

**Training Course
on
Climate Smart Agriculture**

10-14 January 2021

Course Guidelines



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

Training Course on Climate Smart Agriculture

10-14 January 2021

Course Management

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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 modern agricultural technologies and office management issues 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 its journey as a training academy.

After emergence as NATA, the Academy began its training functions with only 10 faculty members. Though Government approved strength is 184, at present NATA has 84 staff members including 36 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. Development of skilled human resources of all organizations under MoA by imparting quality training, research and development and publications;
- ii. Enhancement of linkage between education, research and extension to endow agriculture service delivery system;
- iii. Building a network with reputed institutions of home and abroad for organizational capacity development; and
- iv. Fostering 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. Develop skilled human resources of the government, semi-government, autonomous organizations under MoA through imparting training program on modern and sustainable agriculture technology and office management topics;
- ii. Transfer modern and sustainable agriculture technology developed by the research organizations obtaining higher yield of crops of the 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 of the Academy

The Academy is about 25 km away from the capital city Dhaka 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 get 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 some physical facilities to run the training programs successfully though it began its voyage recently. Existing facilities of the academy are as follows.

- Office building-3
- Class room- 8
- Laboratory (Subject wise technical)
- Plant protection museum- 1
- Conference room-2
- Auditorium-1
- Dormitory- 5
- Cafeteria- 1
- Greenhouse- 3
- Workshop-1
- Mosque-1
- Training complex

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 1st floor of the Administrative building. IT facilities available 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 also 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, FIMA and so on. NATA has a plan to collaborate with international training institutes for improvement its human resources. NATA also collaborate with national research organizations for research in agriculture sector.

1.7 Evaluation

Course coordinator and asst. course coordinators are given the responsibility to evaluate the participants. The course is evaluated during pre and post training situation. Furthermore, the participants are given the chance to evaluate the resource speakers by using a prescribed format.

1.8 Sessions

Every day the session is started at 9.00 am in the morning and ends at 5:00 pm in the afternoon. There are two health breaks started at 11.15 am for snacks and 05.15 pm for tea as well as lunch with prayer break at 12.45 p m respectively. Participants are advised to attend the class in time without fail for avoiding any kinds of disciplinary action.

Daily Schedule

Activities	Duration
1 st Session	09:15-10:15
2 nd Session	10:15-11:15
Tea Break	11:15-11:45
3 rd Session	11:45-12:45
Lunch & Prayer	12:45-02:00
4 th Session	02:00-03:00
5 th 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; and
- Participants are not allowed to enter the dormitory after 10:00 pm at night.

Course at a glance

Agriculture is the main force of Bangladesh economy which is completely dependent on the mercy of nature. Agriculture of Bangladesh is repeatedly affecting by different natural calamities every year. Now a days this natural calamities are becoming as more extreme as frequent due to climate change. As a result climate change risk and vulnerability in Bangladesh is increasing day by day. Vulnerable area for Bangladesh Agriculture is where saline water intrusion, soil salinity, drought, flood, flash flood, uneven rainfall etc. occurs repeatedly which will hamper the food production and food security. There is no alternative to shifting our farming from conventional agriculture to climate smart agriculture to combat these challenges and to ensure food security.

Climate smart extension, research and development plan is very essential to fight this challenge. Climate smart development in institutional and personnel level is very important to achieve this goal. To develop efficient man power on climate smart agriculture is essential. This module can play vital role to develop personnel on this issue.

Course objectives:

1. To improve participant's skills in designing and implementing climate smart agriculture in their own jurisdiction.
2. To develop advanced knowledge and idea on to increase their various aspects of climate variability and change
3. To develop knowledge of personnel working in agriculture sector for mitigation and adaptation to climate change to ensure sustainable productivity.

Target population: Officers of different organizations under Ministry of Agriculture.

Duration of each session: 60 minutes.

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

Training Schedule

10-01-2021

Time	Topics	Method	Speaker
8.30-9.30	Registration		SAAO Lucky
9.00-9.30	Inauguration		DG/Director/Faculties
9.30-10.30	Concepts and Causes of Climate Change and its scientific basis	L & D	Dr. Abdul Muyeed Ex-DG, DAE
10.30-11.30	Climate Change: Global Scenario	L & D	Dr. Abdul Muyeed Ex-DG, DAE
11.30-12:00	Tea break		
12.00-1.00	Impacts of Climate change: Bangladesh Context	L & D	Dr. Habib Mohammad Naser PSO,BARI
1.00-2.00	Lunch Break		
2.00-3.00	Risks and Vulnerabilities to Climate Change and what to do	L & D	Dr. Habib Mohammad Naser PSO, BARI
3.20-4.30	Climate SMART Agriculture: Concepts and Background	L & D	Dr. Md. Mayen Uddin DD, NATA

11-01-2021

Time	Topics	Method	Speaker
9.00-9.15	Recap		CC/ACC
9.15-10.15	Principles of soil health and Challenges of climate change to soils	L & D	Dr. Ranjit Sen, SSO, Soil Science Division, BARI
10.15-11.15	Problem soil Management for Climate Smart Agriculture	L & D	Dr. Ranjit Sen, SSO, Soil Science Division, BARI
11.15-11.45	Tea Break		
11.45-12.45	Fertilizer management Technique for CSA	L & D	Dr. Umme Aminun Naher PSO, Soil Science Division, BRRI
12.45 - 2.15	Lunch Break		
2.15 - 3:15	GHG emission management for CSA	L & D	Dr. Umme Aminun Naher PSO, Soil Science Division, BRRI
3.15-4:15	Diseases Management of crops for Climate change	L & D	Dr. Samsunaher CSO, Horticulture Division, BARI
4:15-5:15	Insects Management of crops for Climate change	L & D	Dr. Abdul Mazed, DD(LR), DAE

12-01-2021

Time	Topics	Method	Speaker
9.00-9.15	Recap		CC/ACC
9.15-10.15	Conservation Agriculture for CSA	L & D	Dr. Rina Rani Saha, Director, BARI
10.15-11.15	Adaptation to drought by crop management for CSA	L & D	Dr. Rina Rani Saha, Director, BARI
11.15-11.45	Tea Break		
11.45-12.45	Adaptation to Salinity by crop management for CSA	L & D	Dr. Apurba kanti Chudury, CSO, Seed Technology Division, BARI
12.45-2.15	Lunch Break		
2.15-3.15	Context of Climate Smart Agriculture practices for adaptation to climate Change under submerged/flooded ecosystem in Bangladesh	L , D & GW	MD. Rafiqul Islam, Deputy Director, NATA
3:15- 4:15	Seedling production techniques of vegetable and spice crops on floating bed under submerged/flooded ecosystem	L , D & GW	MD. Rafiqul Islam, Deputy Director, NATA,Gazipur
4:15-5:15	Rice Production technology under stress condition	L & D	Dr. Akhlaas uddin Deputy Director, NATA

13-01-2021

Time	Topics	Method	Speaker
9.00-9.15	Recap		CC/ACC
9.15-10.15	Water Saving crop Production Technology for CSA	L & D	Dr. Muhammad Arshadul hoque, SSO, BARI E-mail: arshadulmpe@gmail.com Mobile: 01712635503
10.15-11.15	Introduction to plan for CSA in drought condition. Machinery and Mechanization to Mitigate GHG Emission	L & D	Dr. Abdul Matin, SSO, Farm Machinery Division, BARI
11.15-11.45	Tea break		
11.45-12.45	Weather forecasting for crop production and management	L & D	Dr. Abdul Mazed, DD(LR), DAE
12.45-2.15	Lunch Break		
2.15-3.15	Crop modeling: Principles and Practices	L , D & GW	Dr. Moinus Salam, Consultant, CYMMIT
3.15-4.15	Crop modeling: Application/Evaluation/testing	L , D & GW	Dr. Moinus Salam, Consultant, CYMMIT

14-01-2021

Time	Topics	Method	Speaker
9:00-9:15	Recap		CC/ACC
9:15-10:15	CSA action plan for drought prone areas CSA action plan for saline prone areas CSA action plan for flood prone areas	L , D & GW	Dr. Muhammad Math hurul Haque Ex. DG, NATA
10:15-11:15	Do	Do	Do
11:15-11:45	Tea Break		
11:45-12:45	SDG for CSA	L & D	Dr. Jamal uddin Deputy Director NATA
12:45-2:15	Lunch Break		
2:15-3:15	NIS	L & D	Dr. MD. Akhtaruzzaman DG, NATA
3:15-4:15	Closing		DG/DIRECTOR

List of Resource Speaker

Sl. No.	Name	Designation	Organization	e-mail and mobile No.
1	Dr. Md. Abdul Mueyed	Director	Field Service Wing DAE, Dhaka	muyeedbd61@gmgma.com - 01716940311
2	Dr. Muhammad Math hurul Haque	Ex. Director General	NATA	mathhuq@gmail.com 01714688233
3	Dr. Moinus Salam	Consultant	CYMMIT	01855871938
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6	Dr. Rina Rani Saha	CSO & Head, Agronomy Division	BARI	saharinarani@yahoo.com 01718118906
7	Dr. Samsunaher	CSO, Horticulture Division	BARI	Nahar321@yahoo.com 01674876252
8	Dr. Apurba kanti Chudury	CSO, Seed Technology Division	BARI	Apurba.chowdhury@gmail.com 01819128302
9	Dr. Umme Aminun Naher	PSO, Soil Science Division	BARI	naher39@gmail.com 01712996391
10	Dr. Habib Mohammad Naser	PSO	BARI, Gazipur	nasemh2@yahoo.com 01750446207
11	Dr. Ranjit Sen,	SSO, Soil Science Division	BARI	Senranjitbd@yahoo.com 01726261815

12	Dr. Muhammad Arshadul hoque	SSO	BARI	arshadulfmpe@gmail.com Mobile: 1712635503
13	Dr. Abdul Matin,	SSO, Farm Mechinary Division	BARI	amatintaj@yahoo.com 01777131518
14	Dr. AkhlasUddin	Deputy Director	NATA	akhlas.uddin@yahoo.com 01716257354
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	Dr. Md. Mayen Uddin Deputy Director (Food Technology)	01711-969688 mayen.dae85@yahoo.com
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	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

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