

**TRAINING COURSE**  
**ON**  
**INTEGRATED WATER RESOURCE MANAGEMENT IN AGRICULTURE**  
**25 MAY-29 MAY' 2019**

**COURSE GUIDELINE**



**GOVERNMENT OF THE REPUBLIC OF BANGLADESH**  
**NATIONAL AGRICULTURE TRAINING ACADEMY**  
**GAZIPUR-1701**  
**WEBSITE: [WWW.NATA.GOV.BD](http://WWW.NATA.GOV.BD)**

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## **Introduction to National Agriculture Training Academy (NATA)**

### **1.1 The Academy**

National Agriculture Training Academy (NATA) is the apex training institute for human resource development of officers (grade-9 and above) under the Ministry of Agriculture (MoA) for providing training on diversified fields of professional interest in agriculture sector. The Academy organizes various training programmes related to agriculture throughout the year. The academy is established in Gazipur as Central Extension Resources Development Institute (CERDI) on 14 March 1975 with the financial assistance of Japan International Cooperation Agency (JICA). Afterwards, on 27 June 1984, CERDI was undertaken to the Training Wing of Department of Agricultural Extension (DAE). On 03 April 2013, Government of the People's Republic of Bangladesh abolished CERDI and established NATA as an independent organization of MoA and on 07 June 2014, NATA has been started as a training academy.

Initially, the Academy started its functions with only 10 faculty members. Though Government approved strength is 184, at present NATA has 74 staff members including 29 faculty members.

### **1.2 Vision**

National Agriculture Training Academy becomes a center of excellence for developing competent human resources in agriculture sector.

### **1.3 Mission**

We are pledged to achieve the shared vision through:

- i. Develop human resource of all organizations under MoA by imparting quality training, research and development and publications;
- ii. Enhance linkage between education, research and extension to endow agriculture service delivery system;
- iii. Network with reputed institution of home and abroad for organizational capacity building; and
- iv. Foster a culture of continuous learning for development of knowledge-intensive agriculture service.

### **1.4 Functions**

The NATA has been entrusted to perform the following functions:

- i. Human resource development of the government, semi-government, autonomous organization under MoA through training of modern and sustainable agriculture technology;
- ii. Transfer modern and sustainable agriculture technology developed by the research organizations for the development of socio-economic conditions of farmers;
- iii. Conduct demonstration, adaptive research and research of proven technologies;
- iv. Impart all sorts of in-service training with special emphasis on induction, foundation and senior staff course;
- v. Exchange publications, participants and resource persons in seminars, workshops, conferences and training among the stakeholders;

- vi. Advice government and other organizations on training, achieving food and nutrition security, ICT, transfer of agriculture technology, agro-based industries and conservation environments etc.;
- vii. Help government and policy makers in framing and analyzing agricultural policies;
- viii. Conduct different training activities of academy in consonance with provision of the public administration training policy 2003; and
- ix. Perform all kinds of duties directed by the government.

## **1.5 Location**

The Academy is 25 km away from Dhaka city and 3 km away from *Joydevpur Chandana Chowrasta* towards Gazipur district head quarter. It is located adjacent to Bangladesh Rice Research Institute (BRRI) and occupied 49 acres of land. The academy provides the trainees an ample scope to have free access to the adjacent institutions like Bangladesh Agriculture Research Institute (BARI), Bangladesh Rice Research Institute (BRRI), Seed Certification Agency (SCA), Bangabondhu Sheikh Mujibur Rahman Agricultural University (BSMRAU), Telecommunication College, and other government offices in Gazipur.

## **1.6 Facilities**

### **1.6.1 Physical Facilities**

The Academy is well equipped with physical facilities in organizing training programs though it began its journey recently. Existing facilities of the academy are as follows.

- Office building-2
- Class room- 3
- Laboratory (Subject wise technical)
- Plant protection museum- 1
- Conference room- 1
- Auditorum-1
- Dormitory- 4
- Cafeteria- 1
- Greenhouse- 3
- Workshop-1
- Mosque-1

### **1.6.2 Digital Computer cum Language Lab. and IT facilities**

There is one Digital Computer cum Language Lab in the Academy. It is located on the 1<sup>st</sup> floor of the Administrative building. IT facilities include LAN and Wi-Fi and the whole campus under Wi-Fi coverage. To expedite foreign language learning, NATA set up a Digital Computer cum Language Lab. as part of the Academy's drive for capacity building of government officials. Participants can avail the opportunity of learning the foreign language while they stay in NATA.

### **1.6.3 Recreational Facilities**

The Academy has a recreation room with color T.V in the dormitory. The daily newspapers are available in recreation room for the participants.

#### **1.6.4 Linkage with other Training Organizations**

NATA maintains good relations with other training Academies in the country including BPATC, RPATC, BCS Administration Academy, BIAM and FIMA and so on. NATA has plan to collaborate with international training institutes for improvement its human resources. NATA also collaborate with national research organizations in research in agriculture sector.

#### **1.7 Evaluation:**

Course Director and other faculty members are given responsibility to evaluate the participants. The course is evaluated during pre and post training situation within 50-100 marks. On the other hand the participants are also given chance to evaluate the faculties and guest speakers by using a prescribed format.

#### **1.8 Sessions:**

Everyday the session is started at 9.30 am in the morning and ends at 4:00 pm in the afternoon. There are two breaks started at 11.30 am and 01.00 pm for tea and lunch with prayer respectively. Participants are advised to attain the class in time without fail for avoiding any kinds of disciplinary action.

#### **Daily Schedule**

Activities	Duration
1 <sup>st</sup> Session	09:30-10:30
2 <sup>nd</sup> Session	10:30-11:30
Tea Break	11:30-12:00
3 <sup>rd</sup> Session	12:00-01:00
Lunch and Prayer	01:00-02:00
4 <sup>th</sup> Session	02:00-03:00
5 <sup>th</sup> Session	03:00-04:00

#### **1.9 Norms to be followed during the training:**

- No casual leave is allowed during training period.
- Participants living in the dormitory are advised to follow the norms of the dormitory.
- The campus area is a “Non-Smoking Zone”. Participants are advised to refrain from smoking inside the Academy.
- Participants are not allowed to enter the dormitory after 10:00pm at night.

# Course Outline

**Integrated water resources management 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 OBJECTIVE**

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.

**Target population** : Officers (Grade 9 and above) of different organizations under Ministry of Agriculture.

**Duration of each session:** 60 minutes.

## **Prerequisites of the course:**

- To attend the training class in time;
- To be present at least 99% 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.

**TRAINING SCHEDULE**  
**Course Title: Integrated Water Resources Management (IWRM) in**  
**Agriculture**  
**Duration: 05 Days**  
**25-29 May, 2019**

<b>Date: 25/5/2019</b>		
<b>Time</b>	<b>Topics</b>	<b>Speakers</b>
08:30-09:00	Registration	Lucky
09:00-09:30	Pre-evaluation and Inaugural Session	CC/ ACC DG/Directors/Faculties
09.30-10.30	Irrigation and water management aspects in Water Policy of Bangladesh	Md. Motahar Hossian Joint Sec.MoWR. 01818112226
10.30-10.40	<b>Break</b>	
10.40-11.40	Water laws and water rights	Md. Motahar Hossian Joint Sec.MoWR. 01818112226
11.40-12.40	Importance of IWRM in Bangladesh	A.Karim Addl. CEn, BADC 01711488245
12.40-13.30	<b>Prayer</b>	
13.30-14.30	Examples of IWRM projects in Bangladesh and Their Impacts on Agriculture	Md. Amirul Islam ,Addl.Chief Engineer, Water Board,Dhaka, 01720066188
14.30-15.30	Integrated Water Resources Management (IWRM): challenges in Bangladesh	Do
<b>Date: 26/5/2019</b>		
<b>Time</b>	<b>Topics</b>	<b>Speaker</b>
09:00-10:00	Present Global status of IWRM in Bangladesh agriculture	Md. Motaleb,Director, Water Board, IWM project 01715015419
10:00-11:00	Waste water treatment: concept and technological aspects	Do
11:00-12:00	Irrigation water requirement for important crops in Bangladesh	M. Moniruzzaman, PSO. BRRI 01552328965
12:00-12:10	<b>Break</b>	
12.10-13.10	Management of different irrigation channels	M. Moniruzzaman, PSO.BRRI 01552328965
13.10-13.40	<b>Prayer</b>	
13.40-14.40	Demand & availability of water resources for irrigation in Bangladesh	Lutfar Rahman,C En BADC, Dhaka 01727451746
14.40-15.40	Loss of water in irrigation system in Bangladesh & control measures	Do



<b>Date: 27/5/2019</b>		
<b>Time</b>	<b>Topics</b>	<b>Speaker</b>
09.00-10.00	Application of IWRM in Agriculture	Md. Ferdousur Rahman, C En, BADC, Dhaka, 01712994438
10.00-11.00	Multiple use of Water resources (re-use of water resources)	Do
11.00-11.10	<b>Break</b>	
11.10-12.10	Possible use of Solar power energy in irrigation sector in Bangladesh (field visit)	ABM Jahid Hosain SSO, BRRI, Gazipur 01712763359
12.10-13.10	Status of Surface and ground water irrigation systems in Bangladesh	Md. Zafar Ullah, Addl. C En (MI) PD, BADC, Dhaka, 01998772029
13.10-13.40	<b>Prayer</b>	
13.40-14.40	Irrigation water quality and water pollution management	Md. Zafar Ullah, Addl. C En (MI) PD, BADC, Dhaka, 01998772029

<b>Date: 28/5/2019</b>		
<b>Time</b>	<b>Topics</b>	<b>Speaker</b>
09.00-10.00	Different methods & techniques of irrigation	Dr. Rafiqul Islam, Profs. Agronomy, BSMRAU, 01552495641
10.00-11.00	Hydrology and Integrated Water Resources Management (IWRM) concept with water consumption	MT Islam, CSO BRRI, Gazipur 01715090879
11.00-12.00	History of irrigation development in Bangladesh	MT Islam, CSO, BRRI
12.00-12.10	<b>Break</b>	
12.10-13.10	Irrigation management for rice	MT Islam, CSO BRRI, Gazipur
13.10-13.40	<b>Prayer</b>	
13.40-14.40	Irrigation management for other field crops	Dr. Md Anwar, SSO, BARI 01711249767
14.40-15.40	Irrigation management for major vegetables and fruits	Do

<b>Date: 29/5/2019</b>		
<b>Time</b>	<b>Topics</b>	<b>Speaker</b>
09.00-10.00	Irrigation water saving by improved cropping patterns	Md. Mahbul Alam, SSO, BRRI, Gazipur, 01961233768
10.00-11.00	Water Security and water safety	Md. Amirul Islam, Addl. Chief Engineer Water Board, Dhaka, 01720066188
11.00- 11.10	<b>Break</b>	
11.10-12.10	IWRM: Disaster Risk reduction and resilience program under SDG and Polder Management for Irrigation in Bangladesh	Md. Amirul Islam, Addl. Chief Engineer Water Board, Dhaka, 01720066188
12.10-13.10	Post-evaluation & Closing Ceremony	Participants, CC/ ACC DG/Directors/Faculties

### PANEL OF RESOURCE SPEAKERS

SL. No	Name of speaker	Organization	Mobile and Mail
1.	Md. Motahar Hossian Joint Sec.	MoWR	Phone: 01818112226
2.	A.Karim Addl. CEn	BADC, Dhaka	Phone: 01711488245
3.	Md. Amirul Islam ,Addl.Chief Engineer	Water Board, Dhaka,	Phone: 01720066188
4.	Md. Motaleb,Director,	Water Board, IWM project	Phone: 01715015419
5.	M. Moniruzzaman, PSO	BRRI, Gazipur	Phone: 01552328965
6.	Lutfar Rahman,C En	BADC, Dhaka	Phone: 01727451746
7.	Md. Ferdousur Rahman,C En.	BADC, Dhaka	Phone: 01712994438
8.	ABM Jahid Hosain SSO,	BRRI, Gazipur	Phone: 01712763359
9.	Md. Zafar Ullah, Addl. C En (MI), PD	BADC, Dhaka	Phone: 01998772029
10.	Dr. Rafiqul Islam,Profs. Agronomy	BSMRAU	Phone: 01552495641
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12.	Dr. Md Anwar, SSO	BARI, Gazipur	Phone: 01711249767
13.	Md. Mahbulul Alam, SSO	BRRI, Gazipur,	Phone: 01961233768

## LIST OF NATA FACULTY MEMBERS/ OFFICERS

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