Proceedings on

Biochar for food security, livelihood and combating climate change

July 2018

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Executive summary

The seminar is intended to have discussion on the perspective and the present status of the project supported by Kerk in the Actie and ICCO-Cooperation Bangladesh entitling, “Improving livelihood, food security and reducing carbon emission through Biochar initiative”. The project being is implemented by Christian Commission for Development in Bangladesh (CCDB). Bangladesh Biochar Initiative- BBI, (www.biochar-bangladesh.org) and CCDB are the pioneers of TLUD-Biochar technology in Bangladesh. Under this project a good number of activities have been undertaken in three different locations in Bangladesh (Shivalaya, Manikgang; Manda, Naogaon; and Nawabgaganj, Dinajpur). Under the auspices of the project, Akha Chula, an agriculturally friendly low-cost cooking stove, has been distributed to the rural women in the project locations, which produces Biochar as a residue after cooking. Biochar, a kind of charcoal, helps to maintaining the necessary plant nutrients and makes available soil water by improving soil’s physical structure in the farm land. Five research papers prepared by research fellows of leading agriculture universities in Bangladesh and also from public sector agriculture research institutions were presented in the seminar primarily focused on the efficacy Biochar in crop production. A panel of experts comprised of Bangladeshi and international scholars took part in the discussion on the presented papers. Later Professor Dr. Julian P. Winter, the pioneer of Bangladesh Biochar Initiative took part in the discussion through a Skype call from Canada.

INTTODUCTION & BACKGROUND

Christian Commission for Development in Bangladesh (CCDB) is a Bangladeshi non-governmental organization founded in 1972. Since incpetion CCDB has been promoting people centered development inititives which are primarily focused on reduting ptovery and empowerment of the marginalized swections in the community. CCDB always been undetaking initiatives that addresess contemporary development issues that affect the pooer section of the population in its working areas.Keeping this end in view CCDB has been implemeting a project entitled *Improving livelihood, food security and reducing carbon emission through Biochar initiative* supported by Kerk in Actie and ICCO- Cooperation Bangladesh. The aim of the project was to produce Biochar as residue from a cook stove that burns traditional biomass traditionally used in the households. Biochar on the one hand improve soil fertility and generates additional income for the household. The project is being implemented in three different locations in Bangladesh. Under this project four of the Agriculture universities, Research Institutions in Bangladesh have signed MoU, Agreements to conduct research studies on the effect of Biochar in farmlands.

On 14 July 2018 a seminar was organized at the BARC Conference Room in Dhaka to disseminate the results of the research studies in presence of high level government officials, academics, leading Agriculture scientists of Bangladesh, and representatives of the development community.

Key Terminologies

What is Biochar?

Biochar is defined as carbonized biomass obtained from sustainable sources and sequestered in soils to sustainably enhance their agricultural and environmental value under present and future management. This distinguishes it from charcoal that is used as fuel for heat, as a filter, as a reductant in iron-making or as a colouring agent in industry or art.

What is Akha Chula?

The Akha is a wood-burning cook stove developed by the Bangladesh Biochar Initiative. It is clean-burning, fuel-efficient, and produces a constant heat without stoking. However, what really sets the Akha apart from other biomass cook stoves its ability to make char at the same time as cooking. Producing char maximizes the utility of the wood because we can get more energy if we burn the char as charcoal, or we can increase agricultural productivity if we use the char as Biochar. The Akha is the only sustainable way of generating practical quantities of Biochar for households.

Why is Biochar a soil conditioner?

Adding a soil amendment, also called a soil conditioner, helps improve plant growth and plant health. Biochar is a specialized form of charcoal suitable for use in the soil. Biochar is extremely porous which allows it to retain nutrients and water- which plant roots can access when the Biochar is added to the soil. It decomposes very slowly in the soil. The composting of Biochar that creates a thin carbon-coating that gives it its miraculous fertilizing properties. The organic coating enhances the Biochar's ability to store nutrients, such as nitrates and phosphates, and it strengthens interactions between Biochar and the soil leading to the slow release of nutrients.

OBJECTIVES

The seminar was organized keeping these three issues in mind-

- Dissemination of study findings and Knowledge generation on Biochar.
- Validating the feasibility of commercial Biochar production and application in Bangladesh.
- Recommendation on further research and development of Biochar technology.

Opening Session:

Session chair: Joyanta Adhikari, Executive Director, CCDB.

Welcome speech: David Hilton, Associate Director of CCDB (Christian Commission for Development in Bangladesh), greeted everyone with a warm welcome and delivered his welcome note on Biochar knowledge dissemination. He expected that Biochar would play a vital role in the reduction Carbon dioxide emission as well as in poverty reduction. He opined that in the long term it would enhance food security, livelihood along with its contribution to face the challenge of climate change.

Presentation on Biochar and CCDB's activity: Mahbubul Islam, Development Policy Advisor and Team Leader of Biochar Project, started his presentation with a short video clip aired in the popular TV Channel ATN Bangla. The video clip showed how Biochar user groups were using Akha Chula and got used to it in harvesting Biochar. He appreciated the presence of academic scholars, researchers, high level government officials and representatives from development community for making it convenient to attend the seminar. He also expressed his optimism that the seminar would be able to generate knowledge on Biochar nationally and the audience would be able to extend their knowledge on Biochar and its effect on agriculture from the papers to be presented and discussion by the professionals.

He mentioned that **Improving livelihood, food security and reducing carbon emission through Biochar initiative** is a project supported by Kerk in Actie and ICCO- Cooperation Bangladesh. CCDB was founded in 1972 and immediately worked natural catastrophe in 1970. Since inception, rehabilitation, community and participatory human resource development, comprehensive poverty reduction programs were its focus.

Biochar was first introduced in Bangladesh back in 2013 by CCDB through its Biochar initiatives. Dr. Julien P. Winter had foreseen the high potentiality of Biochar reviewing the large rural population of Bangladesh. He demonstrated the procedure of making Biochar as a by-product of cooking through Pyrolysis method and designed Akha Chula. Institute of Energy, University of Dhaka tested the performance Akha Chula and found it as a good enough tool to produce Biochar at household level. Akha was made of all locally available raw materials and with little training and orientation small entrepreneurs could easily make Akha Chula for wider use beyond the project area, he added. Akha Chula uses biomass as fuel and leaves raw Biochar as residue which is eventually cooled down and crushed for further use in farm land.

As mentioned, Biochar is the byproduct of Akha Chula, burnt in more than 350˚C in presence of minimum or no oxygen. Sher-e-Bangla Agriculture University, Bangladesh Agriculture University and Hajee Mohammad Danesh Science & Technology University have extended their cooperation in conducting further research on Effect of Biochar in crop productivity and soil fertility in their respective experimental firms. Biochar is being used globally though new in Bangladesh. These research projects would certainly generate empirical evidence for wider audience including government and development community. From a research conducted in HDUST, it was observed that rice production has increased by76% and a BSMRU research showed tomato production increased by 35%.

This technology increases carbon sequestration and reduces carbon dioxide emission. An international expert Johannas Lehmann calculated that it could realistically fix 9.5 billion tons of carbon per year.

Dr. Julien P. Winter developed the first basic principal of TLUD-Biochar ecosystem. Dr. Jugesh Vig and Dr. Sanaul Mustafa were his successors to introduce Biochar in Bangladesh. The current project is extended work done earlier by them and nowadays showing high potential in the project areas. Mr. Islam presented evidences that Biochar production is directly contributing to 14 of the sustainable development goals.

He clarified the Pyrolysis method of Akha Chula through a video clip. He finished his presentation saying “we will not remain more than hundred years, but Biochar will remain in the soil for thousand years.”

Speech from ICCO Cooperative: Tessa Schmelzer, Country Representative, ICCO Cooperation thanked the organizers for inviting her to this august seminar. She threw a question towards all the participants, “Why did she get involved with Biochar?” She has been observing the soil organic matter is decreasing due to abusive use. Years of soil’s exhaustive usage, it is not sustainable anymore.

On contrary, Biochar usage results in biomass increment. Few studies show that Biochar has increased crop production and women empowerment as well as decreased fertilizer usage. She was happier to observe the multifaceted technology in Africa. She ended her short speech in appreciating Biochar as “one tech with many solutions.”

There are two sessions in this seminar- Opening session and Business session. The business session includes paper presentation and Discussion on presented papers with an open forum for comments and observation from the audience.

It requires collaboration among experts and academicians in order to gather a tremendous experience to develop economically and socially. Although Biochar being quite a familiar object, people in general, do not know the effective use of it. CCDB connect these two dots by disseminating the Biochar technology in

collaboration with ICCO. Under Dr. Julien P. Winter, a team of experts was appointed to develop rural people's livelihood and soil fertility.

The main reason behind producing Biochar on large scale is, level of organic matter content in Bangladeshi soil is alarmingly low for sustainable food production. So, to produce Biochar, Akha Chula is introduced incorporating Pyrolysis technology. This technology is considered for its low-cost and lesser resource requirement which makes it available. It was tested in the renewable energy Department of Dhaka University. It is a convenient technology for the rural environment. Akha Chula produces Biochar through pyrolysis in presence of minimal oxygen maintaining temperature between 330- 400°C in the lower range 700- 800°C in the upper.

Speech from SREDA: Salima Jahan, Joint Secretary, Renewable Energy, SERDA, Ministry of Power, Energy, and Mineral Resources, Government of Bangladesh, shared her experience visiting the project sites few days ago. She was surprised to observe the result of Akha Chula in improving soil health in the farm land. She believed that it would ensure energy security as a source of renewable energy in the society.

People of all walks of life would enjoy renewables by the household energy project in Bangladesh ventured by CCDB and the Energy Division had been pursuing lately. She expected that Shivalaya in Manikganj could likely to be played as the role model for the project future initiatives.

She appealed to the media and social society to come forward to enlighten people on Biochar technology. She wished all success to the project.

Speech from Embassy of the Kingdom of Netherlands: Peter de Vries, Thematic Expert Water Management, Embassy of the Kingdom of Netherlands, highly appreciated the wide range of project partners. He believed that the involvement of comprehensive knowledge would not only make it sustainable but also increase knowledge dimension. The Netherlands had been a long time partner with Bangladesh. During 1980's to 90's, the Dutch worked with government in water resource management sector, and later many other development partners undertook such initiatives in Bangladesh.

He cherished long-term partnership among the government, universities, and NGOs in the promotion of the use Biochar in Bangladesh. He mentioned that Biochar could also contribute to reducing gender discrimination by renewable energy and combating climate change.

He ended his speech by wishing the vibrant relationship between Netherlands and Bangladesh to go longer.

Speech from the chief guest: Dr. Md. Kabir Ikramul Haque, the Executive Chairman, Bangladesh Agricultural Research Council (BARC) was present as the chief guest of the seminar. He underscored more innovations more scientific research on Biochar and publishing research results in Bangla so that the knowledge became available to common people. Biochar's soil nourishment characteristic was analogous to the food supplement like a vitamin for the soil because it adds up in the total soil biomass, he added.

Speech from the session chair: Joyanta Adhikari, Executive Director, CCDB, chaired the session. He felt honored to represent CCDB in the seminar. CCDB, an NGO that works for food security, disaster management and climate change with assistance from international development partners. He informed the audience that the forest area was alarmingly reducing and so as the organic matter content in the soil. It was observed that the degradation of the soil's carbon component actually causing soil infertility. Unfortunately, the technologies to resolve this issue were still confined to the laboratories. Hardly some of these reached to the field level.

Akha Chula being the fortunate one, as it was under trial in the rural areas. It's a cheaper stove with high efficiency. It could be manufactured by the small enterprises. Adopting Akha Chula, is a personal decision can have impact globally, he mentioned. Within the limited resources, the rural women would be able to fight climate change by reducing carbon dioxide emission. He concluded the session by thanking the audience for their kind attendance and seeks cooperation from all to popularize Biochar for agriculture in Bangladesh.

Business Session

Speech from the Session Chair: Dr. Md. Abdus Satter, Member Director, BARC, chaired the session and moderated the business session for the day.

Presentation of Papers

First Paper: **Momtahina Hasnat**, Department of Soil Science, Bangabandhu Sheikh Mujibur Rahman Agricultural University, presented her paper entitled *Role of Nitrogen fertilizer on mineralization of organic materials*. She found that carbon in soils decreased with the advancement of incubation periods and higher

nitrogen rates. Nitrate and ammonium nitrogen were higher in the soils at 60-90 incubation in higher nitrogen rates. In her research, she found that Biochar from rice husk, eucalyptus tree, rice straw, vermin-compost, maize leaf as the important sources of soil amendment.

Second Paper: **Mojammel Haque and Monjur Morshed Udoy**, Department of Soil Science, Bangabandhu Sheikh Mujibur Rahman Agricultural University, presented their paper entitled *Impact of Biochar on soil fertility and crop production in Shibalaya Upazilla of Manikganj District*. They found that around 90% of their respondents had positive perception on yield increment, better taste, improve crop color, increased market price, and soil health through application of Biochar in farm soil. They also found that eggplant, tomato, cauliflower and chilli provided the highest yields of 67, 74, 42 and 4.5 ton per hectare when Biochar was applied at 5 tons/hectare.

Third Paper: Associate Professor Dr. **Abul Hasnat M Solaiman**, Department of Horticulture, Sher-e-Bangla Agricultural University, presented the paper entitled *The impact of Biochar application on vegetables and soil properties.* Dr Hasnat supervised this research done Masters student Nabila Hasan, Department of Horticulture, Sher-e-Bangla Agricultural University. It was found that rice and wheat Biochar potentially increased the yield of Chinese cabbage, lettuce, and carrot.

Fourth Paper: **Md. Khairul Alam**, Scientific Officer, Soil Science Department, Bangladesh Agricultural Research Institute (BARI) presented the paper entitled *Potentiality of Biochar to enhance productivity of tomato cultivated under deficit irrigation*. The research was conducted by three Scientific Officers from BARI including K. Faisal Ibn Murad, Md. Khairul Alam, and Ashfaq Ahmed Sabuz. They found that Biochar significantly improved different growth attributes of tomato which in consequence increased the yield even in deficit irrigation condition. It also resulted in comparatively better soil-water content, hetero-tropic respiration available nitrogen status increment.

Fifth Paper: **Dr. M M Masud**, SSO, Soil Science Division, BARI, presented his paper entitled *Biochar: production and impact on acidic soil*. He found that Biochar was more alkaline than other composts and it stabilizes the soil pH after 3 months. Application of Biochar showed increased plant growth parameters as Biochar did reduce exchangeable acidity, increased soil pH of acidic soils, and inherently contains significant amounts of plant nutrients such as Potassium, Sulphur and Nitrogen. He also found that chemical fertilizer and mixed wood Biochar at the rate of 20 gram per kg soil resulted in maximum yield in Shivalaya, Manda and Daudpur.

Open Forum for Participants: After the presentation the panel discussants offered their observation and comments on the papers presented. The discussion panel included-

- Dr. Alok Kumar Paul, Professor, Department of Soil Science, Sher-e-Bangla Agriculture University.
- Dr. Md. Mizanur Rahman, Professor, Department of Soil Science, Bangabandhu Sheikh Mujibur Rahman Agricultural University
- Md. Abul Kalam Azad, Head of Programs, KiA / ICCO Cooperation
- Dr. Craig Meisner, Senior Fellow IFPRI
- Ivory Hackett-Evans, ICCO







From left (first row): Professor Alok Kumar Paul (SAU); Dr Craig Meisner (IFPRI); Dr. S.M. Nafis Shams(DU); (second row) Dr S. M Bakhtiar, Director, BARC); Professor Mizanur Rahman (BSMRAU); Abul Kalam Azad (ICCO); and (third row) Dr Akram Hossain Choudhury (DAE); Ivory Hackett-Evans (ICCO)

Key messages from Panel Discussants

- The experts considered that the papers had too wide objectives lacking in case study in the first paper presentation. There was a subtle gap in between literature reviewing and output results.
- Experts argued on the high Biochar application (10 tons per hectare) described in the fifth paper presentation was too high and would be expensive.
- There was some misconception on rural farmer's data which requires reconsideration. They observed that required amount of Biochar application in the research and amount of product per household were not substantiated by data.
- Excessive amount of information comprising made a vague concept of Biochar in the third paper resulting in contradictory title with the content.
- There was need for strong political recognition of the benefits of Biochar reflected in harmonized national to local agriculture management policies, planning, legislation and budgeting at national to local levels.

The session chair then opened the floor for comments and observation from the audience. Due to time constraints the session chair only received ten comments from the audience. They mostly represented the Universities, development community, agricultural researchers etc. They all appreciated CCDB for organizing such an important seminar and enriching them with new technology. However they asked rigorous feasibility study on the usability of Biochar in Bangladesh, dissemination of knowledge on Biochar more widely. A few of them suggested large-scale Biochar production as they had doubt about long-term sustainability of household level Biochar production though they did not have any confusion about the effect of Biochar.

Skype Call: Prof. Dr. Julien P. Winter, Mentor Bangladesh Biochar Initiatives – BBI, joined the seminar virtually over a skype call. He considers that Bangladeshi research on Biochar is very unique in the world and it needs to be encouraged. BBI has specially designed Cook stove for Bangladeshi rural people to use biomass as fuels and produce Biochar which will enhance their food production. It could enter into the carbon sequestration cycle if implemented properly.

The particularly designed stove, Akha Chula, is very promising in the context of the country. He expressed high hopes Bangladeshi rural people would be benefited from using Akha Chula.

Vote of Thanks: Imran Kibria, Head of M & E of CCDB, was highly optimistic about the prospective future of Biochar. He thanked the Chief Guest, respective session chairs, the experts and professionals, the members of the panel in the session, and all the participants for their attendance and supporting the cause CCDB had been pursuing for years in Bangladesh.

Seminar

Biochar for Food Security, Livelihoods and Combating Climate Change

Date: 14 July 2018 Venue: BARC Conference Room, Farm Gate, Dhaka

Program Schedule

Time	Descriptions	Remarks
9.30 - 10.00	**Registration and welcome tea**	
10.00- 11.00	**Opening Session** **Session Chair:** Joyanta Adhikari, Executive Director, CCDB	
	- Address of Welcome by David Hilton, Associate Director, CCDB - Brief presentation on Biochar and CCDB's activities – Mahbubul Islam, Development Policy Advisor & Team Leader Biochar Project - Tessa Schmelzer, Country Representative, ICCO Cooperation - Salima Jahan, Joint Secretary, Renewable Energy, SREDA , Ministry of Power, Energy, and Mineral Resources, Government of Bangladesh - Peter de Vries, Thematic Expert Water Management, Embassy of the Kingdom of The Netherlands - **Chief Guest:** Dr. Md. Kabir Ikramul Haque, Executive Chairman, BARC	
11.00- 11.20	TEA BRAK	
	Business Session **Session Chair:** **Dr. Md. Abdus Satter**, Member Director, BARC	
11.20- 12.10	***Presentation of papers*** • Role of Nitrogen Fertilizer on Mineralization of Organic Materials; BSMRAU • Impact of Biochar on Soil Fertility and Crop Productivity in Shibalaya Upazilla of Manikganj District, BSMRAU • Efficacy of Vermicompost and Biochar on the growth and yield of Green Cabbage; SAU • Potentiality of Biochar to enhance productivity of Tomato cultivated under Deficit Irrigation, BARI • Biochar: Production and impact on acidic soil, BARI	
12.10- 12.40	**Open forum for participants**	
12.40- 13.30	***Discussion on presented papers by Experts*** • Dr. Alok Kumar Paul, Professor, Dept. of Soil Science, SAU • Dr Md. Mizanur Rahman, Professor, Soil Science, BSMRAU • Md. Abul Kalam Azad, Head of Programs, KiA/ICCO Cooperation • Dr Craig Meisner, Senior Fellow IFPRI • Ivory Hackett-Evans, Emergency Response Manager, ICCO Cooperation	
	Skype with Prof. Dr. Julien P. Winter, Canada, Mentor Bangladesh Biochar Initiative –BBI (www.biochar-bangladesh.org) (subject to connectivity in internet during 12.00-13.30pm)	
13.30 – 13.35	Vote of Thanks: Imran Kibria, Head of M&E, CCDB	
13.45	Break, Akha Demonstration and Lunch	

Participants list
Seminar on Biochar for food security, livelihood and combating climate change

Sl	Name	Organization
1	Prof. Dr. Md. Mizanur Rahaman	Bangladesh Agricultural University.
2	Md. Ashrafuzzaman khan	CCDB
3	Dr. Nilufer Hye Karim	RIB
4	Dr. Md. Khairul Bashar	Harvest plus
5	Dr. Md. Masuduzzaman Masud	BARI
6	Dr. Shaakeel Hasan	Water wits, Netherlands
7	Dr. Muhammad Arshadul Hoque	BARI
8	Md. Khairul Alam	BARI
9	Shamiran Biswas	CCDB
10	Joyanta. Adhikari	CCDB
11	Prf. Dr. Alok Kumar Paul	SAU
12	Peter de Vries	EKN (Embassy of Royal Netherlands)
13	Dr. Abul Hasnat M Solaiman	SAU
14	Dr. Md. Ziauddin Kamal	BSMRAU
15	Md. Dhin Islam	BSMRAU
16	Rakibul Hasan Shuvo	ICRC, PO
17	Imran Kibria	CCDB
18	Dr. Umme Aminun Naher	BARI
19	Dr. Md. Rafiqul Islam	BARI
20	Gerad Hendriksen	GIZ
21	Ajit kumar Paul	DPD, Dept. of Fisheries
22	AKM Khusru Amin	WARPO
23	Dr. Sohela Akhter	BARI
24	Dr. Gazi Md. Akram Hossain	BSRI
25	Dr. Craig Meisner	IFPRI
26	Mahbubul Islam	CCDB
27	David Hilton	CCDB
28	Dr. S.M. Bokhtiar	BARC
29	Dr. AKM Saifullah	Consultant
30	Dr. M.A. Satter	BARC
31	Dr. Md. Ilias Hossain	BARI
32	Md. Ehtasham Bari	BARC
33	Dr. Md. Abdul Motalib	DOE
34	Dr. Anil K. Das	FAO
35	Dr. Md. Akram Hossain Chowdhury	DAE
36	Martin Mondol	ICCO
37	Engr. Mushfiqu Rahaman	Safain Trade Int.
38	Md. Anit Hossain	SAU
39	Subrata Banerjee	CCDB
40	Syed Quamrul Hossain	UST
41	Md. Zillur Rahaman	HKI
42	Dr. Md. Ashraf Hossain	BARI
43	Dr. Ranjit Sen	BARI
44	Dr. Humayun Kabir	BAU
45	Roman Ryndin	UPM
46	Dr. GNM Elias	UPM
47	Dr. Nazmus Salshin	BARI
48	Alok Barmon	BARI
49	Salima Jahan	SAEDA

50	Tessa Schmelzer	ICCO
51	Ivory Hackett-Evans	ICCO
52	Bianca Schmelzer	ICCO
53	A.N.M. Zobayer	GIZ
54	Shafiqur Rahaman	CCDB
55	Nashir Uddin Mahmud	BARI
56	Dr. Md. Saiful Alam	BAMRAU
57	Momtahina Hasnat	Student, BSMRAU
58	Dr. Md. Mahfuz Bazzaz	BARI
59	Suranjana Mahjabin	SAU
60	Rekha Bhaumik	SAU
61	Monjur Morshed	BSMRAU
62	Mojammel Haque	BSMRAU
63	Tasmina Fardous	HSTU
64	ABM Anwar Uddin	BRRI
65	Dr. Masud Iqbal	BRRI
66	Md. Abul Kalam Azad	ICCO
67	Md. Abu Sufian	CCDB
68	Md. Monjurul Islam	CCDB
69	Md. Shafiul Azam	Agri life 24.com
70	Md. Atikul Islam Tushar	Agri life 24.com
71	Munirul Islam	IRW
72	Nilufar Naznin	Social worker
73	Dr. S.M. Nasif Shams	IE
73	Md. Al-Amin	CCDB
74	Md. Milon Hossain	CCDB
75	Istefan Hembram	CCDB
76	Andrious Kisku	CCDB
77	Krisna Rani	CCDB
78	Shefali Mardi	CCDB
79	Dipali Sarkar	CCDB
80	Addlina Richel	CCDB
81	Krisn Kumar Singha	CCDB

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CCDB seminar held

Staff Reporter

The Christian Commission for Development in Bangladesh (CCDB) on Saturday organized a seminar on 'Biochar for Food Security, Livelihoods and Combating Climate Change held in BARC Conference Hall in Dhaka.

Joyanta Adhikari, Executive Director of CCDB, chaired the seminar while Mahbubul Islam, Development Policy Advisor of CCDB presented the keynote paper, said a press release.

Tessa Schmelzer, Country Representative of ICCO Cooperation, Salima Jahan, Joint Secretary of the Ministry of Power, Energy & Mineral Resources, Peter de Vries, Thematic Expert, Water Management, Netherlands Embassy in Dhaka, Md. Kabir Ikramul Haque, Executive Chairman of BARC, Dr. Md. Abdus Satter, Member Director of BARC, Dr Alok Kumar Paul, Professor, Dept of Soil Science of SAU, Dr Md. Mizanur Rahman, Professor, Soil Science of BSMRAU, Md. Abul Kalam Azad, Head-Programme of KiA/ICCO, Dr Craig Meisner, Senior Fellow of IFPRI, Ivory Hackett-Evans, Emergency Response Manager of ICCO Cooperation were present, among others, at the seminar.

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CCDB organized a Seminar on Biochar in Dhaka

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http://agrilife24.com/2018/index.php/2018-03-19-12-26-20/390-ccdb-organized-a-seminar-on-biochar-in-dhaka

Agrilife24.com: Christian Commission for Development in Bangladesh (CCDB), one of the national development organizations in Bangladesh, has organized a Half-day Seminar on Biochar for Food Security, Livelihoods and Combating Climate Change at BARC Conference Hall, Farm Gate, Dhaka on Saturday 14 July.

The seminar is being organized under an innovative and people centered project entitled Improving Livelihood, Food Security, and Reducing Carbon Emission through Biochar Initiative supported by Dutch organization ICCO Cooperation and Kerkin Actie. The project aims at enhancing livelihood, and food security at the household level, and reduces carbon emission. The project has been promoting an eco-friendly gasifier cook stove that produced Biochar which has been used to improve soil fertility globally for years.

The project has been receiving technical guidance from a number of universities including Bangladesh Agriculture University, Mymensing, Sher-E-Bangla Agriculture University, Dhaka, Bangabandhu Sheikh Mujibur Rahman Agriculture University, Gazipur, Haji Danesh Science and Technology University, Dinajpur, and other national agricultural research institutions like BARI, SRDI, BJRI, WRC in Bangladesh.

The researchers from these academic and research institutes have conducted a good number of research studies on Biochar, its use and effect in soil and crop production. Some of these scientific papers will be presented in the Seminar in presence of dignified agricultural scientist of Bangladesh and some of the international experts.

In this Seminar there were present Mr. Joyanta Adhikari, Executive Director as Session Chairman; Mr. Mahbubul Islam, Development Policy Advisor & Team Leader, Biochar Project, CCDB, brief presentation on Biochar; Ms Tessa Schmelzer, Country Representative, ICCO Cooperation; Ms Salima Jahan, Joint Secretary, Renewable Energy, SREDA, Ministry of Power, Energy & Mineral Resources, Government of Bangladesh; Mr. Peter de Vries, Thematic Expert, Water Management, Netherlands Embassy; Dr. Md. Kabir Ikramul Haque, Executive Chairman, BARC; Dr. Md. Abdus Satter, Member Director, BARC as the Session Chairman; Dr. Alok Kumar Paul, Professor, Dept. of Soil Science, SAU; Dr. Md. Mizanur Rahman, Professor, Soil Science, BSMRAU; Md. Abul Kalam Azad, Head-Program, KIA/ICCO; Dr. Craig Meisner, Senior Fellow, IFPRI; Ivory Hackett-Evans, Emergency Response Manager, ICCO Cooperation. Skype with Prof. Dr. Julen P. Winter, Canada, Mentor Bangladesh Biochar Initiative; vote of thanks, Mr. Imran Kibria, Head-PME, CCDB.