Training Completion Report

Training on Disaster Management in Agriculture

Duration: 04 October – 08 October 2020

National Agriculture Training Academy (NATA)
Gazipur-1701

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 27 October and ends 31 October 2019.

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
Present Disaster scenario of Bangladesh	L, D
Projection of climate change and disaster challenges in Bangladesh	L, D
Inter-relation between environment, population and development	L, D
Social safety nets	L,D

Working Day-02

Topics	Method
Global warming and drought Effect on agriculture and crop production	L, D
Salinity intrusion and agricultural adaptations in coastal areas of Bangladesh	L, D
Adaptation Strategies for Disaster and climate risks management in agriculture	L, D
Flood, flash flood and water logging and their impacts on agriculture	L, D
Disaster management system in Bangladesh	L, D
Agriculture rehabilitation programs and planning are taken by DAE after disaster	L, D

Working Day-03

Topics	Method
Impact of climate change on agriculture in Bangladesh	L, D
Meteorology and weather forecasting for agriculture	L, D
Implication of agro-meteorology for agriculture disaster management	L, D
Agriculture and Covid-19 Pandemic	L, D
ICT for disaster management	L, D
GIS and remote sensing in disaster management	

Working Day-04

Topics	Method
National Policy, Planning and Act on Disaster Management	L, D
Bangladesh disaster management planning and future perspective	L, D
Make an agriculture rehabilitation plan of your working area (eg. Flood, drought, salinity)	L, D, E& P
Group presentation and discussion (flood, drought and Salinity)	L, D, E& P
Updated technologies of BARI for Agriculture after disaster	L, D
Loss assessment after disaster	

Working Day-05

Topics	Method
Updated technologies of BRRI for Agriculture after disaster	L, D
Agriculture rehabilitation programs and planning are taken by BRRI after disaster	L, D
Mitigation strategies for disaster and climate risks management in agriculture	L, D
National Integrity Strategy (NIS)	L, D

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 not 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.
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 agro meterology 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. Introduction to different apps should be included;

xxi. Internet facilities should be increased further;

xxii. 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 were distributed among the participants after successfully completion of the training.Director (Admin) was present as chief guest.

12. List of the participants

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

SL.	Name	Designation
1	SHOMORESH ROY	Scientific Officer, OFRD, BARI, Tangail
2	TITUN BISWAS	AEO,DAE, Ishwarganj, Mymensingh
3	AVIJIT BISWAS	Scientific Officer, BRRI, Gazipur
4	MD. AL- ARAFAT TOPU	Scientific Officer, BINA, Mymensingh
5	AFRIN AKTER FARIA	AEO, DAE, Kaliganj, Gazipur
6	FATEMA AKTER	AEO, DAE, Sadar, Madaripur
7	DIPANKAR SUTRADHAR	AEO, DAE, Dowarabazar,Sunamganj
8	MOHAMMAD ABDUL KADER	Assistant Director(Training), RTC, DAM, Chattogram
9	MD. MAMUNUR RASHID	Scientific Officer, RSRS, Thakurgaon

SL.	Name	Designation
10	MD. RAIHAN KAUSER	Cotton Development Officer, CDB, Chuadanga zone, Chuadanga
11	KEYA KARMOKAR	Scientific Officer, SRDI, Dhaka
12	S.M. MAHBUB ALAM	Assistant Director(Training), DAM, Khulna
13	DR. MD. ASADUZZAMAN	Principal Scientific Officer,OFRD, BARI, Narsingdi
14	DIPU ROY	AEO, DAE,Sadar,Kurigram
15	SUDAB KARMAKER	Assistant Engineer, BADC, Netrakona
16	MOHAMMAD SHAHE ALAM	Instructor, ATI,DAE, Rangamati
17	SHARMIN AKTER	Publication Officer, SCA , Gazipur
18	DR. MD. HASANUL KABIR KAMALY	Senior Training Officer, SCA , Gazipur
19	MD. MAHBUBUR RAHMAN	District Seed Certification Officer, SCA, Faridpur
20	DR. MD. ROKNUZZAMAN	Senior Scientific Officer, BINA, Satkhira
21	MD. JAHANGIR HOSSAIN	Instructor, ATI,DAE, Rahmatpur, Barishal
22	MAHAMMAD TAREK ANWER	Senior Assistant Director, BADC, DHAKA
23	DR. SATYEN MONDAL	Senior Scientific Officer, BRRI, Gazipur
24	MD. SHAHADAT HUSSAIN	Regional Agriculture Information Officer, AIS, Barishal
25	SHEIKH MD. SHAHIDUZZAMAN	Vice Principal, ATI, DAE, Daulatpur, Khulna
26	DR. MD. LUTFAR RAHMAN	Principal Scientific Officer, BJRI, Manikganj
27	CHOWDHURY ABU ALA MOUDUDI	District seed certification officer, SCA, Nilphamari
28	DR. SALMA LAIZOO	District Seed Certification Officer, SCA, Netrakona
29	MD. MAHAMUDUL HASAN	Scientific Officer, BWMRI, RS, Gazipur
30	MD. EKRAM UDDIN	Chief Instructor, ATI, DAE, Hathazari, Chattogram

Sl. No.	Name of the speakers	Designation and Address	Mobile NO. & e-mail
01	Dr. Md. Abdul Muyeed,	DG, DAE, Khamarbari, Dhaka	muyeedbd61@gmail.com , 01716940311
02	Dr. Md. HumayunKabir	Professor, Department of Geography and Environment, Dhaka University	01717711024 mh_kabir@yahoo.com
03	Dr. Md.Atiquer Rahman,	Ex.Additional Secretary (Rtd)Ministry Of Disaster Management and Relief	atiqur 4032@ gmail.com, 01715234606
04	Dr. Md.Akhtaruzzaman,	Director (Admin),NATA,Gazipur	akhtar62bd@gmail.com , 01711884191
05	Prof. DrMizanur Rahman 2.	Dept.of Soil Science, BSMRAU	mizan@bsmrau.edu.bd, 01710659303
06	Dr. ApurbaKanti Choudhury	CSO, STD, BARI, Gazipur	apurba.chowdhury@gmail.com 01819128302
07	Dr. KhandakarMdIftekharuddaula	CSO & Head, Plant Breeding Division , BRRI, Gazipur	head.breeding@brri.gov.bd/kiftekhar03@yahoo.com, 01732761747
08	Dr. Parimal Chandra Sarker	PSO (STD),BARI, Gazipur	parimal@bari.gov.bd, sarkerparimalch@yahoo.com01712102012
09	Md. Shameem Hassan Bhuiyan	Meteorology & Project Manager, WIBCI, Bangladesh Meteorological Department	shameem.bmd@gmail, 01750000456
10	Dr. Md. Abdul Mazed	Deputy Director (LR), Attached: NATA, Gazipur	mazed13th.dae@gmail.com 01814849190
11	Dr. Md. Jamal Uddin	DD (Plant Pathology), NATA, Gazipur	jamaldae@yahoo.com 01712272859
12	Abu Syed Md. JobaydulAlam,	Deputy Director (GPB) NATA, Gazipur	shaheenbinod@gmail.com 01712603248
13	Eng. AFM Tariqul Islam	SSO,ASICT Division, BARI	afmtareq@gmail.com , 01727700625
14	Md. Eskandar Hossain,	SAD (Vegetable and Spices) NATA, Gazipur	eskandarhossain@yahoo.com 01938615225
15	Md. Shahiduzzamanshubho,	Medical Officer, NATA, Gazipur.	shubho.415@gmail.com, 01763037171

13.List of Resource Personnel

13. Training Schedule

Date: 04/10/2020   **Working Day-01**   **Day: Sunday**

Time	Topics	Facilitator
9.00-9.30	**Registration**	ACC &Sadiqunnahar, Demonstrator (Lab)
9.30-10.00	**Inaugural Session**	DG/Directors, Course Coordinator& Assistant Course Coordinators
10.00-10.20	**Pre-evaluation**	CC/ACC
10.20-11.20	Basic concept on disaster, hazard, vulnerability, risk and climate change	Md. EskandarHossain, SAD (Vegetable and Spices), NATA 01938615225
11.20-11.40	**Tea Break**	
11.40-12.40	Present disaster scenario of Bangladesh	Prof.Dr. Md. HumayunKabir, Department of Geography and Environment, Dhaka University, 01717711024, mh_kabir@yahoo.com
12.40-1.45	**Prayer & lunch Break**	
1.50-2.50	Projection of climate change and disaster challenges in Bangladesh	Prof Dr. Md. HumayunKabir, Department of Geography and Environment, Dhaka University 01717711024, mh_kabir@yahoo.com
2.50-3.50	Inter-relation among environment, population and development	ProfDr. Md. HumayunKabir, Department of Geography and Environment, Dhaka University 01717711024, mh_kabir@yahoo.com
3.50-4.50	Social safety nets	Dr. Md. Jamal Uddin, DD (Plant Pathology), NATA, Gazipur jamaldae@yahoo.com ,01712272859

Working Day-02Day:Monday   **Date:05/10/2020**

Time	Topics	Facilitator
9.00-9.15	**Review of the previous day**	CC/ACC
9.15-10.15	Global warming and drought Effect on agriculture and crop production	Prof. DrMizanurRahman Dept.of Soil Science, BSMRAU, mizan@bsmrau.edu.bd, 01710659303
10.15-11.15	Salinity intrusion and agricultural adaptations in coastal areas of Bangladesh	Prof. DrMizanurRahman Dept.of Soil Science, BSMRAU, mizan@bsmrau.edu.bd, 01710659303
11.15-11.35	**Tea Break**	
11.35-12.35	Adaptation Strategies for Disaster and climate risks management in agriculture	Dr. Parimal Chandra Sarker, PSO (STD),BARI, Gazipur,01712102012 parimal@bari.gov.bd,

Time	Topics	Facilitator
12.35-01.35	Flood, flash flood and water logging and their impacts on agriculture	Dr. Parimal Chandra Sarker, PSO (STD), BARI, Gazipur, 01712102012 parimal@bari.gov.bd, sarkerparimalch@yahoo.com
01.35-2.50	**Prayer & lunch Break**	
2.50-3.50	Disaster management system in Bangladesh	Dr. Md. Abdul Muyeed, DG, DAE, Khamarbari, Dhaka muyeedbd61@gmail.com , 01716940311
3.50-4.50	Agriculture rehabilitation programs and planning are taken by DAE after disaster	Dr. Md. Abdul Muyeed, DG, DAE, Khamarbari, Dhaka muyeedbd61@gmail.com , 01716940311

Date: 06/10/2020   **Working Day-03**   **Day:Tuesday**

Time	Topics	Facilitator
9.00-9.15	**Review of the previous day**	CC/ACC
9.15-10.15	Impact of climate change on agriculture in Bangladesh	Dr. Md. Abdul Mazed, DD (LR), NATA,Gazipur 01814849190, mazed13th.dae@gmail.com
10.15-11.15	Meteorology and weather forecasting for agriculture	Dr. Md. Shameem Hassan Bhuiyan, Meteorologist & Project Manager, WIBCI, Bangladesh Meteorological Department, Shameem.bmd@gmail.com, 01750000456
11.15-11.35	**Tea Break**	
11.35-12.35	Implication of agro-meteorology for agriculture disaster management	Dr. Md. Shameem Hassan Bhuiyan Meteorologist & Project Manager, WIBCI, Bangladesh Meteorological Department, Shameem.bmd@gmail.com, 01750000456
12.35-01.35	Agriculture and Covid-19 Pandemic	Md. Shahiduzzamanshubho, Medical Officer, NATA, Gazipur. shubho.415@gmail.com 01763037171
01.35-2.50	**Prayer & lunch Break**	
2.50-3.50	ICT for disaster management	Eng. AFM Tariqul Islam SSO,ASICT Division, BARI afmtareq@gmail.com 01727700625
3.50-4.50	GIS and remote sensing in disaster management	Eng. AFM Tariqul Islam SSO,ASICT Division, BARI afmtareq@gmail.com 01727700625

Date: 07/10/2020   **Working Day-04**   **Day: Wednesday**

Time	Topics	Facilitator
9.0-9.15	**Review of the previous day**	CC/ACC
9.15-10.15	National Policy, Planning and Act on Disaster Management	Dr. Md.Atiquer Rahman, Ex.Additional Secretary (Rtd), Ministry Of Disaster Management and Relief atiqur 4032@ gmail,com, 01715234606
10.15-11.15	Bangladesh disaster management planning and future perspective	Dr. Md.Atiquer Rahman, Ex.Additional Secretary (Rtd), Ministry Of Disaster Management and Relief atiqur 4032@ gmail,com, 01715234606
11.15-11.35	**Tea Break**	
11.35-12.35	Make an agriculture rehabilitation plan of your working area (eg. Flood, drought, salinity)	Abu Syed Md. JobaydulAlam, Deputy Director (GPB), NATA, Gazipur, shaheenbinod@gmail.com,01712603248
12.35-01.35	Group presentation and discussion (flood, drought and Salinity)	Abu Syed Md. JobaydulAlam, Deputy Director (GPB), NATA,Gazipur ~~shaheenbinod@gmail.com~~ 01712603248
01.35-2.50	**Prayer & lunch Break**	
2.50-3.50	Loss assessment after disaster	Dr.ApurbaKantiChoudhury, CSO,STD, BARI, Gazipur apurba.chowdhury@gmail.com, 01819128302
3.50-4.50	Updated technologies of BARI for Agriculture after disaster	Dr.ApurbaKantiChoudhury, CSO, STD, BARI, Gazipurapurba.chowdhury@gmail.com, 01819128302

Date: 08/10/2020 **Working Day-05** **Day: Thursday**

Time	Planned sessions and Topics	Facilitator
9.00-9.15	**Review of the previous day**	CC/ACC
9.15-10.15	Updated technologies of BRRI for Agriculture after disaster	Dr. KhandakarMdIftekharuddaula, CSO & Head, Plant Breeding Division head.breeding@brri.gov.bd/kiftekhar03@yahoo.com, 01732761747
10.20-11.20	Agriculture rehabilitation programs and planning are taken by BRRI after disaster	Dr. KhandakarMdIftekharuddaula, CSO & Head, Plant Breeding Division head.breeding@brri.gov.bd/kiftekhar03@yahoo.com, 01732761747
11.20-11.40	**Tea Break**	
11.40-12.40	Mitigation strategies for disaster and climate risks management in agriculture	Dr. Parimal Chandra Sarker, PSO (STD),BARI, Gazipur,01712102012 parimal@bari.gov.bd
12.40-02.00	**Prayer & lunch Break**	
2.00-3.30	National Integrity Strategy (NIS)	Dr. Md.Akhtaruzzaman, Director (Admin),NATA,Gazipur, akhtar62bd@gmail.com, 01711884191
3.35-4.00	Post evaluation	Course Coordinator & Assistant Course Coordinators
4.00-4.55	Closing ceremony	DG/Directors, Course Co-ordinator and faculty Members, NATA

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;
8. Updated technologies of BADC in relation to disaster management should be including.
9. Field Visit should be arrange.

Best Training Methods choose by the participants

1. Discussion and group exercise
2. Group wise problem solution
3. Group discussion and presentation
4. Some pictorial presentation

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 ofNATA Authority

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 Participant

Participants	Basic concept on disaster, hazard, vulnerability, risk and climate change	Present disaster scenario of Bangladesh	Projection of climate change and disasterchallenge in Bangladesh	Inter-relation among environment, population and development	Social safety nets
	Day-1 (04.10.2020)				
	Md. EskandarHossain, SAD (Vegetable and Spices), NATA	Prof.Dr. Md. HumayunKabir, Department of Geography and Environment, Dhaka University			Dr. Md. Jamal Uddin, DD (Plant Pathology), NATA, Gazipur
1	5	5.8	5.8	5.8	5
2	6	6	6	6	5
3	5	5	5	5	5
4	5	5	5	6	5
5	6	5.6	6	6	6
6	6	5	6	6	5
7	5.8	5.8	5.8	6	5.2
8	5	4.6	5	5	6
9	5	5	5	5	6
10	5	5.4	4.4	5	5
11	5.6	4.6	4.6	3.8	6
12	6	6	6	6	6
13	5	5.2	5.2	5.4	5.4
14	5.4	5.2	5.4	5.4	5
15	4	5	5	5	6
16	4.6	6	6	6	5
17	4.4	4.8	4.8	4.8	5
18	5	5	5	5	5
19	5	6	6	6	6
20	5	5.2	5.4	5.8	5.4
21	5.6	5.6	5.6	6	5
22	4.4	4.6	4.6	4.6	4.6
23	6	6	6	6	6
24	6	6	6	6	6
25	4.6	4.6	4.6	5	5
26	4.2	3.3	3	3	4
27	5	6	6	6	6
28	5	5	5	5	6
29	4	5	5	5	6

30	5	5.2	5.4	5.8	5.4
Total	153.6	157.5	158.6	161.4	167.4
Average	5.12	5.25	5.29	5.38	5.4

Day-2 (05.10.2020)						
Participants	Global warming and drought Effect on agriculture and crop production	Salinity intrusion and agricultural adaptations in coastal areas of Bangladesh	Adaptation Strategies for Disaster and climate risks management in agriculture	Flood, flash flood and water logging and their impacts on agriculture	Disaster management system in Bangladesh	Agriculture rehabilitation programs and planning are taken by DAE after disaster
	Prof. DrMizanurRahman Dept.of Soil Science, BSMRAU		Dr. Parimal Chandra Sarker, PSO (STD), BARI, Gazipur		Dr. Md. Abdul Muyeed, DG, DAE, Khamarbari, Dhaka	
1	4.8	5	5	5	6	6
2	5	5	5	4.6	6	6
3	5.8	5.8	5.8	6	5.8	5.8
4	6	6	5.2	5.2	6	6
5	5.2	5.2	6	6	6	6
6	5.6	5.6	6	6	6	6
7	6	6	6	6	6	6
8	4.6	5	5	5.2	5.4	5.2
9	2.2	2.2	5.4	5.6	6	6
10	3.8	4.8	4.8	5.2	6	6
11	5.4	5.4	5.6	5.6	5.8	5.6
12	4.2	4.2	4.2	4.2	6	6
13	3	5	5	5.6	5.6	6
14	2.6	3.2	6	5	6	6
15	2.8	3.4	3.6	4	5	4.8
16	5	5	5.4	5.8	6	6
17	6	6	6	6	6	6
18	5.2	4.6	5.6	5.6	6	6
19	3.4	3.4	3.4	4	6	6
20	5.2	5.2	5.2	5.2	5.2	5.2
21	5.2	4.8	5.6	5.6	5.6	5.6
22	2.4	1.3	5.2	5	5.6	5.6
23	6	6	6	6	6	6
24	3	3.6	5.2	5.4	5.4	6
25	5.6	5.6	6	5.6	6	6
26	5.8	5.8	6	6	5.8	5.8
27	5.6	5.6	5.2	5.4	6	6
28	4.6	4.6	5.2	5.2	6	6
29	3.8	3.8	6	6	6	6

30	6	6	6	6	6	6
Total	139.8	143.1	160.6	162	175.2	175.6
Average	4.7	4.8	5.3	5.4	5.84	5.85

Day- 3 (06.10.2020)						
Participants	Impact of climate change on agriculture in Bangladesh	Meteorology and weather forecasting for agriculture	Implication of agro-meteorology for agriculture disaster management	Agriculture and Covid-19 Pandemic	ICT for disaster management	GIS and remote sensing in disaster management
	Dr. Md. Abdul Mazed, DD (LR), NATA, Gazipur	Dr. Md. Shameem Hassan Bhuiyan Meteorologist & Project Manager, WIBCI, Bangladesh Meteorological Department		Md. Shahiduzzamanshubho, Medical Officer, NATA, Gazipur	Eng. AFM Tariqul Islam SSO,ASICT Division, BARI	
1	5.8	4.8	4.6	5.2	4.6	4.4
2	6	6	6	6	6	6
3	6	6	6	5	5.6	5.6
4	5.6	5.8	5.2	2.4	5.6	5.8
5	5.8	5.8	3.2	4.6	5	5
6	6	6	5	4	4	4
7	6	6	6	6	6	6
8	5.4	5.8	5.8	5.8	4.6	4.2
9	6	6	4.6	5.2	4.6	4.6
10	5.4	5.4	4.8	4.6	4.6	4.6
11	6	5.8	5	4.8	5	5
12	6	6	5.6	5.4	5	5.6
13	6	6	5.2	6	5	5
14	4.2	4.2	6	4.6	4.6	4.6
15	5.8	5.8	5.6	5.2	5.4	5.4
16	5.6	5.8	6	6	5.4	5.2
17	6	6	6	6	6	6
18	4.6	4.4	44	4	5.2	3.4
19	5.8	5.8	4.6	4.6	4.6	4.6
20	5.8	5.6	5.2	5.2	5.2	5
21	6	6	6	6	5	5
22	5.4	5.2	5.6	3	4.2	4.2
23	4.4	3.8	4.8	5	5	5.2
24	6	6	6	5	6	6
25	6	6	3	3	4.4	4
26	6	6	6	5	5	5
27	6	6	6	6	6	6
28	4.8	5	4	3.8	4.8	4.6
29	6	6	5.4	5	5	5

30	6	4	6	5	4	4
Total	176.08	172.5667	191.2	152.3133	156.4467	153.9667
Average	5.68	5.6	6.57	4.91	5.04	4.9

Participants	Day-4 (07.10.2020)					Day-5 (08.10.2020)			
	National Policy, Planning and Act on Disaster Management	Bangladesh disaster management planning and future perspective	Make an agriculture rehabilitation plan of your working area (eg. Flood, drought, salinity)	Updated technologies of BARI for Agriculture after disaster	Loss assessment after disaster	Updated technologies of BRRI for Agriculture after disaster	Agriculture rehabilitation programs and planning are taken by BRRI after disaster	Mitigation strategies for disaster and climate risks management in agriculture	National Integrity Strategy (NIS)
	Dr. Md.Atiquer Rahman, Ex.Additional Secretary (Rtd), Ministry Of Disaster Management and Relief	Abu Syed Md. Jobaydul Alam,	Dr.ApurbaKanti Choudhury CSO, STD, BARI, Gazipur			Dr. Khandakar MdIftekharuddaula CSO & Head, Plant Breeding Division BRRI, Gazipur		Dr. Parimal Chandra Sarker, PSO (STD) ,BARI,	Dr. Md. Akhtaruzzaman Director (Admin), NATA,Gazipur
1	6	6	4.8	4.8	5.2	6	6	6	6
2	4.8	4.8	4	5	5	6	6	6	5.4
3	4.8	4.8	5.4	5.4	4.2	5	4.6	5.2	5.6
4	5.6	5.2	5.4	5.4	5	4.8	5	5	5
5	5	5	6	5	5	5.8	5.8	6	6
6	4	4	4	4	3	5	5	4.4	6
7	6	6	4	5	6	4.8	4.8	4.8	4.8
8	5.4	5.6	3.2	4.6	3.4	5	5	3.2	6
9	6	6	5.2	5.2	5.2	5.6	5.4	5.4	5.4
10	6	6	6	6	6	5.8	5.6	5	5
11	4	3.8	4	4.8	4	4.2	4	5	6
12	5.6	5.6	5.2	4.8	5.8	5.4	5.4	5.4	5.4
13	5.8	5.4	5	6	6	5	5	4.4	4.4
14	6	6	6	5.6	5.8	5.4	5.4	5	6
15	4.8	5.2	5.4	5.8	5.8	5.4	4.4	4.4	6
16	6	5	5.8	6	6	5	5	5	6
17	4.8	4.8	5	5.2	5.2	6	6	5.2	6
18	5.2	5.2	5.2	5.2	5.2	4.2	4.2	4.2	4
19	5.4	5.6	5.8	5	5	5.6	5.6	6	4.6
20	5.6	5.2	5.2	6	6	4.6	4.6	5	5
21	5.2	4.8	5.2	5.6	6	5.6	5.6	5	6
22	4	4	5.6	5.6	5.6	4	4	5	6
23	5	5	5	5	5	5.6	5.8	5.6	6
24	5	5	5	5.4	4	3.4	4	4.8	4.6
25	6	6	6	5	5.2	6	6	5.4	6
26	6	6	6	6	6	5	5	5.2	5
27	4.8	4.8	5	4.8	5	5	5	6	6
28	5.8	5.6	6	5.6	5.6	6	6	6	6
29	5.8	5.4	5	6	6	6	6	5.2	6

30	4.8	4.8	5	5.2	5.2	5	5	4.4	4.4
Total	164.50	161.82	159.54	164.3	161.61	161.40	160.37	158.30	170.08
Average	5.30	5.22	5.14	5.3	5.21	5.20	5.17	5.10	5.48

17. Training Evaluation Report of Participants on Disaster Management in Agriculture
Full Marks: 30

SL.	Name	Designation	Pre Evaluation	Post Evaluation
1	SHOMORESH ROY	Scientific Officer, OFRD, BARI, Tangail	10	22
2	TITUN BISWAS	AEO,DAE, Ishwarganj, Mymensingh	15	19
3	AVIJIT BISWAS	Scientific Officer, BRRI, Gazipur	11	21
4	MD. AL- ARAFAT TOPU	Scientific Officer, BINA, Mymensingh	11	19
5	AFRIN AKTER FARIA	AEO, DAE, Kaliganj, Gazipur	11	24
6	FATEMA AKTER	AEO, DAE, Sadar, Madaripur	7	16
7	DIPANKAR SUTRADHAR	AEO, DAE, Dowarabazar,Sunamganj	13	20
8	MOHAMMAD ABDUL KADER	Assistant Director(Training), RTC, DAM, Chattogram	14	24
9	MD. MAMUNUR RASHID	Scientific Officer, RSRS, Thakurgaon	14	25
10	MD. RAIHAN KAUSER	Cotton Development Officer, CDB, Chuadanga zone, Chuadanga	11	25
11	KEYA KARMOKAR	Scientific Officer, SRDI, Dhaka	9	24
12	S.M. MAHBUB ALAM	Assistant Director(Training), DAM, Khulna	9	22
13	DR. MD. ASADUZZAMAN	Principal Scientific Officer,OFRD, BARI, Narsingdi	9	15
14	DIPU ROY	AEO, DAE,Sadar,Kurigram	11	22
15	SUDAB KARMAKER	Assistant Engineer, BADC, Netrakona	10	25
16	MOHAMMAD SHAHE ALAM	Instructor, ATI,DAE, Rangamati	10	24
17	SHARMIN AKTER	Publication Officer, SCA , Gazipur	5	21
18	DR. MD. HASANUL KABIR KAMALY	Senior Training Officer, SCA , Gazipur	10	24
19	MD. MAHBUBUR RAHMAN	District Seed Certification Officer, SCA, Faridpur	2	15
20	DR. MD. ROKNUZZAMAN	Senior Scientific Officer, BINA, Satkhira	12	17

SL.	Name	Designation	Pre Evaluation	Post Evaluation
21	MD. JAHANGIR HOSSAIN	Instructor, ATI,DAE, Rahmatpur, Barishal	16	24
22	MAHAMMAD TAREK ANWER	Senior Assistant Director, BADC, DHAKA	12	21
23	DR. SATYEN MONDAL	Senior Scientific Officer, BRRI, Gazipur	14	18
24	MD. SHAHADAT HUSSAIN	Regional Agriculture Information Officer, AIS, Barishal	12	25
25	SHEIKH MD. SHAHIDUZZAMAN	Vice Principal, ATI, DAE, Daulatpur, Khulna	7	17
26	DR. MD. LUTFAR RAHMAN	Principal Scientific Officer, BJRI, Manikganj	12	21
27	CHOWDHURY ABU ALA MOUDUDI	District seed certification officer, SCA, Nilphamari	9	20
28	DR. SALMA LAIZOO	District Seed Certification Officer, SCA, Netrakona	9	24
29	MD. MAHAMUDUL HASAN	Scientific Officer, BWMRI, RS, Gazipur	10	21
30	MD. EKRAM UDDIN	Chief Instructor, ATI, DAE, Hathazari, Chattogram	12	17

Evaluation	Lowest Marks	Highest Marks	Average Marks
Pre-Evaluation	**02**	**16**	**10.53**
Post Evaluation	**15**	**25**	**21.00**

Pictorial View of Training Activities

Inaugural ceremony

Session conducted by Prof. Dr. Md. HumayunKabir, Department of Geography andEnvironment, Dhaka University

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

Session conducted by Dr. Md. Abdul Muyeed, DG, DAE

Session conducted by Dr. Md. Atiqur Rahman, Additional Secretary, MoDMR

Session conducted by Prof. DrMizanur Rahman,Dept.of Soil Science, BSMRAU,

Session conducted by Dr. Md. Akhtaruzzaman, Director (Admin), NATA, Gazipur,

Participants busy for group works

Group work discussion

Group work discussion

Group work presentation by group leader

Closing ceremony addressed by Chief Guest, Director (Admin), NATA

Closing ceremony addressed by Course Coordinator (Chief Guest, Director (Admin), NATA)

Closing ceremony addressed by Participant

Certificate distribution among participants by Director Admin, NATA

Certificate distribution among participants by Director (Admin) NATA