



## Cost-Benefit Analysis of Mat Industry (A Case Study on Weavers' Households in Sabang Block of West Bengal)

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### ABSTRACT

*In the labour surplus economy, the small scale and cottage industries like mat industry play a vital role to the rural economy. The mat weaving industry in Sabang blocks of Paschim Medinipur district is highly labour intensive and it forms a considerable part of the handicraft industry. The mat industry is an employment oriented agro-based cottage industry. This paper tries to examine the nature of mat industry, to measure the earnings per labour –day of the mat weavers' through Cost-Benefit Analysis and the marketing pattern of the industry. The later stages like harvesting and finally weaving are more labour-intensive and earning per labour-day gradually decreases due to labour intensity though cash earning before charging labour cost is highest in the last stage of weaving. For overcoming the marketing problem, mat weavers have to organize through mat weaving co-operative societies.*

**Keywords : Cost-benefits, labour-intensive, mat industry**

### INTRODUCTION

One of the fundamental problems of our society is the reluctance to change the livelihood. Traditionally Sabang is known for its tradition of crafty art in mat and masland industry. So the people of this region have been into this livelihood for generations. Neither they think of its prospect, nor they opt for any other alternative vocations. Though we know, population grows rapidly which results in gradual decrease of man-land ratio. Since the man-land ratio gradually decreases, the small scale and cottage industries play a vital role to the rural economy. The mat industry is an employment oriented agro-based cottage industry, which is found in the rural area of Paschim Medinipur district more specifically Sabang block and some other neighboring blocks<sup>1</sup>. Mat made bed is comfortable in hot climate. Its soft and humid nature provides comfort to the users.

The history of mat weaving in India dates back to the Indus Valley Civilization. Its socio-cultural significance can be had in ancient literature. Authorities like: Hunter (1876), O'Melley (1911), Porter (1933) and Mitra (1951) pointed out the socio economic aspects of mat industry during the 19th and 20th centuries<sup>2</sup>3.

But, now, we are at the cross road of the present millennium at the background of globalization. We cannot afford to continue the same vocation mindlessly – else we will be extinct from the civilization. Unfortunately till now there are very few surveys and research work on this field. So this is the time to evaluate the same.

### OBJECTIVES OF THE STUDY

The project intends to study intensively the following aspects:

- To know the nature of Mat Industry
- Conducting a Cost-Benefit Analysis of the data collected through the survey.
- To measure the marketing pattern of the industry.
- To evaluate the employment opportunities.

### HYPOTHESES:

- Some hidden and notional costs have significant role in measuring the cost effectiveness of the mat industry.
- Cultivators earn more if they sell their crop directly from

the field, instead of continuing till the weaving stages.

- As there are no other better propositions, people of this area are forced to embrace this vocation.

### METHODOLOGY:

'Multi-Stage Sampling Approach' technique has been taken for the purpose of the study. In the first stage of sampling process, villages have been selected, whereas the selection of units (i.e. households) has been done in the subsequent stages.

As per Panchayets' Report, out of the total of 232 villages of Sabang, 214 villages are engaged in mat production. All the mat producing villages are stratified into three groups according to population size like (a) 500 or below (b) 501 to 1500 and (c) above 1500. After such stratification 5% villages from each stratum have been drawn at random. The total number of sample villages is eleven (11).

In the last stage 30 mat weaving households units are selected randomly from each village. Thus, the total numbers of 330 sample mat weaving units have been selected for intensive study. After that a detailed questionnaire is used as an instrument for the collection of data during the field survey. Data have been collected through personal contact from sample units. Simple statistical tools are used to analyse the data. The time period covered by the study extends for a period of 2010-2011.

### FINDINGS OF THE STUDY

The mat industry in Paschim Medinipur is essentially a family owned vocation and agro-based industry. Mat stick cultivation and mat weaving process are carried on by the household members in their own houses.

Units of such industry mainly depend on family labour and very little of hired labourers and also following the traditional techniques of production and marketing channel.

Mat weaving households are carried on their weaving operations within the dwelling houses of the weavers. For all the sample households studied, a portion of the dwelling house is used as weaving place. The amount of investment is very

poor and some ordinary tools and traditional technology are used for weaving of mat. Household workers mainly women, children and old age family members are engaged in this activity by use of their idle time.

In terms of seasonality of work, 58.6 per cent sample units are perennial in nature and the rest 41.4 per cent are seasonal. This indicates that majority of the mat weaving households carry on their weaving operations almost throughout the year.

Entire mat industry functions are done through 3 different stages (a) Cultivation Stage, (b) Harvesting Stage and (c) Weaving Stage. Here, cultivation stage is mostly like tea and sugar cane cultivation. Once the mat sticks are planted reaping can be done several times at least 7 to 8 years. In the next stage matured raw sticks are harvested from land and grouping is done into 5 to 6 groups according to their lengths. Raw sticks are splitted into four-five parts for coarse mat and up to 15 -17 parts for fine masland. After splitting sticks are dried in open sunshine. In weaving stage mat is prepared in a homemade loom locally known as 'ARA'. It is extremely labour intensive stage.

Now, considering all the three stages at first, calculation is done considering labour charges, showing the total earnings per 10 decimal of land. And last labour charges are eliminated from the total expenditure, to show earnings per labour day. And it is found that if cultivators sell raw mat sticks before harvesting, they will be benefited most i.e., return per labour-day is Rs. 81.46. And it is Rs. 63.35 if cultivators sold mat sticks after harvesting. But, if a cultivator continues his operations up to the completion of weaving, then his earnings per day per labour will be least. If some one carries out his operation only at the weaving stage, he will be able to earn Rs. 43.36 per labour day. So it obvious that the later stages like harvesting and finally weaving are more labour-intensive and earning per labour-day gradually decreases due to labour intensity<sup>2</sup> though cash earning before charging labour cost is highest (Rs. 16538) in the last stage i.e., weaving stage (Table 1).

Table 1 Cost – Benefit analysis of Mat Industry (Mat Sticks Produced in 10 Decimal of Land)

(Figures in Rs.)

	Cultivation Stage	Harvesting Stage	Weaving Stage
Total value of output	1911	1758	21011
Labour cost	1120	2096	30512
Other cost	770	98	4474
Total cost	1890	2194	34986
Labour days	14.00	26.20	381.40
Profit before labour cost	1140	1660	16538
Profit after labour cost	20	(-) 436	(-)13974
Gross family income	1140	1660	16538
Return per labour-day	81.46	63.35	43.36

Source: Field survey, 2010-11

**Note: Wage rate Rs 80 per day of 8 hours**

Therefore, households having family labour (mainly women and child) involved themselves in weaving stage because they do not think its real term profit but they ultimately earn more cash from their collective family effort.

The industry run almost exclusively with the support from family labourers for whom no payment of wages is made. Family members mainly women and child labourers do the same at

their idle time and the opportunity cost of labourers, particularly, the women and children in the villages is zero. So by the use of their idle time they can maximize their total family earnings through this industry. In fact, mat industry is not sufficiently surplus generating, so that it can continue to run paying the full wage bill for hired labour. This particular phenomenon corroborates the peculiar nature of village based household industry where family labours dominate the total work force.

Marketing channels of distribution for a product consist of a group of interrelated intermediaries who make the products reach to its users. Our field survey discloses the existence of so many market agents. They are fairs, small paikars, mohajan paikars, pheriwalas and retail shops.

However, the entire process of distribution of mats from producer to users takes place within the limits of some specialized markets. There are eleven mat markets in Sabang block. In fact, the first phase of mat marketing is completed in these specialized markets. However, in the second phase, mahajan or paikars resell their purchases to pheriwalas and retail shop for ultimate sale to users.

Generally, the price of anything varies with the demand of that. Demand of mat rises during summer season. Mat made bed is comfortable in hot climate. Thus, during the summer season demand as well as market price of mat increases and during the time of winter the demand of mat decreases.

**CONCLUSION**

Sabang block in the district of Paschim Medinipur has been occupying an important place in the mat industry in India and this industry is an integral part of the economic structure of the area. It happens to be the most important household cottage industry in the area, providing employment at large scale that it ranks next to agriculture.

From the above fact, it can be safely said that, from the first stage to third stage of mat stick cultivation and weaving labour-intensive is increasing and reaches maximum at weaving, which is the main reasons of poor earning of weaver, than cultivator and processors of mat-sticks.

The suggestions, which are emerged from the study, are that the manpower should be replaced by machine at the household level, but within the co-operative fold.

Marketing of mat is one of the most important problems. For overcoming these problems it is required to formulate a suitable strategy. It is true that marketing problems cannot be handled at the individual weaver level. The co-operatives are supposed to shoulder the responsibility of tackling the problem on the lines in which industries in the organized sector do by virtue of their organizational strength and resource position.

Otherwise Government policy towards the mat industry is certainly to be sympathetic. Adequate measures have been taken to give protection to it against competition from synthetic mats produced by mills.

However, we are of different opinion about our second hypothesis after we have concluded our study and evaluated the data. But other two hypotheses stand tall as yet.

At last, but not least, this short time survey reports can not be sufficient to fulfill all the gaps in our knowledge of the industry which has a glorious past. Even now it constitutes an important element in the economy of the district of Paschim Medinipur, in spite of its decline.

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