# THE ROLE OF ICT BASED EXTENSION SERVICES ON DAIRY PRODUCTION IN KENYA: A CASE OF ICOW SERVICE

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## Introduction

Extension services plays an important role for growth and transformation of the agricultural Sector in Sub Saharan Africa (SSA)

| Some of the Benefits of extension services | Challenges facing the sector |
|---|---|
| •high productivity | •High ratio of extension staff to farmers |
| •quality of produce, | •Poor infrastructures |
| •reduction of diseases and pest, | •Extension systems are still underfunded |
| •maintenance of environmental health | •Diverse / varying needs among farmers |
| •increased in income | |

- Extension service has become demand driven.
- With application of ICTs in delivering advisory services being explored.
- iCow service (mobile extension service) addresses the challenge of low productivity.
- Offered by GDT in partnership with ILRI & Safaricom Ltd
- provides farmers with basic, simple, timely knowledge to improve production

## Materials and Methods

- Study area: Uasin Gishu, Nyandarua, and Bomet Counties. Higher density of smallholder dairy farmers. The iCow services were rolled and have been in existence in these counties.
- Participatory Research – Learning from farmers' experiences about iCow

## Sampling Procedure

- A two- stage stratified random sampling procedure used
- A total of 457 respondents sampled, of which 209 farmers were regular users of iCow services and 248 farmers were not enrolled in the platform
- The household survey was conducted in June and July 2018
- Information on farm-specific characteristics, farmers-specific characteristics, animal details, milk details and household income were collected
- Descriptive statistics used to present data from this study.

## Results and discussion

On average, users of iCow realized higher average annual milk production per cow (2359 litres) as compared to non-users (1964 litres) (Figure1)

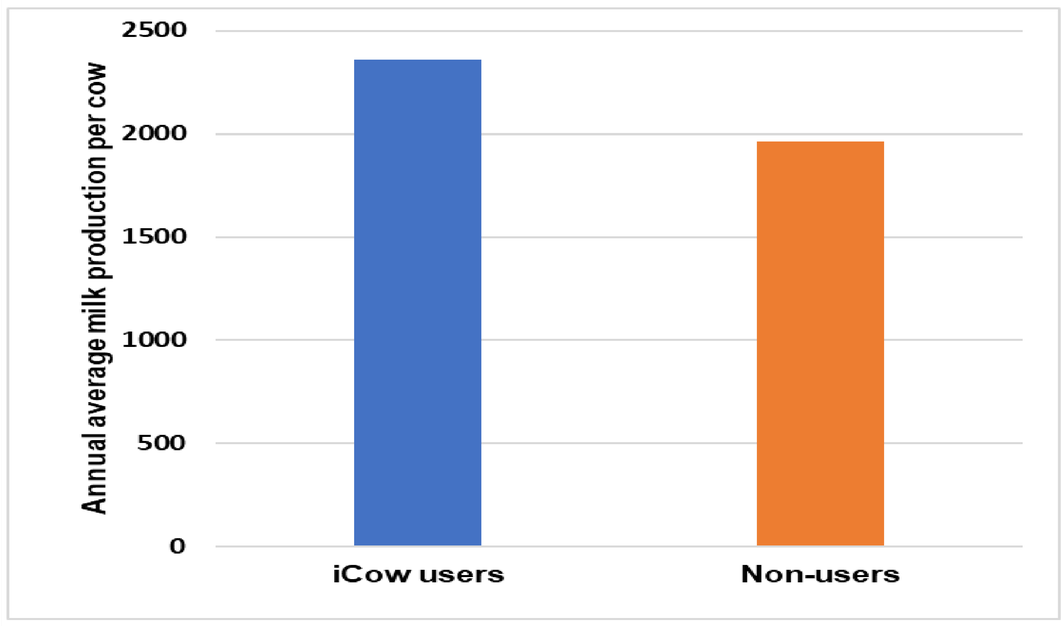


**Figure 1; Comparison of iCow users and non-users with respect to Milk.**

iCow users earned more income than non-users. Specifically, iCow users earned Ksh. 132,031 more household income than non-users (Figure 2)

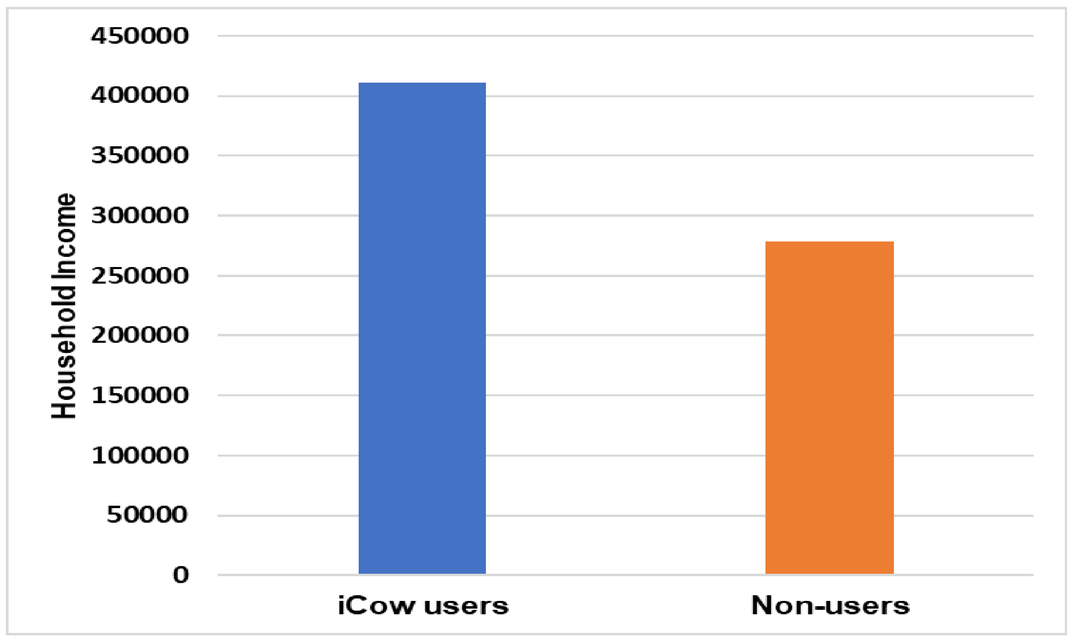


**Figure 2;Comparison of iCow users and non-users with respect to income**

iCow positively influenced access to agricultural knowledge, leading to improved yields and increased surpluses that was sold for increased incomes.

## Conclusions & policy implications

•The ICT-based extension has the potential to reduce rural poverty through increased household incomes.

•There is need to scale up the iCow services, due to its proven capacity of enhancing smallholder farmers` access to simple, timely information.

•Policies should focus in improving infrastructure in the rural areas for the ICT usage.

•Partnerships between network providers and research institutes should be encouraged as part of bridging the extension gap occasioned by reduced public expenditure on extension services.

## References.

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