









Visva-Bharati

















Dr. Prabuddha Ray, Subject Matter Specialist (Agricultural Extension) was awarded "Best Paper Award"

Dr. Prabuddha Ray was awarded "Best Paper Award" by the Honourable Vice-Chancellor of Bihar Agricultural University Prof. A. K. Singh in the august presence of Chairman of PPV&FR Authority Dr. R. R. Hanchilal for the presented Paper, titled "Front Line Demonstration on Lentil using Improved Varieties WBL - 58 and WBL - 77 for Increasing Productivity under lateritic Soil of Birbhum, West Bengal" in the National Conference on Bringing Self-Sufficiency in Pulses for Eastern India, organized by the Bihar Agricultural Uniersity, Sabour, Bhagalpur, Bihar - 813210, India in collaboration with the Indian Society of Pulses Research and Development (ISPRD) and Indian Council of Agricultural Research (ICAR) - Indian Institute of Pulses Research (IIPR), Kanpur, Uttar Pradesh - 208024, India held at the Bihar Agricultural University Campus, Sabour, Bhagalpur, Bihar from the 5<sup>th</sup>. August to 6<sup>th</sup>. August, 2016.







This is to certify that



# Dr. Prabuddha Ray

successfully completed with distinction

e-Extension

a six-week online course

03 December 2019



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Professor Basavaprabhu Jirli Department of Extension Education Banaras Hindu University, Varanasi

Gergen

Professor Rajesh M. Hegde Head, Centre for Continuing Education Indian Institute of Technology Kanpur

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Professor Asha Kanwar President & CEO Commonwealth of Learning, Canada

Verify the authenticity of this certificate at agmoocs.in/v/5deb0ecc2e33b

# DR. PRABUDDHA RAY

## Office

Rathindra Krishi Vigyan Kendra Palli Siksha Bhavana (Institute of Agriculture) Visva-Bharati, Sriniketan - 731236 Birbhum, West Bengal, India

## Residence

Flat No. E -1 / 201, Peerless Nagar, 29 F B. T. Road, Panihati, P. O. – Panihati, P. O. – Panihati, Dist. – 24 Parganas (North), West Bengal – 700114, India

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## **EDUCATION**

Sl.	Examinations	Discipline	Name of the Institutions and	Year of	Percentage	Distinctions
No.	Passed		Board / University	Passing	Secured	
01	Madhyamik	Regular	West Bengal Board of	1991	83.67	National Scholar;
	Pariksha		Secondary Education			Star Marks
	(Secondary					Holder and 64 <sup>th</sup> .
	Examination)					Rank Holder in
						the State of West
						Bengal
02	Higher	Science	West Bengal Council of Higher	1993	75.00	National Scholar;
	Secondary		Secondary Education			Star Marks
	Examination					Holder and 136 <sup>th</sup> .
						Rank Holder in
						the State of West
0.0	~		2111	400=	<b>-</b> 1.50	Bengal
03	Graduation	B. Sc.	Bidhan Chandra Krishi	1997	71.58	University Merit
		(Agriculture)	Viswavidyalaya			Scholarship
0.4		Honours	2111	1000	21.12	Holder
04	Post	M. Sc.	Bidhan Chandra Krishi	1999	81.10	University Merit
	Graduation	(Agriculture) in	Viswavidyalaya			Scholarship
		Agricultural				Holder
0.5	DI D	Extension	Tr. Di dili	2000	NT /	
05	Ph.D.	Agricultural	Visva-Bharati University	2009	Not	
0.6	C 4:C: 1	Extension		2010	Applicable	
06	Certified	Seed Technology	National Institute of	2018	70.00	
	Farm Adviser		Agricultural Extension			
			Management (MANAGE),			
			Ministry of Agriculture and			
			Farmers' Welfare, Govt. of			
			India, Rajendranagar,			
			Hyderabad, Telengana and Indian Council of Agricultural			
			Research (ICAR) – Indian			
			Institute of Seed Science,			
			Kushmaur, Mau, Uttar			
			Pradesh.			
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Sl.	Examinations	Discipline	Name of the Institutions and	Year of	Percentage	Distinctions
No.	Passed		Board / University	Passing	Secured	
07	Certified	Job Role	National Skill Development	2018	Grade - B	
	Trainer	"Agriculture	Corporation (NSDC) and			
		Extension	Agriculture Skill Council of India			
		Service Provider,	(ASCI) under Skill India Mission of			
		AGR/Q 7601,	Ministry of Skill Development and			
		V1.0"	Entrepreneurship, Govt. of India.			
08	Six Weeks	"e-Extension"	Massive Open On-line Course on	2019	Distinction	Distinction
	On-Line		Agriculture (agMOOCs) being			
	Course		jointly organized by Indian Institute			
			of Technology (IIT), Kanpur, Uttar			
			Pradesh, India and Commonwealth			
			of Learning (COL), Canada			
09	Five Weeks	"Digital	Massive Open E-Learning Course	2020	90.00	
	On-Line	Agriculture"	jointly organized by Open Learning			
	Course		Campus, World Bank Group and			
			edX one of the most trusted world-			
			wide platforms for education and			
			learning, founded by Harvard			
			University, USA and Massachusetts			
			Institute of Technology, USA			
09	Advanced	Marketing	Society of Management	1999	67.49	
	Post Graduate	Management	Development and Research,			
	Diploma in		Kolkata, West Bengal			
	Marketing					
	Management					

## 2003 – 2009 Ph.D. in Agricultural Extension

Visva-Bharati University, Sriniketan, West Bengal, India.

**Thesis:** Knowledge Gap in Use of Pesticides among Vegetable Growers of Katwa Sub-Division in Bardhaman District of West Bengal, India

Studied various aspects of pesticide use and related knowledge gaps of the vegetable farmers. Conducted analytical research in the context of the socio-economic-managerial-situational factors with an extended treatment on strategic intervention to bridge the knowledge gap.

**Supervisor:** Prof. Sarthak Chowdhury

## 1997 – 1999 M. Sc. in Agriculture

Bidhan Chandra Krishi Viswavidyalaya (A State Agricultural University), Mohanpur, West Bengal, India.

**Thesis:** The Role of Gramin and Co-operative Banks in Rural Development

Studied various aspects of credit flow from rural and co-operative banks in West Bengal state with a special reference to Bardhaman district.

Supervisor: Prof. Alaul Haque

## 1993 – 1997 B. Sc. in Agriculture (Honours)

Bidhan Chandra Krishi Viswavidyalaya (A State Agricultural University), Mohanpur, West Bengal, India.

#### PROFESSIONAL CERTIFICATION

2020

Successfully completed a five-weeks online Course on "Digital Agriculture", a Massive Open E-Learning Course jointly organized by Open Learning Campus, World Bank Group and edX one of most trusted world-wide platform for education and learning, founded by Harvard University, USA and Massachusetts Institute of Technology, USA.

2019

Successfully completed a six-weeks online Course on "e-Extension", a Massive Open On-line Course on Agriculture (agMOOCs) being jointly organized by Indian Institute of Technology (IIT), Kanpur, Uttar Pradesh, India and Commonwealth of Learning (COL), Canada with distinction.

2018

Certified Trainer of the Job Role "Agriculture Extension Service Provider, AGR/Q 7601, V1.0" [National Skill Qualification (NSQF) Level – 4], by the National Skill Development Corporation (NSDC) and Agriculture Skill Council of India (ASCI) under Skill India Mission of Ministry of Skill Development and Entrepreneurship, Govt. of India.

2017 - 20018

Certified Farm Adviser on Seed Technology by National Institute of Agricultural Extension Management (MANAGE), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Rajendranagar, Hyderabad, Telengana and Indian Council of Agricultural Research (ICAR) – Indian Institute of Seed Science (IISS), Kushmaur, Mau, Uttar Pradesh.

#### **AWARDS**

**2019** Certificate of Recognition

Awarded for valued academic contribution in the Book "Krishi Vigyan O Samprasaran Parisheba" (2019) by State Agricultural Management and Extension Training Institute (SAMETI), West Bengal, Ramakrishna Mission Ashrama, Narendrapur, Kolkata – 700103.

2016 Best Paper Award

Awarded to the top research paper amongst submission from all-over India by Bihar Agricultural University, Sabour, Bhagalpur, Bihar – 813210, India. **Presented paper:** Front Line Demonstration on Lentil using Improved Varieties WBL - 58 and WBL – 77 for Increasing Productivity under lateritic Soil of Birbhum, West Bengal

2007 Prof. D. Das Gupta Young Scientist Award

Awarded to the top student paper amongst submission from all-over India by Visva-Bharati University, Sriniketan, West Bengal – 731236, India.

**Submitted Paper:** Knowledge Level and Adoption of the Integrated Pest Management (IPM) Techniques: A Study among the Vegetable Growers of Katwa Sub-Division, Bardhaman District

2003 Commitment towards Excellence in Education Award

Awarded by The Hindustan Times (a leading daily newspaper), Hindustan Times House, 18-20, Kasturba Gandhi Marg, New Delhi – 110001, India.

1997 – 1999 University Merit Scholarship for Post-Graduate Studies

Faculty of Agriculture, Bidhan Chandra Krishi Viswavidyalaya, West Bengal, India.

## 1993 – 1997 University Merit Scholarship for Under-Graduate Studies

Faculty of Agriculture, Bidhan Chandra Krishi Viswavidyalaya, West Bengal, India.

#### 1993 National Scholar in Higher Secondary Examination

West Bengal Council of Higher Secondary Education, West Bengal

#### 1991 National Scholar in Secondary Examination

West Bengal Board of Secondary Education, West Bengal

#### **EXPERIENCE**

## 2012 – till date Subject Matter Specialist (Agricultural Extension)

Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati University, Sriniketan, West Bengal, India.

Conduct research trials on assessment and refinement of technologies/products of the Indian Council of Agricultural Research. Organize "On Farm Testing" to identify the location specificity of agricultural technologies for sustainable land use systems under various farming systems. Train people on emerging technologies, organize Front Line Demonstrations (FLDs) to generate production data and feedback information and coordinate with District level Departments and NGOs.

These efforts have resulted in 20 percent average increase in acreage and 30 percent average production increase of main crops like Rice (with special reference to reintroduction of extinct Indigenous Aromatic Varieties like Gobindabhog and Radhunipagal) and Wheat (newly introduced High Yielding Varieties like HD – 2824, HD - 2733 etc.) and newly introduced Crops like Drum Sticks (Variety PKM – 1) and Elephant Foot Yam (Variety Bidhan Kusum) as part of the crop diversification efforts for the existing cropping systems and patterns of Birbhum District in the State of West Bengal, India.

**Has been Officer In-Charge, Departmental Library,** Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, Pin. – 731236, West Bengal, India since 19.06.2012.

Organizing **Paramparagata Krishi Vikash Yojana** being organized by the Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, Pin. – 731236, West Bengal, India **as Nodal Officer** since 09.07.2019.

Establishing and maintaining **the Community Radio Station** under the Administrative Control of Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, P. O. – Sriniketan, Dist. – Birbhum, Pin. – 731236, West Bengal, India as the **Nodal Officer** since 17.09.2019.

Teach **graduate and post-graduate level classes**. Examples of subjects taught - "Development Perspectives of Extension Education" and "Concept of Organizational Human Resource and Marketing Management relevant to Extension".

Course Coordinator of the Rural Agricultural Work Experience (RAWE) Course for the Students of the Seventh Semester B. Sc. Honours (Agriculture) Course [as

per the Guidelines of the Indian Council of Agricultural Research (ICAR)] being conducted by the Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati.

Nodal Officer of the Custom Hiring Centre of Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati established through financial support from Indian Council of Agricultural Research (ICAR) – Indian Institute of Agricultural Biotechnology (IIAB), Ranchi, Jharkhand – 834003, India.

Teach **under-graduate diploma level classes**. Example of subject taught – "Marketing mechanism of Horticultural products".

## 2011 – 2012 Honorary Research Officer (Agriculture) and Visiting Faculty

Indian Institute of Bio-Social Research and Development (IBRAD), Prafulla Kanan, VIP Road, Keshtopur, Kolkata - 700101.

Conducted field level and secondary research on agriculture and allied sectors in the various states of India.

Taught honourary graduate and post-graduate level classes on various aspects of rural and agricultural development. Examples of subjects taught –"Role of Extension Efforts in Agricultural Development".

## 2011 Supervisor

Registrar General and Census Commissioner, India, Ministry of Home Affairs, Govt. of India, New Delhi.

Conducted field level survey and research in socio-economic and demographic parameters at Ward No. 14, Borough No. – III, Kolkata Municipal Corporation, West Bengal, India. Results were included in the Census of India Report – 2011.

## 2000 – 2009 Research Scholar in four independent Research Projects

Department of Agricultural Extension, Agricultural Economics and Agricultural Statistics, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati University, Sriniketan-731236,West Bengal, India.

Conducted analytical and empirical agricultural research in four independent research projects in four different districts of West Bengal under the guidance of Prof. Sarthak Chowdhury.

**2015 – till date Editorial Board Member of** International Journal of Social Science (Print ISSN No. 2249-6637 and Online ISSN No. 2321-5771), New Delhi Publishers, New Delhi, India.

**2015 – till date Member of Review Committee** of International Journal of Inclusive Development (ISSN No. 2454-4132), New Delhi Publishers, New Delhi, India.

#### MEDIA APPEARENCE

**Sep. 05, 2014** Appeared as an agricultural expert on "Farmers' Club and Development of Agriculture" in All India Radio (the official radio channel of Govt. of India).

- Mar. 26, 2015 Participated in the panel discussion on "Agricultural Loan and Crop Insurance: Interview with Expert and Progressive Farmers" as an agricultural expert in All India Radio (the official radio channel of Govt. of India).
- Jun. 09, 2015

  I was interviewed as a subject matter expert on "Farmers' Interest Group and Its Utility for Higher Quality Production" in Doordarshan (the official television channel of Govt. of India).

URL:https://www.youtube.com/results?search\_query=DD+Santiniketan\_03.

07.15\_Krishi+Darshan

https://www.youtube.com/watch?v=s45447hSTwE

- Appeared as an agricultural expert in live phone-in programme on "Group Formation, Agricultural Loan and Crop Insurance" in All India Radio (the official radio channel of Govt. of India).
- Oct. 13, 2015 Appeared as an agricultural expert in live phone-in programme on "Disaster Management and Its Effects in Agriculture" in All India Radio (the official radio channel of Govt. of India).
- Jan. 04, 2016 Participated in the panel discussion on "Rathindra Krishi Vigyan Kendra and Its Activities" as an agricultural expert in All India Radio (the official radio channel of Govt. of India).
- Feb. 23, 2016 Appeared as an agricultural expert in live phone-in programme on "Pradhan Mantri Fasal Bima Yojana (Prime Minister Crop Insurance Scheme) and Crop Loan" in All India Radio (the official radio channel of Govt. of India).
- Apr. 08, 2016 Participated in the panel discussion on "Rabindra Nath Tagore's thoughts on Agriculture and Narratives of Some Successful Awarded Farmers attached to Rathindra Krishi Vigyan Kendra" as an agricultural expert in All India Radio (the official radio channel of Govt. of India).
- Apr. 19, 2016 I was interviewed as a subject matter expert on "Concept, Formation and Functioning of Farmers' Producers Organizations (FPOs)" in Doordarshan (the official television channel of Govt. of India).
- Jun. 07, 2016 Appeared as an agricultural expert in live phone-in programme on "Pradhan Mantri Fasal Bima Yojana (Prime Minister Crop Insurance Scheme)" in All India Radio (the official radio channel of Govt. of India).
- Aug.18, 2016 Participated in the panel discussion on "Farmers' Producers Organizations (FPOs)" as an agricultural expert in All India Radio (the official radio channel of Govt. of India).
- Dec. 21, 2016

  I was interviewed as a subject matter expert on "Pradhan Mantri Fasal Beema Yojana (Prime Minister's Crop Insurance Scheme" in Doordarshan (the official television channel of Govt. of India).
- Jan. 17, 2017 Appeared as an agricultural expert in live phone-in programme on "Farm Activities through formation of Groups" in All India Radio (the official radio channel of Govt. of India).

- May 30, 2017 Appeared as an agricultural expert in live phone-in programme on "Digital Cashless Bharat in Agriculture and related Sectors" in All India Radio (the official radio channel of Govt. of India).
- June 6, 2017

  I was interviewed as a subject matter expert on "Use of Information and Communication Technologies and Digital Technologies in Agriculture and related Sectors" in Doordarshan (the official television channel of Govt. of India).

  URL: https://www.youtube.com/watch?v=YaKdUlhdPkg
- Aug. 9, 2017 I was interviewed as a subject matter expert on "Pradhan Mantri Fasal Beema Yojana" in Doordarshan (the official television channel of Govt. of India).
- Nov. 11, 2017 Appeared as an agricultural expert in live phone-in programme on "Cashless Digital Transaction in Agriculture and related Sectors" in All India Radio (the official radio channel of Govt. of India).
- June 5, 2018 Appeared as an agricultural expert in live phone-in programme on "Skill India Mission and Pradhan Mantri Kaushal Vikash Yojana (PMKVY)" in All India Radio (the official radio channel of Govt. of India).
- Oct. 29, 2018 Appeared as an agricultural expert in live phone-in programme on "Pradhan Mantri Kisan Sampada Yojana (PMKSY)" in All India Radio (the official radio channel of Govt. of India).
- **Feb. 26, 2019** Appeared as an agricultural expert in live phone-in programme on "Pradhan Mantri Kisan Samman Nidhi (PM-KISAN)" in All India Radio (the official radio channel of Govt. of India).
- Apr. 10, 2019 I was interviewed as a subject matter expert in live phone-in programme on "Market Linked Agriculture and Modernization and Development of Agriculture and Allied Sectors" in Doordarshan (the official television channel of Govt. of India).
- Jul. 05, 2019 Appeared as a subject expert on "Use of Information and Communication Technologies (ICTs) for Agriculture and related Sectors" in All India Radio (the official radio channel of Govt. of India).
- Sept. 05, 2019 Appeared as an expert in live phone-in programme on "Pradhan Mantri Kisan Maan Dhan Yojana (PM-KMY)" in Doordarshan (the official television channel of Govt. of India).
- Sept. 17, 2019 I was interviewed as a subject matter expert on "Pradhan Mantri Kisan Maan Dhan Yojana (PM-KMY)" in Doordarshan (the official television channel of Govt. of India).
- **Dec. 15, 2019** Appeared as a subject expert on "Pradhan Mantri Kisan Maan Dhan Yojana (PM-KMY)" in All India Radio (the official radio channel of Govt. of India).
- **Feb. 03, 2020** Appeared as an expert in Farmers' Seminar programme organized by the Doordarshan (the official television channel of Govt. of India) at Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, Birbhum.
- Feb. 05, 2020 I was interviewed as a subject matter expert on "Farm Credit" in Doordarshan (the official television channel of Govt. of India).

- Mar. 16, 2020 Appeared as a subject expert on "Credit and Other Facilities on Agriculture and Allied Sectors by Govt. of India" in All India Radio (the official radio channel of Govt. of India).
- Apr. 22, 2020 Appeared as a subject expert on "Marketing of Rabi Produces and Farming for coming Kharif Crops" (broadcasted on 29.04.2020) in All India Radio (the official radio channel of Govt. of India).

  URL: https://www.youtu.be/Rgq6KnUCMmU
- Oct. 10, 2020 Appeared as a subject expert on "Significance of World Food Day with especial reference to Indian context" (broadcasted on 17.10.2020) in All India Radio (the official radio channel of Govt. of India).
- Feb. 10, 2021 Appeared as a subject expert on "Role of Kisan Bani in spreading messages about Governmental Schemes" in All India Radio (the official radio channel of Govt. of India).
- Oct. 27, 2021 Appeared as a subject expert on "Agricultural Infrastructure Development Fund and Other Agricultural and related Sector Programmes launched by the Central Government" (broadcasted on 29.10.2021) in All India Radio (the official radio channel of Govt. of India).
- **Feb. 15, 2022** Appeared as a subject expert on "Role of Kisan Vani in development of Agriculture and related Sectors of India" in All India Radio (the official radio channel of Govt. of India).
- May 12, 2022 Appeared as a subject expert on "Pradhan Mantri Fasal Bima Yojana (Prime Minister Crop Insurance Scheme" in All India Radio (the official radio channel of Govt. of India).
- May 31, 2022 Appeared as a subject expert on "Garib Kalyan Sammelan" (being organized by the Govt. of India on 31.05.2022) in All India Radio (the official radio channel of Govt. of India).
- Appeared as one of the subject experts on "94<sup>th</sup>. Foundation Day of Indian Council of Agricultural Research and Web Interaction of Sri Narendra Singh Tomar, Union Minister of the Ministry of Agriculture and Farmers' Welfare, Govt. of India with the Beneficiaries of the Doubling of Farmers Income Project" in All India Radio (the official radio channel of Govt. of India).
- Sept. 17, 2022 Appeared as one of the subject experts on "POSHAN ABHIYAN 2022 and Tree Plantation Programme" (being organized by the Govt. of India on 17.09.2022) in All India Radio (the official radio channel of Govt. of India).
- Oct. 18, 2022 Appeared as a subject expert on "Recent Initiatives of Govt. of India for increasing Capital Investment aiming at modernization of Agriculture and related Sectors" in All India Radio (the official radio channel of Govt. of India).
- **Feb. 15, 2023** Appeared as a subject expert on "15<sup>th</sup>. February, Radio Kisan Diwas" in All India Radio (the official radio channel of Govt. of India).
- May 20, 2023 Appeared as a subject expert in live phone-in programme on "Recent initiatives of Govt. of India for enhancement of Capital flow in Agriculture and related Sector" in All India Radio (the official radio channel of Govt. of India).

- Appeared as one of the subject experts on "Training and Critical Input Distribution Programme for Ornamental Fishery for Scheduled Tribe Farm Women" organized by the Rathindra Krishi Vigyan Kendra in collaboration with ICAR-CIFRI, Barrackpore, in All India Radio (the official radio channel of Govt. of India).
- July 19, 2023 Appeared as a subject expert on "Recent Initiatives of Govt. of India for economic development of Indian Farmers / Farm Women" in All India Radio (the official radio channel of Govt. of India).

## **PUBLICATIONS**

#### ON-LINE PUBLICATION

Authored the Success Story, titled, "Technology Transfer to a Farmer on a Liquid Bio Plant Growth Promoter, 'Amritajal'", published by the National Institute of Agricultural Extension Management (MANAGE), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Rajendranagar, Hyderabad - 500030, Telengana, India for the Certified Farm Adviser (CFA) Course and on-line published in the Web Page, titled, "CERTIFIED FARM ADVISOR/ CERTIFIED LIVESTOCK ADVISOR – for Professional Excellence – SUCCESS STORIES".

**Web Addresses:** - http://www.manage.gov.in/cfa/success.asp and http://www.manage.gov.in/cfa/successstories/amritajal.pdf

## INTERNATIONAL TECHNICAL REPORT PUBLISHED

**1.** "Kartickdanga Kalimata WUA, Birbhum: Integrated approach for enhancing income from orchard and intercropping with add-on income from fishery", INTERNATIONAL WATER MANAGEMENT INSTITUTE (IWMI), Sl. No. 10, WBADMI PROJECT IMPACT ASSESSMENT REPORT- PHASE 2 by IWMI, Dr. Prabuddha Ray, pp. 92 – 94.

**Internet Source: -** https://wbadmip.org/publications-external, Sl. No. 10, WBADMI PROJECT IMPACT ASSESSMENT REPORT- PHASE 2 by IWMI

#### PUBLISHED BOOKS

- **1.** "A Guide Book for Training the Rural Youths" (ISBN No. 978-93-85503-81-8), Sarthak Chowdhury and Prabuddha Ray, 2017, New Delhi Publishers, New Delhi, 136 p.
- 2. "Krishi Samprasaran Parisheba Pradan Eakti Sahayak Pustak (Providing Agriculture Extension Service A Guide Book)", Dr. Prabuddha Ray, 2018, Rathindra Krishi Vigyan Kendra, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum 731236, West Bengal, 152 p.
- **3.** "Training An Intellectual Investment in Human Resource Development" (ISBN No. 978-93-88879-15-6), Sarthak Chowdhury and Prabuddha Ray, 2019, New Delhi Publishers, New Delhi, 295 p.
- **4.** "Fundamentals of Extension Education" (ISBN No. 978-93-88821-64-5), Prof. Sarthak Chowdhury and Dr. Prabuddha Ray, 2020, Rama Publishing House, Meerut, Uttar Pradesh, 252 p.
- **5.** "Integrated Pest Management Reaching the Unreached" (ISBN No. 978-81-7880-882-6), Prabuddha Ray and Sarthak Chowdhury, 2021, Rajat Publications, New Delhi, 164 p.

#### PUBLISHED PAPERS IN REFERRED JOURNALS

- **1.** "Co-operative Credit in Rural Sector A Case Study", Sarthak Chowdhury and Prabuddha Ray, *Economic Affairs (ISSN No. 0424-2513)*, *Vol. 46, Qr. 3*, July to September, 2001, pp. 159 167(<sup>1, 2</sup>).
- **2.** "Effects of Some Socio-Economic and Situational Factors on Profit from Fresh Water Fishery A Case Study", Chandan Kumar Panda, Prabuddha Ray and Sarthak Chowdhury, *Economic Affairs (ISSN No. 0424-2513)*, *Vol. 48, Qr. 2*, April to June, 2003, pp. 106 108(<sup>1</sup>).
- **3.** "Constraints of Small Scale Fisheries: Perception among Fishermen", Sarthak Chowdhury, Prabuddha Ray and Chandan Kumar Panda, *Economic Affairs (ISSN No. 0424-2513)*, *Vol. 48*, *Qr. 4*, October to December, 2003, pp. 225 229(<sup>2</sup>).
- **4.** "Women Empowerment through Self Help Groups", Sarthak Chowdhury, Prabuddha Ray and Chandan Kumar Panda, *Economic Affairs (ISSN No. 0424-2513)*, *Vol. 49*, *Qr. 1*, January to March, 2004, pp. 39 42(<sup>1,2,4</sup>).
- **5.** "Sustainable Agricultural Development Efforts through the Use of Traditional Folk Media An Alternative Development Paradigm", Prabuddha Ray, Chandan Kumar Panda and S. Chowdhury, *Journal of Interacademicia (ISSN No. 0971-9016)*, *Vol. 8, No. 2*, April, 2004, pp. 317 326(<sup>1</sup>).
- **6.** "Communication Support for Sustainable Development: A Paradigm Shift", S. Chowdhury and Prabuddha Ray, *Communicator (ISSN No. 0588-8093)*, *Vol. XXXIX, No. 02*, July December, 2004, pp. 38 44.
- **7.** "A Case Study on The Technological Gap in Sugarcane Cultivation", Prabuddha Ray, Chandan Kumar Panda and Sarthak Chowdhury, *Economic Affairs (ISSN No. 0424-2513)*, *Vol. 50, Qr. 1*, January to March, 2005, pp. 27 29.
- **8.** "Mass Media and Rural Development A Critical Analysis", Chandan Kumar Panda, Prabuddha Ray and Sarthak Chowdhury, *Economic Affairs (ISSN No. 0424-2513), Vol. 50, Qr. 02*, April to June, 2005, pp. 121 128(<sup>2,3</sup>).
- **9.** "The Fate of Herbicides in an Agro-ecosystem: Some Thoughts", Prabuddha Ray, Chandan Kumar Panda and S. Chowdhury, *Journal of Interacademicia (ISSN No. 0971-9016), Vol. 9, No. 3,* July, 2005, pp. 473 480(<sup>1</sup>).
- **10.** "Influence of the Socio-Personal Traits of the Vegetable Growers on their Knowledge Index regarding the Judicious Use of Pesticides An Empirical Study", Prabuddha Ray and S. Chowdhury, *Journal of Extension Education (ISSN No. 0976-8246)*, Vol. 11, No. 1 and 2, 2006, pp. 49 62.
- **11.** "Changing Times and Changing Perspectives in Extension Systems: Some Thoughts", Sarthak Chowdhury, Prabuddha Ray and Chandan Kumar Panda, *Economic Affairs (ISSN No. 0424-2513)*, *Vol. 51*, *Qr. 3*, July September, 2006, pp. 182 185(<sup>2</sup>).
- **12.** "Knowledge Gap among Vegetable Growers in relation to Judicious Use of Pesticides A Case Study", Prabuddha Ray and S. Chowdhury, *Journal of Interacademicia (ISSN No. 0971-9016), Vol. 11, No. 1,* January, 2007, pp. 110 118.
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- **11.** "Communication and Knowledge Sharing in Watershed Management Some Thoughts", Dr. Prabuddha Ray and Prof. Sarthak Chowdhury, *Electronic Full Proceedings of the 10<sup>th</sup>. All India People's Technology Congress* organized by the Forum of Scientists, Engineers & Technologists (FOSET) from 6<sup>th</sup>. February, 2015 to 7<sup>th</sup>. February, 2015, Serial No. 10, Paper Code No. 010-AGB-03 of Sub-congress: Agriculture & Bio-Technology.
- **12.** "MGNREGS The Road Ahead", Dr. Prabuddha Ray and Prof. Sarthak Chowdhury, *Electronic Full Proceedings of the 10<sup>th</sup>*. *All India People's Technology Congress* organized by the Forum of Scientists, Engineers & Technologists from 6<sup>th</sup>. February, 2015 to 7<sup>th</sup>. February, 2015, Serial No. 14, Paper Code No. 014-AGB-05 of Sub-congress: Agriculture & Bio-Technology.
- **13.** "Plantation of Baromasia Sajney (Round the Year) Drunstick Variety PKM 1- A Low Cost Technology", Dr. Prabuddha Ray and Dr. Dulal Ch. Manna, *Electronic Full Proceedings of the 11<sup>th</sup>. All*

*India People's Technology Congress* organized by the Forum of Scientists, Engineers & Technologists (FOSET) from 4<sup>th</sup>. February, 2017 to 5<sup>th</sup>. February, 2017, Paper Code No. – 50-AGB-12 of Sub-congress: Agriculture & Bio-Technology.

**14.** "Replacing Free Extension Services for Small Holder Farmers in the Changing Economies: A Shift under Process", Dr. Prabuddha Ray and Prof. Sarthak Chowdhury, *Electronic Full Proceedings of the 11<sup>th</sup>*. *All India People's Technology Congress* organized by the Forum of Scientists Engineers & Technologists from 4<sup>th</sup>. February, 2017 to 5<sup>th</sup>. February, 2017, Paper Code No. – 51-AGB-13 of Sub-congress: Agriculture & Bio-Technology.

### REFERRED WEBINAR PAPERS (PRESENTED IN PERSON)

1. "Women Farmers and e-Extension Services for Organic Farming: Concern Areas in Capacity building Measures", Dr. Prabuddha Ray, *Book of Abstracts, National Webinar on Organic Farming 2020* organized by the College of Agriculture, Balaghat, Jawaharlal Nehru Krishi Viswa Vidhyalaya, Jabalpur from 16th. June to 20th. June, 2020, Sl. No. – 183, Page No. – 195.

## REFERRED CONFERENCE ABSTRACTS (PRESENTED IN PERSON)

- 1. "Sustainable Development through a new Communication Paradigm", S. Chowdhury and P. Ray, *Book of Abstracts of the International Seminar on Communication and Sustainable Development in Agriculture*, jointly organized by the Department of Extension Education, Institute of Agricultural Science, Banaras Hindu University, Varanasi; Indian Society of Extension Education, New Delhi; Global Communication Research Association, Ma Cquarie University, Sydney, Australia and Centre for South Asian Studies (CSAS), GIFU Women's University from the 7<sup>th</sup>. January, to 9<sup>th</sup>. January, 2003, pp. 24.
- **2.** "Crop Production under Drought Condition Challenges before Extension Workers", Prabuddha Ray, Dr. Sarthak Chowdhury and Chandan Kumar Panda, *Book of Abstracts of the National Symposium on Crop Production under Changing Environment*, organized by the Agricultural Society of India in collaboration with Bidhan Chandra Krishi Viswavidyalaya and Directorate of Agriculture, Govt. of West Bengal from 27<sup>th</sup>. November to 29<sup>th</sup>. November, 2003, pp. 74 75.
- **3.** "Indigenous Knowledge for Non-Chemical Plant Protection and Sustainable Agricultural Development A Critical Analysis", Sarthak Chowdhury, Prabuddha Ray and Chandan Kumar Panda, *Book of Abstracts of the Session on Issues, Policies and Human Rights for Sustainable Farm Development as a part of Inter Congress of International Union of Anthropological and Ethnological Sciences, organized by the University of Calcutta from 12<sup>th</sup>. December, 2004. to 15<sup>th</sup>. December, 2004, pp. 12 13.*
- **4.** "Knowledge Level and Adoption of the Integrated Pest Management (IPM) Techniques: A Study among the Vegetable Growers of Katwa Sub-Division, Bardhaman District", Prabuddha Ray, *Book of Abstracts of the National Seminar on Adoption of Agro-Technologies and Social Change in Farming Community Impact Assessment*, organized by the Department of Ag. Extension, Ag. Economics and Ag. Statistics, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum, West Bengal from 2<sup>nd</sup>. February, 2007. to 4<sup>th</sup>. February, 2007, pp. 42.
- **5.** "Factors Influencing the Level of Pesticide Abuse by the Vegetable Growers: An Empirical Study", Prof. Dr. Sarthak Chowdhury and Dr. Prabuddha Ray; *Theme: Spheres of Integrated Rural Development in the National Seminar on Integrated Rural Development and Management: Issues, Strategies, Policy Options, organized by the Integrated Rural Development and Management (IRDM) Faculty Centre of Ramakrishna Mission Vivekananda University from 17<sup>th</sup>. December to 18<sup>th</sup>. December, 2010.*

- **6.** "Approaches in Integrated Pest Management (IPM) Practices: An Extension Point of View", Prabuddha Ray and Sarthak Chowdhury; *Book of Abstracts of Theme: Agribusiness Policies and transfer of Technology in the Golden Jubilee Seminar on Advances in Agricultural Research towards Food Security and Environmental Sustenance*, organized by the Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan from 1<sup>st</sup>. September to 3<sup>rd</sup>. September, 2012, pp. T5-P004.
- **7.** "Transfer of Agricultural Technologies for Information Have Nots: A New Approach", Sarthak Chowdhury and Prabuddha Ray, *Book of Abstracts of the Theme: Agribusiness Policies and transfer of Technology* in the *Golden Jubilee Seminar on Advances in Agricultural Research towards Food Security and Environmental Sustenance*, organized by the Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan from 1<sup>st</sup>. September to 3<sup>rd</sup>. September, 2012, pp. T5-P007.
- **8.** "Facilitating Sustainable Agriculture from Extension Perspective", Prabuddha Ray and Sarthak Chowdhury, *Book of Abstracts of National Seminar on "Challenges of Livelihood and Inclusive Rural Development in the Era of Globalization"*, organized by the A. K. Dasgupta Centre for the Planning and Development, Department of Economics and Politics, Visva-Bharati, Santiniketan on 23<sup>rd</sup>. November, 2012, Sl. No. 14.
- **9.** "Field Level Constraints as Experienced by the Vegetable Growers regarding the Proper Use of Pesticides in French Bean Cultivation", Prabuddha Ray and Dulal Chandra Manna; *Proceedings of International Conference on Extension Education in the Perspectives of Advances in Natural Resource Management in Agriculture (NaRMA IV)*, organized by the Swami Keshawananda Rajasthan Agricultural University (SKRAU), Bikaner, Rajasthan, India from 19<sup>th</sup>. December to 21<sup>st</sup>. December, 2012, Sl. No. C 287.
- **10.** "Dissemination of Farm Technologies for Poor Farmers: A Paradigm Shift", Sarthak Chowdhury and Prabuddha Ray; National Seminar on "Challenges and Prospects of Inclusive Growth in Rural India" organized by the A. K. Dasgupta Centre for the Planning and Development, Department of Economics and Politics, Visva-Bharati, Santiniketan from 23<sup>rd</sup>. November to 24<sup>th</sup>. November, 2013.
- **11.** "Assessment of Profitability within Components of Integrated Farming Systems (IFSs) under Fish based Production System in Lateritic Belt of West Bengal", Dr. Subrata Mandal, Dr. Prabuddha Ray, Dr. Krishna Mitra and Dr. Dulal Chandra Manna; *Book of Abstracts of the 5<sup>th</sup>. Indian Youth Science Congress* organized by Visva-Bharati University and M. S. Swaminathan Research Foundation from 6<sup>th</sup>. December to 9<sup>th</sup>. December, 2013, pp. 164.
- **12.** "Summer Paddy (IR 36) Cultivation through SRI Method using Different Plant Spacing in Lateritic Belt of West Bengal", Dr. Subrata Mandal and Dr. Prabuddha Ray; *Book of Abstracts of the National Seminar on Agriculture and Bio-Security in Changing Scenario*, organized by the Department of ASEPAN, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum from 1<sup>st</sup>. to 3<sup>rd</sup>. February, 2014, pp. 22.
- 13. "Imbalance in Fertilizer Application in India and the Role to be Played by the Indian Agricultural Extension Agencies", Prabuddha Ray, Subrata Mandal and Dulal Chandra Manna; *Book of Abstracts of the National Conference on Indigenous Innovation and Foreign Technology Transfer in Fertilizer Industry: Needs, Constraints and Desired Simplification*, organized by the Society for Fertilizers and Environment and Raman Centre for Applied and Interdisciplinary Sciences in collaboration with Indian Council of Agricultural Research -Central Research Institute for Jute and Allied Fibres and Federation of Indian Chambers of Commerce and Industries (-India Innovation Growth Programme) on  $17^{th}$ . January, 2015, Paper Code P-13, pp. 45-46.
- 14. "Simplification of Balanced Fertilization in Summer Paddy Cultivation under Lateritic Soil", Subrata Mandal, Prabuddha Ray and Dulal Chandra Manna; Book of Abstracts of the National Conference on

Indigenous Innovation and Foreign Technology Transfer in Fertilizer Industry: Needs, Constraints and Desired Simplification, organized by the Society for Fertilizers and Environment and Raman Centre for Applied and Interdisciplinary Sciences in collaboration with Indian Council of Agricultural Research - Central Research Institute for Jute and Allied Fibres and Federation of Indian Chambers of Commerce and Industries (-India Innovation Growth Programme) on 17<sup>th</sup>. January, 2015, Paper Code P – 18, pp. 48 – 49.

- **15.** "Assessment of Nutrient Combination emphasizing Phosphorus on Summer Blackgram Cultivation under Lateritic Soil of Birbhum", Subrata Mandal, Sourav Mondal, Prabuddha Ray and D. C. Manna, *Book of Abstracts of the National Seminar on Soil Health: Key to Sustainable Agriculture*, organized by the Soil Science and Agricultural Chemistry Section, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati from 14<sup>th</sup>. November 15<sup>th</sup>. November, 2015, Paper Code T2-22, pp. 65.
- **16.** "Participatory Message Development for Short Text Messaging (SMS) A New Tool for Reaching the Client", Dr. Prabuddha Ray and Prof. Sarthak Chowdhury, *Book of Abstracts of the National Seminar on Health, Education and Women Empowerment*, organized by the A. K. Dasgupta Centre for Planning and Development, Department of Economics and Politics, Visva-Bharati from 20<sup>th</sup>. November 21<sup>st</sup>. November, 2015, Session 5, Serial No. 2.
- 17. "Improved Method of Elephant's Foot Yam Cultivation: A Successful Initiative taken up by the Rathindra KVK for Economic Stabilization of the Farmers", Prabuddha Ray, Subrata Mandal and Dulal Chandra Manna, Synoptic View of Sustainable Family Farming for Food, Nutritional and Livelihood Security (ISBN No. 978-93-85503-32-0) [Book of Abstracts of the National Seminar on Family Farming Challenges and Opportunities, organized by the Department of Agricultural Extension, Agricultural Economics and Agricultural Statistics, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum from 5<sup>th</sup>. March 6<sup>th</sup>. March, 2016], pp. 16 17.
- **18.** "Inclusive Innovation: A Shift in Innovation Paradigms for reaching the Un-reached Farmers", Prabuddha Ray and Sarthak Chowdhury, *Book of Abstracts of the National Seminar on Family Farming Challenges and Opportunities, Synoptic View of Sustainable Family Farming for Food, Nutritional and Livelihood Security (ISBN No. 978-93-85503-32-0) [Book of Abstracts of the National Seminar on Family Farming Challenges and Opportunities, organized by the Department of Agricultural Extension, Agricultural Economics and Agricultural Statistics, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum from 5<sup>th</sup>. March 6<sup>th</sup>. March, 2016], pp. 41 42.*
- **19.** "Crop Insurance in India: A Historical Transverse and Issues related to Extension Efforts for Resource Poor Farmers", Prabuddha Ray and Sarthak Chowdhury, *Synoptic View of Sustainable Family Farming for Food, Nutritional and Livelihood Security (ISBN No. 978-93-85503-32-0) [Book of Abstracts of the National Seminar on Family Farming Challenges and Opportunities, organized by the Department of Agricultural Extension, Agricultural Economics and Agricultural Statistics, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum from 5<sup>th</sup>. March 6<sup>th</sup>. March, 2016], p. 51.*
- **20.** "Front Line Demonstration on Lentil using Improved Varieties WBL 58 and WBL 77 for Increasing Productivity under lateritic Soil of Birbhum, West Bengal", Subrata Mandal, Prabuddha Ray, Sourav Mondal and D. C. Manna, at the *National Conference on Bringing Self-Sufficiency in Pulses for Eastern India*, organized by the Bihar Agricultural University, Sabour, Bhagalpur, Bihar 813210, India in collaboration with the Indian Society of Pulses Research and Development (ISPRD), Indian Council of Agricultural Research (ICAR) Indian Institute of Pulses Research (IIPR), Kanpur, Uttar Pradesh 208024, India at the Bihar Agricultural University Campus, Sabour, Bhagalpur, Bihar from 5<sup>th</sup>. August to 6<sup>th</sup>. August, 2016.
- 21. "Extension Paradigm Fine-tuning for Ensuring Higher Production and Productivity of Lentil in Birbhum District, West Bengal", Dr. Prabuddha Ray and Prof. Sarthak Chowdhury, Souvenir and Abstract of the

National Conference on Bringing Self-Sufficiency in Pulses for Eastern India (ISBN No. 978-93-85516-73-3), organized by the Bihar Agricultural University, Sabour, Bhagalpur, Bihar – 813210, India in collaboration with the Indian Society of Pulses Research and Development (ISPRD), Indian Council of Agricultural Research (ICAR) – Indian Institute of Pulses Research (IIPR), Kanpur, Uttar Pradesh – 208024, India at the Bihar Agricultural University Campus, Sabour, Bhagalpur, Bihar from 5<sup>th</sup>. August to 6<sup>th</sup>. August, 2016, Paper Code – OP-05, pp. 210 - 211.

- **22.** "Crop Diversification through Cultivation of Broccoli: A Successful Intervention by the Rathindra KVK, Birbhum for Nutritional and Economic Security of the Farmers", Prabuddha Ray and Dulal Chandra Manna, *the International Seminar on "Growth and Diversification in India's Emerging Economy"*, organized by the A. K. Dasgupta Centre for Planning and Development, Visva-Bharati from 7<sup>th</sup>. January 8<sup>th</sup>. January, 2017 at the A. K. Dasgupta Centre for Planning and Development, Visva-Bharati, Santiniketan, Birbhum, West Bengal.
- **23.** "Fishery based Integrated Farming System (IFS) An Experience of Rathindra Krishi Vigyan Kendra, Birbhum, West Bengal", Dr. Prabuddha Ray, Dr. Subrata Mondal , Dr. Krishna Mitra and Dr. Madhuchhanda Khan, *the International Symposium on "ECO EFFICIENCY IN AGRICULTURE & ALLIED RESEARCH (EEAAR 17)"* organized by the Crop and Weed Science Society (CWSS), Bidhan Chandra Krishi Viswavidyalaya (BCKV) at Farmers' Academy & Convention Centre (FACC), BCKV, Kalyani, Nadia, West Bengal, India from 20<sup>th</sup>. January to 23<sup>rd</sup>. Janbuary, 2017, Paper ID. INS-381 T5-P-27.
- **24.** "Digitization of Agriculture and Allied Sectors in the Developing Countries in the Context of Eco-Efficiency", Dr. Prabuddha Ray, *the International Symposium on "ECO EFFICIENCY IN AGRICULTURE & ALLIED RESEARCH (EEAAR 17)*" organized by the Crop and Weed Science Society (CWSS), Bidhan Chandra Krishi Viswavidyalaya (BCKV) at Farmers' Academy & Convention Centre (FACC), BCKV, Kalyani, Nadia, West Bengal, India from 20<sup>th</sup>. January to 23<sup>rd</sup>. January, 2017, Paper ID. INS-T6-380-O-6.
- **25.** "Performance of Green Gram and Black Gram under FLD Programmes in Lateritic Soil of West Bengal", Subrata Mandal, Prabuddha Ray, Sourav Mondal and Palash Ankure; *Invited Papers and Book of Abstracts of the National Seminar on "Maximizing fertilizer use efficiency and environmental health for posterity*" organized by the Society for Fertilizer and Environment, Kolkata on the occasion of the 4<sup>th</sup>. Annual Convention of the Society for Fertilizers and Environment held at the Integrated Rural Development and Management Faculty Centre, Ramakrishna Mission Vivekananda University at Narendrapur, Kolkata in collaboration with the Sasya Shyamala Krishi Vigyan Kendra, Ramakrishna Mission Vivekananda University, Narendrapur, Kolkata on March 8<sup>th</sup>., 2017, Paper Code SFE-23, Page No. 43.
- **26.** "Standardizing the Methodologies for Environmental Impact Assessment: the Increased Need in Globalized Economies", Dr. Prabuddha Ray and Prof. Sarthak Chowdhury, *Abstracts of papers, Theme:- 4 (Management of major and secondary nutrients for sustainable soil health and crop production, <i>Symposium XI (Oral Presentation) of the National Seminar on "Nutrients and pollutants in soil-plant-animal-human Continuum for sustaining soil, food and nutritional security way forward"*, organized by Bidhan Chandra Krishi Viswavidyalaya (BCKV) in collaboration with National Academy of Agricultural Sciences (NAAS), held at Lake Hall, BCKV, Kalyani, Abstracts of papers, Theme:- 4 (Management of major and secondary nutrients for sustainable soil health and crop production, Symposium XI (Oral Presentation), on June 9<sup>th</sup>. 10<sup>th</sup>., 2017, pp. 29.
- 27. "Situation of Farm Machineries in Birbhum District, West Bengal Gaps to be Filled-Up", Prabuddha Ray, Subrata Mandal, Sourav Mondal, Palash Ankure and Ganesh Das, Book of Abstracts of One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural

Mechanization", organized by the Department of Agricultural Engineering, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, West Bengal, on January 29<sup>th</sup>., 2018, pp. 20.

- **28.** "Performance of Drum Seeder in Front Line Demonstration Programmes in Reducing Cost of Kharif Paddy Cultivation", Subrata Mandal, Prabuddha Ray, Sourav Mondal and Palash Ankure, Book of Abstracts of One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization", organized by the Department of Agricultural Engineering, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, West Bengal, on January 29<sup>th</sup>., 2018, pp. 38.
- **29.** "Growth, Production and Reproductive Performance of Japanese Quails (*Coturnix coturnix Japonica*) reared in Deep Litter System", Madhuchhanda Khan, Krishna Mitra, Prabuddha Ray and Ruma Addy, Book of Abstracts of One Day National Seminar-cum-Panel Discussion on "Doubling Farmers' Income: Role of Agricultural Mechanization", organized by the Department of Agricultural Engineering, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, West Bengal, on January 29<sup>th</sup>., 2018, pp. 43.
- **30.** "Evaluation of efficacy of different Training Methods for Skill Development Training organized by the Rathindra Krishi Vigyan Kendra, Birbhum, West Bengal", Dr. Prabuddha Ray and Dr. Subrata Mandal, Compendium of Abstracts of the National Seminar on Sustainable Resource Management for Enhancing Farm Income, Nutritional Security and Livelihood Improvement, organized by the Department of Agronomy, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan from February 1<sup>st</sup>. to February 3<sup>rd</sup>., 2019, Paper ID. Agron-NS-47, pp. 24.
- **31.** "Performance of Newly Improved High Yielding Wheat Varieties in the Front Line Demonstration Programmes organized by the Rathindra Krishi Vigyan Kendra in Irrigated Land Situations of Birbhum, West Bengal", Dr. Prabuddha Ray, Dr. Subrata Mandal, Sri Sourav Mondal and Sri Palash Ankure, Compendium of Abstracts of the National Seminar on Sustainable Resource Management for Enhancing Farm Income, Nutritional Security and Livelihood Improvement, organized by the Department of Agronomy, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan from February 1<sup>st</sup>. to February 3<sup>rd</sup>., 2019, Paper ID. Agron-NS-78, pp. 39.

#### REFERRED CONFERENCE PAPERS (NOT PRESENTED IN PERSON)

- **1.** "Role of Mass Media in Rural Development", Prabuddha Ray, Chandan Kumar Panda and Sarthak Chowdhury, *Book of Abstracts of the Ninth West Bengal State Science & Technology Congress*, organized by the Department of Science and Technology, Govt. of West Bengal from 28<sup>th</sup>. Februaryto 2<sup>nd</sup>. March 2002, pp. Saw Paw 13.
- **2.** "Factors influencing Technological Gap in Sugarcane Cultivation", Prabuddha Ray, Chandan Kumar Panda and Sarthak Chowdhury, *Book of Abstracts of the Ninth West Bengal State Science & Technological Congress*, organized by the Department of Science and Technology, Govt. of West Bengal from 28<sup>th</sup>. February to 2<sup>nd</sup>. March 2002, pp. Kri Bi 19.
- **3.** "The Effects of Herbicides in an Agro-Ecosystem A Critical Analysis", P. Ray, S. Chowdhury and C. K. Panda, *Book of Abstracts of the National Conference on Application of Identified Chemical and Biological Technologies in Agriculture*, organized by the Dept. of Life Science and Bio-technology, Jadavpur University and Eastern India Horticulture and Bio-technology Centre, Baharu, West Bengal from 14<sup>th.</sup> March to 15<sup>th.</sup> March, 2003, pp. Abstract 42.
- **4.** "Participatory Message Development: Paradigm Shift Toward More Involvement of Stakeholders", S. Chowdhury, C. K. Panda and P. Ray, *Book of Abstracts of the National Workshop on Communication Support for Sustaining Extension Services*, organized by the Department of Extension Education, Institute of

- Agricultural Science, Banaras Hindu University, Varanasi 221005, Ministry of Agriculture, Govt. of India, Krishi Bhavan, New Delhi 110001 and National Bank for Agriculture and Rural Development, Mumbai from 17<sup>th</sup>. February to 18<sup>th</sup>. February, 2004, pp. 276.
- **5.** "Changing Perspectives in Extension System: Some Key Issues", Sarthak Chowdhury, Prabuddha Ray and Chandan Kumar Panda, *Book of Abstracts of the National Seminar on Restructuring Extension Systems for Effective Transfer of Technology: Experiences, Needed Changes and Policy Support, organized by the International Extension Forum, TNAU Campus, Coimbatore, Tamil Nadu and the Department of Ag. Extension and Rural Sociology, Tamil Nadu Agricultural University, Coimbatore mfrom 26<sup>th</sup>. November to 28<sup>th</sup>. November, 2004.*
- **6.** "Challenges before the Extension System: A Paradigm Shift", Prabuddha Ray, Dr. Sarthak Chowdhury and Chandan Kumar Panda, *Book of Abstracts of the National Seminar on Restructuring Extension Systems for Effective Transfer of Technology: Experiences, Needed Changes and Policy Support, organized by the International Extension Forum, TNAU Campus, Coimbatore, Tamil Nadu and the Department of Ag. Extension and Rural Sociology, Tamil Nadu Agricultural University, Coimbatore from 26<sup>th</sup>. November, 2004. to 28<sup>th</sup>. November, 2004.*
- **7.** "Stakeholders' Participation A New Direction In Rural Development", Chandan Kumar Panda, Prabuddha Ray and S. Chowdhury, *Book of Abstracts of the National Seminar on Restructuring Extension Systems for Effective Transfer of Technology: Experiences, Needed Changes and Policy Support, organized by the International Extension Forum, TNAU Campus, Coimbatore, Tamil Nadu and the Department of Ag. Extension and Rural Sociology, Tamil Nadu Agricultural University, Coimbatore from 26<sup>th</sup>. November to 28<sup>th</sup>. November, 2004.*
- **8.** "Self Help Group A Way to Women Empowerment", Sarthak Chowdhury, Prabuddha Ray and Chandan Kumar Panda, *Book of Abstracts of the National Seminar on Green to Evergreen: Challenges to Extension Education*, organized by Indian Society of Extension Education and Division of Agricultural Extension, Indian Agricultural Research Institute, New Delhi from 15<sup>th</sup>. December to 17<sup>th</sup>. December, 2005, pp. 132 133.
- **9.** "Promotion of FSR: An Alternative Approach for Resource Poor Farmers", S. Chowdhury and Prabuddha Ray, *Book of Abstracts of the International Conference on Social Science Perspectives in Agricultural Research and Development*, organized by Voluntary Action for Research Development and Networking, New Delhi; International Food Policy Research Institute, Washington DC, USA and Indian Society of Extension Education, New Delhi from 15th. February to 18<sup>th</sup>. February, 2006, pp. 127.
- **10.** "Ecological and Cultural Crises and Women Empowerment: Some Thoughts", S. Chowdhury, Prabuddha Ray and Chandan Kumar Panda, *Book of Abstracts of the International Conference on Social Science Perspectives in Agricultural Research and Development*, organized by Voluntary Action for Research Development and Networking, New Delhi; International Food Policy Research Institute, Washington DC, USA and Indian Society of Extension Education, New Delhi from 15<sup>th</sup>. February to 18<sup>th</sup>. February, 2006, pp. 252 254.
- **11.** "Perceived Constraints in Relation to the Job Satisfaction of the Farm Scientists Working in SAUs of West Bengal: An Empirical Study", S. Chowdhury, C. K. Panda and P. Ray, *Book of Abstracts of the International Conference on Social Science Perspectives in Agricultural Research and Development, organized by Voluntary Action for Research Development and Networking, New Delhi; International Food Policy Research Institute, Washington DC, USA and Indian Society of Extension Education, New Delhi from 15<sup>th</sup>. February to 18<sup>th</sup>. February, 2006, pp. 122 123.*

- **12.** "Participatory Technology: A Way of Efficiency and Empowerment", Sarthak Chowdhury and Prabuddha Ray, *Book of Abstracts of the National Seminar on Extension Strategies for Fostering Knowledge Centric Agricultural Growth*, organized by the Society of Extension Education, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu from 2<sup>nd</sup>. December to 3<sup>rd</sup>. December, 2006.
- **13.** "Constraints as perceived by the vegetable growers regarding the adoption of IPM technologies: an empirical study", S. Chowdhury and Prabuddha Ray, *Book of Abstracts of the National Seminar on Impact of Agricultural Technology on Socio-economic Development of Rural Community, organized by the Indian Society for the Promotion for Agricultural Sciences, Dimapur, Nagaland, held at SASRD Campus, Medziphema, Dimapur on 27<sup>th</sup>. October, 2007, pp. 58 59.*
- **14.** "System Approach in Integrated Pest Management Strategies: Some Critical Issues", Prof. Sarthak Chowdhury and Prabuddha Ray, *Book of Abstracts of the National seminar on Appropriate Extension Strategies for Management of Rural Resources*, organized byDept. of Agril. Extension Education, University of Agricultural Sciences, Dharwad 580 005, Karnataka, India, in collaboration with Indian Society of Extension Education, Division of Extension Education, IARI, New Delhi 110012 from 18<sup>th</sup>. December to 20<sup>th</sup>. December, 2007.
- **15.** "Incorporating Indigenous Technical Knowledge in Integrated Pest Management (IPM) programmes: A Participatory Technology Development Approach", Prof. Sarthak Chowdhury and Prabuddha Ray, *Book of Abstracts of the Session on Indigenous Knowledge System and Common People's Rights as a part of the 16<sup>th</sup>. Congress on International Union of Anthropological and Ethnological Sciences, organized by Institute of Ethnology and Anthropology, Chinese Academy of Social Sciences, No. 27 Zhongguancun Nandajie Road, Beijing 110 081, People's Republic of China from 27<sup>th</sup>. July to 31<sup>st</sup>. July, 2009.*
- **16.** "Influence of the Socio-personal Traits of the Vegetable Growers on their Knowledge Index regarding the Pollution from Pesticide Use Empirical Study", Prof. Dr. Sarthak Chowdhury and Dr. Prabuddha Ray, *Book of Abstracts of the National Conference on Role of Biodiversity in Sustainable Agriculture*, organized by the Department of Botany, Bundelkhand University, Jhansi from 4<sup>th</sup>. March to 5<sup>th</sup>. March, 2010.
- **17.** "Popularizing Grape Cultivation and Wine Production in India- Some Relevant Issues", Dr. Prabuddha Ray and Prof. Sarthak Chowdhury, *National Symposium on "Food and Nutrition: Need for the Future"* organized by The Agricultural Society of India, Department of Agronomy, Institute of Agricultural Science, University of Calcutta, 35 Ballygaunge Circular Road, Kolkata-700019 from 25<sup>th</sup>. February 27<sup>th</sup>. February, 2015.

#### WEBINARS ATTENDED

- **1.** "Introduction to Digital Transformation and Global E-Governance Initiatives", National Productivity Council (NPC), Department of Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, Govt. of India, Utpadakta Bhavan, 5-6 Institutional Area, Lodhi Road, New Delhi 110003, 1st. June, 2020.
- **2.** International Webinar on World Skill Day on the Theme "Reinventing Agricultural Skill in the Time of Pandemic: Research and Extension Services", Association for Agriculture, Environment and Bio-Technology (AAEB), in collaboration with College of Agriculture, Tripura, 16<sup>th</sup>. June. 2020.
- **3.** National Webinar on "Organic Farming 2020", College of Agriculture, Balaghat, Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur, Madhya Pradesh,  $16^{th}$ . June  $-20^{th}$ . June, 2020.

- **4.** MANAGE Webinar on Coping with Covid-19 Strategies for Farmer Producer Organizations (FPOs), National Institute of Agricultural Extension Management (MANAGE), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Hyderabad, Telengana, 6<sup>th</sup>. July, 2020.
- **5.** MANAGE Webinar on Extension NEXT: Changing Roles and Future Reforms in Agricultural Extension, National Institute of Agricultural Extension Management (MANAGE), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Hyderabad, Telengana, 10<sup>th</sup>. July, 2020.

## E-WORKSHOP ATTENDED

**1.** 18<sup>th</sup>. One Week National E-Workshop on Planning and Development of Massive Open Online Courses (MOOCs), A. K. Dasgupta Centre for Planning and Development, Visva-Bharati, Santiniketan, Birbhum, West Bengal, from 10<sup>th</sup>. December, 2020 to 16<sup>th</sup>. December, 2020.

#### **MEMBERSHIPS**

- **1.** Life Member of The Agricultural Society of India, University of Calcutta, Ballygunge Science College Campus, 35, Ballygunge Circular Road, Kolkata -700019.
- **2.** Life Member of the Indian Statistical Institute, 203 B.T. Road, Kolkata 700108.
- **3.** Life Member of Forum of Scientists, Engineers and Technologists, 15 N Nelli Sengupta Sarani, New CMC Building (5<sup>th</sup>. floor), Kolkata -700087.
- **4.** Life Member of Society of Fertilizers and Environment, 16, Ellora Road (Canal Road), Kolkata 700075, West Bengal, India.
- **5.** Member of e-agriculture Platform, Food and Agriculture Organization (FAO) of the United Nations, Headquarters Viale delle Terme di Caracalla, 00153 Rome, Italy.

#### **OTHER ACTIVITIES**

- 1. Organized the National Workshop on "Community College" (12.08.2013), the Department of Lifelong Learning and Extension (Rural Extension Centre), Palli Samgathana Vibhaga (Institute of Rural Reconstruction), Visva-Bharati, Sriniketan.
- **2.** Organized the National Seminar on Soil Health: Key to Sustainable Agriculture (14.11.2015 15.11.2015), the Soil Science and Agricultural Chemistry Section, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum.
- **3.** Organized the National Conference on "Self Sufficiency in Pulses: Challenges and Way Forward" (19.11.2016 20.11.2016), Palli Siksha Bhavana, (Institute of Agriculture), Visva-Bharati and the Bengal National Chamber of Commerce and Industry, Visva-Bharati, Sriniketan, Birbhum.
- **4.** One of the main Organizers of the Exhibition Stall of the Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum on the Theme "Digitization in Farm Sector" in the "Magh Mela" (Late Winter Fair) 2017 (06.02.2017 08.02.2017), Sriniketan Fair Ground, Sriniketan Campus, Visva-Bharati, Sriniketan, Birbhum.

URL: https://www.youtube.com/watch?v=B4Vgm7QP\_js (Relevant Recording - 8.53 to 9.43 Minutes)

**5.** One of the Author-Participants of the 4-Days "Write-Workshop on Preparation of Study Material of Diploma in Agricultural Extension Services for Input Dealers (DAESI) Course" (25.06.2018 – 28.06.2018)

organized by the State Agricultural Management and Extension Training Institute (SAMETI) and Agricultural Training Centre (ATC), Ramakrishna Mission Ashrama, Narendrapur, Kolkata -700103 at the SAMETI Campus, Narendrapur, Kolkata.

- **6.** One of the Organizers of the National Seminar on Sustainable Resource Management for Enhancing Farm Income, Nutritional Security and Livelihood Improvement, organized by the Department of Agronomy, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan from February 1<sup>st</sup>. to February 3<sup>rd</sup>., 2019 at the Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum 731236, West Bengal.
- **7.** One of the main Organizers of the Exhibition Stall of the Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati, Sriniketan, Birbhum on the Theme "Integrated Farming System" in the "Magh Mela" (Late Winter Fair) 2020 (06.02.2020 08.02.2020), Sriniketan Fair Ground, Sriniketan Campus, Visva-Bharati, Sriniketan, Birbhum.
- **8.** Coordinator of the Farmers Scientists Meet on Scientific Cultivation of "*Kharif* Rice and its Management", organized by Palli Siksha Bhavana (Institute of Agriculture) and Rathindra Krishi Vigyan Kendra, Visva-Bharati on 19.07.2022 at the Community Hall, Visva-Bharati, Sriniketan.
- **9.** One of the Organizers of One-Day Lecture on "Climate-Smart Digital Agriculture Technologies for Livelihood Improvement of the Farming Communities", organized by the Department of Agronomy, Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati on 04.01.2023 at the Community Hall, Palli Siksha Bhavana (PSB), Visva-Bharati, Sriniketan.
- **10.** One of the Organizers of Training Programme and Farmers Scientists Meet on "Improved Technology of Millets Cultivation)", organized by the Rathindra Krishi Vigyan Kendra and Palli Siksha Bhavana (Institute of Agriculture), Visva-Bharati on 05.07.2023 at the Community Hall, Palli Siksha Bhavana (PSB), Visva-Bharati, Sriniketan.

#### PROFESSIONAL TRAININGS

- **1.** Model Training Course on Production of Particle Board from Agro Residues (15.11.2012 to 22.11.2012), the Indian Council of Agricultural Research National Institute of Research on Jute and Allied Fibre Technology, Kolkata.
- **2.** Training Programme on Participatory monitoring and evaluation (30.01.2013 to 31.01.2013), the Directorate of Extension Education, Centre for Human Resource Development, Bidhan Chandra Krishi Viswavidyalaya, Lake Hall, Kalyani, Nadia, West Bengal.
- **3.** Workshop on Training Need Assessment (02.03.2013 to 03.03.2013), the Directorate of Extension Education, Centre for Human Resource Development, Bidhan Chandra Krishi Viswavidyalaya, Lake Hall, Kalyani, Nadia, West Bengal.
- **4.** Brainstorming Session on Improving Research in Agricultural Extension: Issues and Way Forward (26.04.2013), the Zonal Project Directorate, Indian Council of Agricultural Research, Zone II, Salt Lake, Kolkata.
- **5.** Sensitization Workshop on Protection of Plant Varieties and Farmers' Rights (PPV & FR) Act 2001 (17.12.2013), the Zonal Project Directorate, Indian Council of Agricultural Research, Zone II, Salt Lake, Kolkata.

- **6.** HRD Programme for the Krishi Vigyan Kendra (KVK) personnel on Convergence of Activities of KVKs and Agricultural Technology Management Agency (ATMA) (21.12.2013 to 23.12.2013), Directorate of Research, Extension and Farms, West Bengal University of Animal and Fishery Sciences, 68, Kshudiram Bose Sarani, Kolkata 700037.
- 7. Workshop-cum-Training Programme on Enhancing the Outreach of the KVKs (15.01.2014), the Directorate of Extension Education, Centre for Human Resource Development, Bidhan Chandra Krishi Viswavidyalaya, Lake Hall, Kalyani, Nadia, West Bengal.
- **8.** Technology Backstopping Workshop (16.01.2014 to 17.01.2014), the Directorate of Extension Education, Centre for Human Resource Development, Bidhan Chandra Krishi Viswavidyalaya, Lake Hall, Kalyani, Nadia, West Bengal.
- **9.** Training Programme on Participatory Monitoring and Evaluation of Agricultural Projects (27.01.2014 to 30.01.2014), the National Institute of Agricultural Extension Management, Ministry of Agriculture, Govt. of India, Hyderabad, Andhra Pradesh, India.
- **10.** Training Programme on Planning, Implementation, Monitoring and Evaluation of Micro-enterprises (21.07.2014 to 25.07.2014), the National Institute of Rural Development, Ministry of Rural Development, Govt. of India, Rajendranagar, Hyderabad, Andhra Pradesh 500030, India.
- **11.** Master Trainers' Training on ICT based Extension through Farmers (25.08.2014 to 27.08.2014), the State Agricultural Management and Extension Training Institute, Govt. of West Bengal, Narendrapur, Kolkata 700103.
- **12.** Review and Final Master Trainer Training on Revisiting of Strategic Research and Extension Plan (SREP) (06.07.2015 to 10.07.2015), the National Institute of Agricultural Extension Management, Ministry of Agriculture, Govt. of India, Hyderabad and the State Agricultural Management and Extension Training Institute, Govt. of West Bengal, Narendrapur, Kolkata 700103.
- 13. Indian Council of Agricultural Research (ICAR) Sponsored Summer School on Multi-pronged Extension Management Strategies for Dryland Agricultural Development with special reference to promoting Climate Resilient Agriculture (05.08.2015 to 25.08.2015), the Department of Agricultural Extension and Rural Sociology, Centre for Agricultural and Rural Development Studies, Tamil Nadu Agricultural University, Coimbatore 641003, Tamil Nadu, India.
- **14.** Workshop on Strategies for Promoting Farmers Producer Organizations (FPOs) (09.12.2015 to 11.12.2015), Indian Council of Agricultural Research National Academy of Agricultural Research Management, Rajendranagar, Hyderabad 500030, Telengana, India.
- **15.** Orientation Training Programme on "Advance Agriculture and Allied Technologies in Farm sector" (21.03.2016 to 22.03.2016), Directorate of Extension Education, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, P. O. Krishi Viswavidyalaya, Pin. 741252, Dist. Nadia, West Bengal, India.
- **16.** Workshop on "National Fishery Development Board (NFDB) Sponsored Fishery Sector Projects" (08.06.2016), the ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector III, Salt Lake City, Kolkata 700097.
- **17.** International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) and Indian Council of Agricultural Research Indian Institute of Pulses Research (ICAR-IIPR) Workshop on "Tracking Adoption of Lentil Improved Cultivars in West Bengal" (09.06.2016), the Directorate of Research, Bidhan Chandra Krishi Viswavidyalaya, Farmers' Academy and Convention Centre (FACC), Kalyani.

- **18**. Training Programme on "Agricultural Innovation Systems (AIS): Looking beyond Agricultural Technology Management Agency ATMA Convergence" (27.06.2016 to 02.07.2016), ICAR-National Institute of Agricultural Extension Management (MANAGE), Hyderabad, Telengana, India.
- 19. Summer School on "New Age Extension Strategy for Communication Proficiency and Managerial Skill for Extension Professionals: Concept, Approach, Methodology and Application" (07.09.2016 to 27.09.2016), the Department of Agricultural Extension, Faculty of Agriculture, Bidhan Chandra Krishi Viswavidyalaya and Indian Council of Agricultural Research, Farmers' Academy and Convention Centre, Bidhan Chandra Krishi Viswavidyalaya, Kalyani, West Bengal.
- **20.** Training Programme on "Preparation of Fisheries Project" (28.11.2016 to 02.12.2016), National Fisheries Development Board, Department of Animal Husbandry, Dairying & Fisheries, Ministry of Agriculture and Farmers' Welfare, Govt. of India, Hyderabad, Telengana, India.
- **21.** Training Programme on "Advances in Training Method and Training Management" (14.02.2017 to 17.02.2017), Extension Education Institute, Jorhat, Assam and SAMETI, West Bengal, Ramakrishna Mission Ashram Complex, Narendrapur, Kolkata.
- 22. 15 Days Rigorous Training on both Theoretical and Practical Aspects of "Seed Technology" (23.10.2017 to 06.11.2017), as the Module II of the Certified Farm Adviser (CFA) Course on Specialization "Seed Technology" organized by the National Institute of Agricultural Extension Management (MANAGE), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Rajendranagar, Hyderabad 500030, Telengana, India at the Indian Council of Agricultural Research (ICAR) Indian Institute of Seed Science (IISS), Kushmaur, Mau 275103, Uttar Pradesh, India.
- **23.** Agriculture Skill Council of India (ASCI) Training of Trainers (ToT) on "Job Role Agriculture Extension Service Provider" (04.01.2018 to 06.01.2018), Indira Gandhi Krishi Viswavidyalaya, Raipur, Chhattisgarh and ICAR Agricultural Technology Application Research Institute (ATARI), Jabalpur, Madhya Pradesh at Directorate of Extension Services, Indira Gandhi Krishi Viswavidyalaya, Raipur, Chhattisgarh, India.
- **24.** Refresher Course for KVK Personnel on Agricultural Extension (06.02.2018), ICAR-Agricultural Technology Application Research Institute (ATARI), Kolkata, Bhumi Vihar Complex, Block GB, Sector III, Salt Lake City, Kolkata –700097.
- 25. Premium 21 Days ICAR Sponsored Centre of Advanced Faculty Training (CAFT) on "Extension led Nutritional Security" (04.09.2018 to 24.09.2018), the Division of Agricultural Extension, ICAR Indian Agricultural Research Institute (IARI), Pusa, New Delhi 110012.
- **26.** Training Programme on "On-farm Water Management Technologies for Improving Water Productivity" (21.01.2019 to 24.01.2019), ICAR Indian Institute of Water Management (IIWM), Bhubaneswar, Odisha, India.
- **27.** Human Resource Development Programme on "Broad Aspect of preparing a Road Map for Doubling Farmers' Income" (11.02.2020 to 13.02.2020), Directorate of Extension Education, Bidhan Chandra Krishi Viswavidyalaya, Farmers' Academy and Convention Centre (FACC), Lake Hall, Kalyani, Nadia.
- **28.** Training Programme on "Formulation of Business Plan and Entrepreneurship Competencies for Agri-Start-up" (30.08.2022 to 02.09.2022), Extension Education Institute (NE Region), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Assam Agricultural University, Khanapara, Guwahati, Assam.

- **29.** Online Training Programme on "Marketing Strategies for Organic Farming" (13.09.2022 to 15.09.2022), National Institute of Agricultural Extension Management (MANAGE), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Rajendranagar, Hyderabad 500030, Telengana, India and State Agricultural Management and Extension Training Institute SAMETI), Govt. of West Bengal, Ramakrishna Mission Ashrama, Narendrapur, Kolkata 700103.
- **30.** Training Programme on "Geographical Indication of Agricultural Varieties" (07.02.2023 to 08.02.2023), Extension Education Institute (NE Region), Ministry of Agriculture and Farmers' Welfare, Govt. of India, Assam Agricultural University, Khanapara, Guwahati, Assam in collaboration with SAMETI, West Bengal, Ramakrishna Mission Ashram Complex, Narendrapur, Kolkata.





SIMEON DJANKOV
DIRECTOR
DEVELOPMENT ECONOMICS
WORLD BANK GROUP

This is to certify that

## Prabuddha Ray

successfully completed and received a passing grade in

#### DAT2001x: e-Learning on Digital Agriculture

a course of study offered by WBGx, an online learning initiative of World Bank.



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