

## Dr. Priya Lal Chandra Paul

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ResearchGate: [https://www.researchgate.net/profile/Priya\\_Lal\\_Paul](https://www.researchgate.net/profile/Priya_Lal_Paul)

Google scholar: [https://scholar.google.com/citations?user=2Anl-\\_AAAAAJ&hl=en](https://scholar.google.com/citations?user=2Anl-_AAAAAJ&hl=en)



### Research Interest

Salinity and Waterlogging Management, Soil Water Conservation, Coastal Agriculture and Hydrology, Crop Establishment, Agricultural Irrigation and Drainage, Cropping System Intensification, Tillage, Mulch, Conservation Agriculture

### Current Research Project

- Increasing Cropping Intensity in the Coastal Barishal and Khulna Region Through Water Resources and Soil Salinity Management which funded by Ministry of Agriculture. Working as a principal investigator
- Mitigating risk and scaling-out profitable cropping system intensification practices in the salt-affected coastal zones of the Ganges Delta which funded by ACIAR and KGF. Working as a co-principal investigator

### Academic Qualifications

Degree	University	Year
PhD in Agricultural Science	Murdoch University, Perth, Australia	2020
M.S. in Irrigation and Water Management	Bangladesh Agricultural University, Mymensingh	2006
B. Sc. Agricultural Engineering	Bangladesh Agricultural University, Mymensingh	2002

### Publications

#### Full length paper

1. Hossain, M. B., Roy, D., Mahmud, M. N. H., **Paul, P. L. C.**, Yesmin, M. S., & Kundu, P. K. (2021). Early transplanting of rainfed rice minimizes irrigation demand by utilizing rainfall. *Environmental Systems Research*, 10(1), 34.
2. **Paul, P. L. C.**, Bell, R. W., Barrett-Lennard, E. G., Kabir, E., & Gaydon, D. S. (2021). Opportunities and risks with early sowing of sunflower in a salt-affected coastal region of the Ganges Delta. *Agronomy for sustainable development*, 41(3), 39.
3. **Paul, P. L. C.**, Bell, R. W., Barrett-Lennard, E. G., & Kabir, E. (2021). Impact of Rice Straw Mulch on Soil Physical Properties, Sunflower Root Distribution and Yield in a Salt-Affected Clay-Textured Soil. *Agriculture*, 11(3), 264.
4. M. K. Mondal, N. K. S., J. Bhattacharya, S. P. Ritu, **P. L. C. Paul**, S. Parveen, Z. K. Khan, A. Sutradhar, F. A. Kamal. (2020). Productivity improvement opportunities in the coastal polders to address food security challenges of Bangladesh. *Journal of the Indian Society of Coastal Agricultural Research*, 38(2).
5. **Paul, P. L. C.**, Bell, R. W., Barrett-Lennard, E. G., & Kabir, E. (2020). Straw mulch and irrigation affect solute potential and sunflower yield in a heavy textured soil in the Ganges Delta. *Agric. Water Manage.*, 239, 106211.

6. **Paul, P. L. C.**, Bell, R. W., Barrett-Lennard, E. G., & Kabir, E. (2020). Variation in the yield of sunflower (*Helianthus annuus* L.) due to differing tillage systems is associated with variation in solute potential of the soil solution in a salt-affected coastal region of the Ganges Delta. *Soil & tillage research*, 197, 104489.
7. Alam, M., Bell, R. W., Salahin, N., Pathan, S., Mondol, A., Alam, M., **Paul P. L. C.**, . . . Shil, N. (2018). Banding of fertilizer improves phosphorus acquisition and yield of zero tillage maize by concentrating phosphorus in surface soil. *Sustainability*, 10(9), 3234.
8. **Paul, P.L.C.**, Rashid, M., Alam, M., Ghani, M., & Hossain, M. (2016). Selection of profitable rice-based cropping system under prevailing water environment in Satkhira district of Bangladesh. *Academia Journal of Agricultural Research*, 4(9), 581-588.
9. Hossain, M., Roy, D., **Paul, P.L.C.**, & Islam, M. (2016). Water Productivity Improvement Using Water Saving Technologies in Boro Rice Cultivation. *Bangladesh Rice Journal*, 20(1), 17-22.
10. **Paul, P.L.C.**, Rashid, M.A. 2013. Refinement of Alternate Wetting and Drying (AWD) Irrigation for Rice Cultivation. *Bangladesh Rice J.*17(1&2):37-41,2013.
11. Paul, S., Hossain, Delwar., Mahmud, MNH., **Paul, P.L.C.**, Rahman, AKML. and Saha, MK. 2014. Quality Degradation Trend of Water in the Buriganga River. *Bangladesh Journal of Progressive Science and Technology*, 12(1):011-016.
12. **Paul, P.L.C.**, Hasan, N., Rashid, M.A., Paul, M., and Paul, S. 2013. Water productivity evaluation for rice-based cropping system in Gazipur District of Bangladesh. *Eco - friendly Agril. J.* 6(12):279-284.
13. Banik, S., **Paul, P.L.C.**, Siddiquee, M.A., Dutta, A.K. and Hosen, S. 2012. Effect of Alternate Wetting and Drying irrigation methods on physicochemical and cooking properties of BRR1 dhan28. *International Journal of Sustainable Agricultural Technology*, 8(7): 12-16.
14. Hossain, M., Mojid, M.A., **Paul, P.L.C.** and Paul, S. 2012. Measurement of conveyance loss of water in irrigation canals in Sadar Upazilla, Mymensingh. *Eco - friendly Agril. J.* 5(07):79-85.
15. Morshed, M., Hassanuzzaman, M., **Paul, P.L.C.** and Banik, S. 2012. Performance evaluation on Alternate Wetting and Drying Irrigation for Rice Cultivation. *Eco -friendly Agril. J.* 5(05):36-40.
16. **Paul, P.L.C.**, Khair, M.A. and Nath, B.C. 2011. Design and development of hand cum foot operated reciprocating pump for irrigation. *Bangladesh Journal of Training and Development, Graduate Training Institute, Bangladesh Agricultural University, Mymensingh*, Vol. 21-23(1&2):183-192.
17. Debnath, L.C., Ahmed, M. and **Paul, P.L.C.** 2011. Analysis of climatic parameters related to crop production at Bangladesh Agricultural University, Mymensingh. *Bangladesh Journal of Progressive Science and Technology*, 9(1):129-132.
18. **Paul, P.L.C.**, Khair, M.A. and Nath, B.C. 2010. Construction and performance evaluation of foot operated diaphragm pump for low lift irrigation. *Bangladesh Journal of Progressive Science and Technology*, 8(1):75-78.

### **Conference paper**

1. Mondal, M., Saha, N., Ritu, S., **Paul, P. L. C.**, Sharifullah, A., Humphreys, E., . . . Rashid, M. (2015). *Optimum sowing window for boro cultivation in the coastal zone of Bangladesh*. In: Humphreys, E., Tuong, T.P., Buisson, Marie-Charlotte, Pukinskis, I., Phillips, M. (Eds.), Proceedings of the CPWF, GBDC, WLE Conference on Revitalizing the Ganges Coastal Zone: Turning Science into Policy and Practices, Dhaka, Bangladesh, 21–23 October 2015. Colombo, Sri Lanka: CGIAR Challenge Program on Water and Food (CPWF)
2. Mondal, M., **Paul, P. L. C.**, Humphreys, E., Tuong, T., Ritu, S., Rashid, M., . . . Phillips, M. (2015). *Opportunities for cropping system intensification in the coastal zone of Bangladesh*. In: Humphreys, E., Tuong, T.P., Buisson, Marie-Charlotte, Pukinskis, I., Phillips, M. (Eds.), Proceedings of the CPWF, GBDC, WLE Conference on Revitalizing the Ganges Coastal Zone: Turning Science into Policy and Practices, Dhaka, Bangladesh, 21–23 October 2015. Colombo, Sri Lanka: CGIAR Challenge Program on Water and Food (CPWF).
3. Saha, N.K., M.K. Mondal, E. Humphreys, J. Bhattacharya, **Paul, P.L.C.** and S.P. Ritu, 2015. Triple rice in a year: Is it a feasible option for the low salinity areas of the coastal zone of Bangladesh. In: Humphreys, E., Tuong, T.P., Buisson, Marie-Charlotte, Pukinskis, I., Phillips, M. (Eds.), Proceedings of the CPWF, GBDC, WLE Conference on Revitalizing the Ganges Coastal Zone: Turning Science into Policy and Practices, Dhaka, Bangladesh, 21–23 October 2015. Colombo, Sri Lanka: CGIAR Challenge Program on Water and Food (CPWF)

4. Bhattacharya, J., E. Humphreys, M.K. Mondal, N.K. Saha, **P.L.C. Paul** and S.P. Ritu, 2015. Rice-rice-rabi cropping systems for increasing the productivity of low salinity regions of the coastal zone of Bangladesh. In: Humphreys, E., Tuong, T.P., Buisson, Marie-Charlotte, Pukinskis, I., Phillips, M. (Eds.), Proceedings of the CPWF, GBDC, WLE Conference on Revitalizing the Ganges Coastal Zone: Turning Science into Policy and Practices, Dhaka, Bangladesh, 21–23 October 2015. Colombo, Sri Lanka: CGIAR Challenge Program on Water and Food (CPWF).
5. Sarker, K. K., Kamar, S., Hossain, M., Mainuddin, M., Bell, R. W., Barrett-Lennard, E., **Paul P. L. C.**, Rashid, M. H. (2020). Effect of straw mulch and irrigation on sunflower and maize cultivation in no tillage systems of coastal heavy soils. *Multidisciplinary Digital Publishing Institute Proceedings*, 36(1), 145.

### ***Brochure and working paper***

1. **Paul, P.L.C.**, Alam, M.M., Rashid, M.A. 2014. Water management for enhancing crop production under changing climate at Satkhira District (Bangla), Brochure.
2. Rashid, M.A., Alam, M.M., **Paul, P. L. C.** 2014. Rainwater harvesting for increasing rice production (Bangla), Brochure.
3. **Paul, P.L.C.**, Mondal, M.K., Rashid, M.A., E, Humphreys 2014. Crop and water management for cropping system intensification in the coastal region of Bangladesh.
4. **Paul, P.L.C.**, Mondal, M.K., Rashid, M.A., E, Humphreys 2014. Extensive scope of rabi crops cultivation in tidal Barisal region of Bangladesh (Bangla).
5. **Paul, P.L.C.**, Mondal, M.K., Rashid, M.A., E, Humphreys 2014. Techniques of rabi crops cultivation in saline affected Khulna district of Bangladesh (Bangla).
6. Alam, M., **Paul, P.L.C.**, Rashid, M.A. 2014. Enhancing crop production in Tidal Barisal region under changing climate (Bangla).
7. Islam, T., Sarkar, F.I.M.G.W., Zaman, M., **Paul, P.L.C.** 2013. Water saving and Irrigation Technology for Rice cultivation (Bangla).
8. Mark Glover, Manoj Nanda, Argha Ghoch, Khokan Kumar Sarker, Mustafa Kamal Shahadat, Sukanta Sarangi, Md. Maniruzzaman, Md. Belal Hossain, Sukamal Sarkar, Nazrul Islam, Afrin Jahan Mila, **Priya Lal Chandra Paul**, Ed Barrett-Lennard, Don Gaydon, Mohammed Mainuddin, Mst. Shetara Yesmin, Enamul Kabir, Hafijur Rahman, D. Burman, Bidhan Chandra Sarker, Mamunur Rashid Sarker, Sk. Shamsul Alam Kamar, Palash Kumar Kundu, U. K. Mandal, Koushik Brahmachari, and Buddheswar Maji 2020. Preliminary Assessment Report for the Supporting Cropping system intensification in the salt-affected coastal zone of Bangladesh and West Bengal, India (Australian Centre of International Agricultural Research Project CSI4CZ).

### ***Oral and poster presentation***

1. **Paul, P.L.C.**, Bell, R. W., Barrett-Lennard, E. G., Mainuddin, M., Maniruzzaman M, Sarker, K.K. 2021. Maize yield increased by soil disturbance in a salt-affected clayey soil of the Ganges delta-why? International Symposium on Coastal Agriculture: Transforming Coastal Zone for Sustainable Food and Income Security during March 16-19, 2021 organized by Indian Society of Coastal Agricultural Research, Canning Town, West Bengal, India. Poster presentation by Priya Lal Chandra Paul
2. Sarker, B.C., Kabir, E., **Paul, P.L.C.** 2021. Optimization of Nitrogen Rate for Wheat Grown under Zero Tillage in Coastal Saline Soils. International Symposium on Coastal Agriculture: Transforming Coastal Zone for Sustainable Food and Income Security during March 16-19, 2021 organized by Indian Society of Coastal Agricultural Research, Canning Town, West Bengal, India. Oral presentation by Bidhan Chandra Sarker
3. **Paul, P.L.C.**, Hasan, N. and Rashid, M.A. 2011. Study on Water Productivity for Rice Based Cropping System in selected location of Bangladesh. Paper presented in The Institution of Engineers, Bangladesh, Paper Meet, November 2011.
4. **Paul, P. L. C.** 2011. Current Irrigation and Water Management Scenario of Bangladesh. Country report presented in Ministry of Agriculture, Jakarta, Indonesia under “International Training Course on Community Water Management for Agriculture”, 6-19 March 2011.

5. **Paul, P. L. C.** 2011. Sustainable Water Management for Agriculture Under Changing Climate. Country report presented in University of Antwerp, Belgium under “International Training Course on Technology for Integrated Water Management”, 22 September-18 December 2014.
6. **Paul, P. L. C.,** Bell, R. W., Barrett-Lennard, E. G., and Kabir, E. (2017). The effect of different sowing time on Sunflower establishment and subsequent crop growth in the salt-affected coastal region of Bangladesh. Annual Research Meeting of the project on “Cropping system intensification in the salt-affected coastal zone of Bangladesh and West Bengal, India (CSI4CZ)” held on West Bengal India, 24-27 April 2017. Oral presentation by Priya Lal Chandra Paul.
7. **Paul, P. L. C.** 2017. Crop establishment in wet and saline soil in the coastal zone of Bangladesh. 3MT presentation for the First Western Australia Bangladesh Researchers Summit held at Curtin University, Australia on 8 August 2017.
8. **Paul, P. L. C.,** Bell, R. W., Barrett-Lennard, E. G., and Kabir, E. (2018). Establishment of Sunflower and Maize on wet soils in the salt-affected coastal region of Bangladesh. 21<sup>st</sup> World Congress of Soil Science, Rio de Janeiro, Brazil (12-17 August 2018). Oral presentation by Priya Lal Chandra Paul.
9. **Paul, P. L. C.,** Bell, R. W., Barrett-Lennard, E. G., and Kabir, E. (2019). Dynamics of soil water content and salinity in the Ganges Delta: effects of rice straw mulch. Murdoch University Annual Research Symposium, Perth, Western Australia (3<sup>rd</sup> June 2019). Poster presentation by Priya Lal Chandra Paul.
10. **Paul, P. L. C.** 2020. Overcoming soil constraints for rabi crop establishment through soil water and salinity management in the salt-affected coastal region of Bangladesh. Sunday seminar on zoom platform at BRRI, Gazipur. 23 August 2020.

### National and International Training Received

Name of the Course	Institution	Year
Training Workshop on “John Allwright Fellowship executive leadership (JAFel) program”	University of New England, Australia	2019
International Training Course on “Technology for Integrated Water Management”	University of Antwerp and Ghent, Belgium	2014
Training of Trainers (ToT) on Integrated Water Resource Management Concept and Its	Centre for Environmental and Geographic Information Services (CEGIS), Bangladesh	2013
Training course on Decision support System for Agrotechnology Transfer (DSSAT)	Bangladesh Rice Research Institute (BRRI), Gazipur, Bangladesh	2013
Crop Production Technologies under Environmental Stress Condition for NARS Scientist	Bangladesh Agricultural Research Institute (BARI), Gazipur, Bangladesh	2012
Utilization of Bangladesh Rice Knowledge Bank Training Course	Bangladesh Rice Research Institute (BRRI), Gazipur, Bangladesh	2011
International Training Course on Technology of Hybrid Rice Cultivation	Bangladesh Rice Research Institute (BRRI), Gazipur, Bangladesh	2011
International Training Course on Community Water Management for Agriculture	Ministry of Agriculture, Republic of Indonesia (Jakarta, West Java and Bali)	2011
Training course on Agricultural Engineering Technology	Bangladesh Agricultural Research Institute (BARI), Bangladesh	2011

Research Methodology	Graduate Training Institute, Bangladesh Agricultural University, Mymensingh	2010
1-Month Rice Production Training Course	Bangladesh Rice Research Institute (BRRI), Gazipur	2010
Technical Report Writing and Editing	Agricultural Information Centre, Bangladesh Agriculture Research Council (BARC), Farmgate, Dhaka.	2010
Hybrid rice Development and Seed production training course	Bangladesh Rice Research Institute (BRRI), Gazipur	2009

### Employment History

Post held	Organization	Duration
Senior Scientific Officer	Bangladesh Rice Research Institute (BRRI)	December 2014 to till date
Scientific Officer	Bangladesh Rice Research Institute (BRRI)	August 2009 to December 2014
Assistant General Manager (AGM)	Bangladesh Rural Electrification Board (REB)	November 2008 to August 2009
Assistant Manager	Bangladesh Sugar and Food Industries Corporation (BSFIC)	July 2008 to November 2008
Agricultural Engineer	Department of Agriculture Extension(DAE) Ministry of Agriculture	July 2006 to July 2008

### Workshops and Meetings

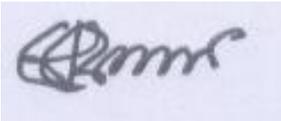
1. Murdoch University Agricultural Research Symposium, 1 September 2017.
2. National workshop on *Agricultural Engineering Research Planning*, 23-24 May 2011, BARC, Dhaka
3. National workshop on *Agricultural Engineering Research Planning*, 11-12 June 2012, BARC, Dhaka.
4. International workshop on *Alternate wetting and drying for resource conservation and reduction of environmental pollution*, 13-14 December 2011, IRRI, Dhaka.
5. Inception workshop on “Coordinated Sub-Project on Water Management for Enhancing Crop Production under Changing climate, 7 September 2011.
6. Review and Planning Workshop on “Challenge Program Water and Food, 11 November 2012.
7. Review and Planning Workshop on “Challenge Program Water and Food, 12-13 November 2013.
8. Project completion Workshop on “SPGR Sub-projects under Agril. Eng, 04 May 2014.

### Research Experience

1. Worked as a Co-Principal Investigator of the project entitle: “Water management for enhancing crop production under changing climate” where the long term climatic parameter (Evaporation, rainfall, temperature, wind speed, sunshine hour, and relative humidity) collected to observe the trend of climate change using MAKESENS model, to fit a suitable cropping system, groundwater table monitoring, conjunctive use of surface and groundwater and minimized irrigation water loss.
2. Worked as a Co-Principal Investigator on the CGIAR Challenge Program on Water and Food (CPWF) second phase GBDC which is about research for development under the project named “Productive, profitable, and resilient agriculture and aquaculture systems” where the cropping system component is about rice variety evaluation for the different stress conditions (e.g. medium deep water for 1-2 months, salinity etc), cropping system intensification (e.g. fitting together crops and varieties to achieve 3 crops per

year in coastal areas), and maximizing productivity of these cropping systems through improved varieties and agronomic management, and improved water management (better drainage, better use of the available water during the dry season).

3. Worked as a co-investigator on the “Minimizing Rice Yield Gap Project under Lakshmipur District.
4. Worked as a Principal Investigator on the field research “Crop establishment on wet soil of the coastal zone Bangladesh to alleviate soil salinity risk in the rabi season.
5. Worked as a principal investigator on the several experiments especially water productivity, water saving technology, climate change and cropping system intensification.



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