Impact of Forage Fodder Bank Adoption on Labour Use for Feeding Cattle of Smallholder Households in Prey Chhor District, Kampong Cham Province, Cambodia

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Abstract

Prey Chhor is low-lying district in Kampong Cham Province, where most of the agricultural land is flooded during the raining season. Most of the land is planted with paddy rice during the rainy season and there are only small pockets of higher-lying land. In the cropping season, farmers need to travel long distances and spend many hours each day to find enough grass to cut for feeding their cattle. From 2003-2005, the Livelihood and Livestock Systems Project introduced forage fodder banks to smallholders in an attempt to improve feed supply. In October 2008, an impact study was conducted to measure the impact of forage fodder banks on labour use. Using a structured questionnaire, a total of 143 households were interviewed. Respondents fell into three groups: (i) adopters, (ii) non-adopters (exposed) who lived in the same village as adopters and knew about forages but had not adopted, and (iii) non-adopters (not-exposed) from similar, nearby villages and who had not been exposed to forage fodder banks.

Average farm size and household membership was 1.4 ha and 5.5 people, respectively. On average, each household raised 4 cattle. The average size of forage fodder banks was 485 m². Despite this small forage area, adopters spent significantly ($p < 0.05$) less time on feeding and managing cattle than non-adopters (exposed and non-exposed) throughout the year. In the dry season, adopters spent 5.1 h d⁻¹ feeding and managing cattle, as compared to 7.3 h d⁻¹ for non-adopters (exposed) and 6.6 h d⁻¹ for non-adopters (not-exposed). In the early wet season, adopters spent 4.2 h d⁻¹, as compared to 6.0 and 5.8 h d⁻¹ for non-adopters (exposed and not-exposed), respectively. This difference in labour use increased further during the flooding season when adopters spent 1.7 h d⁻¹ while non-adopters (exposed and not-exposed) spent 3.7 and 4.6 h d⁻¹, respectively.

In conclusion, forage fodder banks significantly reduced amount of time needed to feed and manage cattle in all season, but the greatest benefit was in the flooding season when households who had adopted forage fodder banks saved at least 2 h d⁻¹.

Keywords: Cambodia, fodder banks, labour saving, smallholders

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