

Slippage of Tradition and Conversion into New Technology in the Paddy Cultivation In Muthukandiya Area

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ABSTRACT

Rice consumption has become the no one food around the globe. In Sri Lanka, the paddy supply changes in different provinces and the districts. Presently, a competition in the paddy cultivation can be identified due to the use of new technology. At present, new genetic technological seeds and agrochemicals are being discovered for the paddy cultivation in Muthukandiya area. The farmers who live in Muthukandiya area, are facing difficult situations due to the application of both traditional paddy cultivation and new technology based paddy cultivation. The main objective of this research was to reveal the difference and the influence of the past traditional paddy cultivation and newly use technology based paddy cultivation in the Muthukandiya area. To collect fundamental information according to the main points, questionnaire was given to the farmers who live in Muthukandiya area which is situated in Uva province, Monaragala district in Siyabalanduwa regional division. According to the collected information, hundred percent (100%) of the farmers ignored the traditional paddy cultivation and turned into the new technology based paddy cultivation. Thirty five percent (35%) of the people live in Muthukandiya area, are suffering from the kidney deceases, heart attacks and weakness of the vision because the use of new technology methods for the paddy cultivation. After the analyzing the collected information, it is revealed that the problems they have to face because the traditional paddy cultivation was converted into the new technology based paddy cultivation.

Keywords: Traditional, New technology, Agrochemical, Paddy cultivation, Influence

INTRODUCTION

Sri Lankan farmers cultivate paddy according to the weather and climate conditions. Paddy cultivation became the number one position in the agricultural sector from the ancient times in Sri Lanka.

The large expansion of the paddy cultivation named first village and second village in the Muthukandiya area. Today, the farmers who live in this area do not use any traditional agricultural methods used in the paddy cultivation and also do not use traditional kind of seeds and the equipment, because they were introduced to new hybrid seeds for cultivation and they have to use lot of chemical fertilizer to get great harvest.

In ancient times, there were no need to use chemicals to get better harvest but nowadays it difficult to get better harvest in hybrid seeds without using the chemical fertilizer. The Department of Agriculture provides knowledge for the farmers in their day to day activities with rules and regulations but farmers go beyond the rules and regulations.

Health organizations indicate that there are more than two hundred thousand (200,000) dangerous situations generated per year because of the use of chemical fertilizers in Sri Lanka. Because it is more expensive to use new technology for the paddy cultivation, sometimes loss is accounted which may contribute to the increase of suicide rate among farmers.

Hence, this research was carried out to identify the influence to the farmers and the people live in Muthukandiya area from the traditional paddy cultivation and new technology based paddy cultivation and to analyze the good and bad qualities generated in above two different cultivation methods.

Objective

The objectives of this research were to reveal the differences and influences of the past traditional paddy cultivation and newly used technology base paddy cultivation in this area and to reveal the health problems, good and bad effects of the past and newly used paddy cultivation methods.

Study area



Source: www.google.com

METHODOLOGY

Twenty-five [50] families living in Muthukandiya were selected using simple random sampling in first village (n=25) and second village (n=25) which is situated in Siyabalanduwa regional division.

Table 01-Number of families selected for the research

Secretariat Division	Grama Niladari Division	Population	Total Number of houses	Number of families selected of the research
Siyambalanduwa	122D Muthukandita	835	200	50

Source: resource profile [2017]

Interviews were done for the people in this area and. A questionnaire was used to assess the differences in the paddy cultivation methods for the twenty five [25%] percent people in this village. It shows the social, economic, Health and attitude of the traditional paddy cultivation the in people in this area. Newspapers, magazines and journal articles were used as secondary data to collect information about study area and other related studies.

RESULT AND DISCUSSION

TRADITIONAL KINDS OF SEEDS AND SAFTY METHODS USED IN TRADITIONAL PADDY CULTIVATION IN MUTHUKANDIYA AREA.

At the past, hundred percent (100%) of the farmers in Muthukandiya area used traditional paddy cultivation. In that area, there were not money expenses because they produced their own seeds. They used top of the productive seeds in the paddy crop as the seed-paddy. They used Kuruluthudu, Heeneti, Goonabaru, Suwandel, Duru wee, Kalu wee and Maawee as traditional seeds.

Following graphs shows the number of farmers use that different kinds of seeds. (Figure 1, Figure 2)



Figure 1

Sources :field study[2016/09/23]

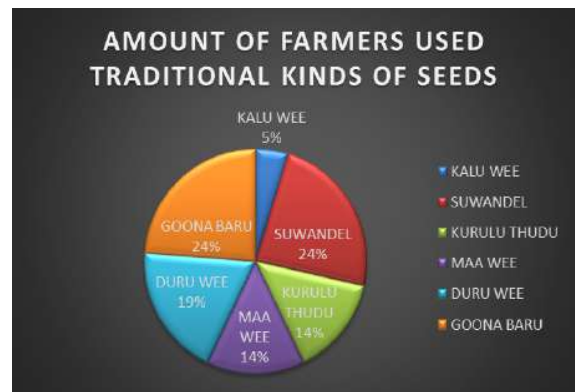


Figure 2

Source :field study[2016/09/23]

Farmers used above mentioned seeds and used rain water to their cultivation process. In traditional paddy cultivation, farmers did not use chemicals, insecticides and fertilizers. Without adding those harmful chemicals, farmers easily gained better harvest. Farmers used different traditional methods like amulets and charms to protect their harvest from animals.

They used,

- Cover paddy field using rope to protect harvest from pigs.
- Charm the sand and spray it.
- Charm the oil and lighting the lamps.
- Kappuwaliya leaves juice mix with water and spray it in field.
- Planting the Marigold flowers near the paddy field.
- Kohomba leaves mix with baccy (tobacco) and spray it into the paddy field.

Farmers used above mentioned safety methods and it would not harm to their health. In traditional paddy cultivation, they cultivated once a year. It named as "Mahakannaya". Farmers said that they could get harvest within four or five months after the cultivation.

In this traditional paddy cultivation, they used Buffalos to thresh, Samanala hoc (Sinhala hoc), 9.9 hoc and Govileella as traditional equipment. Reaping hook, Maaralla and Boolaaththa were used to collect harvest. Farmers said that they have capabilities to start again traditional paddy cultivation without extra money.

NEW TECHNOLOGY BASE PADDY CULTIVATION IN MUTHUKANDIYA AREA.

To achieve a great harvest, farmers shifted to the new technology base paddy cultivation. It introduced hybrid seeds for paddy cultivation. Hundred percent (100%) of farmers cultivated hybrid seeds in Muthukandiya area. They used only rain water method to cultivate paddy. They cultivated twice per year named as “Yala” and “Maha”. Among the study population farmers had to spend lot of money to buy seeds.

According to the new technology, farmers had to adjust the paddy field three times to get great harvest. Furrowing, Puddling and Leveling the field were the three main activities. Farmers had to use special machines. Make the baulk using the Kokunagula (plough), puddling from the tractor and leveling from the mud board can be shown as examples.

Farmers were using new kinds of seeds like OP5, BG11, BG450, BG357, BG300 and BG359 in this area.

Following graphs show the amount of farmers using new kinds of seeds. (Figure 3 and Figure 4)

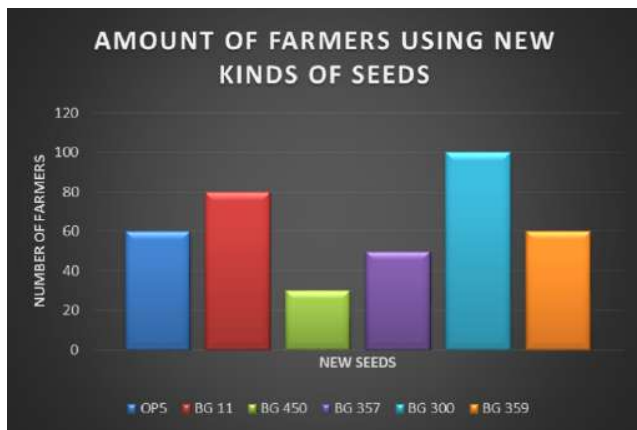


Figure 3

Source :field study[2016/09/23]

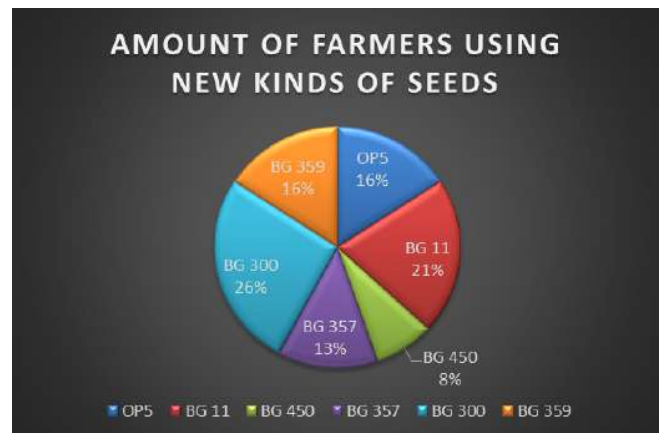


Figure 4

Source :field study[2016/09/23]

Farmers had to use chemicals to get great harvest from above mentioned seeds. Full destructive chemicals, half destructive chemicals, Weedicide, Fungicide and Insecticides were used as chemicals. L Saar, Komando, Mimik, Inoshaan, MOP, TSP and Urea are the some of the names of the chemicals.

Following graphs show the time period of collect harvest from using chemicals. (Figure 5 and Figure 6)

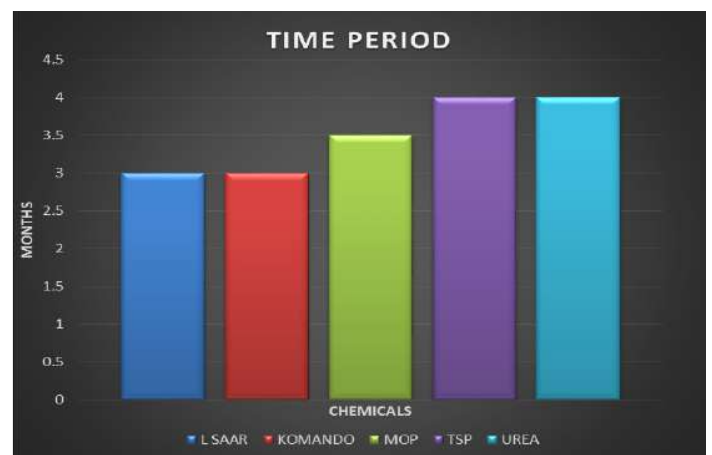


Figure 5

Source :field study[2016/09/23]



Figure 6

Source :field study[2016/09/23]

Following methods were used by the farmers in this area.

- Spraying the fertilizer into the field after one day of planting of paddy.
- Half destructive chemical named “34DPA” used within 10 days after the planting.
- Use Insecticide (Mimik) within one month to destroy worms in the field and use Weedicide (Wiksuper) within forty five (45) days.

People in Muthukandiya area had to spend over fifty thousand rupees (Rs.50, 000) for one season when using the new technology for the paddy cultivation. Farmers had to take instructions from authorities to do their activities properly. They had to pay special attention to collect harvest at the right time and special machines were also used. Reaping hook is used to cut the paddy and Tsunami machine was used to thresh.

People in Muthukandiya area had to face lot of health hazards because of the new technology used in paddy cultivation. Kidney diseases, weakness of the vision, skin diseases, faintishness and heart attacks are name to few.

Table 02-

Diseases	Percentage[%]
Kidney diseases	35
heart attacks	15
weakness of the vision,	10
skin diseases	30
other	10

Source :field study[2016/09/23]

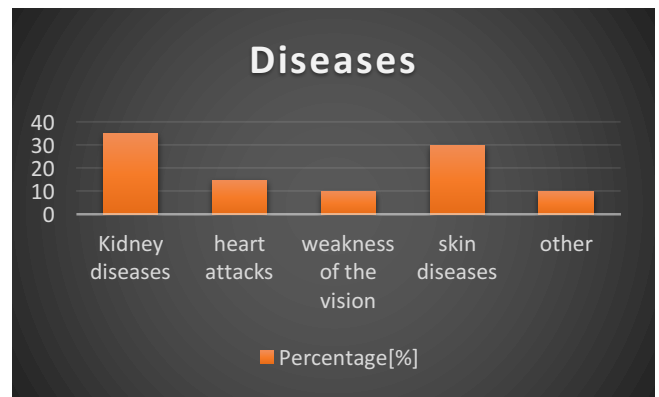


Figure 7

Source :field study[2016/09/23]

Farmers had to spend about one hundred thousand rupees (Rs.100, 000) to cultivate one acre and also it gained about two hundred fifty thousand rupees (Rs.250, 000) as their profit. But, bad situation is farmers had to spend another money for transport paddy to paddy collecting centers. Finally, when calculating the profit, it was not enough for the farmers to continue their cultivation.

To earn beneficial profit and make healthy harvest,

- Increase farmers’ knowledge on the traditional paddy cultivation methods.
- It is useful to start knowledge sharing programmes to the problems arisen while using new technology based paddy cultivation. It can be arranged systematically by combining Agricultural Organizations and Health Organizations.
- Decrease the genetic technology seeds and promote traditional kinds of seeds.
- Use traditional fertilizer methods and use traditional safety methods for protect harvest.
- Prepare new rules and regulations for the paddy cultivation.

CONCLUSION

There were no threats for health when using the Traditional paddy cultivation. But it was totally changed after converting to New technology based paddy cultivation. It is very harmful not only to the farmers who live in Muthukandiya area but also to the other people and consumers.

It is easier to use traditional cultivation methods and farmers did not use chemicals for their cultivation process. So, it makes trust among the consumers about

their production. But today, farmers use genetic technological seeds and more chemicals to face competition in the market and to get great harvest.

Specially, farmers do not follow safety methods when using weedicides and agrochemicals. So, they have to face lot of health hazard like kidney diseases, skin diseases, faintishness and weakness of the vision.

Twenty two percent (22%) of families in this area faced the lot of problems due to the New technology based paddy cultivation.

When analyzing the collected information, bad effects generated by the New technology can be identified. Traditional paddy cultivation methods make favorable conditions to the society.

Authorities have to be responsible to make decisions and regulations to paddy cultivation and also pay attention for buildup programmes to increase farmers' knowledge and make favorable conditions in the economy.

Appendix

Figure 8



Picture name: paddy-field in Muthukandiy
Source: field study[2016/09/23]

Figure 9



Picture name: field by H8
Source: field study[2016/09/23]

Figure 10



Picture name :The cultivator is having a skin disease may be due to the excessive use of chemicals in paddy cultivation
Source: field study[2016/09/23]

Figure 11



Picture name: new veause
Source: field study[2016/09/23]

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