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Press Release:

Can Irrigation be an Answer to Increased Maize Production and Food Security in Kenya?

Nairobi, July 14th 2015

KEY MESSAGES

1. Irrigation can provide about fifty percent of the total food requirement (36M bags) in the country
2. Farmer training and increased extension service contact for efficiency in factor use
3. Increased productivity of maize through intensification.

Irrigation is one of the government's strategies of improving food security situation in Kenya. It has the potential of scaling-up agricultural productivity by up to 400%. Kenya has about 3 million acres of irrigable land and of this only 10% is under use. To exploit the existing potential, the government has increased funding to irrigation from 11.5 billion to 13.5 billion in the current budget. A number of irrigation schemes have been rehabilitated, new irrigation projects have been constructed like Galana Kulalu and Lower Kuja projects and irrigation policies have been developed. All these aim to ensure there is enough food in the country in line with achieving vision 2030 goals.

Tegemeo Institute recently conducted a study to access whether irrigation can benefit resource constrained maize farmers in Kenya. The study targeted **Irrigated Maize farmers** from selected project areas of Lower Kuja, Bunyala, Nandi, Perkerra, Mwea, Bura, Hola and Galana and **Non irrigated maize farmers** in Nakuru, Narok, Uasin Gishu, Baringo and Bungoma.

According to Dr. Dennis Otieno, Research Fellow at Tegemeo Institute, lessons learnt from the irrigated maize production study shows that it's profitable and can produce about one and a half of the country's maize requirement. However, inefficiency in the use of land, water and fertilizer have are the major causes of high cost of production of irrigated maize.

Irrigated maize is beneficial since it returns a high margin of 29% more per bag than non-irrigated maize. It is important to note that a 1% price increase increases profit margins by 0.62 % and percentage margin of the cost increases by 29%. The production of irrigated maize is flexible and one can have more than one crop in a year. This implies high returns if production targets the seasons when there is low supply of maize in the market.

He further emphasizes that to reduce the cost of production would require the following:

To improve on the plot and scheme level inefficiency associated with irrigated maize production, it is worthwhile to consider the following as cost reduction strategies:

1. Efficient use of water and water application methods: - With the cost for water being paid for as a lumpsum, cost reduction can be achieved through efficient use of water and water application methods. This would lower the water wastage and ensure sufficient amounts is available for maize.
2. Intensify Land use in maize production: - Intensive production of maize under irrigation would require technical change in maize technology, so that yields increase and this would contribute to lowering the unit cost of production and breakeven point and, give higher margins.
3. Extensification of maize production areas: It is important to take note that only 10% of the area under irrigation is used for crop production. This give room for area expansion which will lead to high output levels. High output levels can exploit economies of scale and lower the unit cost of production, and increase the margins per bag.

The Institute therefore recommends that irrigation can improve food security and the standards of living for farmers and its high returns can contribute to the country's GDP.

For further assistance, more information or if you would like to conduct interviews with the Lead Principal Investigator, you can do so through: Judy Kimani, 0720 96 33 48, (jkimani@tegemeo.org). www.tegemeo.org