# Training Course on

## INTEGRATED WATER RESOURCE MANAGEMENT IN AGRICULTURE

12 -16 SEPTEMBER, 2021

## **Course Completion Report**



National Agriculture Training Academy (NATA)
Ministry of Agriculture
www.nata.gov.bd

## **Training Course**

on

## INTEGRATED WATER RESOURCE MANAGEMENT IN AGRICULTURE

## 12 -16 SEPTEMBER, 2021

## **Course Management**

Course Advisor : Md. Mahbub Alam

Director General (In-Charge)

NATA, Gazipur Phone: 0249272104

Course Director : Md. Mahmud Hasan

Director (Training) NATA, Gazipur Phone: 0249272106

Course Coordinator : Rafiqul Islam

**Deputy Director** 

(Agriculture Machineries & Water Management)

NATA, Gazipur Cell: 01718970041

**Assistant Course Coordinator** : Banani Karmaker

Senior Assistant Director

NATA, Gazipur

Cell phone: 01674866673

**Assistant Course Coordinator** : Mousumi Paul

Senior Assistant Director

NATA, Gazipur

Cell Phone: 01712680844

## **Contents**

Sl. No.	Subject	Page
1	Introduction	1
2	Course Objectives	1
3	Duration of the Course	1
4	Course Content	1-2
5	Training Methods& Materials	2
6	Sports & Recreation	2
7	Concluding session	3
8	Feedback from the Participants	3
9	Speech by the Course Coordinator	3
10	Distribution of Certificate	3
11	Participants of the Course (annexure I)	4-5
12	Resource Person & Guest Speaker(annexure II)	6
13	Training Schedule(annexure III)	7-9
14	Course Evaluation by the Participants(annexure IV)	10-11`
15	Evaluation Procedure of the Participants(annexure V)	12-15
16	Pre and Post Perception/Evaluation Test(annexure VI)	15-16
17	Faculty members of NATA	17-20

#### **Introduction:**

Integrated water resources management in Agriculture is a logical and intuitively appealing concept. High irrigation demands and polluted drainage flows from agriculture less freshwater for drinking or industrial use; contaminated municipal and industrial wastewater pollutes rivers and threatens ecosystems. Integrated management means that all the different uses of water resources are considered together. They are able to take account of overall social and economic goals, including the achievement of sustainable development. Different user groups (farmers, communities, environmentalists) can influence strategies for water resource development and management. It emphasizes that we must not only focus on development of water resources but that we must consciously manage water development in a way that ensures long term sustainable use for future generation.

### **Course objectives:**

- 1. To enhance your ability to undertake IWRM with special reference to catchment (watershed, river basin) management and ecosystems.
- 2. To take account of overall social and economic goals, including the achievement of sustainable development.
- 3. To manage water development in a way that ensures long term sustainable use for future generation.

**Duration of the Course:** 5 days on training course started from 12 -16 SEPTEMBER 2021.

### **Course Content:** Planned sessions and Topics Module 1: Concept of Integrated Water resource Management

Contents/Topics	Methods
Hydrology and Integrated Water Resources Management (IWRM) concept with	L and D
water consumption	
Irrigation principles and practices	L and D
Importance of IWRM in Bangladesh	L and D
Examples of IWRM projects in Bangladesh and Their Impacts on Agriculture	L and D
Global status of IWRM and prospect in Bangladesh	L and D
Application and Benefits of IWRM in Agriculture	L and D

#### **Module 2: Water and irrigation management**

Contents/Topics	Methods
Irrigation and water management aspects in Water Policy of Bangladesh	L and D
Irrigation and water management for rice cultivation	L and D
Management of different irrigation channels for improving irrigation system in	L and D
agriculture	
Improved irrigation and water management for major field crops	L and D
Irrigation management for major vegetables and fruits	L and D
Different methods and techniques of irrigation for crop cultivation	L and D
Integrated Water Resources Management (IWRM) challenges in Bangladesh	L and D

#### Module 3: IWRM and Social inclusion

Contents/Topics	Methods
Basic of irrigation and water management and crop water productivity	L and D
Irrigation Water requirement for important crops in Bangladesh	L and D
Status of Surface and groundwater irrigation systems in Bangladesh	L and D
Irrigation water quality and water pollution management	L and D
Irrigation water loss assessment and its control for sustainable agriculture	L and D
Wastewater Management: concepts and technological aspects	L and D

#### **Module 4: Sustainable Water use**

Contents/Topics	Methods
Techniques of irrigation water saving through improved cropping patterns	L and D
Multiple use of water resources (reuse of water resources)	L and D
Water Security and safety	L and D
IWRM: Disaster Risk reduction and resilience program under SDG and Polder	L and D
Management for Irrigation in Bangladesh	

#### Module 5: Field visit

Rivers, canals & basins management for surface irrigation in Bangladesh, prospect and problem

Multiple use of water resources other than irrigation (use & re-use of water resources)

IWRM: Disaster Risk reduction and resilience program under SDG

## \*\* L - Lecture, D - Discussion

#### **Training Methods & Materials:**

Lecture, Discussion, Practical work

**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.

## **Concluding Session**

### Feedback from the participants

The training was need based. It will definitely help them to achieve Integrated Water Resource Management in Agriculture. The topics were very latest. The resource persons were topic relevant experts, and familiar. So, resource speaker selection was definitely accurate to cope up with the time demand topics. There was a plenty 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. Moreover, residential facilities were better. Members of the mess committee was built among the participants upon their choice. The training was carried out well with strong discipline. They got the Wi-Fi facilities in the dormitory. The internet connection in PC was not interrupted. In fact, the cooperation of Course Coordinator, Assistant Course Coordinator and the NATA authority was marvelous. In a nutshell, the training was really fruitful for them.

### **Speech by the Course Coordinator**

The training on integrated water resource Management in Agriculture 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. For that, we had selected the present time required course content by the validation workshop and expert speakers. Moreover, we also looked upon the different discipline related issues for smooth running of that training program.

#### **Distribution of Certificate**

The certificates are distributed among the participants after successfully completion of the training.

## Annexure- I "Integrated Water Resource Management in Agriculture" শীর্ষক প্রশিক্ষণের প্রশিক্ষণার্থীগণের নামের তালিকা

সময়কাল: ১২ সেপ্টেম্বর-১৬ সেপ্টেম্বর ২০২১ খ্রিঃ

ক্র.	নাম ওপদবী	কর্মস্থল	মোবাইল নম্বর	ই-মেইল
নং				
٥.	মোঃ মাহফুজুর রহমান সহকারী প্রকৌশলী	বিএমডিএ, তানোর জোন, রাজশাহী	০১৭১৬২১৮৬৯৪	mmun1978@gmail.com
η.	মোঃ মোস্তাফিজুর রহমান সহকারী প্রকৌশলী	বিএমডিএ, গোমস্তাপুর জোন, চাঁপাইনবাবগঞ্জ	০১৭৫৯৬৯৯৯০৬	ae_gomastapur_nawab@bm da.gov.bd
9.	মোঃ ইন্তেখাফ আলম সহকারী প্রকৌশলী	বিএমডিএ, পত্নীতলা জোন, নওগাঁ ১	০১৭১৬৫৬০৫৮৯	Intekhaf.bd@gmail.com
8.	মোঃ তানভীন আবির বৈজ্ঞানিক কর্মকর্তা	বিনা উপকেন্দ্র, মাগুরা	o\$@\$\$88@F8\$	tanvinbabir41@gmail.com
¢.	ড. মোঃ মোস্তফা খান উৰ্দ্ধতন বৈজ্ঞানিক কৰ্মকৰ্তা	আঞ্চলিক কেন্দ্ৰ, বাংলাদেশ গম ও ভূট্টা গবেষণা ইনস্টিটিউট	০১৭১২০৪৩৬৮৪	mmkhanwrc@yahoo.com
৬.	মোঃ আব্দুশ শাকুর সাদী কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, মোহনগঞ্জ, নেত্রকোনা	୦১৭১৯৯৮৪৫৬৪	sakursaadi.bau@gmail.com
٩.	নাদিয়া আক্তার কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, ঝিনাইগাতী, শেরপুর	০১৭২৩১২০৪৫৩	nadiabadhon5@gmail.com
৮.	মোঃ ইসমাইল হোসেন, কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, কচুয়া, বাগেরহাট	০১৭১৯৮৫৭৯৭০	ismal.bau20@gmail.com
৯.	এস এম ফেরদৌস, কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, রূপসা, খুলনা	০১৬২২২১৩৯৮৬	ferdausbau511@gmail.com
٥٥.	মোঃ মাহফুজুর রহমান, কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, বরিশাল সদর, বরিশাল	০১৭২৬৪৫৫৬০১	mahfujrahman5@gmail.com
\$5.	আয়েশা আক্তার, কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, নাজিরপুর, পিরোজপুর	o\$\$8¢\$FF8\$\$	ayshaaktar62@gmail.com
\$\$.	মোস্তাফিজুর রহমান, কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, রাজাপুর, ঝালকাঠি	০১৮৩৪৫৫৮১১৭	nayanmostafiz1994@gmail.
১৩.	মনোরঞ্জন অধিকারী, কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, বীরগঞ্জ, দিনাজপুর	০১৭৩৭৯৯৯৫২২	manoranjansau@gmail.com
\$8.	মোঃ নাজমুল হাসান, কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, রানীশংকৈল, ঠাকুরগাঁও	০১৭২৫২৩৪২৭০	najmulbau148@gmail.com
১৫.	মোঃ ফরহাদ হোসেন, কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, আটোয়ারী, পঞ্চগড়	০১৭২৩৪৩৭৪৫৪	badhon.sau13@gmail.com
১৬.	মোঃ শরীফুল ইসলাম, কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, বদরগঞ্জ, রংপুর	০১৭২২৬৪৭৯৬০	sharif15ssbau@gmail.com
\$9.	মোঃ মেহেদী হাসান, কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, গোবিন্দগঞ্জ, গাইবান্ধা	০১৭৪৫৩৬৩৩৭৩	bau_mehedi@gmail.com
<b>১</b> ৮.	মোঃ নুর আলম, কৃষি সম্প্রসারণ অফিসার	উপজেলা কৃষি অফিস, চিলমারী, কৃড়িগ্রাম	0548805GF40	nuralom8403@gmail.com
১৯.	মোছাঃ নাদিরা সুলতানা, বীজ প্রত্যয়ন অফিসার	জেলা বীজ প্রত্যয়ন অফিস, গাইবাক্কা	০১৭৭৪৫৮৯৭৫৯	nahida.moni@gmail.com
২০.	উত্তম কুমার রায়, কৃষি প্রকৌশলী	ডিএই, ঢাকা অঞ্চল	०১१১००१११৫২	uttamkumar_roy@yahoo.co m
<b>\$</b> 5.	মোঃ রবিউল আউয়াল, কৃষি প্রকৌশলী	ডিএই, ঢাকা অঞ্চল	০১৭১৪১৬৯১৪৯	rabiul.awal149@gmail.com
২২.	কাজী ফারুক হোসেন, নির্বাহী প্রকৌশলী (ক্ষুদ্র সেচ)	গাজীপুর রিজিয়ন, বিএডিসি, গাজীপুর	০১৭৭৫৯৮৮২৭৪	badcirrigationgazipur@gma il.com

	interest autosta	र्गा १५ वर्षा	-10111111	'C 111 016 '1
২৩.	আরিফা আক্তার,	ডিএই, গাজীপুর	০১৭১৮০৩৮৬৮১	arifa11bau81@gmail.com
	কৃষি প্রকৌশলী			
₹8.	রুবায়েত ফয়সাল আল-মাসুম,	ব্রাক্ষণবাড়িয়া জোন, বিএডিসি,	০১৭২৯৯৫৬৪৬৪	rfamasum@gmail.com
	সহকারী প্রকৌশলী	ব্রাক্ষণবাড়িয়া		
২৫.	এস. এম. আতাই রাব্বি,	ক্ষুদ্র সেচ বিবাগ, বিএডিসি, কৃষি	০১৭১৬৩৪৬৬১১	aeirrigation2badc@gmail.co
	সহকারী প্রকৌশলী	ভবন, ঢাকা		m
২৬.	ড. এম এম আবেদ আলী	তুলা গবেষণা কেন্দ্র, জগদীশপুর,	০১৭১৫৮৪২৫০০	abedali1972@gmail.com
	উৰ্দ্ধতন বৈজ্ঞানিক কৰ্মকৰ্তা	যশোর		
২৭.	সঞ্জিত মন্ডল,	বিএসআরআই, ঈশ্বরদী, পাবনা	০১৭৩৫৩৯১৫৭৫	sanjitbsri@gmail.com
	বৈজ্ঞানিক কর্মকর্তা			
২৮.	শেখ শামসুল আলম,	সেচ ও পানি ব্যবস্থাপনা,	০১৭২৪৪৬১৪১৪	
	বৈজ্ঞানিক কর্মকর্তা	বাংলাদেশ কৃষি গবেষণা		
		ইনস্টিটিউট `		
২৯.	ড. শাহানা পারভীন, উর্দ্ধতন	সেচ ও পানি ব্যবস্থাপনা,	০১৬৭২০৪১৪৮২	parveenbrri98@yahoo.com
	বৈজ্ঞানিক কর্মকর্তা	বাংলাদেশ ধান গবেষণা		
		ইনস্টিটিউট		
೦೦.	পলাশ কুমার কুন্ডু, বৈজ্ঞানিক	সেচ ও পানি ব্যবস্থাপনা,	০১৭২২৮৪০৭৮৫	kundu22_bau@yahoo.com
	কর্মকর্তা	বাংলাদেশ ধান গবেষণা		
		ইনস্টিটিউট		
৩১.	বিশ্বজিত কুন্ডু, বৈজ্ঞানিক	জুট ফার্মিং সিস্টেমস বিভাগ,	০১৭২৫১৩২৯৩৭	jit.sau@gmail.com
	কর্মকর্তা	বাংলাদেশ পাট গবেষণা		
		ইনস্টিটিউট		
৩২.	মোঃ খায়রুল ইসলাম,	মৃত্তিকা সম্পদ উন্নয়ন	০১৭১০৮১৪৭৯০	Khairulbogra73@gmail.co
	উৰ্দ্ধতন বৈজ্ঞানিক কৰ্মকৰ্তা	ইনস্টিটিউট, আঞ্চলিক		m
		গবেষণাগার, বগুড়া		
೨೨.	মনিরুজ্জামান,	মৃত্তিকা সম্পদ উন্নয়ন	০১৭১৬৬৬০৬৭৭	moniuzzamankhan@gmail.c
	উৰ্দ্ধতন বৈজ্ঞানিক কৰ্মকৰ্তা	ইনস্টিটিউট, আঞ্চলিক		om
		গবেষণাগার, কিশোরগঞ্জ		
	1	1	1	1

## Annexure –II List of Resource Speaker

SL. No	Name of speaker, Designation	Organization	Mobile No.
1.	Malik Fida A Khan, Executive Director	CEGIS, Dhaka	01819261274
2.	Md. Amirul Islam, Addl. C En, Human Resource Training and HRD	Water Development Board, Dhaka,	01720066188
3.	Md. Motaleb Hossain Sarker, Director	CEGIS, Dhaka	01715015419
4.	Lutfar Rahman,C En	BADC, Dhaka	01727451746
5.	Md. Zafar Ullah, Addl. C En (MI), PD	BADC, Dhaka	01998772029
6.	M. Moniruzzaman, PSO	BRRI, Gazipur	01552328965
7.	MT Islam, CSO	BRRI,Gazipur	01715090879
8.	Md. Mahbubul Alam, SSO	BRRI, Gazipur	01961233768
9.	ABM Jahid Hosain SSO	BRRI, Gazipur	01712763359
10.	Dr. Md Anwar, SSO	BARI, Gazipur	01711249767
11.	Dr. Priya Lal Chandra Paul, SSO	IWMD, BRRI, Gazipur	01716617378
12.	Dr. Debjit Roy, SSO	IWMD, BRRI, Gazipur	01718315126
13.	Dr. Mir Nurul Hasan Mahmud, SSO	BRRI, Gazipur	01716963384
14.	Abul Kalam Azad Deputy Director (Agriculture Extension & Eco.)	NATA, Gazipur	01940652412

## Annexure –III TRAINING SCHEDULE

Course Title: Integrated Water Resources Management in Agriculture
Duration: 05 Days (12-16 September, 2021) Venue: Bidyabatta Bhaban (1 no. class room)

## Participant: 9 grade & above officers of different organizations under MoA

Date: 12/09/2021

Time	Topics	Speakers
9.00-9:30	Registration	Lucky
9.30-10.00	Pre-evaluation and Inaugural Session	CC/ ACC/ DG/Directors/Faculties
10.00-11.00	Importance of IWRM in Bangladesh,	Md. Amirul Hossain
	Examples of IWRM projects in Bangladesh	Addl. C En, Human Resource Training
	and their Impacts on Agriculture	and HRD,
		Water Development Board, Dhaka.
		01720066188
11.00-11.15	Tea break	
11.15-12.15	Water Security and water safety	Md. Amirul Hossain
		Addl. C En, Human Resource Training
		and HRD,
		Water Development Board, Dhaka.
		01720066188
12.15-1.15	IWRM: Disaster Risk reduction and	M. Moniruzzaman
	resilience program under SDG and Polder	PSO, BRRI, 01552328965
	Management for Irrigation in Bangladesh	
1.15-2.15	Management of different irrigation	M. Moniruzzaman
	channels for improving irrigation system in	PSO, BRRI, 01552328965
	agriculture	
2.15-3.15	Lunch and prayer	
3.15-4.15	National Integrity Strategy	Abul Kalam Azad
		Deputy Director
		(Agriculture Extension & Eco.),
		01940652412
4.15-5.00	Tea Break	

Date: 13/09/2021

Time	Topics	Speaker
9.30-10.30	Global status of IWRM and prospect in	Malik Fida A Khan,
	Bangladesh	Executive Director,
		CEGIS, Dhaka, 01819261274
10.30-11.30	Irrigation and water management aspects in	Malik Fida A Khan,
	Water Policy of Bangladesh	Executive Director,
		CEGIS, Dhaka, 01819261274
		mkhan@cegisbd.com
11.30-12.00	Tea Break	
12.00-1.00	Waste water management: concepts and	Md. Motaleb Hossain Sarker,
	technological aspects	Director, CEGIS, Dhaka,
		01715015419
1.00-2.00	Irrigation water loss assessment and its control	Md. Lutfar Rahman,
	for sustainable agriculture	Chief Engineer, BADC, Dhaka,
		01727451746

2.00-3.00	Lunch and prayer	
3.00-4.00	Irrigation water saving by changing cropping patterns	Md.Lutfar Rahman, Chief Engineer, BADC, Dhaka. 01727451746
4.00-5.00	Tea Break	

Date: 14/09/2021

Time	Topics	Speaker
9.30-10.30	Irrigation principles and	Dr. Priya Lal Chandra Paul,
	practices	SSO, IWMD, BRRI,
		01716617378
10.30-11.30	Different methods & techniques of irrigation for	Dr. Priya Lal Chandra Paul,
	crop cultivation	SSO, IWMD, BRRI,
		01716617378
11.30-12.00	Tea Break	
12.00-1.00	Possible use of Solar power energy in irrigation	ABM Zahid Hosain
	sector in Bangladesh (field visit)	SSO, BRRI, Gazipur,
		01712763359
1.00-2.00	Integrated Water Resources Management	ABM Zahid Hosain
	(IWRM): challenges in Bangladesh	SSO, BRRI, Gazipur,
		01712763359
2.00-3.00	Lunch and prayer	
3.00-4.00	Rain water harvesting and use in crop production	Dr. Debjit Roy,
	in drought prone areas	SSO, IWMD, BRRI,
		01718315126
4.00.5.00	Rivers canals and basin management for surface	Dr. Debjit Roy,
	irrigation in Bangladesh, prospect and problem	SSO, IWMD, BRRI,
		01718315126
5.00.6.00	Tea Break	

Date: 15/09/2021

Time	Topics	Speaker
9.30-10.30	Hydrology and IWRM concept with water	MT Islam
	consumption	CSO, BRRI, Gazipur,
		01715090879
10.30-11.30	Irrigation and water management for rice	MT Islam
	cultivation	CSO, BRRI, Gazipur,
		01715090879
11.30-12.00	Tea Break	
12.00-1.00	Techniques of irrigation water saving through	Md. Mahbubul Alam
	improved cropping patterns	SSO, BRRI, Gazipur,
		0196123376
1.00-2.00	IWRM and Social Inclusion	Md. Mahbubul Alam,
		SSO, BRRI, Gazipur,
		0196123376
2.00-3.00	Lunch and prayer	
3.00-4.00	Multiple use of water resources other than	Dr. Mir Nurul Hasan Mahmud,
	irrigation (use & re-use of water resources)	SSO, BRRI, Gazipur,
		01716963384
4.00-5.00	Tea Break	

Date: 16/09/2021

Time	Topics	Speaker
9.30-10.30	Improved irrigation and water management for	Dr. Md Anwar
	major field crops	PSO, BARI, 01711249767
10.30-11.30	Irrigation in Major Vegetables and Crops	Dr. Md Anwar
		PSO, BARI,
		01711249767
11.30-12.00	Tea Break	
12.00-1.00	Status of Surface and ground water irrigation	Md. Zafar Ullah
	systems in Bangladesh	Addl. C En (MI), PD,
		BADC, Dhaka, 01998772029
1.00-2.00	Irrigation water quality and water pollution	Md. Zafar Ullah,
	management	Addl. C En (MI), PD, BADC,
		Dhaka, 01998772029
2.00-3.00	Lunch & Prayer	
3.00-3.30	Post Evaluation & Course Evaluation	CC/ ACC
3.30-4.30	Certificate awarding & Closing Ceremony	Participants, CC/ ACC/ DG/
		/Faculties
4.30-5.30	Tea Break	

Rafiqul Islam Course Co-ordinator

&

Deputy Director (Agriculture Machineries & Water Management)

NATA, Gazipur Cell: 01718970041

#### Annexure-IV

## **Training Course Evaluation by the participants**

#### The Topics they liked:

- 1. IWRM: Disaster Risk reduction and resilience program under SDG and Polder Management for Irrigation in Bangladesh Hydrology and IWRM concept with water consumption
- 2. Hydrology and IWRM concept with water consumption
- 3. Irrigation and water management for rice cultivation
- 4. Possible use of Solar power energy in irrigation sector in Bangladesh (field visit)
- 5. Irrigation water quality and water pollution management
- 6. Irrigation water loss assessment and its control for sustainable agriculture
- 7. Global status of IWRM and prospect in Bangladesh

#### The Topics they disliked:

- 1. Non -stop schedule.
- 2. Some speakers repeated basic information of IWRM which was monotonous.

#### The Topics need to be added

- 1. Need more Practical class
- 2. Cultural Program
- 3. Outing/pleasure trip
- 4. Recreation
- 5. Exercise
- 6. Group assignment/Work
- 7. Discussion and Group exercise

## **Best Training Methods choose by the participants**

- 1. Discussion and group exercise
- 2. Resources Speaker
- 3. Time management
- 4. Practicing
- 5. Field Visit

## The issues that are disliked by the participants

- 1. Shortage of sport materials
- 2. Less time for Practice
- 3. Very tight schedule
- 4. Shortage of recreation facilities
- 5. Less Class practices
- 6. Needs more service boy in cafeteria
- 7. Repeatation

## The others associated issues they liked

- 1. Topic wise expert resource persons were selected very prudently.
- 2. Got scope to introduce with other officers of different organizations.
- 3. Management of dining by mess committee
- 4. Time management
- 5. Discipline & management
- 6. Management of dormitory
- 7. Expert resource persons
- 8. Wi-Fi facilities
- 9. Cooperation of NATA Authority
- 10. Cooperation of Course Coordinator and Asst. Course Coordinator.

### **Provided Service Quality**

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

## **Recommendations for the improvement of the course**

- 1. Uninterrupted internet and electricity supply should be provided
- 2. Practical class should be more
- 3. Internet access should be increased
- 4. Arrangement of Tour or recreation
- 5. Provide more time for discussion and exercise
- 6. Evert topic should be installed earlier in each desktop
- 7. Hard copy of manual of training course
- 8. Sub-Centre should be set up for incessant electricity supply
- 9. Refresher's course should be arranged
- 10. Increase of honorarium
- 11. Sports facilities should be available
- 12. Sports facilities in the morning
- 13. Single room for single officer
- 14. Time schedule must be strictly maintained.
- 15. One Resources speaker will take one lecture.
- 16. Field visit Should increased

## Annexure-V Resource Speaker Evaluation by the Participants

	Da	y-1 (12	2.09.202	21)		Day-2	2 (13.09	.2021)		
Participa nts	Md. Amirul	Islam	Dr. Debojit	ROY	Abul Kalam Azad	Motaleb Hossain	Saikei		Lutfar Rahman	
1.	5.0	4.6	5.0	5.0	5.0	2.8	2.8	2.8	5.8	5.8
2.	4.4	5.4	5.6	5.6	6.0	4.0	3.8	4.0	5.4	5.4
3.	5.2	5.2	4.8	5.2	5.8	2.6	3.8	5.0	5.0	4.0
4.	4.0	3.4	4.0	5.6	5.0	5.0	5.0	5.0	5.0	5.0
5.	5.0	5.0	5.0	5.0	5.0	5.6	5.6	5.6	5.8	5.6
6.	3.6	4.4	4.4	4.4	4.4	2.6	1.4	4.2	4.8	4.6
7.	5.2	4.2	4.0	4.0	4.0	4.4	4.0	4.0	5.4	5.0
8.	5.0	5.4	4.0	5.0	4.0	3.8	2.8	3.0	5.2	5.0
9.	4.8	4.8	4.8	4.8	4.8	2.0	2.0	2.2	4.6	4.6
10.	4.6	5.6	6.0	6.0	5.0	5.0	5.0	5.0	5.0	5.0
11.	5.0	5.6	6.0	6.0	5.0	2.0	2.0	2.0	5.8	5.8
12.	3.0	3.0	3.0	3.0	3.0	3.2	4.8	4.0	5.0	5.0
13.	4.8	4.8	4.8	4.8	5.2	3.4	3.2	3.2	4.0	4.0
14.	5.0	5.0	5.0	5.0	5.0	3.6	4.2	4.0	4.2	4.8
15.	4.8	4.2	4.8	4.8	4.8	4.2	4.0	4.0	5.0	5.0
16.	6.0	6.0	6.0	6.0	5.0	4.0	4.0	3.0	4.8	4.8
17.	5.8	5.6	5.8	5.8	5.8	2.0	2.0	4.0	5.0	5.0
18.	4.2	4.2	4.4	4.4	4.4	3.0	3.0	3.0	6.0	6.0
19.	5.0	5.0	5.0	5.0	5.0	4.2	4.2	4.6	5.6	5.6
20.	5.0	5.1	5.2	5.2	5.2	4.8	4.8	4.6	6.0	6.0
21.	5.8	5.6	5.8	5.8	5.8	2.0	2.0	2.0	6.0	6.0
22.	2.0	2.0	6.0	6.0	5.2	4.0	4.0	4.0	6.0	6.0
23.	5.8	5.8	5.8	5.8	6.0	3.4	5.0	4.0	5.6	5.6
24.	5.0	5.0	5.2	5.2	5.0	5.8	5.8	5.8	5.8	5.8
25.	5.4	5.4	5.4	5.4	5.4	2.2	2.2	4.2	4.6	4.6
26.	5.8	5.8	5.8	5.8	5.8	4.8	4.4	4.4	5.2	5.4
27.	4.2	4.4	5.6	6.0	6.0	4.6	4.4	4.4	6.0	6.0
28.	5.2	5.2	5.4	5.4	5.4	3.4	3.2	3.0	6.0	6.0
29.	4.8	4.8	5.2	5.2	5.2	5.2	5.2	5.2	6.0	6.0
30.	5.8	6.0	6.0	6.0	5.8	4.4	4.4	4.4	6.0	5.2
31	4.8	4.2	4.8	4.8	4.8	2.8	2.6	2.6	5.6	5.6
32	5.0	5.0	5.2	5.2	5.0	3.0	3.0	3.0	6.0	6.0
33	5.4	5.4	5.4	5.4	5.4	5.2	5.2	5.2	6.0	6.0
Avg.	4.8	4.8	5.1	5.2	5.1	3.7	3.8	3.9	5.4	5.3

## **Resource Speaker Evaluation by the Participants**

	Day-3 (14.09.2021)							Day-	4 (15.0	9.2021	)
Parti cpan ts	Dr. Pri Chandr		Dr. Mir Nurul Hasan Mahmud	ABM Jahid Hosain	M.M. zzam		MT Islan	n	Md. Mahbi Alam	ubul	ABM Jahid Hosain
1.	6.0	6.0	5.6	6.0	5.0	6.0	6.0	6.0	6.0	6.0	5.0
2.	5.8	5.8	4.2	5.0	5.8	5.8	5.8	5.8	5.8	5.8	5.8
3.	5.8	5.8	5.2	5.0	5.8	5.8	6.0	6.0	6.0	6.0	6.0
4.	4.8	4.4	4.0	4.2	5.6	5.8	6.0	6.0	6.0	6.0	6.0
5.	5.0	5.0	5.0	5.0	4.0	4.0	5.4	5.2	5.2	5.0	5.4
6.	5.4	5.6	5.6	5.4	5.0	6.0	5.6	5.6	5.2	5.0	5.0
7.	6.0	6.0	5.0	6.0	6.0	6.0	3.8	4.2	4.2	4.4	4.6
8.	5.6	5.6	5.6	5.6	5.6	5.6	6.0	6.0	3.6	3.6	3.2
9.	6.0	6.0	5.6	5.0	5.0	5.0	4.2	4.6	4.0	4.4	4.4
10.	6.0	6.0	6.0	6.0	6.0	6.0	5.0	4.6	4.4	4.0	4.6
11.	5.8	5.8	5.8	4.6	5.4	5.4	4.6	4.6	4.0	4.4	4.0
12.	5.6	5.6	5.2	5.2	5.6	5.6	5.4	5.4	5.4	5.4	4.0
13.	5.4	5.4	5.4	5.4	5.4	5.0	6.0	6.0	5.8	5.6	5.6
14.	5.4	5.4	5.4	4.0	4.0	4.0	4.2	5.2	3.0	4.2	5.0
15.	5.0	5.0	5.0	4.2	4.2	4.2	5.4	5.4	5.0	5.4	5.2
16.	5.0	5.0	4.8	4.8	4.6	4.2	6.0	5.8	5.8	5.8	5.8
17.	4.2	4.2	4.2	4.2	4.2	3.2	5.4	5.6	4.4	4.4	4.8
18.	5.0	5.0	4.8	4.6	4.6	4.6	5.6	5.8	5.6	5.6	5.6
19.	4.2	4.2	3.4	3.4	4.2	3.4	5.6	5.6	5.4	5.2	5.6
20.	6.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	5.0	4.0	3.0
21.	5.4	5.4	5.4	5.4	5.4	5.4	5.2	5.6	4.2	3.8	3.8
22.	5.0	5.0	5.0	3.0	3.0	3.2	3.4	3.4	4.8	5.0	4.4
23.	5.0	5.8	5.4	4.6	4.8	4.8	4.6	4.6	5.6	5.0	5.0
24.	5.6	5.2	5.2	5.6	5.6	5.6	5.8	5.8	5.8	5.4	5.0
25.	6.0	6.0	6.0	4.0	6.0	6.0	4.2	4.4	4.4	4.0	3.4
26.	6.0	6.0	4.4	5.2	5.2	5.2	4.4	4.4	3.4	3.4	3.6
27.	5.8	5.8	5.8	5.8	5.8	5.8	3.0	3.2	3.6	4.2	4.0
28.	6.0	6.0	6.0	6.0	6.0	6.0	2.6	3.0	4.2	4.2	3.0
29.	5.0	5.0	5.0	5.0	5.0	5.0	4.6	4.6	5.6	5.0	5.0
30.	5.4	5.4	5.4	5.4	5.4	5.4	5.2	5.2	4.2	4.2	4.0
31.	5.8	5.4	4.8	5.2	4.4	4.8	6.0	6.0	5.0	5.2	5.0
32.	5.0	5.0	3.6	5.4	5.4	5.2	5.2	5.6	4.2	3.8	3.8
33.	5.0	5.0	4.8	4.6	4.6	4.6	4.6	4.6	5.6	5.0	5.0
Avg.	5.4	5.4	5.1	4.9	5.1	5.1	4.9	5.1	4.9	4.8	4.7

## **Resource Speaker Evaluation by the Participants**

	Day-05(16.09.2021)					
Particpants	Dr. Md Anwar	-	M	d. Zafar Ullah		
1.	4.4	4.8	4.8	5.0		
2.	5.0	5.0	5.0	5.0		
3.	6.0	6.0	6.0	6.0		
4.	2.0	2.0	3.0	2.0		
5.	5.0	5.0	5.0	5.0		
6.	4.2	4.2	4.0	4.0		
7.	3.6	3.0	3.6	3.0		
8.	5.4	5.2	4.8	4.6		
9.	4.8	5.2	4.6	4.8		
10.	5.0	4.4	5.4	5.4		
11.	5.8	5.8	6.0	6.0		
12.	6.0	6.0	6.0	6.0		
13.	5.6	5.6	5.6	5.6		
14.	6.0	6.0	6.0	6.0		
15.	5.8	5.8	6.0	6.0		
16.	5.2	5.2	5.0	4.8		
17.	5.4	5.4	5.4	5.2		
18.	5.4	5.4	5.4	5.2		
19.	5.4	5.4	5.0	5.0		
20.	5.6	5.5	5.2	5.5		
21.	5.2	5.0	5.2	5.2		
22.	4.2	3.0	5.0	5.0		
23.	5.4	5.8	5.8	5.8		
24.	2.0	2.0	2.0	2.0		
25.	5.2	5.2	5.1	4.8		
26.	5.2	5.4	6.0	5.8		
27.	5.0	5.0	5.2	5.2		
28.	6.0	6.0	5.4	5.6		
29.	3.8	3.6	3.6	3.0		
30.	5.4	5.4	5.4	5.2		
31	5.4	5.4	5.4	5.2		
32	4.2	3.0	5.0	5.0		
33	5.8	5.8	6.0	6.0		
Avg.	4.9	4.9	5.1	4.9		

## **Annexure-VI**

## Integrated Water Resource Management in Agriculture Training Course Evaluation Report for Trainees

**Duration: 12-16 September, 2021** Full Marks: 50

Sl.	Name	<b>Designation &amp; Posting Place</b>	Pre-Evaluation	<b>Post Evaluation</b>
1.	Md Rabiul Aowal Agricultural Engineer	Department of Agricultural Extension, Khamarbari, Narsingdi	26	30
2.	Syed Tanvin Abir Scientific Officer	Bangladesh Institute of Nuclear Agriculture (BINA)	26	40
3.	Sanjit Mandal Scientific Officer	Bangladesh Sugarcrop Research Institute	18	30
4.	Md. Intekhaf Alam Assistant Engineer	Barind Multipurpose Development of Authority, Rajshahi	23	40
5.	Md. Mahfujur Rahman Agriculture Extension Officer	DAE, Barishal Sadar, Barishal	36	43
6.	Md. Mostafizur Rahman Agriculture Extension Officer	DAE, Rajapur, Jhalokathi	16	32
7.	Rubaed Foysal Al- Masum Assistant Engineer	Bangladesh Agricultural Development Corporation (BADC)	39	33
8.	Dr. M. M Abed Ali Senior Scientific Officer	Cotton Development Board, Jashore	18	41
9.	Bishwajit Kundu Scientific Officer	Bangladesh Jute Research Institute	25	41
10.	S. M Atai Rabbe Assistant Engineer	BADC, Krishi Bhaban, Dhaka	24	30
11.	Md. Mostafizur Rahman Assistant Engineer	BMDA, Gomostapur zone, Chapainawabganj	31	32
12.	S. M Ferdaus Agriculture Extension Officer	DAE, Rupsha, Khulna	34	41
13.	Arifa Akhter Agricultural Engineer	Department of Agricultural Extension, Gazipur	16	36
14.	Dr. Md. Mustafa Khan Senior Scientific Officer	Bangladesh Wheat and Maize Research Institute	12	12
15.	SK. Shamshul Alam Kamar Scientific Officer	Bangladesh Agricultural Research Institute	16	27
16.	Ayesha Aktar Agriculture Extension Officer	Department of Agricultural Extension, Nazirpur, Pirojpur.	15	39
17.	Manoranjan Adhikari Agriculture Extension Officer	Department of Agricultural Extension, Birganj, Dinajpur	24	28

Sl.	Name	<b>Designation &amp; Posting Place</b>	Pre-Evaluation	Post Evaluation
18.	Md. Shariful Islam Agriculture Extension Officer	DAE, Badarganj, Rangpur	25	35
19.	Uttam Kumar Roy Agricultural Engineer	DAE, Dhaka Region	26	31
20.	Nadia Akhter Agriculture Extension Officer	DAE, Jhenaigati, Sherpur	15	32
21.	Md. Khairul Islam Senior Scientific Officer	SRDI, Bogura	28	41
22.	Md. Abdus Shakur Saadi Agriculture Extension Officer	DAE, Mohonganj, Netrokona	22	33
23.	Md. Mehedi Hasan Agriculture Extension Officer	DAE, Gobindaganj, Gaibandha	27	37
24.	Md. Forhad Hossen Agriculture Extension Officer	DAE, Atwari, Panchagar	27	41
25.	Kazi Farook Hossain Executive Engineer	BADC, Gazipur Region, Gazipur	12	38
26.	Md. Najmul Hasan Agriculture Extension Officer	DAE, Ranisankail, Thaqurgaon	29	42
27.	Md. Mhafuzur Rhaman Assistant Engineer	BMDA, Tanor zone, Rajdhahi	10	23
28.	Dr. Shahana Parveen Senior Scientific Officer	Irrigation and Water Management, BRRI	27	35
29.	Maniruzzaman Senior Scientific Officer	SRDI	27	34
30.	Palash Kumar Kundu Scientific Officer	Irrigation and Water Management, BRRI, Gazipur	30	35
31.	Md. Nur Alom Agriculture Extension Officer	DAE, Chilmari, Kurigram	12	40
32.	Md. Ismail Hosen Agriculture Extension Officer	DAE, Kachua, Bagerhat	25	44
33.	Mst. Nadira Sultana Seed Certification Officer	SCA, Gaibandha	12	33

## FACULTY MEMBERS OF NATA

Photo	Name & Designation	Phone/Cell/ E-mail
	Md. Mahabub Alam	01718-556100
	Director General (In-charge)	dgnata14@gmail.com
	Mahmudul Hasan	01715-101818
	Director Admin (In-charge)	hasandae@yahoo.com
	Md. Mahmud Hasan	01817-066613
	Director Training	mahamudhassandae@gmail.com
	Mahmudul Hasan	01715-101818
	Deputy Director (Admin & Support Service)	hasandae@yahoo.com
	Dr. Md. MayenUddin	01711-969688
	Deputy Director (Food Technology)	mayen.dae85@yahoo.com
	Dr. Md. Sayedur Rahman	01552-495564
	Deputy Director (Horticulture)	sayedur.63@gmail.com
	Md. Rafiqul Islam	01718-970041
	Deputy Director (Agril. Machinery & Water Management)	badal.rafiqul@gmail.com
	Dr. MD. Jamal Uddin	01712-272859
	Deputy Director (Plant Pathology)	jamaldae@yahoo.com
( = =	Abu Syed Md. Jobaydul Alam	01712-603248
	Deputy Director (Genetics & Plant breeding)	shaheenbindo@gmail.com

Mohammad Abdul Hamid	01712-943514
Deputy Director (Soil Science)	mabdulhamid1972@gmail.com
Abul Kalam Azad	01940-652412
Deputy Director (Agril.Ext.& Rural Economic)	azadipm@gmail.com
Md. Eskandar Hossain	01938-615225
Deputy Director (Agronomy)	eskandarhossain@yahoo.com
Nilufa Aktar	01719-174775
Deputy Director (Planning & Publication)	nilufaa@yahoo.com
Mst. Sharmin Akhter	01711-736571
Deputy Director (Agroforestry & Environment)	slaboni1980@gmail.com
MD. Saiful Islam	01710-511175
Senior Assistant Director (Horticulture Crop Disease)	saiful.dae@gmail.com
Tahazul Islam	01717-287940
Senior Assistant Director (Cereal &Cash Crop)	tahazul@yahoo.com
Md. Sharif Iqbal	01716-986339
Senior Assistant Director (Flower & Fruit)	sharif_dae27@yahoo.com
Mahmuda Haque	01718425311
Senior Assistant Director (Genetics & Plant Breeding)	mahmudahuq15@gmail.com

n27@gmail.com 719-303797 n237@yahoo.com
237@yahoo.com
674866673
maker@gmail.com
710-586075
au@gmail.com
712-680844
ng31@gmail.com
714-612029
geb@gmail.com
716-245663
na2888@gmail.com
913-834183
ba1981@gmail.com
790-828045
nar2913@gmail.com

	Shamima Akter	01717-417316
	Senior Assistant Director Environment & Agroforestry)	shamaraihan1549@gmail.com
		01745 007741
66	Md. Shahinul Islam	01745-997741
	Senior Assistant Director	shahinul_bsmrau02@yahoo.com
	(Field Crop Pest)	
	Sharmin Sultana	01725-005287
	Senior Assistant Director	sharminlabony325@gmail.com
	(Horticulture Crop Disease)	
	Tahmina Sultana	01723-007929
(a)	Senior Assistant Director	muna3160dae@gmail.com
	(Agricultural Machinaries & Water	-
	Mangement)	
	Sumaya Sharmin	01738-135204
	<b>Publication Officer</b>	sumayabau@gmail.com
	Md. Shahiduzzaman shubho	01763-037171
d Mary		shubho.415@gmail.com
	Medical Officer	
	Lupu Rahman	01769-090390
(0.0)	Liberian	lupu05du@gmail.com
	2.50.1411	

