Sher-e-Bangla Agricultural University

SDG Activity Report
on

SDG 1:
No Poverty

Contents

Faculty Research and Publications

Farmers perspectives on options for and barriers to implementing climate resilient agriculture and implications for climate adaptation policy.

Author: Shilpi Kundu

Year: 2024

Abstract:

The impacts of climate change in low lying coastal areas, such as Bangladesh, are adversely affecting food and livelihood security, requiring adaptation to build resilience. However, effective implementation is limited by a lack of local-level knowledge regarding the barriers that prevent adoption and up-scaling of climate resilient agriculture (CRA). Case studies in coastal Bangladesh provide novel insights regarding barriers to planned and autonomous adaptation from the perspective of farmers facing multiple climate change impacts across seven key dimensions of CRA (agrometeorology services, water management practices, nutrient management activities, technologies and knowledge management activities, infrastructure development, socio-economic resilience, and institutions and good governance). Farmers generally perceive that adaptation actions increase resilience in crop production systems and their surrounding social systems, but also identify the important barriers that inhibit or constrain planned and autonomous adaptation opportunities. Planned adaptation actions are perceived to be limited by institutional arrangements and lack of implementation capacity. Autonomous adaptation was found to be dependent on income level, farm-holding size, access to input resources and services and peer/social influences. Planned and autonomous adaptation actions were both affected by specific social and geographic contexts and cultural factors. Recommendations are suggested to address key constraints and thereby promote CRA in coastal agricultural landscapes in Bangladesh and in other developing countries confronting similar challenges.

Clean energy transition in rural Bangladesh: Challenges in adoption and impact

Author: Md. Sadique Rahman Md. Hayder Khan Sujan

Year: 2024

Abstract: At the household level, the solar photovoltaic (PV) system is an off-grid clean energy source with significant poverty reduction potential, thereby contributing to the attainment of several sustainable development goals. Nevertheless, there has been limited adoption of renewable or clean energy technologies in Bangladesh. At present, renewable energy sources account for only 3% of the country's electricity generation. This study thus investigates the drivers of solar PV adoption and the impact of this on household income and poverty in Bangladesh. We present an econometric analysis of data from the International Food Policy Research Institute's Bangladesh Integrated Household Survey, 2020. Our findings indicate that only 5.51% of the sample households adopted solar PV, with the likelihood of adoption 3.8% higher in households with a mobile phone, 1.7% higher in households with internet access, and 2.8% higher among homeowners. However, the government's programs to expand the electricity grid made the delivery of solar PV by partner organizations less competitive. Our analysis reveals that the adoption of solar PV has a positive effect on household income of between 9.31% and 13.50%. The poverty gap is likely to decrease by around 20% to 26% due to adoption. These findings are pertinent to ongoing policy development efforts targeted at increasing the adoption of renewable energy to meet the sustainable development goals. Solar PV information could be potentially disseminated through mass media and modern communication technologies that require internet access. Furthermore, increasing the

installation of solar PV systems in rented houses may promote the adoption of solar PV. It is imperative to implement policies that provide incentives for the installation and utilization of solar PV.