

# Assessment of the Efficiency of Farm Record Keeping In Kenya : A Case Study of Farmers in Cherangani Division Trans-Nzoia East District, Kenya

David Kiprono Lelei Rutto<sup>3</sup>, Martin Koome<sup>2</sup>, Lelei Felista Kibusi<sup>3</sup>

<sup>1</sup>Student, Department of Seed, Crop and horticultural Sciences, University of Eldoret, Box 1125-30100, Eldoret, Kenya

<sup>2</sup>Senior Lecturer, Department of Agriculture, Kenya Methodist University, Box 267-60200, Meru, Kenya

<sup>3</sup>Senior Agricultural Officer, Department of Agriculture, Kenya Methodist University, Box 267-60200, Meru, Kenya

## ABSTRACT

The use of farm records in the farm by farmers assists to continuously monitor farming enterprise activities. Proper recordings are very essential for analysis and to carry out improvement of the enterprises and counter check losses and increase profits. The main objective of this study was to assess the efficiency and use of farm records keeping by farmers in Cherangani Division in Trans Nzoia East District Kenya. The Specific objectives of the study were: To determine the farm records keeping practices by the farmers in Cherangani Division, to assess the level of effectiveness of the farm record keeping by the farmers in Cherangani Division, to establish the utility of farm records to improve farming enterprises by the farmers in Cherangani Division. The target population in the division was 15,000 farmers in Cherangani Division. The study used a systematic sampling technique to pick 50 farmers from each of the five locations in Cherangani Division who formed the 250 the required sample size. The study used structured questionnaire to collect data which was analyzed using frequencies in order to achieve the specific objectives of the study. It was established that 32% of the farmers had records but not efficiently used in the farms, while 68% farmers had no records. The study established that farmers in Cherangani Division did not keep effective and efficient farm records which are a pre-requisite to modern commercialized farming.

**Keywords :** Farm record keeping, Farmers, Farming

## I. INTRODUCTION

Farming is not just a way of life but a business [1] and should be operated under sound economic principles in order to be successful [2]. In many world agricultural nations, the farm business has to take account the unique combination of labor, land, capital and management particularly that of knowledge in order to meet the nation's goals and objectives [3]. It's important also to note that farming organizations or individual farmers have to be high performers in order to meet their objectives [4].

In Kenya, the Agricultural sector is the backbone of it's economy [5]. It directly contributes 20% of the GDP and 60% of the export earnings [6]. A further 27% is contributed through its links with manufacturing, distribution, and service related sectors [7]. This has

been specified in its Strategy for Revitalizing Agriculture policy paper targeting improved the farming system and methods like use of proper farm record, best agricultural practices etc [8].

Farm records are written facts or events for later use or reference, [9]. It can also be the art as well as the science of recording in books business transactions in a regular and systematic manner [10]. Such include financial records that are readily available at any time of the year for use in monitoring and evaluation of enterprises [11]. It furnishes farm owners and managers with written facts or history of the business transaction with special reference to its financial side [12]. Worldwide, farm records are kept by farmers to aid farm business analysis and assist them to know how enterprises are performing [13], whether on profit or loss [14].

## II. METHODS AND MATERIAL

The main objective of this study was to assess the efficiency and use of farm records keeping by farmers. The research design used was an exploratory case study approach which was adopted as it was appropriate for collecting both primary and secondary data necessary to accomplish the tasks set out in the study. The design describes the phenomenon, examines actions as they are or as they happen rather than manipulation of variables. The population in the district was 189,367 persons in the two divisions of Kaplamai and Cherangani with an average farm size of 2.05 Ha, and a rural house hold of 15,351.

### A). Sampling Design and Procedure.

The research was conducted in Cherangani division with five locations namely; Cherangani, Milimani, Chepsiro, Suwerwa and Kiptoror Locations. The division has a population of 15,000 farmers. The sampling design used was systematic random sampling. From the 15,000 farmers in locations, the researcher randomly sampled 50 farmers from each location totaling to 250 which was a fair representative sample. These farmers were visited in their farms as per the random sampling technique and asked various questions using a structured questionnaire. Their responses were recorded down for each individual farmer then summarized. Among the data collected from the farmers include; age, gender educational level of the person and the number of enterprises and types of records kept among others.

### B). Data Analysis.

Data from the various instruments, transcripts and schedules were validated, edited and then coded appropriately. Data analysis was then performed using both quantitative and qualitative techniques. Quantitative data was analyzed using the Statistical Package for Social Sciences (SPSS) to produce mean scores, frequencies, and percentages. Percentages are the most widely used and understood standard proportions.

The analyzed data was then presented using tables, charts, and graphs accompanied by appropriate descriptions or explanations. Besides that, qualitative data which would not be quantified such as personal opinions were analyzed as guided by objectives of study

whereby they were narrated or even quoted and where appropriate were incorporated into the recommendations of the study.

## III. RESULTS AND DISCUSSION

### A). Demographic Information

Gender distribution of the farmers (table 1) established that majority of the farmers, an average of 79% in the division were male compared to 21% who were female. Suwerwa had the highest males (86%) and lowest female (14%), while Chepsiro had the lowest males (68%) and highest female (32%) in the division. This means that farming in Division was male dominated a fact complicated by cultural instigated land ownership which was 100% male owned.

**Table 1:** Gender Distribution by the Farmers in Cherangani Division

Location	Male	Female	Total
Cherangani	42	8	50
Milimani	38	12	50
Chepsiro	34	16	50
Suwerwa	43	7	50
Kiptoror	41	9	50
Average	40	10	50

The age distribution of the farmers (table 2) established that over half of the farmers (54%) had average age of 27 and were within the age bracket of 36-45 years followed by those with above 45 years (32%), 26-35 years (12%) and below 25 years (2%). This finding indicated that in the division, farming was a reserve for the people who were already advancing in their ages and that the youth were not at all involved in farming. This was because cultural practices barred the youth from owning land. Such therefore made the aging people to hold on land for a long time, denying the youth an opportunity to practice farming.

**Table 2:** Age of Farmers in Cherangani Division

Location	<25 years	26-35 years	36-45 years	>45	Total
Cherangan	2	7	21	20	50
Militnani	0	3	31	16	50
Chepsiro	3	9	28	10	50
Suwerwa	0	7	36	7	50
Kiptoror	0	5	19	26	50
Average	1	6	27	16	50

The results on types of farming practiced by the farmers (table 3) showed that majority of the farmers 61% practiced crop farming compared to 24% who practiced livestock farming and 15% who practiced mixed farming. The area highest on; crops were Milimani (82%), livestock was Chepsiro (40%) and mixed was Kiptoror (26%). This finding showed that the majority of the farmers were dependent on crop farming which is a risk factor in food considering environmental uncertainties.

### B). Records Keeping Practices by the Farmers.

**Table 3:** Type of farming Practiced in Cherangani Division

Location	Crops	Livesto	Mixed	Total
Cheranga	38	7	5	50
Milimani	41	7	2	50
Chepsiro	21	20	9	50
Suwerwa	34	9	7	50
Kiptoror	19	18	13	50
Average	31	12	7	50

Results on **records kept by farmers** (table 4) show that 68% of the farmers did not keep any records at all, 23% kept between 1-2 types of records, 6% kept between 3-4 types of farm records and 3% kept more than 4 types of records in the division. The area with highest record keeping was Cherangani (40%) and the least was Kiptoror (20%).

**Table 4:** Records Kept by Farmers in Cherangani Location

Location	0 Record	1-2 records	3-4 records	>4 records	Total
Cherangan	30	13	4	3	50
Milimani	33	11	5	1	50
Chepsiro	36	10	4	0	50
Suwerwa	31	16	1	2	50
Kiptoror	40	7	2	1	50
<b>Average</b>	<b>34</b>	<b>11</b>	<b>3</b>	<b>1</b>	<b>50</b>

The low level of keeping farm records can confirm that they did not have information or knowledge sources for making critical farm decisions. This elutes the fact that farm decision they made on the farming were erratic and

not based on scientific facts that modern commercialized farming requires as envisaged by [15].

### C.) The effectiveness of Records Kept by Farmers.

Effective use of farm records (table 5 below) was low with only 12% farmers kept or use physical records. The area with the highest effectiveness in records kept being Chepsiro (94%) and lowest in Milimani (30%). This showed that farmers in the division did not keep physical records which are very crucial in monitoring and evaluating farm production levels.

**Table 5:** Physical Records Kept by farmers in Cherangani Division

Location	Map s	Land use	Prod uctio n	Labo r	Machiner y	Tota l
Cheranga	0	5	19	3	1	28
Milimani	1	4	7	2	1	15
Chepsiro	0	1	23	2	21	47
Suwerwa	3	7	18	6	2	36
Kiptoror	0	6	22	7	2	37
Average	1	5	18	4	5	33

Financial records kept by farmers (table 6) were 44% in the division. The area with highest financial records was Kiptoror (100%) and least was in both Cherangani and Milimani (24%) respectively. This showed that most farmers did not keep financial records which are very crucial in monitoring and evaluating farm production levels. The study, therefore, confirms that the level of farm records keeping by the farmers was not effectively in use.

**Table 6 :** Financial Records Kept by farmers in Cherangani Division

Location	Inventory	AC	Cash	Financial	Total
Cherangani	9	1	2	0	12
Milimani	2	0	9	1	12
Chepsiro	15	1	8	0	24
Suwerwa	3	2	5	4	14
Kiptoror	25	9	13	3	50
Average	11	3	7	2	22

#### D). The utility of Farm Records by Farmers.

The utility of Farm Records by Farmers Results show that 30% of the farmers who kept some of the physical and financial records used them compared to 70% who did not use the records. This shows that although the farmers in the Division kept some sort of records, they did not use them for the intended decision-making process to enhance production, which is a crucial tool in enterprise farming and precision farming as also outlaid by [16]. In the Division, 34% used the records for generating information useful in effective production compared to 66% who did not. 19% used the records for gathering marketing intelligence compared to 81% who did not. 12% used the records for hatching competitive edge over other farmers compared to 88% who did not. 8% used the records for profitability analysis compared to 92% who did not and 7% used the records for intelligence sourcing compared to 93% who did not. This finding showed that the farmers in the Division did not use the records for important applications as competitive edge over a competitor, profitability analysis, intelligence sourcing, gathering market intelligence information and increased production as out by [17].

#### E). Challenges Faced by Farmers for Effective Records Keeping.

Farmers in the Division faced many challenges in adapting effective records keeping in enterprise farming. These include; 56% faced a lack of adequate knowledge in records keeping, 32% were engrained in poor farming cultures which did not recognize records keeping and 12% lacked tools for effective records keeping. Records' keeping in farming and enterprise setup is the key to modern commercialized farming and is very important in all saphires of effective and profitable farming.

### IV. CONCLUSION

1. It is concluded that farming in Cherangani division was male dominated a fact complicated by culturally instigated land ownership which was only for male.
2. Farming was a reserve for the people who were already advancing in their ages and that the youth were not at all involved in farming.
3. The majority of the farmers were dependent on crop farming which is a risk factor in food security and farming diversification considering environmental uncertainties.
4. Most farmers did not keep farm records, especially physical and financial records which are very crucial

in monitoring and evaluating farm production.

5. Although the farmers kept some sort of records, they did not use them for the intended decision-making process which is a crucial tool in enterprise improvement and farming.
6. Farmers faced challenges in adapting record keeping in their farming businesses like lack of knowledge on appropriate best practices on farm records keeping and management, lack of effective records keeping tools and good will to change the tradition farming culture which did not recognize records keeping.
7. The farmers practiced an ineffective and inefficient farm record keeping which hindered them from knowing whether their enterprise /farming practices was profitable.

### V. RECOMMENDATIONS

1. Training of farmers on the use of farm records as a farm management tool to improve farm enterprises, and gear the farming towards farming as a business.
2. The Ministry of Agriculture to start farmers field schools, where the farmers will be reached as a group to address issues on agriculture like, keeping proper farm records to avoid making losses and endeavor on the enterprises that bring profit.
3. Farmers change the poor culture of traditional vocational farming to commercialize farming which brings along effective and efficient record keeping.
4. There is a need to carry out a comparative study on the same topic with other districts in the country in order to obtain comparative information that can add more weight to the findings of this study.

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