interpretation made clearly indicates that implementation
	Total budget: Tk. 102,686,000/= Date of Commencement: 01 July 2015 Date of Monitoring: 10-12 April 2017	objects of the project at the end. Though the project would run around two years more, yet activities completed and outputs so far achieved are contributing towards the objectives.
	Specific Objectives:	
	Establishing a Research station in the hill district	Salient findings:
	Activities planned for the monitoring period : (July to December 2016)	 All lab, field and office equipment & appliances, and inputs for field and lab trials are purchased Inception workshop was organized and Inception Report is prepared
	 Conducting benchmark surveys Organizing Inception workshop and preparation of Inception Report 	 Farmers and research sites were selected for field trials Field trials on varietal screening and agronomic practices and intercropping began in the last season
	3. Selection of site and acquisition of land for establishing a Crossing Center	 and are being continued for the second season. Gur processing technologies were demonstrated in three districts and the new deste are being cold in least
	 Recruitment of required staff Preparation of training manual and conducting training of farmers, DAE 	market in poly pack, branded as KGF gur.
	field level officer and new project staff	Financial progress:
	6. Preparation of manual on fruits and	Total fund received up to 12 April 2017 is Tk
	 Organizing workshop on value addition of intercrops for local 	46,862,649/- Expenditure up to 31 April 2016 is Tk. 42,028,345.50 and the current balance is Tk. 4,834,303.50.
	entrepreneurship development8. Establishment of field trails and data	Overall Comments:
	collection9. Organize Field Day10. Establishment of Crossing Centre with	Farm productivity would be increased many fold with the intercomming sugarcane with vesselated
	related facilities	intercropping sugarcane with vegetables.
	photoperiod house at BSRI HQ 12. Purchase of equipment and appliances	 Specific Suggestions: BSRI can organize national fair/workshop to ventilate
	for office, Lab and field	the prospect of sugarcane production in nin districts

13. Preparation of Reports	using media coverage.
	 KGF should initiatives to promote gur based small and medium enterprises in he hill regions.
	 Based on the merits assessed during monitoring, the project deserves further extension beyond the current project period as well as benefit of the hill farmers.
	Dr. Gayanath Sarkr & Dr. M. Saifuzzaman Name and Signature of the Monitoring Officer(s)

Sub-Sector-7: Climate Change

CRP-II: Climate change 59 Others-2 (GHGE from rice field) 61

Sl.	Project related key information	Key Observations, Salient Findings with
No.		Suggestions/Overall Comments
SI. No. 26	 Project related key information Project Code and Title: CRP-II Modeling climate change impacts on agriculture and developing mitigation and adaptation strategies for sustaining agricultural production in Bangladesh. Implementing Organization(s): Bangladesh Rice Research Institute (BRRI) Bangladesh Agricultural Research Institute (BARI) Bangabandhu Sk. Mujibur Rahman Agricultural University (MSMRAU) Krishi Gobeshona Foundation (KGF) Name & Address of Coordinators: Dr. Jatish C. Biswas, CSO Soil Science Div. BRRI (Coordinator) 	Key Observations, Salient Findings with Suggestions/Overall Comments Key Observations: A multi-disciplinary team of BRRI, BARI and BSMRAU scientists are working to validate and use of a semi dynamic crop-soil-water and socio-economic simulation model, DSSAT, to deal with climate variability and its effect on crop production in various agro-ecosystems of the country. The model will predict spatial and temporal changes in climatic and soil conditions and their effect on the level of crop production. The outputs can be transferred to GIS for producing crop suitability maps. Besides crop production the model will also give information on various parameter of soil, crop and climate which will help scientists to understand the functional relationship of climate, soil and crop production in a given environment. Salient Findings:
	 DIV., BRRI (Coordinator) 2. Dr. Aourbao Kanti Choudhury, PSO, OFRD, BARI (Deputy Coordinator) Principal Investigators (Objective Leader): Dr. Md. Maniruzzaman, BRRI (Obj1) Dr. Jatish C. Biswas, BRRI (Obj2) Dr. Apurba Kanti Choudhury, BARI (Obj3) Dr. Md. Abdul Aziz, BARI (Obj4) Dr. Faruque Ahmed, BARI (Obj5) Dr. Sohela Akhter, BARI (Obj6) Dr. Md. Main Uddin Miah, BSMRAU (Obj7) Project Location (s): BARI, BRRI, BSMRAU with locations at Gazipur, Dinajpur, Rajshahi, Jessore and Barisal. Project duration: 36 (July 2015 to June. 	 Database for crop, soil, climate, agronomic practices, other bio-physical and socio-economic scenarios, acreage and production of crops are in progress. Dynamics of soil water for 3 and 6 months at six locations across the country are studied. Temperature and rainfall variations of selected locations have been delineated. Soil organic matter degradation due to changes in temperature and its effect on availability of soil P studied DSSAT cannot handle mineral fractions of soil Model helped to develop genetic coefficients and to quantify crop yield reduction for one degree rise in temperature. Effect of some farming practices (tillage systems, fertilizer application methods and AWD) on greenhouse gas (CH₄, N₂O) emission has been studied. Establishing a center for education and research on climate change has been started at BSMRAU. A graduate course on climate change effects on physical and biological processes are in preparation.
	2018) Total budget: Tk. 199,707,000/= + 27,785,000/= (Committed for equipment) Date of Commencement: 01 July 2015 Date of Monitoring: 17 April 2017	Financial progress: Total fund received is Tk. 0.0 (none), and expenditure incurred is Tk. 1,879,393/= during the reporting period (July to December 2016)
	 Specific Objectives: Assessment and characterization of climatic variability and climate change Soil and plant processes as influenced by climatic variability and climate change Compilation of database for crop, soil, climate, common cultivars, agronomic 	The team found to be very active and progress made is satisfactory. Specific Suggestions : A collaborative project with DAE and research organizations can be taken to develop crop forecasting for at least coming one week. Crop modelers should be able

and management practices, other bio-	simulate the impacts of weather conditions for the coming
physical and socio-economic scenarios,	one week on the current crops in field. DAE has to
acreage and production delineation,	translate these messages into extension messages and will
yield gaps and options to narrow down	broadcast/telecast daily for farmers.
the yield gap, dynamics of insect/pests	
for subsequent use in crop simulation	
models for applications viz. climate	
change, NRM, yield forecasting erc.	
4. Calibration and validation of crop	
simulation models	
5. Vulnerability assessment for agri-	
production in relation to climate	
Variability/climate change	
6. Miligation/adaptation strategies for	
abanga	
7 Establishment of a Contra in research	
and education on climate change at	
BSMR A I	
Activities planned for the monitoring	
period : (July to December 2016)	
period : (July to December 2016)	Dr. S. A. Sattar & Dr. M. Liaguat Ali
period : (July to December 2016)1. Climatic variability assessment	Dr. S. A. Sattar & Dr. M. Liaquat Ali
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Punning models for parrowing the 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Running models for narrowing the vield gaps 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Running models for narrowing the yield gaps Calibration and validation of models 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Running models for narrowing the yield gaps Calibration and validation of models and simulation of crop and soil 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Running models for narrowing the yield gaps Calibration and validation of models and simulation of crop and soil processes 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Running models for narrowing the yield gaps Calibration and validation of models and simulation of crop and soil processes Determining vulnerable regions for 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Running models for narrowing the yield gaps Calibration and validation of models and simulation of crop and soil processes Determining vulnerable regions for crops/cropping systems 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Running models for narrowing the yield gaps Calibration and validation of models and simulation of crop and soil processes Determining vulnerable regions for crops/cropping systems Simulation of biophysical sresses on 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Running models for narrowing the yield gaps Calibration and validation of models and simulation of crop and soil processes Determining vulnerable regions for crops/cropping systems Simulation of biophysical sresses on plant gowth 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Running models for narrowing the yield gaps Calibration and validation of models and simulation of crop and soil processes Determining vulnerable regions for crops/cropping systems Simulation of biophysical sresses on plant gowth Assessmment of GHGs emission from 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Running models for narrowing the yield gaps Calibration and validation of models and simulation of crop and soil processes Determining vulnerable regions for crops/cropping systems Simulation of biophysical sresses on plant gowth Assessmment of GHGs emission from various production systems 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Running models for narrowing the yield gaps Calibration and validation of models and simulation of crop and soil processes Determining vulnerable regions for crops/cropping systems Simulation of biophysical sresses on plant gowth Assessmment of GHGs emission from various production systems Adaptation strategies for sustaining 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)
 period : (July to December 2016) Climatic variability assessment Purchase equipment and construct structures to study soil and plant processes Collection and analysis of soil samples Designing crop database and data compilations Running models for narrowing the yield gaps Calibration and validation of models and simulation of crop and soil processes Determining vulnerable regions for crops/cropping systems Simulation of biophysical sresses on plant gowth Assessmment of GHGs emission from various production systems Adaptation strategies for sustaining agricultural production. 	Dr. S. A. Sattar & Dr. M. Liaquat Ali Name and Signature of the Monitoring Officer(s)

S1	Project related key information	Key Observations Salient Findings with
No	roject related key miormation	Suggestions/Overall Comments
27	Project Code and Title: Others-2 (BRRI-	Key Observations:
- '	IFDC-BRRI/2015) GHG emission.	
	Mitigating greenhouse gas emission from rice based cropping systems through efficient fertilizer and water management. Implementing Organization(s):	BRRI soil scientists undertook a project to deal with mitigating greenhouse gas emission from rice fields through efficient fertilizer and water management with the technical assistance of IFDC and financial support from KGF. Work began in 2016 with the installation of necessary Lab and field equipment, measurement of GHG such as CH4, NaO and NO under a given set of fertilizer
	Bangladesh Rice Research Institute (BRRI) in partnership with International Fertilizer Development Center (IFDC), Financed by Krishi Gobeshona Foundation	and water management treatments. Using these data mitigation option for GHG emission will be achieved during the project period.
	(KGF)	Salient Findings:
	Name & Address of Principal/Co- Investigator: PI: Dr. Jatish Chandra Biswas, CSO &	 Establishment of fertilizer x water regime trials for two cropping patterns is completed Soil characterizations are done Assessing impacts of fertilizer on yield and nitrogen
	Head, Soil Science Div., BRRI	4. Assessing impacts of AWD on yield and NUE
	Co-Investigator:	5. Measurement of NH_4 and NH_3 volatilization from
	2 Mr S M Mafizul Islam	6 Procurement and fabrications of chambers for CH ₄
	3. Mr. Md. Nayeem Ahmed	 7. GHG emission from different production systems has been quantified. N.O. gas emission was higher in PU.
	Project Location (s): Research Field of BRRI Soil Science Div.	than UDP treatments. Similarly, NH_4^+ -N from floodwater and NH_3 volatilization was higher in PU
	Project duration: 36 months (20 Sept, 2015 to 20 Aug., 2018) Total budget: Tk 8 800 000/=	than UDP and NPK briquette.
	Date of Commencement: 20 Sept. 2015	Financial Progress
	Date of Monitoring: 12 April 2017	Fund received \pm previous balance is Tk 2 142 000/ $-$ and
	Specific Objectives:	expenditure incurred is Tk. 1,400,318/=; the progress being 65.4%.
	1. Generate data on Greenhouse Gas Emission (GHGE) from rice based	Overall Comments
	 Find out an efficient N and water management option for rice production that will minimize CHCE 	The researchers implemented all the planned activities satisfactorily.
	 Develop technology that allow lower 	Specific Suggestions:
	GHGE from rice field4. Create awareness among farmers on GHG mitigation through training and publicity	These are very preliminary work an the researchers should go a long way. A suitable consultant can be engaged for capacity building of the local scientists.
	5. Develop capacity for maintaining sustainable agricultural systems and	
	 Inform policy planners related to GHGE reduction and claiming of carton credits from global market. 	
L		60

1		
Ac per Lea	tivities planned for the monitoring riod : (20 Sept. to March 2016) ad Organization (BRRI):	
1.	NH ₃ volatilization to be measured for 7 consecutive days after each fertilizer application	
2.	NH_4^+ -N in flood water as well as in soil with same treatment will be measured in 7 consecutive days after fertilizer application in gas chamber	
3. 4.	N_2O and NO emission will also be measured in AWD plot. Potential CH ₄ , N_2O and NO gases in rice field will be measured.	
Par	rtner organization (IFDC):	
IFI par	DC will ensure technical back ups on a rt time basis in assisting:	
1. 2.	BRRI scientists routine management of Lab & equipment. BRRI scientists in measuring & interpreting GHGE data BRRI scientists in procuring spare	
5.	parts for Lab equipment and installation thereof.	Dr. S. A. Sattar & Dr. Md. Liaquat Ali Name and Signature of the Monitoring Officer(s)