

## Farmers Willingness to Pay for Irrigated Maize Production in Rural Kenya

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**Abstract :** Kenya is considered to be a middle level income country and usually does not meet household food security needs especially in North and South eastern parts. Approximately half of the population is living under the poverty line (www, CIA 1, 2012). Agriculture is the largest sector in the country, employing 80% of the population. These are thereby directly dependent on the sufficiency of outputs received. This makes efficient, easy-accessible and cheap agricultural practices an important matter in order to improve food security. Maize is the prime staple food commodity in Kenya and represents a substantial share of people's nutritional intake. This study is the result of questionnaire based interviews, Key informant and focus group discussion involving 220 small scale maize farmers Kenyan. The study was located to two separated areas; Lower Kuja, Bunyala, Nandi, Lower Nzoia, Perkerra, Mwea Bura, Hola and Galana Kulalu in Kenya. The questionnaire captured the farmers' use and perceived importance of the use irrigation services and irrigated maize production. Viability was evaluated using the four indices which were all positive with NPV giving positive cash flows in less than 21 years at most for one season output. The mean willingness to pay was found to be KES 3082 and willingness to pay increased with increase in irrigation premiums. The economic value of water was found to be greater than the willingness to pay implying that irrigated maize production is sustainable. Farmers stated that viability was influenced by high output levels, good produce quality, crop of choice, availability of sufficient water and enforcement the last two factors had a positive influence while the other had negative effect on the viability of irrigated maize. A regression was made over the correlation between the willingness to pay for irrigated maize production using scheme and plot level factors. Farmers that already use other inputs such as animal manure, hired labor and chemical fertilizer should also have a demand for improved seeds according to Liebig's law of minimum and expansion path theory. The regression showed that premiums, and high yields have a positive effect on willingness to pay while produce quality, efficient fertilizer use, and crop season have a negative effect.

**Keywords :** maize, food security, profits, sustainability, willingness to pay

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