

**Training Course**  
**on**  
**INTEGRATED WATER RESOURCE MANAGEMENT IN**  
**AGRICULTURE**

**12 -16 SEPTEMBER, 2021**

**Course Guideline**



**National Agriculture Training Academy (NATA)**  
**Ministry of Agriculture**  
**Gazipur-1701**  
**[www.nata.gov.bd](http://www.nata.gov.bd)**

# 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

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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 programs 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 78 staff members including 34 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-4
- Training class room-7
- Departmental Lab-4
- Computer Lab- 2
- Plant protection museum- 1
- VIP Conference room- 2
- Auditorium-1
- Dormitory- 5
- Cafeteria- 2
- Greenhouse- 3
- Workshop-1
- Store-1
- Mosque-1
- Residential building-15

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

There is two Digital Computer cum Language Lab in the Academy. It is located on the 1<sup>st</sup> floor of the Administrative building and 2<sup>nd</sup> floor of the Abekkhon training complex 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 TV 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 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 5:00 pm in the afternoon. There are two breaks started at 11.30 am for tea and 02.00 pm for 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	9.30-10.30
2 <sup>nd</sup> Session	10:30-11:30
Health break	11:30-12:00
3 <sup>rd</sup> Session	12:00-01:00
4 <sup>th</sup> Session	01:00-02.00
<u>Lunch &amp; Prayer</u>	02.00-03.00
5 <sup>th</sup> Session	03:00-04:00
6 <sup>th</sup> Session	04.00-05.00

### 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 10:00 pm 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.

# Course Content

## 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, Examples of IWRM projects in Bangladesh and their Impacts on Agriculture	Md. Amirul Islam Superintending Engineer, Water Development Board, Dhaka. 01720066188
11.00-11.15	<b>Tea break</b>	
11.15-12.15	Water Security and water safety	Md. Amirul Islam Superintending Engineer, Water Development Board, Dhaka. 01720066188
12.15-1.15	IWRM: Disaster Risk reduction and resilience program under SDG and Polder Management for Irrigation in Bangladesh	M. Moniruzzaman PSO BRRI, 01552328965
1.15-2.15	Management of different irrigation channels for improving irrigation system in agriculture	M. Moniruzzaman PSO BRRI, 01552328965
2.15-3.15	<b>Lunch and prayer</b>	
3.15-4.15	National Integrity Strategy	Abul Kalam Azad Deputy Director (Agriculture Extension & Eco.), 01940652412
4.15-5.00	<b>Tea Break</b>	

**Date: 13/09/2021**

Time	Topics	Speaker
9.30-10.30	Global status of IWRM and prospect in Bangladesh	Malik Fida A Khan, Executive Director, CEGIS, Dhaka, 01819261274
10.30-11.30	Irrigation and water management aspects in Water Policy of Bangladesh	Malik Fida A Khan, Executive Director, CEGIS, Dhaka, 01819261274 mkhan@cegisbd.com
11.30-12.00	<b>Tea Break</b>	
12.00-1.00	Waste water management: concepts and technological aspects	Md. Motaleb Hossain Sarker, Director, CEGIS, Dhaka, 01715015419



1.00-2.00	Irrigation water loss assessment and its control for sustainable agriculture	Md. Lutfar Rahman, Chief Engineer, BADC, Dhaka 01727451746
2.00-3.00	<b>Lunch and prayer</b>	
3.00-4.00	Irrigation water saving by changing cropping patterns	Md.Lutfar Rahman, Chief Engineer BADC,Dhaka. 01727451746
4.00-5.00	<b>Tea Break</b>	

**Date: 14/09/2021**

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

**Date: 15/09/2021**

<b>Time</b>	<b>Topics</b>	<b>Speaker</b>
9.30-10.30	Hydrology and IWRM concept with water consumption	MT Islam CSO, BRRI, Gazipur 01715090879
10.30-11.30	Irrigation and water management for rice cultivation	MT Islam CSO, BRRI, Gazipur 01715090879
11.30-12.00	<b>Tea Break</b>	
12.00-1.00	Techniques of irrigation water saving through improved cropping patterns	Md. Mahbulul Alam SSO, BRRI, Gazipur, 01961233768

1.00-2.00	IWRM and Social Inclusion	Md. Mahbubul Alam, SSO, BRRI, Gazipur, 01961233768
2.00-3.00	<b>Lunch and prayer</b>	
3.00-4.00	Multiple use of water resources other than irrigation (use & re-use of water resources)	Dr. Mir Nurul Hasan Mahmud, SSO, BRRI, Gazipur, 01716963384
4.00-5.00	<b>Tea Break</b>	

**Date: 16/09/2021**

<b>Time</b>	<b>Topics</b>	<b>Speaker</b>
9.30-10.30	Improved irrigation and water management for major field crops	Dr. Md Anwar PSO, BARI, 01711249767
10.30-11.30	Irrigation in Major Vegetables and Crops	Dr. Md Anwar PSO, BARI 01711249767
11.30-12.00	<b>Tea Break</b>	
12.00-1.00	Status of Surface and ground water irrigation systems in Bangladesh	Md. Zafar Ullah Addl. C En (MI), PD, BADC, Dhaka, 01998772029
1.00-2.00	Irrigation water quality and water pollution management	Md. Zafar Ullah, Addl. C En (MI), PD, BADC, Dhaka, 01998772029
2.00-3.00	<b>Lunch &amp; Prayer</b>	
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	<b>Tea Break</b>	

Rafiqul Islam  
Course Co-ordinator  
&  
Deputy Director  
(Agriculture Machineries & Water Management)  
NATA, Gazipur  
Cell: 01718970041

## PANNEL OF RESOURCE SPEAKERS

SL.No	Name of speaker	Organization	Mobile No.
1.	Malik Fida A Khan, Executive Director	CEGIS, Dhaka	01819261274
2.	Md. Amirul Islam, Superintending Engineer	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

## FACULTY MEMBERS OF NATA

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

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

	<p><b>Shamsun Nahar</b> Senior Assistant Director (Field Crop Diseases)</p>	<p>01717-376172 <a href="mailto:shamsun27@gmail.com">shamsun27@gmail.com</a></p>
	<p><b>Md. Aklimuzzaman</b> Senior Assistant Director (Pulse &amp; Oil Crops)</p>	<p>01719-303797 <a href="mailto:akzaman237@yahoo.com">akzaman237@yahoo.com</a></p>
	<p><b>Banani Karmaker</b> Senior Assistant Director (Soil Physics)</p>	<p>01674866673 <a href="mailto:bananikarmaker@gmail.com">bananikarmaker@gmail.com</a></p>
	<p><b>Md. Anowarul Islam Jewel</b> Senior Assistant Director (Agriculture extension)</p>	<p>01710-586075 <a href="mailto:juwelbau@gmail.com">juwelbau@gmail.com</a></p>
	<p><b>Mousumi Paul</b> Senior Assistant Director (Biotechnology)</p>	<p>01712-680844 <a href="mailto:mplbcsag31@gmail.com">mplbcsag31@gmail.com</a></p>
	<p><b>Lialatul Rokshana Lima</b> Senior Assistant Director (Soil Chemistry &amp; Microbiology)</p>	<p>01714-612029 <a href="mailto:lima1.gcb@gmail.com">lima1.gcb@gmail.com</a></p>
	<p><b>Naima Sultana</b> Senior Assistant Director (Agriculture Economics)</p>	<p>01716-245663 <a href="mailto:naimasultana2888@gmail.com">naimasultana2888@gmail.com</a></p>
	<p><b>Ummey Habiba</b> Senior Assistant Director (Vegetables &amp; Spices)</p>	<p>01913-834183 <a href="mailto:ummeyhabiba1981@gmail.com">ummeyhabiba1981@gmail.com</a></p>
	<p><b>Taufikun Nahar</b> Senior Assistant Director (Food Processing Technology)</p>	<p>01790-828045 <a href="mailto:taufikun.nahar2913@gmail.com">taufikun.nahar2913@gmail.com</a></p>

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



