

Manual pumps with drip kit: Hi-tech at the doorstep of marginal farmers

In India, marginal farmers account for more than 75 % of the total farming population operating about 30 % of the total agriculture area operated and their number is growing. Ironically, while large farmers have capitalised on cheaper sources like canal marginal farmers are mostly saddled with oversized diesel / electrical pumps along with conventional irrigation methods (flood / furrow). Access to affordable and efficient irrigation is vital to reduce input cost in cultivation, enhance their productivity, and net income from farming.

Currently, there is a gap between pumping energy demand at the lower end of farm size and the supply i.e. 3 - 5 Hp pump catering to higher farm sizes. There is no scale of technology in the market which fits the land size of marginal farmers. They are, therefore, saddled with large size diesel / electric pumps and high recurring expenditure.

This project aims to popularise, for small plot holdings, a combination of drip system coupled with manual pedal operated pump (treadle pump). Treadle pump are affordable, robust, efficient, and appropriate for small plot holders, niche farmers growing higher value crops, during the rabi and even in kharif season. Combining these pumps with a drip system and a small holding tank is akin to the combination of a solar panel, battery and LED bulb.

Till date, over 300 marginal farmers have benefitted by this intervention in the rural areas of Bihar, Maharashtra, Odisha and Rajasthan. Nearly 120 of the farming households have bought treadle pumps and / or drip kit at full price, without any subsidy.



References:

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