

Entry No. IRRC-0163

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| Category | : International Rice Research Conference |
| Select Theme | : Sustainable and equitable farming systems |
| Endorsement email | : |
| Keyword 1 | : Water management |
| Keyword 2 | : Sustainable management practices |
| Keyword 3 | : Livelihood and social equity |
| Title of Entry | : PROFITABILITY OF USING DEEPWELL PUMP IRRIGATION SYSTEMS IN RICE FARMING IN TARLAC, PHILIPPINES |
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| Affiliation 1 | : |
| Affiliation 2 | : |
| Select only one type of presentation | : 15 minute oral presentation |
| Abstract | : On which irrigation strategy should governments invest upon or develop remains an issue in developing countries. Given the prohibitive cost of developing new national gravity irrigation systems, focusing on the use of tubewells and pumps is a suggested option. This study investigated the status and extent of usage of the deepwell pump irrigation systems (DPIS) established in Tarlac, Philippines. The study determined the socioeconomic profile and rice production practices of DPIS users; and evaluated the productivity and profitability of rice farming using DPIS. Data from an extensive survey of 59 DPIS key informants and |

intensive survey of 325 rice farmers using different irrigation sources were used. Results indicate that as of 2013, a third of the deepwell pumps were operating at full capacity and around half are operating in partial capacity during dry season (DS). Overall, 57% of the intended service area are actually served in the DS and 12% of the pumps are used in the wet season (WS). Socioeconomic and farm characteristics are generally comparable across farms of different irrigation sources except for membership in organizations and household income. Input-use interact with irrigation in general with fertilizer-, fuel-, herbicide- and labor-use varying with irrigation source to some extent. Yield and input productivity are comparable among farms supported by deepwell and shallow tubewells (STW) in both the WS and DS. During WS, farms supported by tubewells and gravity irrigation canals yielded significantly higher than purely rainfed areas. There is no significant difference in the production cost across irrigation systems in the WS. Production cost is significantly higher in tubewell-supported farms compared with farms supplied by gravity irrigation canals in the DS. Moreover, based on the Tarlac data, there is no sufficient evidence to conclude that using deepwell is more profitable than using STW or vice versa. Recommendations include: proper planning and coordination when developing high-investment small-scale irrigation systems; and promotion of water-saving technologies to reduce irrigation fuel cost in tubewell-supported farms.

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