### **About** Cooch Behar Association of Cultivation of Agricultural Sciences (COBACAS)

COBACAS, UBKV Pundibari was registered on 1st February, 2013 under the West Bengal Society Registration Act, 1961 with a mission to promote, disseminate and mutual exchange of scientific information of Agricultural Science among the scientific diaspora and stakeholders. The official publication of the society is Journal of Agriculture and Technology published biannually through its website cobacas.org.in.

### **About** Uttar Banga Krishi Viswavidyalaya, Pundibari

The "Uttar Banga Krishi Viswavidyalaya" was established by West Bengal Act XX of 2000 and started functioning from 1st February, 2001. The Head Quarter is situated at Pundibari, a rural block in the district of Cooch Behar (with 43 m MSL) which is 13 KM away from the district headquarters. The University offers undergraduate courses in Agriculture, Horticulture and Technology (Agril. Engineering); postgraduate courses in Agriculture and Horticulture in Agriculture, Horticulture and Forestry. The nearest railway station is New Cooch Behar, which lies in between Kolkata and Guwahati train route. It is 15 Km from Pundibari and 11Km from Cooch Behar town. It is situated by the side of the national highway (NH 31) which leads from Cooch Behar to Siliguri. The nearest airport is Bagdogra which is 150 KM away from the University headquarters.





# <u>Theme</u>

Climate Smart Farming through Natural Farming for Ensuring Land Degradation Neutrality and Zero Hunger: Health, Wealth and Sustainability

# Organized by

Cooch Behar Association for Cultivation of Agricultural Sciences, UBKV, Pundibari

# In association with

Uttar Banga Krishi Viswavidyalaya Pundibari- 736 165, District Cooch Behar, West Bengal, India

#### **Contact Us**

Dr. Sumit Chakravarty c.drsumit@gmail.com; +91 94340 82687, +91 82502 79926 (WhatsApp) Dr. Saikat Das (for transportation and accommodation) saikat.ubkv@gmail.com; +91 7001766745 National Conference on

Nature-based Solution for Achieving Sustainable Development Goals (NbSSDG)

March, 5-6, 2024

Uttar Banga Krishi Viswavidyalaya Pundibari- 736 165, District Cooch Behar, West Bengal, India



#### About Cooch Behar

Cooch Behar district is located in the northeastern part of West Bengal bordering Assam and Bangladesh. Cooch Behar town, the head quarter of the district which is mainly famous for the Kochbihar Palace, noted for its elegance and grandeur. Idealized from the concept of classical European style of Italian Renaissance, this magnificent palace was built by the famous Koch king Maharaja Nripendra Narayan in 1887. Another attraction is the Madan Mohan Temple situated in the heart of the Cooch Behar town; constructed by Maharaja Nripendra Narayan during 1885 to 1889. Sagardighi, the huge tank situated in the middle of Cooch Behar Town is also a tourist attraction. It is a popular rendezvous in the evening surrounded by heritage buildings. Rasikbil, Kholta Ecotourism Spot, Rajpat Mound, Chilapatta Reserve Forest, Gorumara National Park and Jaldapara Wildlife Sanctuary are popular tourist destinations nearby and can be visited within a day from Cooch Behar. Dooars, Bhutan, Darjeeling or Gangtok can also be approached from here requiring three days.



# Background

Climate change is a global concern now because it can potentially restrict the achievement of Millennium Development Goals. Climate change and variability will have serious implications on livelihoods of people particularly the poor and marginalized communities because of their dependency on natural resources for livelihood, lack of accessibility to other resources and low resiliency. IUCN's Nature-based Solutions (NbS) aims to prioritize ecosystem conservation and sustainability, ensuring regularizing its services for overall human well-being. Land degradation and biodiversity loss due to land use changes mainly through agriculture has resulted in increased concentration of atmospheric carbon dioxide. Consequently, this will have serious implications on the livelihoods of those who exclusively depend on the biodiversity resources for livelihood. One of the greatest challenges today is therefore to achieve optimum productivity without losing diversity of components and functions of these systems. Hence, addressing the global problem of reversing plant diversity in agricultural landscapes requires multiple innovative ways of NbS. Diverse Natural Farming Systems are practiced traditionally across the globe which are lifelines for its inhabitants. These farming are sustainable land management systems that provide many ecosystem services like soil conservation and many other livelihood benefits.

When human beings are enjoying a multitude of benefits from the prosperity achieved through economic development and scientific advances, serious crises of environment and food safety have closed up to us. The rapid deterioration of both the natural environment and agricultural products has become a matter of great concern for many people in the world. Concern is expressed whether the supply of such natural resources as agricultural land, forests, minerals, and outdoor recreational areas will continue to meet the growing world population.

Recently organic agriculture has received more attention all over the world. In addition to organic agriculture, nature farming is also slowly gaining a foothold. Natural Farming is a chemical-free alternative to traditional farming methods. It is considered as an agro ecology based diversified farming system which integrates crops, trees and livestock with functional biodiversity. The four pillars of natural farming are Jivamrita & Ghanjivamrita, Bijamrita, mulching and use of botanicals for plant protection and Wahpsa. This includes coating of seeds with formulations prepared by using cow dung and cow urine. Bijamrita coating on seeds protects them from various fungal and other soil borne diseases. Jivamrita is mainly a mixture of cow dung and cow urine. Few other elements added to this mixture are jiggery, pulse flour and uncontaminated soil. This solution turns into a fermented microbial culture which when applied to soil it adds nutrients to soil and enhances microbial activities and nutrient availability to plants. The process of mulching also helps in weed suppression. The mulch contributes to soil humus formation and increases its fertility. Wahpsa is a method to aerate soil through a favorable microclimate and aeration of soil is necessary for plant growth and development.

Rural women are torchbearers for social, economic and environment transformation for the 'New India'. In India, Agriculture employs about 80 % of rural women. Empowering and mainstreaming rural women workforce in agriculture can bring paradigm shift towards economic growth. It will enhance food and nutrition security and alleviate poverty and hunger. It's a win-win strategy for achieving Sustainable Development Goals by 2030. India is promulgating mission of warranting women as "Empowered women- Empowered Nation".

The purpose of this National Seminar is to review and discuss the history, philosophy, principles and perspectives of nature farming to provide a better understanding of this environmentally sound agriculture system to achieve Sustainable Developments Goals (SDGs) i.e., Land Degradation Neutrality (LDN) and Zero Hunger (ZH) for health, wealth and sustainability. Unfortunately, little research has been done on the aspect till date and thus information available on this farming approach is also scanty. Considering the pivotal role of Nature Farming towards Nature-based solution for achieving United Nations Sustainable Development Goals, the present conference will be an endeavour to bring together all the stakeholders in one platform to share and exchange their research experiences, exchange knowledge, discuss issues, ideas and views, share innovations and network for the development of Nature Farming practices. This gathering will also help traditional communities and researchers to collaborate for generating more information on this farming system. Further it aims to highlightthe crucial role of ecosystem services towards livelihood and thus is an attempt to relate global millennium goals in order to achieve sustainable development. The Cooch Behar Association for Cultivation of Agricultural Sciences (COBACAS) in association with Uttar Banga Krishi Viswavidyalaya, Pundibari through this National Conference will also highlight the impact of climate change on the bio-resources and discuss ways to enhance participation of all stakeholders or the community at large to improve their management for ecosystem sustenance and livelihood.

### Climate

The winter season starts by mid-November and lasts till the end of February. The lowest and highest temperatures recorded as 3.9 °C and 39.9 °C, respectively during winter. So, the delegates are suggested to bring sufficient warm clothes.

#### Tour

Tours for the above spots can be arranged on demand. How to reach UBKV, Pundibari?

Delegates may reach either New Delhi or Kolkata, then to Bagdogra airport, Siliguri (West Bengal, India). Pre-paid taxis are available at the Bagdogra airport which will drop you to UBKV Pundibari. Delegates may also travel by train to New Cooch Behar. Transportation to and from New Cooch Behar Railway station will be arranged by the organizers with prior information.

#### **Registration, Fees and Accommodation**

Application for registration and awards in the given format along with the stipulated registration fees, and sponsoring charges can be directly transferred to the society (Acc. Name Cooch Behar Association for Cultivation of Agricultural Sce at account No. 33026323337, bank name State bank of India, UBKV, Pundibari IFSC Code: SBIN0018606 and MICR code 736002527 and send the electronic receipt copy along with the registration form. Registration fees include conference kit, and fooding. Accompanying person will not get conference kit.

The organizers will not be responsible for accommodation but can arrange after payment of requisite advance hotel charges in advance. Many hotels are available in Cooch Behar town and one in the vicinity of the university campus at a tariff rate of INR₹ 1500-6000.

# **Sub-themes**

#### Sustainable Development Goals:

Land, water and air degradation neutrality; Health, Wealth and Wellbeing- no poverty nutritional security, zero hunger, quality education for all, gender equality, clean water and sanitation, clean energy for all; responsible consumption and production- zero wastage, reuse and recycle; climate action; peace, justice and responsible institution and partnership.

# Climate Smart Farming and natural resource management:

Zero-budget natural farming, organic farming, agro forestry, farm forestry, food forestry, zero-tillage, low tillage, low-energy input agriculture, vertical farming, soil-less agriculture.

#### **Genetic Resources:**

Plant and animals from land and water (farm animals, honey bees, mushrooms, fish, oysters, shrimps, timber and NTFPs), traditional varieties, land races, farmer's variety, plant-based pharmaceuticals, nutraceuticals, super foods, traditional foods and cuisine, ethno botanical exploration, traditional knowledge, documentation and utilization.

#### Management:

Biodiversity, conservation, propagation, nursery management, genetic improvement and biotechnology, crop production, protection, harvest, utilization, household to industrial, post-COVID potential, value addition, marketing.

#### Entrepreneurship development:

Start-ups, empowerment, financial institutions, policy platform and grower- industry-stakeholders interface, SHGs

#### Modern technology:

Artificial intelligence, computer-of-things, drones, remote sensing

#### Women growth in Agriculture sector:

Empowering women small holders, knowledge and skill enhancement, capacity building of farm women, protecting women's health- nutrition garden establishment, stimulation programme for mental, social and emotional development

#### **Abstract and Full Paper Submission**

Organizing committee invites delegates/participants to submit an abstract for presentation (oral or poster) along with a full paper in different technical sessions based on the sub-themes given above. The manuscript/abstract (abstract strictly not more than 500 words) must be in English with the title of the paper, name of author(s), designation and affiliation in MS Word (Justified, Times New Roman and 1.5 lines spacing with margin of 2.5 cm on all sides). For submission of full-length paper, the author guidelines given in the website (https://www.cobacas.org.in) should strictly be adhered to. The full-length research papers after double blind peer review will be published in the Journal of Agricultural and Technology (NASC Rating- 3.05). All the abstracts/full length paper must be sent as an e-mail attachment to cobacas2013@gmail.com addressed to the Organizing Secretary on or before 20th February 2024.

Abstracts will be published in the symposium proceedings to be released during the symposium. The organizing committee reserves the right to delegate mode of presentation depending on the number of papers and merit of the paper based on originality/novelty of research work on the themes of the conference. An area of 4¢ x 3¢ feet will be allotted for each poster presentation and for oral 15 minutes time will be given for each participant.

# **Awards and Recognition**

Interested candidates are requested to apply or nominate in the given format for the awards with relevant attested documents. Applications without age proof and degree certificates will be rejected. The awards will be jointly conferred by the organizers. The duly filled application form with all claims pertaining to awards must be mailed to cobacas2013@gmail.com addressing to the Organizing Secretary on or before 5thFebruary, 2024.The applicant/nominee for the awards must register for the conference as par the date and registration fees given below which will include life membership of the COBACAS including the award processing and other fees.

# No application is required for best oral and best poster presentation award.

1. COBACAS Young Scientist award (below 40 years of age)

2. COBACAS Senior Scientist award (above 40 years of age)

3. COBACAS Student scientist award (based on M. Sc. and Ph. D. thesis and best five publication)

4. COBACAS Progressive Farmer Award (on the basis of nominations from different KVKs of UBKV) 5. Conference awards

a. Best oral presentation award

b. Best poster presentation award

### **Dates to remember**

Closing date for receipt of abstract/full length paper	20thFebruary 2024
Closing date for receipt of award nomination and/or award application	5th February 2024
Notification of abstract/full length paper acceptance	25th February 2024

Accompanying person

Sn	Sn Name of hotel/guest house		Contact no.
1 Skylark Residency at Sriniketan (just near university)		n +91 6295	5 39630; traderalpana8@gmail.com
2	Hotel Royal Palace (Cooch Behar)	+91 95475 70101; +91 97322 81234 hotelroyalpalacecob@gmail.com www.royalpalacehotel.co	
3	Hotel Yuvraj (Cooch Behar)	+91 97355 26252; hotelyubrajcoochbehar@gmail.com	
	Regist	ration Fees	
Participa	nts/delegates	Online	On the spot (only cash)
Other me Applicant Students Students/ JRFs/SRFs Institution Industry c	nembers (only life members) mbers (Scientists/teachers/Officers) /nominee for the awards (Bonafide Certificate required) /Applicant/nominee for the awards s/NGO individual/others hal delegate delegate Growers	INR ₹ 1500.00 INR ₹ 2500.00 INR ₹ 7500.00 INR ₹ 1000.00 INR ₹ 3000.00 INR ₹ 1500.00 INR ₹ 3000.00 INR ₹ 5000.00	INR ₹ 2000.00 INR ₹ 3500.00 NA INR ₹ 2000.00 NA INR ₹ 2000.00 INR ₹ 4000.00 INR ₹ 6000.00

#### JRFs/SRFs should give working certificate from their PI.

INR ₹ 2000.00

# The organizing committee also invites sponsorships for the conference as per details given below:

INR ₹ 2000.00

Sr. no.	Sponsoring items	Charges (₹)
1.	Displaying banner and	25000.00
2.	other materials	
3.	Souvenir colour page	50000.00/25000.00/15000.00
4.	(full/half/one-fourth)	
5.	Souvenir B/W	20000.00/10000.00/5000.00
6	(full/half/one-fourth)	
7	Dinner/Lunch sponsor	100000.00
8	Seminar kit sponsor	100000.00
9	Stall in open space for	
	two days	50000.00

		Organizing	Committee		
	Chief Patron :	Secretary			
	Patron :		Prof. Dr. Debabrata Basu Vice Chancellor UBKV Pundibari		
	Chairman :		Prof. Dr. Prabhat Kumar Pal ACAS and Director Extension Education (Actg.) UBKV Pundibari	on	
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Prof. (Retd.) Dr. Ashish Kumar Singharoy,

**RLBCAU, Jhansi, UP** 

**UBKV** Pundibari

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- Prof. Dr. Harmeet Singh Saralch, Department of Forestry & NR, PAU Ludhiana
- 🛑 Dr. Arun Jyoti Nath Associate Professor, Department of **Ecology and Environmental Science, Assam** University, Silchar, Assam
- 👝 Dr. Pankaj Panwar Dean College of Horticulture and Forestry, Principal Scientist (Agroforestry), ICAR **IISWC Research Centre, Chandigarh** 
  - Prof. (Retd.) Dr. Satyendra Chandra Sarkar, **UBKV** Pundibari

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Pundibari	UBKV Pund	ibari					
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Secretary :		Chakravarty, Secr nt of Forestry, UBK			in Roy, Department of See echnology, UBKV Pundiba		nd
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Washim Akram Baig, IT Support Graphic Designer, NAHEP-IG, UBKV Pundibari	Manendra Singh, Ph. D. Scholar, UBKV Pundibari	Arshad A, Ph. D UBKV Pundiba		Mendup Tamang, Ph. Scholar, UBKV Pundik			Manish Roy, Ph. D. Scholar UBKV Pundibari
Rajnish Pandey, Ph. D. Scholar, UBKV Pundibari	Trishala Gurung, Ph. D. Scholar, UBKV Pundibari	Debidatta Barn Scholar, UBKV I		Mrs. Asha Sharma, Pl Scholar, UBKV Pundik			

# **REGISTRATION FORM**

# 6<sup>th</sup> National Conference

on

## Nature-based Solution for Achieving Sustainable Development Goals (NbSSDG) March 5-6, 2024

(Uttar Banga Krishi Viswavidyalaya, Pundibari- 736 165, West Bengal, India)

Name:	Designation:
Affiliation and address:	
Participant/Delegate category (see registration fees section	on in the
brochure):	
Corresponding mail and mobile:	
Title of abstract/full paper with sub-theme:	
Preferred mode of presentation: Oral/Poster	
Help in booking of accommodation required:	
Yes/No (if yes, please mention the range of tariff)	
Online registration fees transfer details with amount:	

Signature with date

# Award application form/nomination form

**1**. Name of the applicant/nominee and affiliation, designation with address for communication, mail id, mobile number:

2. Name of the nominator and affiliation, designation with address for communication, mail id, mobile number:

3. Date of birth of applicant/nominee: (attach age proof)

4. Academic qualification: (begin with graduation and attach degree certificate of highest degree)

Degree	University	Year of passing	Marks/OGPA	Subject

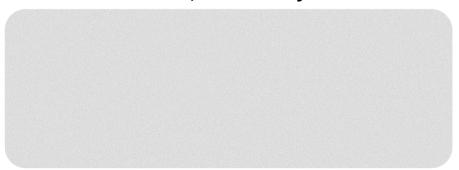
5. Past positions held (not for student awards): (in chronological order)

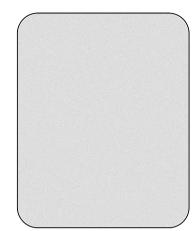
Designation	Institution	From	То

#### 6. Field of specialization

7. Significant contributions by the applicant/nominee:

i. Measurable and/or potential impact of the applicant's/nominee's work:
(not more than 500 words and with documental evidence, if necessary)





ii. Application (if any) of R & D work of the applicant/nominee:
(not more than 500 words and with documental evidence, if necessary)



iv. Specify whether the achievements of the applicant/nominee have been recognized earlier for any other award/recognition: Yes/No
If yes, following are the award conferred to the applicant/nominee (with documental evidence)

iii. Summary of outstanding contributions:(not more than 500 words and with documental evidence, if necessary)



v. Technology developed and adoption (give details)

vi. Patent (if any; give details):

vii. Title of the thesis with abstract(only for student awards)

Name of award/honour	Sponsoring organization	Year

#### 8. Publications of the applicant/nominee(for last three years from date of application)with ORCID ID, Google Scholar and Research Gate profile(if not registered yet, create one) (GiveDOI of every publication, if applicable)

Title of the paper/book chapter/book/policy paper/proceedings/manual/etc.	Journal/Book/source (for research paper/book chapter/any other)	Year of publication, volume and page number (for books/manuals/etc. give publisher with ISSN, if any)	Thompson's Reuter Impact factor (if not then NAAS rating)
Total citations			
h-index			
l10-index			

#### 9. i. Number of students guided/guiding(not for student awards)

ii. Any award related to student thesis including best thesis (give detail)

# 10. Numbers of project handled/handling (for last five years from the date of application andnot for student awards)

Title of the project	Funding agency	Amount sanctioned		Published paper, technology developed/reco mmended, patent

# 11.Seminar/symposium/conference/congress/workshop/training/school/attended/partici-pated and organized (for last three years from the date of application)

Event (National/International) with date and year and organizer	Participant/organizer/Key note address/Chair/Co-chair/Rapporteur of a session/Guest or lead lecture/Evaluator of oral or poster presentation	Co-chair/Rapporteur presented lest or lead (oral/poster)	

12. Any other information to support the claim for award (give detail):

13. Foreign visits- when, why, what for and outcome (in last five years from the date of application):

14. Member of any scientific organization (in capacity)

15. A concise statement (strictly not more than 500 words) highlighting the most important contributions made for citation of award, if selected