Training Completion Report

Training on Disaster Management in Agriculture

Duration: 27 to 31 October 2019

National Agriculture Training Academy (NATA)
Gazipur-1701

Training on Disaster Management in Agriculture

Duration: 27 to 31 October 2019

Course Management

Course Director : Dr. Md. Abu Sayeed Miah
Director General (Incharge) &
Director Training
NATA, Gazipur

Course Coordinator: Dr. Md. Abdul Mazed
Deputy Director
NATA, Gazipur
Cell: 01814849190

Asst. Course Coordinator
Mahmuda Huq
Senior Assistant Director
(Genetics and Plant Breeding)
NATA, Gazipur
Cell: 01718425311

Asst. Course Coordinator
Shamima Akter
Senior Assistant Director
(Environment & Agro forestry)
NATA, Gazipur
Cell: 0177417316

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1. Introduction

Bangladesh is a disaster risk hotspot, ranked fifth in the top 15 countries with highestrisks(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
ICT for Disaster Management	L,D
GIS and Remote sensing in disaster Management	L,D
Meteorology and weather forecasting for agriculture	L,D
Implication of agro-meteorology for agriculture disaster management	L,D
Basic concept on disaster, hazard, vulnerability, risk and climate change	L,D

Working Day-02

Topics	Method
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
Updated technologies of BRRI in relation to disaster management	L, D
Updated technologies of BRRI for Char and Haor Areas	L, D

Working Day-03

Topics	Method
Updated technologies of BARI in relation to disaster management	L, D
Updated technologies of BARI for Char and Haor Areas	L, D
Loss Assessment After Disaster	L, D
Disaster Management System in Bangladesh	L, D
Impact of climate change on agriculture in Bangladesh	L, D

Working Day-04

Topics	Method
Salinity Intrusion and Agricultural Adaptations in Coastal Areas of Bangladesh	L, D
Adaptation Strategies for Disaster and Climate Risks Management in Agriculture	L, D
Make an agriculture rehabilitation plan of your working area (eg. Flood, drought, salinity)	L, D, E & P
Group presentation and discussion (eg. Flood, drought, salinity)	L, D, E & P
Sustainable Development Goal (SDGs)	L, D

Working Day-05

Topics	Method
National Policy, Planning and Act on Disaster Management	L, D
Bangladesh Disaster Management Planning and Future Perspective	L, D
Climate Services in Agriculture to Mitigate Disaster Risk	L, D
Flood, flash flood and water logging and their impacts on agriculture	L, D
Global Warming and Drought Effect on agriculture and crop production	L, D
Agriculture rehabilitation program planning after disaster	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 General (In-charge) was present as chief guest.

12. List of the participants

Thirty One participants from 12 different organizations under ministry of Agriculture were the participants of this course.

SL.	Name	Designation
1.	Md. Faridul Hassan	District Seed Certification Officer, Seed Certification Agency, Sirajganj
2.	Md. Hasan Warisul Kabir	District Seed Certification Officer, Seed Certification Agency, Gopalganj
3.	Mohammad Rakibul Hasan Sarker	Cotton Development Officer, Cotton Development Board, Kushtia Zone, Kushtia
4.	HafizurRahaman	Scientific Officer, WMMD ivision, Bangladesh Rice Research Institute
5.	Md. Abul Hossain	Farm Manager, GRS Division, BRRI, Gazipur
6.	Md. Mahabubur Rahman	Senior Scientific Officer, Soil Resource Development Institute, Regional Laboratory, Govt., Cumilla
7.	Md. Jainal Abedin	Senior Scientific Officer, Soil Resource Development Institute, Regional Laboratory, Daulatpur, Khulna
8.	Md.Ahasan Habib	Scientific Officer, Bangladesh Sugarcrop Research Institute, Ishurdi, Pabna
9.	Dipok Kumar Saha	Agriculture Extension Officer, Upazila Agriculture Office, Sadar, Meherpur
10.	Pijush Roy	Agriculture Extension Officer, Upazila Agriculture Office, Kashiani, Gopalganj
11.	Abu Jafor Mohammad Moin Uddin	Upazila Agriculture Officer, Kutubdia, Cox's Bazar
12.	Md. Anisuzzaman	Upazila Agriculture Officer, Upazila Agriculture Office, Nasirnagar, Brahmanbaria
13.	Md.Shariaj Biswas	Agriculture Extension Officer, Upazila Agriculture Office, Tahirpur, Sunamganj
14.	Md. Al-Amin	Agriculture Extension Officer, Upazila Agriculture Office, Banaripara, Barishal
15.	Ratan Chandra Barman	Agriculture Extension Officer, Upazila Agriculture Office, Gurudaspur, Natore
16.	Md.AtiqulHaq	Additional Deputy Director (Horticulture), Department of Agriculture Extension, Habiganj
17.	Md. Abdullah Al-Mamun	Agriculture Extension Officer, Upazila Agriculture Office, Bheramara, Kushtia

SL.	Name	Designation
18.	Iffat Kibria Al Nayeem	Agriculture Extension Officer, Upazila Agriculture Office, Baliadangi, Thakurgaon
19.	Susmita Ray	Agriculture Extension Officer, Upazila Agriculture Office, Rangpur Sadar, Rangpur
20.	Waliul Islam	Agriculture Extension Officer, Upazila Agriculture Office, Mongla, Bagerhat
21.	Md. Hasan Ali	Upazila Agriculture Officer, Upazila Agriculture Office, Badalgachi, Naogaon
22.	Gazi Nazmul Hasan	Scientific Officer, Bangladesh Agricultural Research Institute, Bhola
23.	Md. Mostafizur Rahman	Assistant Engineer, Godagari, Zone-2, BMDA
24.	Alomgir Md. Ruhul Islam	Assistant Engineer, Nilphamari Zone, BMDA
25.	S. M.MahbubulAlam	Scientific Officer, Regional Station, BWMRI,Shyampur,Rajshahi
26.	Md. Shahidullah Kaisher	Assistant Director, Contract Growers Zone, BADC, Dinajpur
27.	Md.Asafuzzaman	Assistant Engineer, Minor Irrigation Zone, BADC, Ullapara, Sirajganj
28.	Md. Rashidul Hasan Anik	Scientific Officer, BARI,Gopalganj,
29.	Sadia Tasmin	Senior Scientific Officer, Department of Horticulture, BINA, Mymensingh
30.	Dr. Md.MahbubulAlamTarafder	Senior Scientific Officer, Soil Science Department, BINA, Mymensingh
31.	Abida Sultana	Scientific Officer, Bangladesh Jute Research Institute, Manikganj

13. List of Resource Personnel

Sl No.	Name of the speakers	Designation and Address	Mobile NO.
01	Dr. Mazharul Aziz	PD, Agro Meterological information systems Development Project , DAE, Khamaebari	01712119259 azizdae@gmail.com
02	Dr. Farida Perveen	ADD, Planning Project Implementation and ICT Wing, DAE,Khamaebari	0171240156 perveengis@gmail.com
03	Dr. Md. Humayun Kabir	Professor, Department of Geography and Environment, Dhaka University	01717711024 mh_kabir@yahoo.com
04	Dr. Md. Abu Wali Raghib Hassan	Director, 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	DG,DAE, Khamarbari,Dhaka	01716940311

			muyeedbd61@gmail.com
07	Dr. Md. Atiqur Rahman	Addl. Secretary, MoDMR	atiqur4032@gmail.com
08	Dr. Parimal Chandra Sarker	SSO (STD), BARI, Gazipur	01712102012
09	Md. Shameem Hassan Bhuiyan	Meteorology & Project Manager, WIBCI, Bangladesh Meteorological Department	01750000456 shameem_bmd@yahoo.com
10	Dr. Md. Abdul Mazed,	DD, NATA,Gazipur	01814849190 mazed13th.dae@gmail.com
11	Dr. Md. Jamal Uddin	DD, NATA,Gazipur	01712272859
12	Md. Eskandar Hossain	Sr. AD, NATA, Gazipur	019386152225 eskandarhossain

14. Training Schedule

Date: 27/10/2019 **Working Day-01** **Day: Sunday**

Time	Planned sessions and Topics	**Lecturer/Facilitator**
9.00-9.30	Registration	ACC &Sadiqunnahar, Demonstrator (Lab)
9.30-10.00	Inaugural Session	DG/Directors, Course Coordinator & Assistant Course Coordinators
10.00-10.30	Pre-evaluation	CC/ACC
10.30-11.30	ICT for Disaster Management	Dr. Farida Perveen, ADD (In-charge of GIS and Remote Sensing Lab.), Planning, Project implementation and ICT Wing, DAE, Khamarbari, Dhaka. 01741240156,perveengis@gmail.com
11.30-11.50	Tea Break	
11.50-12.50	GIS and Remote sensing in disaster Management	Dr. Farida Perveen, ADD (In-charge of GIS and Remote Sensing Lab.), Planning, Project implementation and ICT Wing, DAE, Khamarbari, Dhaka. 01741240156,perveengis@gmail.com
12.50-02.00	**Prayer & Lunch Break**	
2.00-3.00	Meteorology and weather forecasting for agriculture	Dr. Md. Shameem Hassan Bhuiyan Meteorologist & Project Manager, WIBCI, Bangladesh Meteorological Department 01750000456 , Shameem.bmd@gmail.com
3.00-4.00	Implication of agro-meteorology for agriculture disaster management	Dr. Md. Shameem Hassan Bhuiyan Meteorologist & Project Manager, WIBCI, Bangladesh Meteorological Department 01750000456, Shameem.bmd@gmail.com
4.00-5.00	Basic concept on disaster, hazard, vulnerability, risk and climate change	Md. Eskandar Hossain,SAD (Vegetable and Spices), NATA 01938615225 eskandarhossain@yahoo.com

Date:28/10/2019 **Working Day-02** **Day:Monday**

Time	Planned sessions and Topics	Lecturer/Facilitator
9.15-9.30	**Review of the previous day**	CC/ACC
9.30-10.30	Present Disaster scenario of Bangladesh	Dr. Md. Humayun Kabir, Professor, Department of Geography and Environment, Dhaka University, 01717711024, mh_kabir@yahoo.com
10.35-11.35	Projection of climate change and disaster challenges in Bangladesh	Dr. Md. Humayun Kabir, Professor, Department of Geography and Environment, Dhaka University 01717711024, mh_kabir@yahoo.com
11.35-12.00	**Tea Break**	
12.00-01.00	Inter-relation between environment, population and development	Dr. Md. Humayun Kabir, Professor, Department of Geography and Environment, Dhaka University 01717711024, mh_kabir@yahoo.com
01.00-2.30	**Prayer & lunch Break**	
2.300-3.30	Updated technologies of BRRI in relation to disaster management	Dr. Jibon Krishna Biswas, Ex DG, BRRI, Gazipur 01711960439,01715285096 Biswas.jiban@gmail.com
3.35-4.35	Updated technologies of BRRI for Char and Haor Areas	Dr. Jibon Krishna Biswas, Ex DG, BRRI, Gazipur 01711960439, 01715285096 Biswas.jiban@gmail.com

Date: 29/10/2019 **Working Day-03** **Day:Tuesday**

Time	Planned sessions and Topics	Lecturer/Facilitator
9.15-9.30	**Review of the previous day**	CC/ACC
9.30-10.30	Updated technologies of BARI in relation to disaster management	Dr. Parimal Chandra Sarker, SSO (STD), BARI, Gazipur 01712102012
10.35-11.35	Updated technologies of BARI for Char and Haor Areas	Dr. Parimal Chandra Sarker, SSO (STD), BARI, Gazipur 01712102012
11.35-12.00	**Tea Break**	
12.00-01.00	Loss Assessment After Disaster	Dr. Parimal Chandra Sarker, SSO (STD), BARI, Gazipur 01712102012
01.00-2.30	**Prayer & lunch Break**	
2.30-3.30	Disaster Management System in Bangladesh	Dr. Md. Abdul Mazed, DD (LR), NATA,Gazipur 01814849190 mazed13th.dae@gmail.com

3.30-4.30	Impact of climate change on agriculture in Bangladesh	Dr. Md. Abdul Mazed, DD (LR), NATA,Gazipur 01814849190 mazed13th.dae@gmail.com

Date: 30/10/2019 Working Day-04 Day: Wednesday

Time	Planned sessions and Topics	Lecturer/Facilitator
9.15-9.30	**Review of the previous day**	CC/ACC
9.30-10.30	Salinity Intrusion and Agricultural Adaptations in Coastal Areas of Bangladesh	Dr. Abu Wali Raghib Hassan, Ex. Director, Planning, Project Implementation & ICT wing, DAE, Khamarbari, Dhaka 01711224573 awrhassan@gmail.com
10.35-11.35	Adaptation Strategies for Disaster and Climate Risks Management in Agriculture	Dr. Abu Wali Raghib Hassan, Ex. Director, Planning, Project Implementation & ICT wing, DAE, Khamarbari, Dhaka 01711224573 awrhassan@gmail.com
11.35-12.00	**Tea Break**	
12.00-01.00	Make an agriculture rehabilitation plan of your working area (eg. Flood, drought, salinity)	Dr. Md. Abdul Mazed, DD (LR), NATA,Gazipur 01814849190 mazed13th.dae@gmail.com
01.00-2.30	**Prayer & lunch Break**	
2.300-3.30	**Group presentation and discussion (flood, drought and Salinity)**	Dr. Md. Abdul Mazed, DD (LR), NATA,Gazipur 01814849190 mazed13th.dae@gmail.com
3.35-4.35	Sustainable Development Goal (SDGs)	Dr. Md. Jamal Uddin, DD (Plant Pathology), NATA, Gazipur

Date: 31/10/2019 Working Day-05 Day: Thursday

Time	Planned sessions and Topics	Lecturer/Facilitator
9.00-10.00	National Policy, Planning and Act on Disaster Management	Dr. Md. Atiqur Rahman , Addl. Secretary MoDMR, 01715234606, atiqur4032@gmail.com
10.00-11.00	Bangladesh Disaster Management Planning and Future Perspective	Dr. Md. Atiqur Rahman , Addl. Secretary MoDMR, 01715234606, atiqur4032@gmail.com
11.00-11.20	**Tea Break**	
11.20-12.20	Climate Services in Agriculture to Mitigate Disaster Risk	Dr. Mazharul Aziz, PD, Agro-Meteorological information Systems Development Project, DAE, khamarbari, Dhaka, 01712119259, azizdae@gmail.com
012.20-1.20	**Prayer & lunch Break**	
1.20-02.20	Flood, flash flood and water logging and their impacts on agriculture	Dr. Md. Abdul Muyeed, DG, DAE, Khamarbari, Dhaka01716940311 muyeedbd61@gmail.com

2.20-3.20	Global Warming and Drought Effect on agriculture and crop production	Dr. Md. Abdul Muyeed, DG, DAE, Khamarbari, Dhaka01716940311 muyeedbd61@gmail.com
3.20-4.20	Agriculture rehabilitation program planning after disaster	Dr. Md. Abdul Muyeed, DG, DAE, Khamarbari, Dhaka01716940311muyeedbd61@gmail.com
4.20-4.40	Post Evaluation	Course Coordinator & Assistant Course Coordinator
4.40-5.00	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 relationto 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. 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 of NATA 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

Participant	Day-1 (27.11.2019)					Day-2 (28.11.2019)					
	ICT for Disaster Management	GIS and Remote sensing in disaster Management	Meteorology and weather forecasting for agriculture	Implication of agro meteorology for agriculture disaster management	Basic concept on disaster, hazard, vulnerability, risk and climate change	Present Disaster scenario of Bangladesh	Projection of climate change and disaster challenges in Bangladesh	Inter relation between environment population and development	Updated technologies of BRRI in relation to disaster management	Updated technologies of BRRI for Char and Haor	Impact of climate change on agriculture in Bangladesh
	Dr. Farida Perveen, ADD,Planning,project implementation and ICT Wing,DAE,Khamarbari		Dr.Md.Shameem Hassan Bhuiyan,Meterologist & Project Manager, WIBCI,BMD		Md. Eskandar Hossain, SAD,NATA	Dr.Md. Humayun Kabir, Professor, Department of Geography and Environment, Dhaka University			Dr.Jibon Krishna Biswas, Ex DG, BRRI		Dr.Md.Abdul Mazed, DD(LR),NATA
1	5.0	5.0	6.0	6.0	4.0	6.0	6.0	6.0	6.0	6.0	6.0
2	3.8	3.8	6.0	6.0	5.6	6.0	6.0	6.0	5.0	5.0	6.0
3	5.8	5.8	6.0	6.0	6.0	6.0	6.0	6.0	4.0	4.0	4.0
4	4.2	4.2	4.8	4.8	4.8	5.0	5.8	5.0	6.0	6.0	6.0
5	5.0	5.0	5.0	5.0	4.2	5.6	5.6	5.6	5.8	5.8	5.0
6	5.0	5.0	5.0	5.0	4.2	4.0	4.0	4.0	3.0	3.0	4.0
7	4.6	4.6	5.2	5.2	4.4	6.0	6.0	6.0	5.8	5.8	6.0
8	3.2	3.2	6	6	4.4	4.2	4.2	3.2	4.6	4.2	5.0
9	4.4	4.4	5.8	5.2	5.0	5.6	5.4	5.2	5.8	5.6	5.0
10	5.4	5.4	5.0	5.0	4.4	6.0	6.0	6.0	5.6	5.4	5.6
11	4.2	4.4	4.8	5.0	5.0	5.8	5.8	5.8	6.0	6.0	3.8
12	4.0	4.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	4.6
13	6.0	6.0	2.4	1.4	6.0	4.6	4.6	4.6	5.0	5.0	5.0
14	3.4	3.4	4.0	3.6	5.0	3.4	3.4	3.4	4.6	4.4	4.8
15	4.6	4.2	4.8	4.4	4.6	5.8	5.4	5.8	5.6	5.6	5.0
16	6.0	6.0	6.0	6.0	6.0	4.8	6.0	5.8	6.0	6.0	5.0
17	4.6	4.6	4.6	4.6	4.6	4.6	4.4	4.6	4.6	4.6	4.6
18	5.6	5.6	6.0	6.0	4.8	5.0	5.0	5.0	4.8	5.0	4.6
19	5.6	6.0	6.0	6.0	6.0	5.6	5.6	5.6	5.6	5.6	5.6
20	5.2	5.0	5.6	5.0	4.2	5.8	5.8	5.8	5.8	5.8	4.6
21	5.4	5.4	5.0	5.0	4.0	6.0	6.0	6.0	6.0	6.0	6.0
22	3.6	3.6	4.2	4.2	4.4	5.0	4.0	5.0	5.8	5.0	5.0
23	5.8	5.8	5.0	5.0	5.0	3.2	3.2	3.2	3.8	3.4	4.0
24	5.8	5.8	5.8	5.8	5.6	5.6	5.6	5.6	5.6	5.6	5.2
25	5.2	5.2	4.6	5.0	5.2	4.8	5.2	4.8	4.8	5.0	5.6
26	3.2	3.2	3.6	3.8	3.2	4.4	4.0	4.0	4.2	4.2	3.4

27	5.6	5.4	5.8	6.0	5.6	4.0	4.0	4.0	3.0	3.0	3.0
28	0.0	0.0	0.0	0.0	0.0	4.2	4.4	4.4	4.2	4.4	5.0
29	0.0	0.0	0.0	0.0	0.0	5.4	4.6	5.2	4.6	4.6	4.6
30	0.0	0.0	0.0	0.0	0.0	4.8	4.8	4.8	5.0	5.6	5.0
31	0.0	0.0	0.0	0.0	0.0	4.8	4.8	4.8	5.0	5.6	5.0
Total	134.2	130	138	136	123.2	154.0	154.4	153.6	129.8	152.2	130.8
Av.	4.97	4.81	5.11	5.03	4.56	4.96	4.98	4.95	4.18	4.90	4.22

	Day-3 (29.11.2019)					Day-4 (30.11.2019)				
Participants	Disaster Management in Bangladesh	Sustainable Development Goal	Updated technologies of BARI in relation to disaster management	Updated technologies of BARI for Char and Hoar Areas	Loss Assessment After Disaster	Salinity Intrusion and Agricultural Adoptions in Coastal Areas of Bangladesh	Adaption Strategies for Disaster and Climate Risk Management	Flood, flash flood and water logging and their impacts on agriculture	Agriculture rehabilitation program planning after disaster	Make an Agriculture rehabilitation plan of your working area
	Dr.Md.Abdul Mazed,DD,NATA	Dr.Md. Jamal Uddin, DD,NATA	Dr.Parimal Chandra Sarker,SO, BARI	Dr.Parimal Chandra Sarker,SO, BARI	Dr.Parimal Chandra Sarker,SO, BARI	Dr.Abu Wali Raghib Hassan, Ex.Director,ICT wing, DAE	Dr.Abu Wali Raghib Hassan, Ex.Director,ICT wing, DAE	Dr.Md. Abdul Mazed, DD,NATA	Dr.Md.Abdul Mazed,DD,NATA	Dr.Md.Abdul Mazed,DD,NATA
1	5.0	3.2	4.4	6.0	4.4	4.4	4.6	5.0	4.6	4.6
2	4.2	4.0	5.0	3.6	3.6	5.4	5.0	5.0	5.0	5.0
3	5.0	4.0	4.0	4.0	4.0	4.4	4.4	5.0	5.0	5.0
4	5.0	4.2	4.0	5.0	4.0	6.0	6.0	5.0	5.0	5.0
5	6.0	5.0	5.0	5.0	5.0	5.8	5.8	5.0	5.0	5.0
6	5.0	5.4	5.4	5.4	5.4	5.8	5.8	5.0	5.0	5.0
7	3.6	3.6	5.0	5.0	5.0	5.0	4.5	5.0	5.0	5.0
8	5.0	5.2	5.4	5.2	4.6	6.0	6.0	6.0	6.0	6.0
9	5.8	5.6	5.0	5.0	5.0	4.6	4.6	4.6	4.6	4.6
10	3.4	5.6	5.2	5.2	5.2	6.0	6.0	6.0	6.0	6.0

11	4.6	4.6	4.4	4.4	4.4	6.0	6.0	6.0	6.0	6.0
12	4.6	4.2	4.2	4.8	4.8	6.0	6.0	5.0	5.0	5.0
13	4.8	4.0	5.2	5.6	5.6	5.2	5.2	5.0	6.0	6.0
14	6.0	3.6	6.0	6.0	6.0	5.0	5.0	6.0	6.0	6.0
15	4.0	4.0	4.0	4.0	4.0	5.0	5.0	5.0	5.0	5.0
16	4.6	4.4	4.6	4.4	4.6	4.4	4.4	4.0	4.0	4.0
17	4.2	4.4	3.8	3.4	3.4	4.6	5.0	5.0	5.0	5.0
18	3.6	4.4	5.0	5.0	5.0	4.0	4.0	4.0	5.0	5.0
19	5.4	5.4	5.4	5.4	5.4	4.4	4.4	5.0	5.0	5.0
20	6.0	5.6	5.6	6.0	6.0	4.4	4.4	5.0	5.0	5.0
21	5.0	4.4	4.2	4.2	4.2	5.0	5.0	5.0	5.0	5.0
22	4.6	4.2	4.0	4.0	4.0	4.6	5.2	4.0	4.0	4.0
23	5.0	5.0	6.0	5.4	6.0	4.0	4.6	4.0	4.6	4.0
24	3.8	4.8	4.2	4.0	4.8	4.5	4.5	4.5	4.5	4.0
25	0.0	0.0	0.0	0.0	0.0	3.4	5.0	4.0	4.0	4.0
26	0.0	0.0	0.0	0.0	0.0	5.8	6.0	5.8	5.8	6.0
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	114.2	108.8	115	116	108.4	129.7	127.4	123.9	131.1	130.2
Average	4.75	4.53	4.79	4.83	4.51	5.18	5.09	4.95	5.24	5.00

Day-5 (31.11.2019)				
Participants	Drought Effect on agriculture and crop production	National Policy and Act on Disaster Management	Bangladesh Disaster Management Planning and Future Prospective	Climate Services in Agriculture to Mitigate Disaster Risk
	Dr.Md. Abdul muyeed,DG, DAE	Dr.Md. Atiqur Rahman,Addl.Secretary,MoDMR	Dr.Md. Atiqur Rahman,Addl.Secretary,MoDMR	Dr.Mazharul Aziz,PD,Agro-Meterological Information Systems Development Project,DAE
1	6.0	6.0	6.0	6.0
2	6.0	6.0	6.0	6.0
3	6.0	5.0	5.0	4.0
4	4.8	5.4	5.4	5.0
5	5.0	5.0	5.0	5.0
6	6.0	5.8	5.8	6.0
7	5.8	5.6	5.6	5.0
8	5.0	4.0	4.0	5.0
9	6.0	5.2	5.2	5.0
10	4.8	5.2	4.6	4.8
11	5.8	5.4	5.0	5.0
12	6.0	5.4	5.4	5.4
13	5.6	5.8	5.8	5.2
14	4.1	4.1	4.8	4.6
15	5.0	5.0	5.0	4.0
16	6.0	5.8	5.8	6.0
17	5.4	4.2	4.8	4.0
18	6.0	4.6	4.7	4.6
19	5.8	5.4	5.4	5.0
20	4.8	6.0	5.0	4.6
21	5.2	4.4	4.5	5.0
22	6.0	6.0	5.8	6.0
23	5.0	5.0	5.0	5.0
24	6.0	5.6	5.6	4.8
25	6.0	5.4	5.2	5.4
26	6.0	4.4	5.4	6.0
27	5.8	5.8	5.8	5.0
28	6.0	6.0	6.0	5.2
29	4.6	4.4	4.6	5.0
30	5.4	5.5	6.0	5.7
31	0.0	0.0	0.0	0.0
Total	161.26	157.4	157.8	157.9
Average	5.38	5.24	5.26	5.26

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

Duration: 27-31 October 2019 Full Marks: 30

SL.	Name	Designation	Pre Evaluation	Post Evaluation
1.	Md. Faridul Hassan	District Seed Certification Officer, Seed Certification Agency, Sirajganj	11	24
2.	Md. Hasan Warisul Kabir	District Seed Certification Officer, Seed Certification Agency, Gopalganj	5.5	22
3.	Mohammad Rakibul Hasan Sarker	Cotton Development Officer, Cotton Development Board, Kushtia Zone, Kushtia	1	19
4.	Hafizur Rahaman	Scientific Officer, WMMD ivision, Bangladesh Rice Research Institute	8	21
5.	Md. Abul Hossain	Farm Manager, GRS Division, BRRI, Gazipur	6	13
6.	Md. Mahabubur Rahman	Senior Scientific Officer, Soil Resource Development Institute, Regional Laboratory, Govt., Cumilla	10	22
7.	Md. Jainal Abedin	Senior Scientific Officer, Soil Resource Development Institute, Regional Laboratory, Daulatpur, Khulna	4	25
8.	Md.Ahasan Habib	Scientific Officer, Bangladesh Sugarcrop Research Institute, Ishurdi, Pabna	6	16
9.	Dipok Kumar Saha	Agriculture Extension Officer, Upazila Agriculture Office, Sadar, Meherpur	7	22
10.	Pijush Roy	Agriculture Extension Officer, Upazila Agriculture Office, Kashiani, Gopalganj	2.5	24
11.	Abu Jafor Mohammad Moin Uddin	Upazila Agriculture Officer, Kutubdia, Cox's Bazar	3	20
12.	Md. Anisuzzaman	Upazila Agriculture Officer, Upazila Agriculture Office, Nasirnagar, Brahmanbaria	6.5	23
13.	Md.Shariaj Biswas	Agriculture Extension Officer, Upazila Agriculture Office, Tahirpur, Sunamganj	-	22
14.	Md. Al-Amin	Agriculture Extension Officer, Upazila Agriculture Office, Banaripara, Barishal	8	22
15.	Ratan Chandra Barman	Agriculture Extension Officer, Upazila Agriculture Office, Gurudaspur, Natore	7	24
16.	Md.Atiqul Haq	Additional Deputy Director (Horticulture), Department of Agriculture Extension, Habiganj	-	12

SL.	Name	Designation	Pre Evaluation	Post Evaluation
17.	Md. Abdullah Al-Mamun	Agriculture Extension Officer, Upazila Agriculture Office, Bheramara, Kushtia	6.5	24
18.	Iffat Kibria Al Nayeem	Agriculture Extension Officer, Upazila Agriculture Office, Baliadangi, Thakurgaon	10	23
19.	Susmita Ray	Agriculture Extension Officer, Upazila Agriculture Office, Rangpur Sadar, Rangpur	4.5	25
20.	Waliul Islam	Agriculture Extension Officer, Upazila Agriculture Office, Mongla, Bagerhat	4.5	17
21.	Md. Hasan Ali	Upazila Agriculture Officer, Upazila Agriculture Office, Badalgachi, Naogaon	5	20
22.	Gazi Nazmul Hasan	Scientific Officer, Bangladesh Agricultural Research Institute, Bhola	6	25
23.	Md. Mostafizur Rahman	Assistant Engineer, Godagari, Zone-2, BMDA	2.5	22
24.	Alomgir Md. Ruhul Islam	Assistant Engineer, Nilphamari Zone, BMDA	-	22
25.	S. M.Mahbubu lAlam	Scientific Officer, Regional Station, BWMRI,Shyampur,Rajshahi	4.5	24
26.	Md. Shahidullah Kaisher	Assistant Director, Contract Growers Zone, BADC, Dinajpur	8.5	21
27.	Md.Asafuzzaman	Assistant Engineer, Minor Irrigation Zone, BADC, Ullapara, Sirajganj	6	21
28.	Md. Rashidul Hasan Anik	Scientific Officer, BARI,Gopalganj,	8.5	23
29.	Sadia Tasmin	Senior Scientific Officer, Department of Horticulture, BINA, Mymensingh	4.5	25
30.	Dr. Md. Mahbubul Alam Tarafder	Senior Scientific Officer, Soil Science Department, BINA, Mymensingh	2.5	23
31.	Abida Sultana	Scientific Officer, Bangladesh Jute Research Institute, Manikganj	5	26

Evaluation	**Lowest Marks**	**Highest Marks**	**Average Marks**
Pre-Evaluation	**01**	**11**	**5.29**
Post Evaluation	**12**	**26**	**21.68**

Pictorial View of Training Activities

Inaugural ceremony

Session conducted by Dr. Farida Perveen, ADD (In-charge GIS and Remote Sensing Lab), DAE

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 Dr. Md. Mazharul Aziz, PD, Agro-Meteorological Information System Project,DAE

Participants busy for group works

Group work discussion

Group work discussion

Group work observed by CC and ACC

Group work presentation by group leader

Closing ceremony addressed by Chief Guest, DG, NATA

Closing ceremony addressed by Chief Guest, DG, NATA

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

Closing ceremony addressed by Participant (Chief Guest, DG, NATA)

Certificate distribution among participants by Director General (In-charge), NATA

Certificate distribution among participants by Deputy Director and Course Coordinator, NATA