

Chapter-7

The Summary and Conclusion

SUMMARY

This chapter presents the precise form of the research work, explaining certain intricacies through subsequent interpretation of the result.

The present research had been conducted to investigate on the role of farmers' adopting organic farming and its impact on farming community and adaptation activities carried out by the local people in Coochbehar district. The general objective of this study was to estimate the attitude of the farmers towards Adoption of Organic Farming.

And the specific objectives following the above discussion were as follows:

- Delineation of concept and operational meaning of organic farming.
- Identification of variables, dependent (Y) and independent (X) implicating on the factor production in organic farming.
- To estimate the interaction between dependent and independent variables as much as to predict the efficacy of independent variables on the productivity, biological, social and economic; of organic farming.
- To delineate some strategic implications leading to a policy implication in organic farming.

The area of investigation belongs to the Coochbehar Sadar Block-1 and Dinhata-2 Block in Coochbehar district. The area of the study is comprised

of villages namely – Ghegirghat (Deonhat Gram Panchayat) and Karola (Nayarhat Gobarachara Gram Panchayat).

The 21 independent variables and 7 dependent variables were selected and measured with the help of exact scales developed by previous social science researcher or by modifying the developed scale by structured schedule for requirement of the investigation.

50 respondents were randomly selected for the study (30 and 20 respondents from each of the 2 villages). The final primary data were collected with the help of structured interview schedule by following the personal interview method after pre-testing of schedule. The secondary data were collected from our library, cab internet etc, for establishing the conceptual frame work of the study.

The statistical tools like mean, standard deviation, co-efficient of variation, correlation coefficient, multiple linear regression analysis and factor analysis have been done for the study.

The findings on the basis of this statistical analysis are as follows:

1. Correlation coefficient between the Dependent variables and the Independent variables.

a) Coefficient of correlation(r) between Productivity of organic paddy (Y_1) vs. 21 independent variables (X_1 - X_{21})

It is found that variables, Family size (X_2), Total holding size (X_5), Green leaf manure application (X_{11}), Exposure to media (X_{20}), Expenditure allocation (X_{21}), have exerted positive significant correlation with dependent variable, productivity of organic paddy (Y_1).

b) Coefficient of correlation(r) between Productivity of inorganic paddy (Y_2) vs. 21 independent variables (X_1 - X_{21})

It is found that variables like Age (X_1), Cropping intensity (X_4), Total area under field crops (X_8), Organic pesticide application (X_{14}) and Exposure to media (X_{20}) have exerted positive, while variable, organic manure application (X_{10}) has exerted negative significant correlation with dependent variable, productivity of inorganic paddy (Y_2).

c) Coefficient of correlation(r) between Market value of organic paddy (Y_3) vs. 21 independent variables (X_1 - X_{21})

It is found that variables like Cropping intensity (X_4), Green leaf manure application (X_{11}), Bio-Fertilizer application (X_{12}), No. of cattle's (X_{15}) and Exposure to media (X_{20}) have exerted positive significant correlation with dependent variable, market value of organic paddy (Y_3).

d) Coefficient of correlation(r) between Return of the product from organic paddy (Y_4) vs. 21 independent variables (X_1 - X_{21})

It is found that variables like Family size (X_3), Organic manure application (X_{10}), Green leaf manure application (X_{11}), Compost application (X_{13}), Organic pesticides application (X_{14}), No. of cattle's (X_{15}), Expenditure allocation (X_{21}) have exerted positive, while variable, Total area under horticultural crops (X_7) has exerted negative significant correlation with dependent variable, return of the product from organic paddy (Y_4).

e) Coefficient of correlation(r) between Return of the product from inorganic paddy (Y_5) vs. 21 independent variables (X_1 - X_{21})

It is found that variables like Family size (X_3), Total area under fields crops (X_8), Green leaf manure application (X_{11}), Total amount of cow dung

produce (X_{16}), Avg. electric bill for domestic purpose (X_{17}), Exposure to media (X_{20}), Expenditure allocation (X_{21}) have exerted positive significant correlation with dependent variable, return of the product from inorganic paddy (Y_5).

f) Coefficient of correlation(r) between Return of the product from mixed farming both organic and inorganic paddy (Y_6) vs. 21 independent variables (X_1 - X_{21})

It is found that variables like Cropping intensity (X_4), Irrigation status (X_9) Organic manure application (X_{10}), Green leaf manure application (X_{11}), Total amount of cow dung produce (X_{16}), Avg. electric bill for domestic purpose (X_{17}), Exposure to media (X_{20}), Expenditure allocation (X_{21}) have exerted positive significant correlation with dependent variable, return of the product from mixed farming both organic and inorganic paddy (Y_6).

g) Coefficient of correlation(r) between Livelihood from organic paddy (Y_7) vs. 21 independent variables (X_1 - X_{21})

It is found that variables like Education (X_2) No .of cattle's (X_{15}) have exerted positive significant correlation with dependent variable, livelihood from organic paddy (Y_7).

2. Multiple Regression between the Dependent variables and the Independent variables a) Multiple Regression between Productivity of organic paddy (Y_1) vs. 21 independent variables (X_1 - X_{21})

It has been found that the variables Organic manure application (X_{10}) has recorded a significant causal-effect impact on production of organic paddy (Y_1)

b) Multiple Regression between Productivity of inorganic paddy (Y_2) vs. 21 independent variables (X_1 - X_{21})

It has been found that the variables Total area under field crops (X_8) and No. of cattles (X_{15}) has recorded a significant causal-effect impact on production of inorganic paddy (Y_2).

c) Multiple Regression between Market value of organic paddy (Y_3) vs. 21 independent variables (X_1 - X_{21})

It is observed that none of the causal variable is significant. So, in that case the highest t-value i.e., organic manure application(X_{10}) is considered as significant.

d) Multiple Regression between Return of the product from organic paddy (Y_4) vs. 21 independent variables(X_1 - X_{21})

It has been found that the variables Cropping Intensity (X_4) and Organic manure application (X_{10}) have recorded a significant causal-effect impact on return of the paddy from organic paddy (Y_4).

e) Multiple Regression between Return of the product from inorganic paddy (Y_5) vs. 21 independent variables(X_1 - X_{21})

It has been found that the variables Total area under field crops (X_8) and No. of cattles (X_{15}) has recorded a significant causal-effect impact on return of the product from inorganic paddy (Y_5).

f) Multiple Regression between Return of the product from mixed farming both organic and inorganic paddy (Y_6) vs. 21 independent variables(X_1 - X_{21})

Family size shows that the smaller the family size, the higher has been the return. So, no. of family members have got an inverse relationship with the

return of the product from mixed farming both organic and inorganic paddy (Y_6).

g) Multiple Linear Regression between Livelihood from organic paddy (Y_6) vs. 21 independent variables(X_1 - X_{21})

It has been found that the variables Cropping intensity (X_4), Green leaf manure application (X_{11}) and Expenditure allocation (X_{21}) has recorded a significant causal-effect impact on Livelihood from organic farming (Y_7).

3. Factor Analysis: Conglomeration of 21 variables in 8 factors

- The factor 1 has included following 9 no of variables i.e., Education (X_2), Total area under horticultural crops (X_7), Total area under field crops (X_8), Irrigation status (X_9), Organic manure application (X_{10}), Bio-fertilizer application (X_{12}), Compost application (X_{13}), No. of cattles (X_{15}), Total amount of cowdung produce (X_{16}) which have contributed 20.700% of variance and has been renamed as **Agro-ecology**.
- The factor 2 has included 2 no of variables i.e. Exposure to media (X_6), Avg. consumption for daily requirements (X_{19}) that have contributed 12.934% of variance have been renamed as **Consumption. T**
- he factor 3 has included 2 no of variables i.e. Cropping Intensity (X_4), Green leaf manure application (X_{11}) which have contributed 9.778% of variance and has been renamed as **Resource**.
- The factor 4 has included 4 variables under it i.e. Total holding size (X_5), Total home stead area (X_6), Avg. electric bill for domestic

purpose (X_{17}), Avg. electric bill for field crops (X_{18}) which have contributed 8.143% of variance and has been renamed as **Energy Consumption**.

- The factor 6 has included 2 no of variables i.e. Family Size(X_3) and Organic pesticides application (X_{14}) that have contributed 6.647% of variance has been renamed as **Family capacity**.

CONCLUSION

While the brunt of Global Warming is becoming more conspicuous against every count of time, the role and contribution of organic farming need no further mentioning. Organic Farming helps conserve water, retrench the cost and support ecological health. The reduction of chemical fertilizer in the soil is possible only through well designed organic farming. The present study has examined, the productivity of organic farming along with its return through the indicator crop paddy and it has been found that application of organic manure, total area under field crops, cropping intensity, no. of cattle's, family size, expenditure allocation and green leaf manures have been identified as to be the discernible variables in characterizing the performance of organic farming in terms of productivity and return. The no. of cattles has been one of the most important variables which by dint of its characters have been organically dovetailed to the productive behaviour of organic farming.

Organic Farming has so far been more of an entrepreneur concept rather than an adopted practice by the farmer. The institutional issues of organic farming need to be redressed further as much as its operational aspects. The

market for the organically grown produce, the ecological sensible technologies and the food security aspects are all reticulated into the complex process of socializing organic farming. So, a comprehensive attempt must be made to make organic farming a successful economic venture with a mission to sustain ecological health.

RECOMMENDATION

The followings are the recommendation made:

- 1) There will be unique intervention for organic and inorganic paddy growers which may help for enterprise making of the respondents.
- 2) For both the organic and inorganic farm growers, a common package of interventions can be made.
- 3) Certification of organic farming is essential and in this regard certification centres may open to every block.
- 4) Branding of organic farming is essential in order to explore markets within the state and beyond.
- 5) Government should adopt a clear policy on organic farming and the farmers need to be socialize in this area.