

Is Conservation Agriculture ‘female friendly’? Learnings from the Eastern Gangetic Plains of South Asia

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Conservation agriculture (CA) has proven benefits for poverty-stricken smallholder farmers in the Eastern Gangetic Plains (EGP) of South Asia, but there has been limited analysis of how gender implicates on CA adoption, roles, agency and impact. Using three interrelated data sources (in depth interviews of female decision makers; in depth interviews with female spouses of male decision makers; and a novel photo dairy/photo voice activity) across six locations in Nepal, Bihar, West Bengal and Bangladesh, we explore how gender dynamics influence CA uptake and benefits, with a particular focus on addressing the as yet clearly unexplored research question: is CA ‘Female friendly’?

Answering this across the region is complicated by various cultural norms. In most locations, women have minimal involvement in agricultural decision making at household level (except some parts of West Bengal). Despite this, females were engaged in substantial farm activities that could be potentially influenced by the implementation of CA. Females farmers broadly identified that CA directly led to labour savings that were reallocated to other purposes, due mainly in part to less burden and drudgery in weeding activities. They also identified that with herbicide use, their husbands or male labourers were tasked with spraying allowing for more supervisory roles. Additional time was usually repurposed to both economic and non-economic activities, mainly: [1] spending time with children and domestic tasks; [2] attending community classes; [3] mushroom cultivation; [4] rice seed bed raising economic activities; [5] cattle breeding and poultry. Beyond labour, females identified that money was particularly saved at the early stages of crop production through zero tillage and where possible they allocated these financial resources to cattle.

In terms of agency and empowerment, females broadly identified that they had an ambition to step away from agricultural duties, which was facilitated through CA. In North Bengal and northern Bangladesh, females also expressed interest in machinery operation, but usually in the context of mechanical rice trans planters and two-wheel tractors and not with four-wheel tractors. However, this was hampered not by any perceived stigma, but a lack of training opportunities and a reliance on male spouses to obtain agricultural information. Conversely, there was an acknowledgement in the potential loss of agency with an increasing knowledge gap -particularly around herbicides and operation of machinery that could potentially lead to disempowerment. Females also highlighted concern with transitioning to maize and away from wheat using CA, as poor performance on a crucial cash crop would implicate on household budgets and support to children. Hence, females were likely to be negative towards zero tillage maize production.

Exploring if CA is ‘female friendly’ is complex, particularly noting the varying levels of agency and empowerment across the EGP. Overall, there was more positivity than negativity, particularly from the perspectives and lived experiences of females in this study. This highlights a need to review extension mechanism that engage with females and address some of the highlighted concerns to ensure equitable promotion, benefits and uptake across the region. Future research also needs to encompass intrahousehold (beyond female spouses and decision makers) and intracommunity (female labourers) perspectives to further understand the impact of CA adoption on women.

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