Training Completion Report

Training on Disaster Management in Agriculture

Duration: 25 to 99 November 2018

National Agriculture Training Academy (NATA)
Gazipur-1701

Training on Disaster Management in Agriculture

Duration: 25 to 29 November 2017

Course Management

Course Director : Dr. Md. Abu Sayeed Miah
Director Training
NATA, Gazipur

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Contents

1. Introduction

Bangladesh is a disaster risk hotspot, ranked fifth in the top 15 countries with highest risks (World Disaster Report 2012, page-9: World Risk Index). A low-lying country with more than 230 waterways, Bangladesh is one of the most disaster-prone nations in the world. The country is well within the tropics and is the largest delta in the world formed by the mighty rivers namely the Ganges, the Brahamaputra and the Meghna. Bangladesh has special geographical feature. Bangladesh becomes the worst victim of natural calamities causing colossal loss of lives and properties. Major disasters that occur in Bangladesh are: tropical cyclone, tidal bore, flood, tornado, river bank erosion, earthquake etc. Disasters are increasing, and their impacts on people have become more conspicuous in recent years. In this respect, Bangladesh is known for its innovations in disaster risk reduction at the national, local, and community levels. Bangladesh is prone to floods and cyclones, and the risk of other disasters such as drought, earthquakes, and tornados is increasing. The impacts are becoming more visible at the local level, with greater impacts on poor and vulnerable communities.

Bangladesh is one of the most vulnerable countries to climate change in the world and will become even more susceptible in future (Islam et al. 2011). Floods, cyclones, storm surges and droughts are expected to become more frequent and severe in the coming years. The effects of climate change on agriculture and other sectors are already evident. The agricultural sector is most likely to face significant yield reduction in future due to climate variability (Islam *et al.* 2011). Natural disasters have number of adverse effects on human security. The most obvious immediate negative effect relates to destruction of life and property. There are also implications for livelihood and employment of people in the affected areas, and for the immediate viability of cultivation and other economic activities in the affected areas. Natural disasters disrupt the nation's food supply and decimate the livelihoods of the many Bangladeshis who work in agriculture.

It is an accepted fact that occurrence of the natural disasters cannot be prevented altogether but their adverse impact can be reduced substantially by undertaking various preparedness and mitigation measures. When disaster strikes, the best protection knows what to do. The impact of disaster can only be combated effectively if we have a rational and objective understanding of them. The adverse impacts of all the natural hazards affecting socio-economic condition need to be reduced for sustainable development.

Course Objectives

Upon completion of the course on disaster management in agriculture participants will be able to:

(i) To understand the key concept and principles of disaster management with special reference of Bangladesh;

(ii) To know about regulatory and institutional framework of disaster management;

(iii) To co-ordinate and monitor the climate changed disaster management programs in order to rationalize resource utilization and ensure effective adaptations in crop agriculture;

(iv) To reduce Bangladeshis' vulnerability to disasters in the identified areas of concern (geographical or sectoral);

(v) To put in place appropriate measures that minimizes the negative effects of climate change and disaster;

(vi) To develop skills on Constraints/challenges for agricultural development;

(vii) To design and implement disaster management activities.

Duration of the Course

Duration of the course is 5 days starting from 25 November and ends 29 November 2018.

Prerequisites of the course:

- To attend in the training class in time;
- To be present at least 99% of the classes otherwise certificate may not be awarded;
- Maintain the norms in dormitory and cafeteria;
- Absent from any session is not allowed without prior permission from the course coordinator even in case of emergency;
- Enthusiastic to learn and share ideas in training session; and
- Cell phone must be kept in silent mode.

2. Course Content

Working Day-01

Topics	Method
Basic concept on disaster, hazard, vulnerability, risk and climate change	L,D
Interrelation between environment, population and development	L,D
Present Disaster scenario of Bangladesh	L,D
Projection of climate change and disaster challenges in Bangladesh	L,D
Impact of climate change on agriculture in Bangladesh	L,D

Working Day-02

Topics	Method
Flood, flash flood and water logging and their impacts on agriculture	L, D
Drought Effect on agriculture and crop production	L, D
Agriculture rehabilitation program planning after disaster	L, D

ICT for disaster Management	L, D
GIS and Remote sensing in disaster management	L, D

Working Day-03

Topics	Method
Salinity intrusion and agricultural adaptation in coastal areas of Bangladesh	L, D
Adaptation strategies for disaster and climate risks management in agriculture	L, D
Mitigation strategies for disaster and climate risks management in agriculture	L, D
Meteorology and weather forecasting for agriculture	L, D
Implication of agro-meteorology for agriculture disaster management	L, D

Working Day-04

Topics	Method
National policy, planning and act on disaster management	L, D
Bangladesh disaster management planning and future perspective	L, D
Disaster Management System in Bangladesh	L, D
Updated technologies of BARI in relation to disaster management	L, D
Updated technologies of BARI in relation to disaster management	L, D
Loss assessment after disaster	L, D & E

Working Day-05

Topics	Method
Updated technologies of BRRI in relation to disaster management	L, D
Updated technologies of BRRI in relation to disaster management	L, D
Make an agriculture rehabilitation plan of your working area (e.g. Flood, drought, salinity)	L, D & E
Group presentation and discussion (eg. Flood, drought, salinity)	L, D & P
Post evaluation and course evaluation	

L= Lecture, D=Discussion, E= Exercise, P= Presentation

3. Training Methods & Materials:

Following method were followed and materials were used in the training session-
Method: Lecture/Open discussion/ Group work/Paired sharing/Question and Answer, Review
Materials: Slides, Computer, Multimedia Projector, White board, Marker, Duster, Internet, Sound system

4. Sports & Recreation:

There is a playground, a tennis court and a volley ball court in NATA campus. So the participants can avail the opportunity to play sports in that areas. There is also a recreation room with color T.V in the dormitory. The daily newspapers are also available in the recreation room for the participants.

5. Concluding Session

Course is evaluated by the participants individually both providing open-ended and close-ended interview schedule at the end of the training.

6. Course evaluation by the participants

The summary of the course evaluation of the participants are mentioned below:

i. The course contents is sufficient;
ii. Duration of the course is satisfactory;
iii. Management of the training course is satisfactory;
iv. Selection of the resource speaker is good;
v. Resource speaker from different related organization should be included;
vi. Field trip should be arranged for practical learning;
vii. Course duration should increase;
viii. Topic related experts should be involved in the session and please avoid heavy profile person. Example Admin cadre personnel;
ix. Speaker selection should be more specific according to topic specialist;
x. Tea break should be at 10.45am-11.00am;
xi. Practical session should be included in this course;
xii. Management team was very cordial and helpful;
xiii. A tour to agromrterology center;
xiv. Some token/gift as recognition after completion of course (1st position holder);
xv. Ice breaking session is necessary;
xvi. *Salat* room for women;
xvii. Training honorarium should be increased up to 1000/-.;
xviii. Training oriented video should be used in lecture presentation;
xix. Limited tea and lunch break time;
xx. Not enough discussion about loss assessment;
xxi. Introduction to different apps should be included;
xxii. Internet facilities should be increased further;
xxiii. Continues class without break.

7. Feedback from the participants

This training will certainly help them to strengthening to enhance the capacity of them to meet the challenges of climate change and mainstream them as part of development in agriculture sector. It will also help them to develop disaster resilient cropping systems. The topics were very contemporary and need based for them. The resource persons were topic renowned relevant experts, knowledgeable, and having practical experiences in this field. There was an ample

scope to get introduced and exchanged ideas between the officers of different organizations under the Ministry of Agriculture. The time management of that training was definitely excellent. Participants selection should be homogenous and those who were working in adverse climatic region (e.g., Drought prone, salinity, flash flood etc. They requested to arrange a refresher's course for them. In fact, the cooperation and management system of training by Course Coordinator, Assistant Course Coordinators and the NATA authority were praiseworthy. In a nutshell, the training was incredibly fruitful for them.

8. Speech by the Course Coordinator

We, as a nation, are most vulnerable to disaster due to climate change and consequently adaptation is our priority. Floods, tropical cyclones, storm surges and drought are likely to become more frequent and severe in the coming years. a large number of poor people are to live in vulnerable areas in Bangladesh. Disaster and climate change is not an external issue – rather, it must be internalized by all sectors. Human induced and technological disasters are getting more dominance in the landscape of disaster management. The training on disaster management was selected on the basis of training need assessment from the officers of the different organizations under the Ministry of Agriculture. We tried our level best to make the training program successful. Furthermore, we looked upon the different discipline related issues for smooth running of that training program. We expected that this program would certainly develop their knowledge and skill and made them more confident as well which would accelerate their performance in mitigation and adaptation on disaster management in their own fields.

9. Speech by the Chief Guest

In terms of climate, Bangladesh is characterized by high temperatures, heavy rainfall, high humidity, and fairly marked seasonal variations. Agriculture is one of the most sensitive sectors to climate change, particularly changes in temperature, rainfall patterns, and increased likelihood of extreme events such as droughts and floods. This training course was very essential in the mitigation and adaptation on disaster and climate change related adverse impacts on crop agriculture. To meet up the demand of technology transfer in a good learning environment and achieving a success in disaster management, the knowledge on disaster management is inevitable. The participants could apply the acquired knowledge and skill in their respective areas competently.

10. Speech by the Chairperson

Bangladesh has a Participatory Disaster Management Programme (PDMP) with a focus on disaster management and prevention, and also adaptation to climate change. The focus is on 'soft' measures to reduce the impacts of disasters, with an emphasis on preparedness, such as: awareness raising of practical ways to reduce disaster risks and losses, to strengthen national capacity for disaster management; enhance knowledge and skills of personnel in handling disasters; establishing disaster action plans in the most disaster prone areas. This training was need based training. To build up teaching capacity of the officers under the Ministry of Agriculture, this training can play a vital role. From such consideration, this training course was organized.

11. Distribution of Certificate

The certificates are distributed among the participants after successfully completion of the training. Director (Administration) was present as chief guest.

12. List of the participants

Thirty participants from 10 different organizations under ministry of Agriculture were the participants of this course.

Sl.No.	Name	Designation and Organization
1.	DR. MD. JAMAL HOSSAIN	Senior Scientific Officer, BIRTAN, Regional Station, Barisal
2.	MOST. BILKIS BANU	Scientific Officer, Regional Wheat Research Center, BARI, Gazipur
3.	JANNATUL FERDUSH	Scientific Officer, Fiber Quality Improvement Division, BJRI, Dhaka
4.	MD. FARIDUL ISLAM	Assistant Engineer, BMDA, Panchagarh Zone, Panchagarh
5.	IMRUL KAES	Agriculture Extension Officer, DAE, Boda, Panchagarh
6.	SAYED SHAKIL AHMED	Agriculture Extension Officer, DAE, Tetulia, Panchagarh
7.	MAHBUBA SULTANA	Senior Instructor, Agricultural Training Institute, Shimultoli, Gazipur
8.	NOOR OLIYA HAQUE	Agriculture Extension Officer, Sadar, Gazipur
9.	MD. NOORNABI DEWAN	Instructor, Agriculture Training Institute, Araihazar, Narayanganj
10.	KAZI SHAFIUL ISLAM	Agriculture Extension Officer, Upazila Agriculture Office, Sonagazi,Feni
11.	JOYNULALAM TALUKDER	Horticulturist, Horticulture Center, Sholakia, Kishoreganj
12.	MD. ABDULLAH AL NOMAN	Agriculture Extension Officer, DAE, Kaliganj, Jhenaidah
13.	AFRIN AKHTER FARIA	Instructor, Agricultural Training Institute, Faridpur
14.	MD. ABDUL KHALEQUE	Deputy Manager, Seed Processing and Preservation Division, BADC, Agriculture Building, Dhaka
15.	MOHAMMAD MOSHAROF HOSSAIN	Assistant Engineer, BADC, Kaliganj Zone, Gazipur
16.	REBEKA PARVEEN	Seed Analyst, Seed Certification Agency, Gazipur
17.	MOUSUMI PAUL	Seed Certification Officer, SCA, Mymensingh
18.	KEYA KARMOKAR	Scientific Officer, SRDI, Dhaka
19.	IREEN SULTANA	Scientific Officer, Regional Laboratories, SRDI, Khulna
20.	MD. IMDADUL HOQUE	Scientific Officer, Adaptive Research and Extension Division, BINA, Mymensingh
21.	A.B.M. SHAFIUL ALAM	Scientific Officer, BINA Sub-Station, Chapainawabganj
22.	RUMANA MOMOTAZ	Senior Scientific Officer, BARI, Gazipur
23.	MD. ZAHEDUL HASAN	Scientific Officer, HARS, BARI, Khagrachari
24.	MD. HABIBUL BASHAR CHOWDHURY	Agriculture Extension Officer, Kaliakair, Gazipur
25.	SUMAYA SHARMIN	Publication Officer, NATA, Gazipur

13. List of Resource Personnel

Sl No.	Name of the speakers	Designation and Address	Mobile NO.
01	Dr. Md. Abdul Wazed	Ex. DG, DDM & BBS and Addl. Secretary (Rtd),	01715082620 Wazed_73@ymail.com
02	Md. Mahbubul Islam	Joint Secretary(Extension), Ministry of Agriculture	01911010083 mahbub4149@gmail.com
03	Dr. Md. HumayunKabir	Professor, Department of Geography and Environment, Dhaka University	01717711024 mh_kabir@yahoo.com
04	Dr. Md. Abu Wali Raghib Hassan	Ex. Director, Planning, Project Implementation& ICT wing, DAE, Khamarbari, Dhaka	01711224573 awrhassan@gmail.com
05	Jibon Krishna Biswas	Ex. DG, BRRI, Gazipur	01711960439,01715285096 Biswas.jiban@gmail.com
06	Dr. Md. Abdul Muyeed	Director, Field Service Wing, DAE, Khamarbari, Dhaka	01716940311 Muyeedbd61@gmail.com
07	Dr. Apurba Kanti Choudhury	PSO,OFRD, BARI, Gazipur	01819128302 bd_apurba@yahoo.com
08	Prabir Das	Programmer (GIS), Department of Disaster Management, Mohakhali, Dhaka	01762636822 programmer.ddm@gmail.com
09	Md. Shameem Hassan Bhuiyan	Meteorology & Project Manager, WIBCI, Bangladesh Meteorological Department	01750000456 Shameem_dd@yahoo.com
10	Md. Zakir Hossain	DD, NATA, Gazipur	01715797920 Hzakir104@gmail.com
11	Dr. Md. Golam Mostafa	Sr. AD, NATA, Gazipur	01712-803348 kbdmostafa@gmail.com

14. Training Schedule

Date: 25/11/2018 **Working Day-01** **Day: Sunday**

Time	Planned sessions and Topics	Lecturer/Facilitator
09.00-09.30	**Registration**	ACC & Sadiqunnahar, Demonstrator (Lab)
09.30-10.00	**Inaugural Session**	DG/Directors, Course Coordinator & Assistant Course Coordinators
10.00-10.15	**Pre-evaluation**	Dr. Md. Golam Mostafa, Sr AD & Sharmin Jui, SrAD, NATA
10.15-11.15	Basic concept on disaster, hazard, vulnerability, risk and climate change	Md Mahbubul Islam, Joint Secretary (Extension), Ministry of Agriculture
11.15-11.40	**Tea Break**	
11.40-12.40	Interrelation between environment, population and development	Do
12.40-01.45	**Prayer & Lunch Break**	
01.45-02.45	Present Disaster scenario of Bangladesh	Dr. Md. Humayun Kabir, Professor, Department of Geography and Environment, Dhaka University

02.50-03.50	Projection of climate change and disaste challenges in Bangladesh	Do
03.55-04.55	Impact of climate change on agriculture in Bangladesh	Do

Date: 26/11/2018 **Working Day-02** **Day : Monday**

Time	Planned sessions and Topics	Lecturer/Facilitator
09.00-09.20	**Review of the previous day**	Dr. Md. Golam Mostafa, Sr AD, NATA
09.20-10.20	Flood, flash flood and water logging and their impacts on agriculture	Dr. Md. Abdul Muyeed, Director, Field Service Wing, DAE, Khamarbari, Dhaka
10.20-11.20	Drought Effect on agriculture and crop production	Do
11.20-11.40	**Tea Break**	
11.40-12.40	Agriculture rehabilitation program planning after disaster	Do
12.40-02.00	**Prayer & lunch Break**	
02.00-03.00	ICT for disaster Management	Prabir Kumar Das, Programmar, Department of Disaster Management, Mohakhali, Dhaka
03.10-04.10	GIS and Remote sensing in disaster management	Do

Date: 27/11/2018 **Working Day-03** **Day : Tuesday**

Time	Planned sessions and Topics	Lecturer/Facilitator
09.00-09.20	**Review of the previous day**	Dr. Md. Golam Mostafa, Sr AD, NATA
09.20-10.20	Salinity intrusion and agricultural adaptation in coastal areas of Bangladesh	Dr. Md. Abu Wali Raghib Hassan, Ex. Director, Planning, Project Implementation& ICT wing, DAE, Khamarbari, Dhaka
10.20-11.20	Adaptation strategies for disaster and climate risks management in agriculture	Do
11.20-11.40	**Tea Break**	
11.40-12.40	Mitigation strategies for disaster and climate risks management in agriculture	Do
12.40-02.00	**Prayer & lunch Break**	
02.00-03.00	Meteorology and weather forecasting for agriculture	Dr. Md. Shameem Hassan Bhuiyan Meteorologist & Project Manager, WIBCI, Bangladesh Meteorological Department
03.10-04.10	Implication of agro-meteorology for agriculture disaster management	Do

Date: 28/11/2018 **Working Day-04** **Day : Wednesday**

Time	Planned sessions and Topics	Lecturer/Facilitator
09.00-09.20	**Review of the previous day**	Dr. Md. Golam Mostafa, Sr AD, NATA
09.20-10.20	National policy, planning and act on disaster management	Dr. Md. Abdul Wazed, Ex. DG,DDM &BBS and Addl. Secretary (Rtd)

10.20-11.20	Bangladesh disaster management planning and future perspective	Do
11.20-11.40	**Tea Break**	
11.40-12.40	Disaster Management System in Bangladesh	Do
12.40-01.45	**Prayer & lunch Break**	
01.45-02.45	Updated technologies of BARI in relation to disaster management	Dr. Apurba Kanti Choudhury, CSO, RARS, BARI, Jamalpur
02.50-03.50	Updated technologies of BARI in relation to disaster management	Do
03.55-04.55	Loss assessment after disaster	Do

Date: 29/11/2018 Working Day-05 Day : Thursday

Time	Planned sessions and Topics	Lecturer/Facilitator
09.00-09.20	**Review of the previous day**	Dr. Md. Golam Mostafa, Sr AD, NATA
09.20-10.20	Updated technologies of BRRI in relation to disaster management	Jibon Krishna Biswas, Ex. DG,BRRI, Gazipur
10.20-11.20	Updated technologies of BRRI in relation to disaster management	Do
11.20-11.40	**Tea Break**	
11.40-12.40	Make an agriculture rehabilitation plan of your working area (eg. Flood,	Course Coordinator & Assistant Course Coordinator
12.40-02.00	**Prayer & lunch Break**	
02.00-03.00	Group presentation and discussion (eg. Flood, drought, salinity)	Course Coordinator & Assistant Course Coordinator
03.00-03.30	Post evaluation and course evaluation	Assistant Course Coordinator
03.30-04.30	Closing ceremony	DG/Directors, Course Coordinator & Assistant Course Coordinator

15. Training Course Evaluation by the participants

The topics they liked :

1. Basic concept on disaster, hazard, vulnerability, risk and climate change
2. Projection of climate change and disaster challenges in Bangladesh
3. Flood, flash flood and water logging and their impacts on agriculture
4. Drought effect on agriculture and crop production
5. Salinity intrusion and agricultural adaptations in coastal areas of Bangladesh
6. Adaptation strategies for disaster and climate risks management in agriculture
7. Mitigation strategies for disaster and climate risks management in agriculture
8. GIS and remote sensing in disaster management
9. Meteorology and weather forecasting for agriculture
10. Implication of agro-meteorology for agricultural disaster management
11. Innovation and idea generation for disaster management
12. Updated technologies of BARI in relation to disaster management
13. Updated technologies of BRRI in relation to disaster management

The topics need to be added

1. Technology for future disaster management in agriculture
2. Research program/initiatives for disaster management
3. Visit *Bangabandhu* satellite station and airport meteorology system;
4. Implementation of GIS, GPS and remote sensing in agriculture should be included;
5. International techniques for disease and insects management as disaster management should be included;
6. Basic concepts of meteorology and factors of disaster should be included;
7. Modern ICT and GIS technologies used in disaster management should be included;

Best Training Methods choose by the participants

1. Discussion and group exercise
2. Group wise problem solution
3. Film show
4. Group discussion

The issues that are disliked by the participants

1. Less time for Practice
2. Load shedding
3. Very tight schedule
4. Interruption of mobile network in dormitory

The others associated issues they liked

1. Topic wise expert resource persons were selected very wisely.
2. Time management
3 Cooperation of Course Coordinator and Asst. Course Coordinator very Remarkable
5. Discipline & management
6. Management of dormitory
7. Expert resource persons
8. Cooperation of NATA Authority
9. Speakers from DDM and BMD were very expert

Provided Service Quality

1. Neat and cleanliness facilities-80%
2. Library facilities – 30%
3. Audiovisual facilities – 70%

Recommendations for the improvement of the course

1. Uninterrupted internet and electricity supply should be provided
2. Training duration should be increased

3. Practical class should be more
4. Internet access should be increased
5. Provide more time for discussion and exercise
6. Hard copy of manual of training course
7. LAN Connection should be available
9. Refresher's course should be arranged
10. Increase of honorarium
11. Important class should be conducted in the morning
12. Diploma course or long course for agriculture/ ICT/Language

Following Future planning should be considered to establish NATA as a centre of excellence

1. Specific team building to specific task
2. Expert faculty member
3. Uninterrupted electricity
4. Whole campus should be under CCTV

16. Resource Speakers Evaluation by the Participants

Participants	Day-1 (25.11.2018)					Day-2 (26.11.2018)				
	Basic concept on disaster, hazard, vulnerability, risk and climate change	Interrelation between environment, population and development	Present Disaster scenario of Bangladesh	Projection of climate change and disaster challenges in Bangladesh	Impact of climate change on agriculture in Bangladesh	Flood, flash flood and water logging and their impacts on agriculture	Drought Effect on agriculture and crop production	Agriculture rehabilitation program planning after disaster	ICT for disaster Management	GIS and Remote sensing in disaster management
	Md Mahbubul Islam Joint Secretary (Extension), Ministry of Agriculture		Dr. Md. Humayun Kabir, Professor, Department of Geography and Environment, Dhaka University			Dr. Md. Abdul Muyeed, Director, Field Service Wing, DAE, Khamarbari, Dhaka			Nitai Chandra Dey Sarkar, AD (GIS), Department of Disaster Managenment, Mohakhali, Dhaka.	
1	□	5	5	5	5	□	6	6	4	3
2	4	4	4	4	5	6	6	6	3	3
3	5	5	6	□	6	5	5	5	□	4
4	□	5	5	□	6	□	6	6	□	5
5	5	6	5	5	6	4	4	4	5	4
6	5	6	5	5	6	5	5	5	5	5
7	6	6	6	6	6	6	6	5	5	3
8	5	4	5	6	6	6	6	6	4	6
9	5	5	6	6	6	6	6	6	3	6
10	4	5	5	5	5	5	6	6	6	6
11	6	6	6	6	6	6	6	6	6	6
12	2	2	6	6	6	5	5	5	6	5
13	5	4	6	6	6	4	4	4	6	4
14	5	5	5	5	5	6	6	6	6	5
15	6	6	6	6	6	5	5	5	6	3
16	4	4	4	4	4	6	6	6	6	6
17	3	5	4	5	5	6	6	6	5	5
18	3	3	2	3	2	6	6	6	4	6
19	2	2	4	4	4	6	6	6	5	5
20	5	5	6	6	6	6	6	6	5	6
21	6	6	6	6	6	6	6	6	6	6
22	4	4	6	6	6	6	6	6	4	6
23	4	4	4	4	4	6	6	6	5	5
24	6	6	6	6	6	6	6	6	5	6
25	4	4	6	6	6	6	6	6	5	6
Total	114	117	129	132	135	141	142	141	124	125
Ave.	**4.56**	**4.68**	**5.16**	**5.28**	**5.40**	**5.64**	**5.68**	**5.64**	**4.96**	**5.00**

Day-3 (27.11.2018)						Day-4 (28.11.2018)					
Participants	Salinity intrusion and agricultural Adaptation in coastal areas of Bangladesh	Adaptation strategies for disaster and climate risks management in agriculture	Mitigation strategies for disaster and climate risks management in agriculture	Meteorology and weather forecasting for agriculture	Implication of agro-meteorology for agriculture disaster management	National policy, planning and act on disaster management	Bangladesh disaster management planning and future perspective	Disaster Management System in Bangladesh	Updated technologies of BARI in relation to disaster management	Updated technologies of BARI in relation to disaster management	Loss assessment after disaster
	Dr. Md. Abu Wali Raghib Hassan Ex. Director, Planning, Project Implementation & ICT wing, DAE, Khamarbari, Dhaka			Dr. Md. Shameem Hassan Bhuiyan Meteorologist & Project Manager, WIBCI, Bangladesh		Dr. Md. Abdul Wazed, Ex. DG, DDM & BBS & Addl. Secretary (Rtd)			Dr. ApurbaKanti Choudhury, CSO, RARS, BARI, Jamalpur		
1	6	□	6	6	6	□	6	6	4	3	3
2	5	5	6	6	6	4	4	4	5	5	5
3	6	6	6	6	□	5	5	5	□	6	6
4	6	□	6	6	□	□	6	6	□	6	6
5	5	5	5	4	4	6	5	6	5	5	5
6	6	6	6	6	6	6	6	6	5	5	3
7	6	6	6	6	6	4	3	4	6	4	5
8	6	6	6	6	6	6	6	6	6	6	3
9	6	6	6	6	6	2	2	2	6	6	6
10	6	6	6	6	6	4	4	4	4	4	4
11	6	6	6	6	6	5	5	5	4	4	4
12	5	6	6	6	6	6	6	6	6	6	6
13	6	6	6	6	6	4	4	4	5	5	5
14	6	6	6	6	6	5	5	5	5	5	5
15	6	6	6	5	6	2	3	2	5	5	4
16	6	6	6	6	6	6	6	6	6	6	6
17	6	6	6	6	6	1	1	1	6	6	6
18	6	6	6	6	6	1	1	1	4	4	5
19	6	6	6	6	6	5	5	5	6	6	6
20	6	5	6	6	6	5	5	5	6	6	6
21	4	4	4	5	5	6	6	6	6	6	6
22	6	6	6	6	6	5	5	5	5	5	5
23	6	6	6	6	6	6	6	6	6	6	6
24	6	5	6	6	6	6	6	6	6	6	6
25	4	4	4	5	5	5	5	5	5	5	5
Total	143	142	145	145	146	117	116	117	133	131	127
Ave.	**5.72**	**5.68**	**5.8**	**5.8**	**5.84**	**4.68**	**4.64**	**4.68**	**5.32**	**5.24**	**5.08**

Day 05(29/11/2018)		
Participants	Updated technologies of BRRI in relation to disaster management	Updated technologies of BRRI in relation to disaster management
	Jibon Krishna Biswas Ex. DG, BRRI, Gazipur	
1	6	6
2	1	1
3	6	6
4	6	6
5	6	6
6	4	4
7	5	5
8	5	5
9	6	6
10	6	6
11	6	6
12	6	6
13	6	6
14	6	6
15	6	6
16	5	5
17	6	6
18	6	6
19	6	6
20	6	6
21	6	6
22	5	5
23	6	6
24	6	6
25	5	5
Total	138	138
Ave.	**5.52**	**5.52**

17. Training Evaluation Report of Participants on Disaster Management in Agriculture

Duration: 25-29 November 2018 Full Marks: 100

Sl. No.	Name	Designation and Organization	Evaluation	
			Pre-	Post-
1.	DR. MD. JAMAL HOSSAIN	Senior Scientific Officer, BIRTAN, Regional Station, Barisal	40	40
2.	MOST. BILKIS BANU	Scientific Officer, Regional Wheat Research Center, BARI, Gazipur	29	63
3.	JANNATUL FERDUSH	Scientific Officer, Fiber Quality Improvement Division, BJRI, Dhaka	28	73
4.	MD. FARIDUL ISLAM	Assistant Engineer, BMDA, Panchagarh Zone, Panchagarh	06	29
5.	IMRUL KAES	Agriculture Extension Officer, Upazila Agriculture Office, Boda, Panchagarh	17	63
6.	SAYED SHAKIL AHMED	Agriculture Extension Officer, Upazila Agriculture Office, Tetulia, Panchagarh	48	63
7.	MAHBUBA SULTANA	Senior Instructor, ATI, Shimultoli, Gazipur	13	57
8.	NOOR OLIYA HAQUE	Agriculture Extension Officer, Sadar, Gazipur	21	71
9.	MD. NOORNABI DEWAN	Instructor, ATI, Araihazar, Narayanganj	21	62
10.	KAZI SHAFIUL ISLAM	Agriculture Extension Officer Upazila Agriculture Office, Sonagazi,Feni	27	61
11.	JOYNULALAM TALUKDER	Horticulturistm, Horticulture Center, Sholakia, Kishoreganj	22	64
12.	MD. ABDULLAH AL NOMAN	Agriculture Extension Officer, Upazila Agriculture Office, Kaliganj, Jhenaidah	21	36
13.	AFRIN AKHTER FARIA	Instructor, ATI, Faridpur	20	63
14.	MD. ABDUL KHALEQUE	Deputy Manager, Seed Processing and Preservation Division, BADC, Dhaka	27	44
15.	MOHAMMAD MOSHAROF HOSSAIN	Assistant Engineer, BADC, Kaliganj Zone, Gazipur	05	40
16.	REBEKA PARVEEN	Seed Analyst, SCA, Gazipur	09	67
17.	MOUSUMI PAUL	Seed Certification Officer, SCA, Mymensingh	35	71
18.	KEYA KARMOKAR	Scientific Officer, SRDI, Dhaka	33	75
19.	IREEN SULTANA	Scientific Officer, SRDI, Khulna	39	75
20.	MD. IMDADUL HOQUE	Scientific Officer, BINA, Mymensingh	27	23
21.	A.B.M. SHAFIUL ALAM	Scientific Officer, BINA Sub-Station,	12	29
22.	RUMANA MOMOTAZ	Senior Scientific Officer, Plant Pathology Division, BARI, Gazipur	07	65
23.	MD. ZAHEDUL HASAN	Scientific Officer, HARS, BARI, Khagrachari	24	61
24.	MD. HABIBUL BASHAR CHOWDHURY	Agriculture Extension Officer, Kaliakair, Gazipur	17	57
25.	SUMAYA SHARMIN	Publication Officer, NATA, Gazipur	17	62

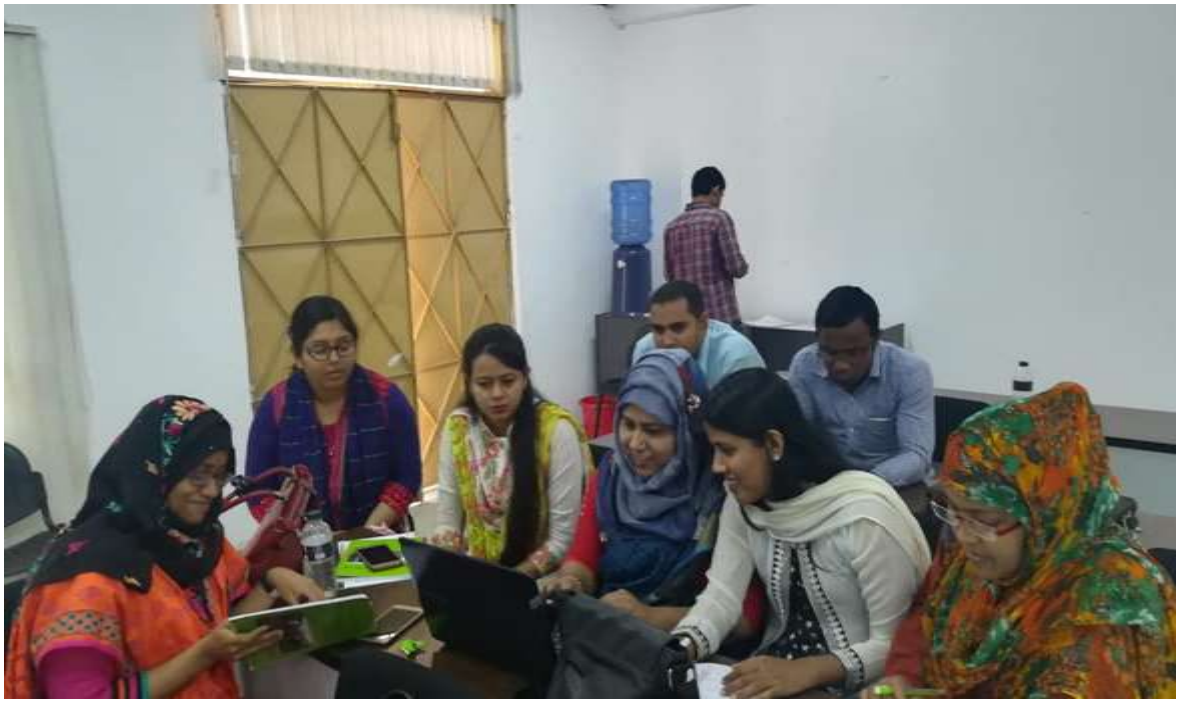
18. Pictorial View of Training Activities

Inaugural ceremony

Session taken by Dr. Shameem Hasan Bhuyian, Agri-Meteorologist, BMD

Session taken by Dr. Md. Abdul Wazed, Ex. Addl. Secretary and DG, DDM

Group photo with resource speaker Dr. Abu Wali Raghib Hassan, Ex. Director, DAE



Participants busy for group work

Group work discussion

Group work observed by CC and ACC

Group work presentation by group leader

Participants evaluating the course curriculum

Certificate distribution among participants by Director (Training), NATA

Group photo with course management team