



### Message from our Project Leader

Welcome to our 4<sup>th</sup> issue of the INSIGHTS newsletter. As usual there has been a lot happening in our FBIP project; most importantly, all our partners have now compiled the baseline dataset and are conducting behavioural experiments in their case study regions. The farmer insights starting to come through are compelling. It will be exciting to share our findings on the use of behavioural economics to enhance adoption of agricultural technologies in the coming months.

We are proud of our hard work in gathering the evidence through scientifically proven methods and during a turbulent period caused by COVID-19. This coming year, our team will be focussing on the behavioural experiments for the Rabi season, writing up the results for publication, and engaging our stakeholders on how these results can inform programs and policy development. We will also communicate the results through a mix of platforms to reach wider audiences. We hope that through these activities we can soon make an impact on agricultural extension programs to contribute to improving productivity, income, and food security in the Eastern Gangetic Plains.

Dr Fay Rola-Rubzen, FBIP Project Leader, University of Western Australia.



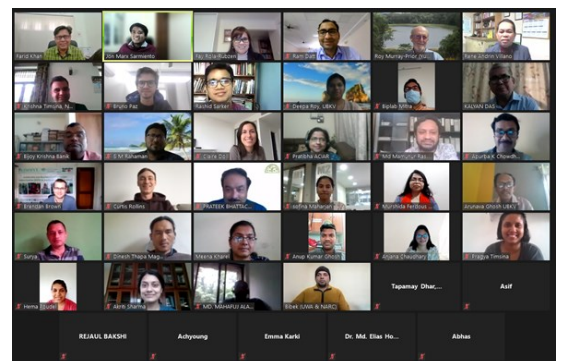
Associate Professor Fay Rola-Rubzen

### ACIAR's Review of FBIP project

On 9th – 10th June 2021 the annual planning and evaluation workshop of the Farmer Behaviour Insights Project was held remotely via Zoom. The workshop was attended by 46 participants from Nepal, India, Bangladesh, and Australia. The two-day online workshop was facilitated by FBIP Project Leader, Dr Fay Rola-Rubzen (UWA), who provided a comprehensive update on the overall progress of the project against the milestones.

Dr. Eric Huttner (ACIAR Program Manager) delivered the welcome address and announced the extension of the FBIP into 2022. Researchers delivered six presentations on Day 1 and a further nine presentations on Day 2, discussing results or progress in the implementation of the BE Experiments. Presenters addressed comments or questions from the workshop participants. ACIAR and FBIP colleagues were positive about the impact and traction the project was starting to gain.

A summary of the workshop was emailed to all participants, including the agreed activities to be achieved over the remaining months.



Australian Government  
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RDRS Bangladesh



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# Project Capacity Building Activities

## Recent Seminars

FBIP researchers have recently delivered two research seminars.

**Title:** Why do some farmers adopt new technologies, whereas others don't? Behavioural insights from South Asia.

**Presenter:** Associate Professor Fay Rola-Rubzen

**Series:** ASEAN Action Plan on Fall Armyworm Effective Farmer Communication Workshop: 4th Workshop on Farmer Behaviour and Communication

**Date:** 10am – 12pm, Tuesday 23rd November 2021.

**Website:** <https://www.aseanfawaction.org/farmer-communication>

**Title:** Does pre-commitment work in increasing adoption of agricultural technology: A behavioural experiment

**Presenter:** Professor Kalyan K Das and Associate Professor Fay Rola-Rubzen

**Series:** AARES Seminar Series, UWA.

**Date:** 11 – 12pm, Friday 22<sup>nd</sup> October 2021.

**Website:** Coming soon to <https://www.youtube.com/user/AREatUWA>

Further presentations will be made at the upcoming AARES and APEN conferences. Project partners will be organising seminars with stakeholders and local capacity building organisations.

## Revitalised FBIP logo



## FBIP Website

The FBIP website and logo was revitalised with an updated logo and the addition of the [Out-reach](#) webpage for all our communication and engagement activities. This change is in anticipation of producing a range of materials to support the communication of our research outcomes, such as research seminar recordings, newsletter articles, fact sheets, policy notes, videos, social media posts and more.

Please get involved in our communication efforts and send your news and links to: [tamara.harold@uwa.edu.au](mailto:tamara.harold@uwa.edu.au).

Next year we hope to add a Publications webpage where we can list out technical reports, journal articles, industry reports, datasets and other outputs.

## Upcoming Workshops

There are a series of workshops planned in 2022 for team members. These workshops aim to sharpen skills on data analysis and how to prepare, structure and write various publications and include:

- Behavioural Economics
- Basic analytics: factor analysis; multidimensional analysis; cluster analysis; and bivariate & multivariate analysis using STATA/SPSS
- Adoption analysis: Binary (probit/logit), multinomial; Count data; Structural equations modelling
- Impact evaluation: Propensity score matching & Difference-in-difference
- Gender analysis and gender mainstreaming
- Writing for journal publications

More information will be sent to the project team in the new year.

### Support for Stakeholders

In an interview with Dr Md Farid Uddin Khan, we learned that the FBIP RU team are keeping local government officials, researchers and academics informed on research progress and are currently planning to host a series of seminar/conference activities to disseminate the findings in 2022 with all stakeholders.

Dr Khan says that the data analysis is showing that training, information sharing and access to agricultural extension services are emerging as the key factors critical in the adoption of the new technology.

"If adoption is to improve, the social support structures need to be developed at the community level through increased demonstration projects and quality education programs on the benefits of the new technology and issues with conventional methods" said Dr Khan.

## Publications

### Journal Article

Ghimire, Y., Timsina, K., Adhikari, S., Shrestha, K., Gairhe, S., Acharya, Y., Devkota, D., Upadhyay, N., Kharel, M., Poudel, H., Murray-Prior, R., & Rola-Rubzen, M.F. 2021. Behavioural science principles for scaling-up zero tillage wheat and maize in the Eastern Terai region of Nepal. *Journal of Agriculture and Natural Resources*, 4(2), 316-326. <https://doi.org/10.3126/janr.v4i2.33947>.

### Technical Reports

Rahaman, S.M., et al. 2021. Baseline survey report for Bihar, India. Bihar Agricultural University, Sabour, Bihar, India.

Timsina, K.P., et al. 2021. Baseline survey report for Nepal. National Agricultural Policy Research Centre, Nepal Agricultural Research Council.

Rashid, M.M., et al. 2021. Baseline survey report for Rangpur, Bangladesh. RDRS Bangladesh, Rangpur, Bangladesh.

Khan, M.F.U., et al. 2021. Baseline survey report for Rajshahi, Bangladesh. Rajshahi University, Rajshahi, Bangladesh.

Das, K.K., et al. 2021. Baseline survey report for West Bengal, India. Uttar Banga Krishi Viswavidyalaya, Pundibari, Coochbehar, West Bengal, India.

# Research Activities

## Rajshahi University, Bangladesh

The FBIP RU team has successfully executed randomised control trials (RCT) at various randomly selected treatment sites in Rajshahi in October 2021. As part of this RCT process, the FBIP RU team adopted two behavioural experiments for the intervention: nudging and framing. To implement framing messages, the RU team developed 3 nudging video interventions: one highlighting a male farmer, one focussing on a female farmer and one with 5-10 mix of farmers. All videos were made incorporating CASI principles and showed seeding and tilling with zero/strip tillage machine as well as farmers experience and practices with the machine. Following the video presentation, the FBIP RU team hosted a lively question and answer session where farmers shared their experience, queries, and concerns.

In a facilitated discussion, farmers who had already adopted CASI technology mentioned its advantages, such as lower production costs and labour and time savings. However, many farmers also claimed that due to machine unavailability, they were unable to receive timely machine service which is a big issue for them. Using nudging principle via reminders, the FBIP RU team generated phone text messages about the CASI principles along with their possible benefits. A total of 685 farmers with 627 male and 58 female participated from eight nodes of Baduria and Holida Gasi in Charghat; Kashipur and Alipur in Durgapur; and Bijoynagar, Choighati,



Boshontopur and Pakri in Godagari. A brief post intervention survey was conducted few days after the intervention to assess intention to adopt by farmer participants.

## UBKV, West Bengal

The FBIP UBKV team collected baseline information from 602 respondents distributed over 30 sites. The behavioural experiment on “pre-commitment & micro-incentives” was conducted during the Rabi season (2020-21) involving 15 selected sites with 300 baseline survey participants. Understanding the role of “pre-commitment” and “pre-commitment with micro-incentives” in service provision was the major aim of this experiment. Respected service providers from farmer associations were selected, approached, trained and oriented for conducting the experiment. A post intervention survey was also made for elucidating requisite information for analysis and interpretation of the behavioural experiment. The preliminary findings of this study were presented in the FBIP’s Mid Term Review and Planning Meeting and in a joint seminar entitled “Does pre-commitment work in increasing adoption of agricultural technology: A behavioural experiment” delivered by Dr. Fay Rola Rubzen and Prof. Kalyan Kanti Das in the ARE/AARES WA Seminar series on 22nd October, 2021.

Currently, the team is conducting a behavioural experiment on “messaging” over the Rabi season (2021-22) involving 20 selected sites. The aim is to understand the behavioural response of farmers following differential contexts of “messaging”. Accordingly, experimental materials (video messages, text messages) have been prepared, local field agents identified, trained, and oriented in conducting the experiment.

Training and exposure of adopters (both potential and existing) is having a major role in increasing the practice of conservation agriculture methods in crop cultivation. It is also important to provide opportunities to refresh farmers’ knowledge especially considering the dynamics in crop cultivation techniques. To address this stakeholder need, the Centre for Excellence on Conservation Agriculture (CECA) has established a Regional Training Centre on Conservation Agriculture. This Facility was inaugurated by her Excellency Ms Rowan Ainsworth, Australian Consul General in Kolkata, West Bengal last 15th November, 2021. The inauguration programme was attended by the ACIAR South Asian Regional Manager, Dr Pratibha Singh, UBKV’s Vice Chancellor, the District Magistrate (Coochbehar), government representatives of West Bengal, private and public extension functionaries, and many others.



## Meet the Project Team



**Md. Mahafuj Alam**

Research Associate  
RDRS Bangladesh

**Md. Mahafuj Alam** has a degree in Agriculture Science and 12 years experience as an Agricultural Extension Officer in Bangladesh. He has extensive experience working on agricultural projects gaining knowledge in food security, agricultural technologies, agricultural market system, agri-business and value chains.

As a research associate, he has co-published papers on Bangladesh participatory food security policy mapping, and identification and documentation of best agricultural practices at targeted communities. He has produced documentation on commercial production and marketing of vermin compost and developed branding materials related to the value chain.

**Dr. Ranvir Kumar** is a trained socio-economist and an Assistant Professor working at Bhola Paswan Shastri Agricultural College (BPSAC) at Bihar Agriculture University, Purnia, Bihar, India.

He is a research scientist in Agricultural Economics and currently works on the FBIP project coordinating the day-to-day field level activities.

He has built an excellent rapport with the farming community, and is undertaking surveys, data collection and other activities.



**Dr. Ranvir Kumar**

Agricultural Economist, BAU India.

# Research Activities

## RDRS, Bangladesh

The FBIP RDRS team is currently conducting two behavioural field experiments in Rangpur division. One experiment is simplifying training materials to overcome cognitive limitation & biases and another is nudging to overcome inertia of farmers for increasing adoption of CASI technology.

Following the protocol, the team formed five groups for the field experiments and simplified training materials used at treatment sites. In addition, they reviewed and developed training materials including a video and leaflet. The team organised consultation meetings with farmers' group and arranged orientation for machine operators. In preparation for this experiment, the RDRS team first conducted field visits at the beginning and end of the last Rabi season (2020-21), then distributed a leaflet and organised a video show before seed sowing for the upcoming Rabi season (2021-22).

Similarly, the team formed four groups for the nudging experiments where four different treatments were carried out. The RDRS team also developed awareness-raising videos and text messages that included content on CASI principles, planting methodology, basic machine operating technique, information of low production cost including tillage, labour and soil health issues. As part of this experiment, they conducted a video show and sent text messages at specified time intervals from 15th September to 30th November 2021. During the period of interventions, CASI-adopter farmers shared the CASI benefits (including reduced cost of production, time & labour saving) amongst other farmers. Farmers also reported on some problems

such as unavailability of machine services and non-uniformity of seed dropping. Nevertheless, at the completion of these experiments many farmers showed a positive attitude towards CASI technology and expressed a commitment to adopt CASI in the current Rabi season (2021-22).



Throughout the process, the RDRS team faced some challenges such as accumulation of target respondents, insufficient mobile phones, and lack of skilled operators. Currently, RDRS researchers are conducting a post intervention survey to understand the level of intention amongst the project participants to adopt CASI technology.

## BAU, India

Initially the COVID-19 pandemic lockdown hampered the FBIP BAU team to conduct their research activities, however the team found a way to complete their tasks. With the help of hired enumerators, BAU researchers successfully completed the baseline survey of 742 households. Basic analysis has been done and the preliminary results were presented at FBIP's Mid Term Review and Planning Meeting.

Two videos were prepared, one for Direct Seeded Rice (DSR) and one for Zero Tillage (ZT) Wheat. During Kharif 2021, the behavioural experiment on social proof and nudging in Purne district of Bihar, India for DSR was conducted. During the Rabi season (2021-22), the nudging experiment for ZT wheat crop was conducted using the videos and text messages. As per the protocol, regular messaging and screening of the video were shown to farmers before the commencement of the season. Regular field visits to build rapport and promote ZT activities were undertaken by the BAU team. An extension folder entitled "Zero Tillage *taknique ke dwara dhan ki kheti*" was published during the year under FBIP project.

The data collection on the post-intervention survey has been completed.



## Staff Changes

### Congratulations!

On behalf of all the FBIP partners, we would like to congratulate Md. Istique Asif from Rajshahi University who has been awarded funding and admittance into a PhD program at the University of Bologna in Italy. This award is a reflection on Asif's abilities and hard work. We highly valued Asif's contributions and his collaborative working approach on the FBIP project. After 3 years working on this project, he will certainly be missed. We wish him all the best with his future studies.

We would like to also congratulate Dr Elias Hossain of Rajshahi University who is now Dean of the Social Science Faculty. His appointment will strengthen the project's linkage with the School and the University.

Congratulations also to Dr Bibek Sapkota of the Nepal Agricultural Research Council (NARC) who has successfully been awarded his PhD from the University of Western Australia. Bibek's thesis examined risk perceptions, risk attitudes, and willingness to pay for crop insurance of Nepalese farmers.

### Staff changes

There have been a few changes to [FBIP team members](#) this year, including:

- 1. NARC:** Dr Krishna Prasad Timsina was appointed to the role of NARC Coordinator following Dr Yuga's promotion to Planning Director. Also, Meena Kharel joined the team as we farewelled Hema Kumari Poudel.
- 2. BAU:** Dr S M Rahaman was appointed as the new BAU Coordinator following Dr Ram Datt's move to Rajendra Prasad Central Agricultural University. Mr. Nirala Kumar joined the team and we farewelled Ms. Shubhi Chaurasia, who is now undertaking her PhD.
- 3. RDRS:** There have been several new appointments at RDRS, including Anup Kumar Ghosh, Md. Fozul Karim, Md. Firoz Bulbul, Md. Mohidul Islam and Md. Zulkar Nine. We also farewelled Ashish Kumar Mojumdar this year.
- 4. UWA:** Four new Research Assistants have been appointed at UWA, Dr Hue Thi Vuong, Curtis Rollins, Claire Doll and Sofina Maharjan and a Communications Officer, Tammie Harold.
- 5. UNE:** A new Post-doctoral Fellow, Dr Md. Jahangir Kabir, was appointed at UNE.