

Chapter-6

Epilogue Rubber Enterprise in Tripura: The Ecology and Socialization

S K Acharya, G C Mishra and A Biswas

An understanding of social issues, the social nature of farming and the social basis of adoption, rejection, discontinuance constraints are needed if agricultural extension is to be effective in addressing natural resource management, and in promoting sustainability in its triple bottom line conceptualizing. Farming becomes a way of life, a way of making a living that acquires a meaning far deeper than almost any other occupational identity. In that sense, farming is a vocation. As a socio-cultural practice, it is governed, informed and regulated by social processes. Being aware of this fact, and reflectively thinking about what this understanding means will assist in the promotion of a sustainable agriculture for India's future.

The present study has been conducted in one of the developing block *viz.* Manu of Dhalai District in Tripura. Both the district and block are selected purposively due to the unique nature of the locations in terms of technology socialization with a view to the consequent variables, adoption index, re-invention, perceived constraints and socialization level were considered for the present study. The following villages *viz.* Lambanil, Kukilmani, and

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Moinama were selected purposively and a total of 77 respondents were selected by using simple random sampling method.

A pilot study was conducted in the selected villages before constructing the data devices to acquaint with the local in terms of the demography and the level of technology socialization.

The independent variables selected for the study were Age (X_1), Education(X_2), Family size(X_3), Farm mechanization(X_4), Cropping Intensity (X_5), Homestead land (X_6), Own land(X_7), Area under Rubber (X_8), Annual Income (X_9), Income from Rubber (X_{10}), Off-farm income (X_{11}), Economic status (X_{12}), Material possession (X_{13}), Scientific Orientation (X_{14}), Value towards adoption (X_{15}), Value towards discontinuance (X_{16}), Value towards rejection(X_{17}) and Mass media exposure(X_{18}). The dependent variable socialization level (Y) has been derived from three dependent variables, Adoption index (Y_1), Re-invention (Y_2) and Perceived constraints (Y_3) by dividing the resultant of the product of these three variables.

FINDINGS OF THE STUDY

The correlation analysis have been showed that predictor variable Education(X_2) is significant and positively correlated on socialization level (Y), which depicts higher the education, higher would be level of socialization process in rubber plantation whereas the variables Age (X_1), Homestead land (X_6) and Area under rubber (X_8) have been found significant but negatively correlated with socialization level (Y), the consequent variable. Here, the younger age and little size of holding are more inclined towards socialization of rubber enterprise.

The regression analysis have been found that the area under rubber(X_8) has got the highest regression impact on socialization level (Y), the consequent variable .It indicates that socialization level (Y) has been decisively influenced by area under rubber posses by the respondents.

A path analysis presents that antecedent variable; area under rubber (X_8) has come up as the most significant variable in the entire study. It is discernable that area under rubber has huge impact on characterizing the socialization process.

A factor analysis has also conducted and renamed some of the factors having linear variable. Here, Factor 1 has accommodated highest number of variables *viz.* Family size (X_3) Own land (X_7) Area under rubber(X_8) Annual income (X_9) Income from rubber (X_{10}) Economic status (X_{12}) and it has contributed 21.50 per cent of variance on socialization level. These six variables play major role in characterizing the whole pace of socialization process of rubber enterprise and it has been renamed as resource entrepreneurship.

CONCLUSION

Plantation crop has got both economic and ecological properties especially in hill ecology and terrain. Tripura is a state, tiny but diverse as presented a unique diaspora along with diversity of livelihood, artefacts and entrepreneurial dynamics. The social ecology of Tripura has been polymorphous having a diverse ecological setup in its very functional and operational demand of livelihood generation and dynamics. The entire study has landed on following conclusions:

- i. Land area has so far been a predominant factor in socialization process of plantation crops.
- ii. Education and age in a transforming agro-ecosystem have contributed to the socialization of plantation crop through their decisive companionship.
- iii. Resource entrepreneurship has been the most important causal factor to characterize the dictum and direction of socialization of plantation crop.

RECOMMENDATIONS

- Rubber plantations present high risks in terms of plantation failure and price fluctuations because; they are monoculture. It is recommended that farmers establish mixed cropping systems with other economic plants such as fruit, medicinal plants, and timber, which will enrich local biodiversity and provide short- and long-term sustainable benefits to farmers.
- Smallholder rubber plantations should be encouraged and promoted in an effort to reduce poverty rates in degraded forest land or displaced “Jumias” in Tripura. Although, the development of smallholder rubber plantation requires huge investment in both financial and technical resources, especially for the first 6 years of its establishment, some mechanisms could help farmers to overcome those difficulties.
- Effective management system in supply and distribution of inputs, timely wages are indispensable and also imparting periodic trainings to rubber growers are required to combat any kind of arising challenges.

FUTURE SCOPE OF RESEARCH

The limitations of the study as discussed earlier itself generate the future scope of research. So, the following are the future study of research by granting the present one as a modestly conducted study in areas of rubber plantation:

- Different agro-climatic zone based study on low and high land rubber plantation could be effective in conceptualizing and framing the new spectrum concept of socialization.
- This study did not observe and include the role of gender in the decision making system. Women as wives and also as farmers are influencing household decision making. Their roles may affect men who may be considered as leaders of households who perceived themselves have final responsibilities for decisions regarding adoption, rejection, discontinuance re-invention etc. In-depth study and analysis is required of the way gender, land tenure and wealth effectively influence the farmers' decision to adopt new technologies.
- More study and analysis is required into the topic of how increasing financial returns from rubber influence decisions and behaviour of smallholder farmers and other stakeholders in rubber production. This study would examine the relation between conversion of Jhum land into rubber plantation and the overall contribution of rubber agroforestry to relief of deforestation issues.

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Personal Interview Schedule for Data Collection
Conducted by-KHARENDRA REANG

Name of the village.....
G.P..... Block..... District.....
Name.....

1) Age.....

- 2) Education:** a) Illiterate (1)
b) Can read only (2)
c) Can read and write (3)
d) Primary (4)
e) Middle School (5)
f) High School (6)
g) Higher Secondary (7)
h) Graduate (8)
i) Post Graduate (9)
j) Others (10)

3) Family size-(nos. of family).....

4) Farm mechanization/improved Agriculture-

SL. No.	Implement/operation	Percentage (%) of land
1.		
2.		

- 3.
- 4.

Total

5) Cropping intensity-.....%

$$\frac{GCA}{NCA} \times 100$$

6) Farm size (in kani)

- i. a) Homestead land-.....b) own land-.....c) share cropping.....
- ii. Area under rubber plantation.....

- 7) Annual income-farm (per kani)** Rs.....
- 8) Income from Rubber (per kani)** Rs.....
- 9) Annual income-Off farm** Rs.....

10) Economic status

- a) House type-....kachcha 1)/mixed(2)/pucca(3)mansion(4)
- b) Farm power.....No drought animals (1)/1-2 drought animal (2)/tractor or power tiller (3)

11) Material possession-..... (Total scores/no. of family × 100)

Cycle/Radio (1)/Improved Agril.implement(2)/motor bike(3)/colour TV/dish TV(4)/mobile(5)

12) Scientific orientation

Please enunciate your opinion regarding the following statements-

Statement	strongly agree (5)	agree (4)	undecided (3)	disagree (2)	strongly disagree(1)
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- a) New methods of rubber farming system give better result to a farming than old method(+)
- b) The way a farmer's forefather practised is still the best way to farming today(-)
- c) A good farmer experiment with new ideas in rubber farming.
- d) Traditional method of rubber farming has to be changed in order to raise the level of living of farmer.

13) Value towards adoption-

Statements	strongly agree(5)	agree (4)	undecided (3)	disagree (2)	strongly disagree(1)
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- a) It has helped farmer to increase their income
- b) Adopted because, it is gainful to me.
- c) Its better than conventional cultivation
- d) It has less disease and pest infestation.
- e) It has less labour requirement.
- f) All type of farmers-small or big, rich or poor will equally be benefited
- g) Other best alternative is not present than rubber
- h) Not requires every year plantation
- i) Intercrop is possible.

14) Value towards discontinuance-

Statement	strongly agree(5)	agree (4)	undecided (3)	disagree (2)	strongly disagree(1)
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- a) Discontinued because it is costly venture.
- b) Discontinued because available technolo-
gies are complex to follow.
- c) The conventional cultivation of rubber is
more profitable than new one(-)
- d) No such market support as it demands
for produce
- e) Discontinued because a better alternative
is at hand.

15) Value towards Rejection-

Statement	strongly agree(5)	agree (4)	undecided (3)	disagree (2)	strongly disagree(1)
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- a) Rejection of technology is due to its complex nature.
- b) Farmer reject because this is very costly venture
- c) More disease and pest infestation
- d) Continuous production is not possible if infected by pathogens.
- e) More care is required than other adopted crops.
- f) Due to little land holding.
- g) It requires every year plantation.
- h) It has less market demand

16) Adoption Index-

$$\frac{\text{Level of adoption}}{\text{Recommended level}} \times 100$$

17) Re-invention (himself/herself)

What have you modified for Rubber cultivation?

List

Modification

- a)
- b)
- c)
- d)
- e)

18) Utilization of source of Information

Statements

Most often (4) Often (3) sometimes (2) Never (1)

A) Mass media

- a) Radio.....
- b) Newspaper.....
- c) Farm publication.....
- d) Demonstration.....
- e) Television.....
- f) Internet.....

B) Personal Cosmopolite

- a) ADO.....
- b) VLO.....
- c) BDO.....
- d) Agril.College.....
- e) Input dealer.....
- f) Farmers of others village.....
- g) Panchayet Personal/members.....
- h) Rubber board.....

C)Personal localite

- a) Local leaders.....
- b) Friend/neighbours.....
- c) Progressive/Experienced farmer.....

19) What are the constraints faced by you?

Constraints

Nature

Intensity

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