Sabai Grass Marketing: The Prime Need For Rural Innovation And Economic Development Of Tribal Community In The Mayurbhanj District Of Orissa State

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INTRODUCTION

In a country like India, about 80 percent of the population is living in rural areas and around 70 per cent of the population is dependent on agriculture and allied sector. Hence, the need for rural industrialization is absolutely necessary. About 50 percent of the industrial production of India is accounted for by this sector, which also contributes substantially to the country's exports. Mayurbhanj is also said to be a land of tribals. The tribal community population of the district constitutes about 60 percent of its total population. Out of 62 tribal communities of Orissa, 45 communities are found in Mayurbhanj alone.

Rural marketing is a social and managerial process by which individuals and groups obtain what they need and want through creating and exchanging products and value with others.This definition of rural marketing rests on the following core concepts: needs, wants, and demands; products; utility, value, and satisfaction, exchange, transactions, and relationships; markets; and marketing and marketers.

The rural marketing of Sabai Grass in Mayurbhanj district is analyzed with the following points taken into consideration : Method of Marketing, Types of Market Place, setting up Sabai grass enterprise, Marketing Agencies, Cooperative Societies, Market Yard Brokers, Price, Fixation of Price, Distress Sale, Problems of Marketing, Transportation, Storage, Supply of Agricultural Inputs, Marketing Information and Role of Government in agricultural marketing.

Traditionally, tribal farmers have made decisions on what they should grow, what they should keep for home consumption, and what they are able to sell at the marketplace. In former times, sales would have centered on local markets and it would have been rare for a farmer to venture far from the field in search of new market opportunities or to consider developing new, higher value to consider developing new, higher value products. This traditional form of agriculture starts to change as communities and nations begin to modernize. Through processes of urbanization, generally fostered by industrialization, demand for Sabai grass products from urban dwellers becomes dependent upon more sophisticated arrangements that require aggregation of farm produce, transportation, storage, wholesaling, processing and retailing. As cities expand, supply systems develop into increasingly longer and more complex market chains with many market channels and specialization of roles in the market chain based on product type, levels of added value and market segmentation.

In most cases, marketing systems work well, however, problems can occur in the supply system when there are shocks, such as severe drought, floods, major disease outbreaks or civil unrest which can disrupt market supplies. In the case of agricultural markets, problems also occur due to seasonal effects, which can be exacerbated by the lag time between farmers observing a price trend or opportunity and being able to respond, after making decisions to plant, grow, and harvest a specific crop or to rear animals. Consequently, changes in market supply conditions in one year can lead to major swings in the supply and demand of agricultural goods in subsequent years. This is sometimes referred to as boom to bust marketing cycles.In an attempt to avoid problems in supplies and reduce price volatility within the agricultural marketplace, governments in many countries have taken it upon themselves to regulate the market, setting up support measures such as subsidies and prices of specific products in an attempt to match demand with supply.

In the past, many developed and developing countries would manage subsidies to support agricultural production. During this time, governments set prices, assisted with cooperative and Sabai grass enterprise development, and

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invested in public storage and transport systems. This era of government support was good for farmers, as the government shared the business risk and farmers were able to plan production based on a known price. Unfortunately, most governments were unable to adapt to changing times. Procurement agencies became weighed down by poor management, which led to uneconomic internal price structures. Over time, farmers in developing countries were unable to compete on international markets and maintaining high domestic support prices led to massive internal debts. When internal debts could no longer be paid, the International Monetary Fund (IMF) and World Bank were required to renegotiate loans.

The reform programs meant that governments withdrew from agricultural markets and in the last 20 years, markets in most developing countries have been increasingly liberalized. Prices are no longer controlled to governments but are subject to the laws of supply and demand. The Sabai grass farmers, regardless of size, must assume the full risk of doing business in the new trading environment. Many small holders have to compete against farmers who receive subsidies. Therefore, many families are facing an increasingly difficult future in agriculture.

Confronting this reality are governments, donors, and development organizations that aim to support rural Sabai grass development projects with an increasing focus on raising incomes of sample surveyed in the Mayurbhanj district of Orissa (India). Unfortunately, many development projects and development practitioners only look at one part of the market chain on farm production, and these projects often have limited effectiveness on livelihood issues.

OBJECTIVE

It is interesting to know that the economy of Mayurbhanj district in Orissa centers around the trade of a grass called 'Sabai'. Sabai grass is practically considered to be "The Money Plant", which ensures cash receipt throughout the year. It is a labour intensive village industry which requires small investment. It provides gainful employment to the poor tribals, under employed and unemployed persons of rural areas. It has tremendous scope to improve the standard of living of the poor, small and marginal tribal farmers. Each member of their families has a role in the income earning process which results in the growth of their socio-economic standard.

Exhibit 1: Sabai Grass

Sabai grass industry plays a predominant role in shaping the rural economic destiny of the rural people in the district. As an agro-based cottage industry, it suits very well to the rural structure, where agriculture continues to be the main occupation. The industry is associated with various activities of raising production of grass and processing of consumer goods such as ropes, mats, carpets, sofa sets, wall hangings and other sophisticated fashionable articles. Both handmade and mechanized system of production of these articles gives it the status of a cottage and small scale industry. The importance of this industry can be viewed further from the following points

(a) It is easy to set up a Sabai grass industry with comparatively less investment. Such industries usually make use of local skills and resources to generate income in rural areas.

(b) The Sabai grass industry has tremendous export potential. Artistically designed Sabai products are very popular in foreign countries which earn precious foreign exchange for the country.

(c) The industry helps in the growth of entrepreneurship amongst the villagers. This ensures economic development through modernization and innovation of the industrial culture in rural areas.

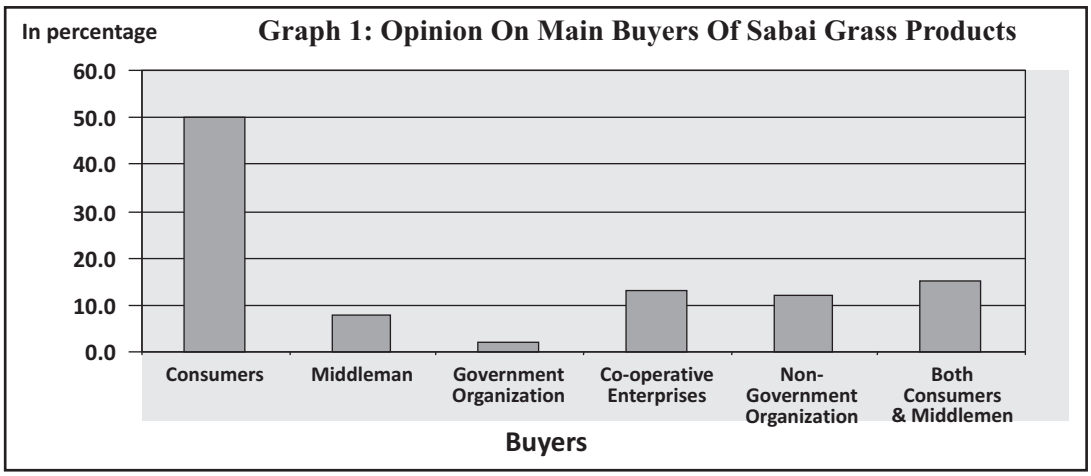
DISCUSSION

Sabai grass weaving received for its commerciality, was about Twenty years ago, as a result of a Poverty Alleviation program by the World Bank and Ford Foundation. Now this craft provides regular employment to nearly fifty thousand tribal people in the Mayurbhanj district area of Orissa. This grass that used to grow wild is now harvested every six months, the peak season being from November to January. The technique of processing the grass to render it fit for weaving into products has been improved a lot. The grass is collected from the fields and is then boiled with some natural preservatives and sun dried on the roads or field. The colour turns from green to ochre, and it is then that the grass is separated into various qualities depending upon the fineness. The finer the grass, the better it is. The grass then comes to the market, haat or the mandis, where it is sold in bundles. This is then either turned into ropes, or plaited and then woven into products like table mats, or bags or floor mats. In case of dyeing, the grass is dyed before plaiting it. In some cases, the rope, too is dyed. Dyeing is carried out in the traditional method, in the *degchis* (alumunium pot), and then washed normally by leaving them in the *pukhri*, the local domestic ponds, for a while. The dyed grass is then sun dried on the tiled roofs, a typical scene in the village of Mayurbhanj, some parts of Orissa and West Bengal.

METHODOLOGY

A focus on production is often justified by the concept that small holder producers should focus their efforts on marketing strategies on Sabai grass productions. In the past 30-40 years, meaning that development projects, regardless of market access issues, have remained focused on increasing production of low value, rather than taking on a broader concept of economic security. This approach takes advantage of a more diversified approach to farm incomes based on local opportunities, local assets, and the competitive advantages of the community in which the project is located. Major Sabai grass enterprise development projects are all too often based on macro economic analyses that attempt to achieve growth through improving traditional development systems and by doing so, subject many thousands of communities to a limited economic outlook, based on a national perspective.

An alternative "market driven" approach, as outlined in this series of guides, aims to empower rural communities with basic marketing skills that will enhance their ability to engage with markets in a more sustainable and stable manner. To achieve the shift from a production to a market orientation means that farmers need to be more organized. They must acquire new skills in financial and business management and be able to respond to changes in dynamic markets. Acquiring these skills also means that service providers, involved in providing agricultural advice, also need to gain new skills to assist local communities to plan and sell their goods and services based on market demand and to work on sustainability through markets rather than on handouts. The approach to rural Sabai grass enterprise development begins with participatory processes to ensure the full involvement of community members. The conceptual thinking starts from the market place, but planning for the market is undertaken with a clear understanding of the needs, capacities and desires of the clients, i.e. the rural families being targeted by a specific development intervention.



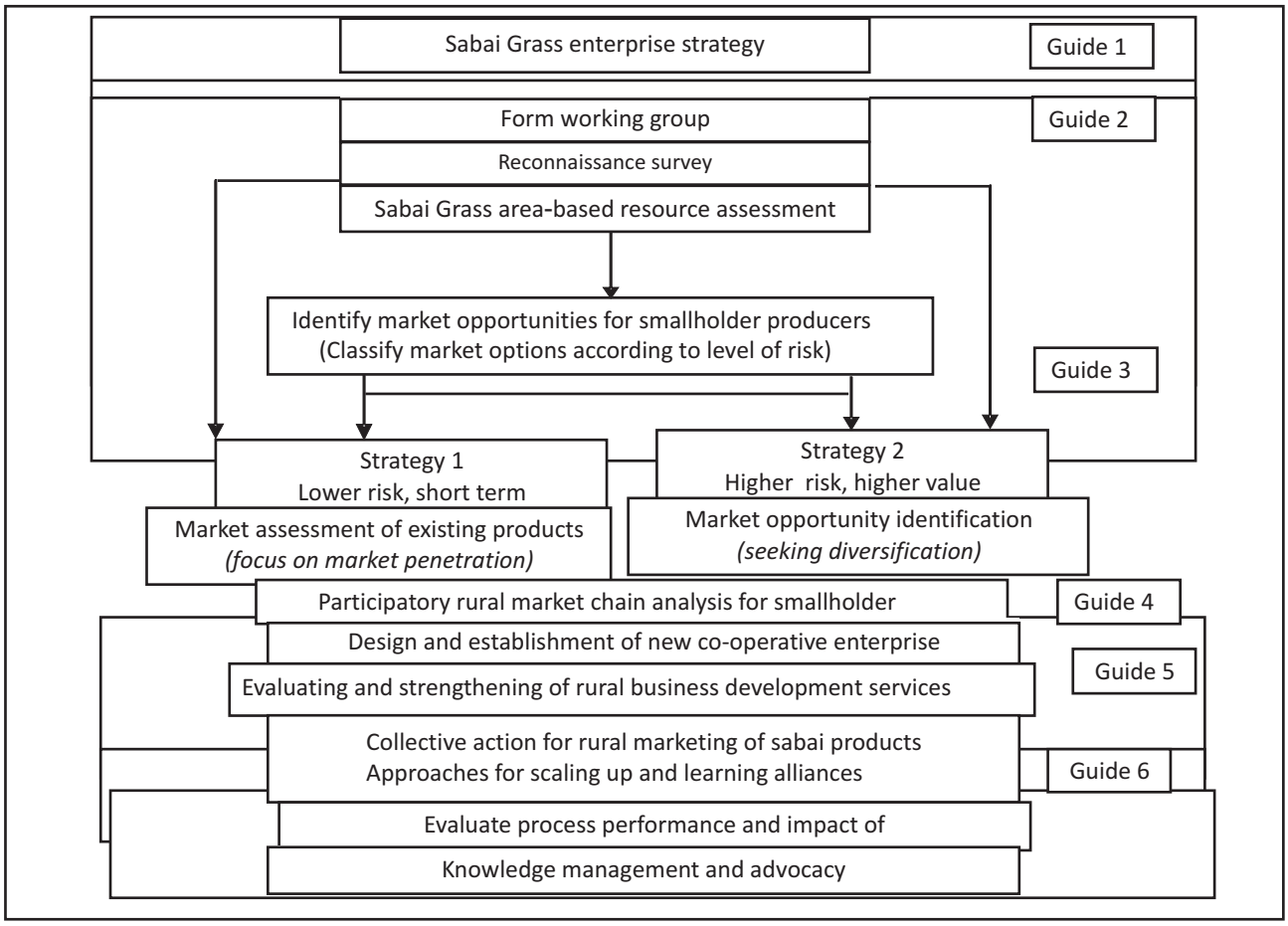
Working with a specific community, the service provider can build a clear understanding of local marketing conditions and how best to work with farmers to resolve critical points in a particular market chain. Developing this knowledge with farmers is a key element in developing sustainable and competitive Sabai grass enterprises. Before investing in a sector, a lead farmer group should evaluate the likely affects that changes such as-

(i) Increasing Productivity And Volume Of Sale ;

(ii) Improving quality.

The target market is designed with adequate market information which improves the sustainability of development efforts. So the increase in income is essential.Most importantly, by taking a market or enterprise approach, the end point in the development process changes from a short term physical goal, i.e. increasing the amount of Sabai grass production that is produced by a farm family to a longer term social goal in which people learn skills that will enable them to adapt continually in a changing environment, that is to be able to innovate in the face of change. The overall process is entitled "**A Participatory And Area Based Approach To Rural Sabai Grass Enterprise Development**" which has been developed. The approach comprises of a series of interconnected methodological steps that seek to improve local capacity in linking tribal farmers to markets. Within each element, there are sub-steps that guide the service provider and community towards Sabai grass enterprise selection and rural market engagement.

Figure 1: Flow Chart Of Key Stages In The Participatory Sabai Grass Enterprise Development Approach



Each of these elements is approached through a series of participatory methods that address issues of diagnosis, organization, planning, and action research, learning and socializing information. These steps serve to generate, systematize, and share information and knowledge with the aim of building agreements for action, and in turn, to increasing the probabilities of market success. The information in table below shows a general time line to complete the first four stages, these time lines are guides and implementing agencies need to negotiate with their partners on actual investments in time and other resources as their funds and availability allow.

Table 1: Planning, Organization And Timing For Rural Sabai Grass Enterprise Development

Planning and organization	Intermediate product(s)	Estimated time	Processes and actions to be established
Diagnosis of area Formation of work group	• Establishment of Sabai grass enterprise working group • Development of partnerships, for implementation. • Area diagnostic • Action plan (visioning) • System of monitoring evaluation, and learning	2 to 3 months	• Consensus on what to do and how and when to do it. • Agreement and coordination of actions among actors.
Identification of market opportunities	• Rapid market study (local, regional, and / or national). • Characterization of market options. • Participative selection of market options	3 to 4 months	• Establish relations with actors in the markets • Generation, analysis and diffusion of market information. • Area diagnostic
Participative analysis of market chains	• A strategy to increase competitiveness designed for each prioritized market chain.	3 to 4 months per market chain	• Implement research and development actions of the strategy to increase the market chain's competitiveness and income of its actors.
Implement the Sabai Grass enterprise option	• At this stage, the Sabai Grass enterprise team invests in and establishes their enterprise	Typically, enterprises work around a specific grass production cycle	• This stage is when design is turned to action and evaluation.
Identification of supply, demand, and gaps in the local business development services	• Diagnostic of supply, demand, and gaps in enterprise development services in the area. • Design of strategies to strengthen the markets for enterprise development services in the area.	3 to 4 months	• Improve rural enterprise development services existing in the area. • Establish new rural enterprise development services requested in the area. • Links with external factors that can offer the services requested in the area.

At the end of these four stages in the process, participants will have established a rural Sabai grass enterprise development team composed of various organizations and local actors with skills and capacity to:

(a) Identify competitive market opportunities for the project area, based on the needs of diverse populations and/or ecosystems.

(b) Analyze market chains and propose concrete actions in research and development to increase their competitiveness and design sabai grass enterprise activities in which target farmers can invest.

(c) Coordinate supply and demand for specific business development services, and facilitate markets for business development services on a continual and dynamic basis.

Although the methodology for the Sabai grass enterprise development process has been presented as a linear set of events with fixed contents and times, the process should not be considered a recipe. Each process of rural enterprise development will be different, based on the conditions of the area where the approach is implemented, the capacities and interest of the participants, and the needs that emerge from this interface.

The marketing dynamics includes:

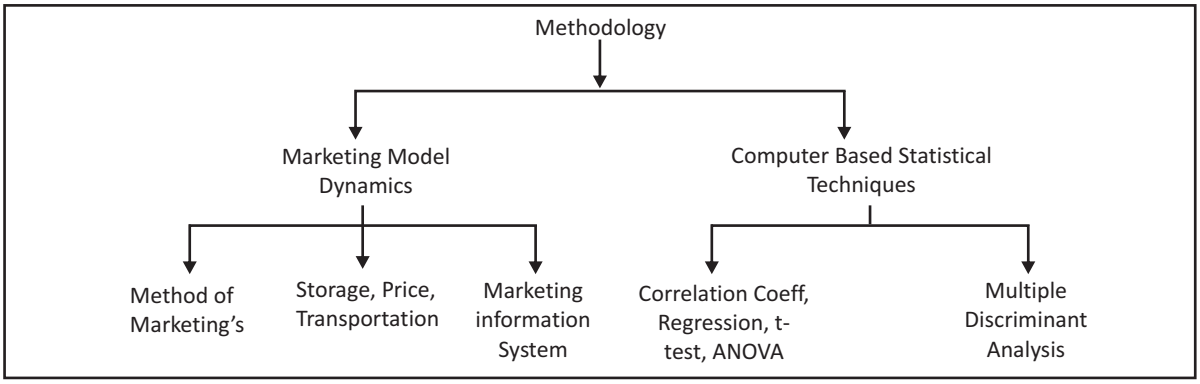
1. The planning of organization for marketing of Sabai grass products;

2. Diagnosis of the area sample formation in the Mayurbhanj district; Participative analysis of market chains; Creating and implementing the concept of Sabai grass enterprise option;

3. Identification of supply, demand and gaps in the local business development services by designing the strategy to strengthen the market decision and communication as shown in the above model for enterprise development in the sample area of Mayurbhanj district.

The methodology has been viewed as asset of principles and skills that are developed through community action in a flexible and interactive manner. The service providers should take care to encourage local adaptation and innovation.

Figure 2



The service providers should also take time for periodic evaluation of the process according to the needs of the community, taking into account their experiences and the context. It is important to document and systematize local experiences so that information can be socialized and shared with others, and thus leads to the identification of general rules and lessons learned that enrich and improve the approach as well as the specific methods.

Although there is a growing consensus that enterprise development is a robust process that offers many small farm families a ladder out of poverty, there are a number of challenges that must be met in order to make this happen. These include:

1. Building the skills based and social capital of farmers to enable them to gain a better understanding of markets and how to respond to dynamic market needs.

2. Enabling small tribal farmers to diversify their final outputs so that their efforts can benefit from high value market opportunities and thus take advantage of market opportunities profitably.

3. Providing farmers with basic methods and tools for group formation so that the many millions of small scale farmers can benefit from economies of scale where it is appropriate through collective action processes that are locally owned.

4. Building the capacity of development oriented service providers to support Sabai grass enterprise within a defined project area and facilitate farmer's access to local business support services.

5. Transforming research from generators of new knowledge and technologies to service provides for enterprise customers, government NGOs, the private sector and farmer organizations.

The ability of small holders in developing countries to address these issues is important as they face an increasing imperative to incorporate themselves into the market economy in order to generate cash income that will allow them to meet their basic needs, and thereby improve their livelihoods. Many of the Sabai finished products that are produced by small scale farmers are of low value and even the so-called "cash crops" have experienced severe price declines in their real terms over the past 2 to 3 decades. The increasingly harsh or competitive marketing reality within the agricultural sector is the result of the trade liberalization process. Globalization improved production efficiency of medium to large scale producers and oversupply of the major commodity markets.

Among the options that small holders have for confronting this situation are:

- Improving the competitiveness of the products they grow.
- Diversification by incorporating into their production system higher value crops or livestock that have an identified market demand.
- Adding value to and / or achieving economies of scale through collective action for both production and marketing of their traditional crops products.
- Entering new and more equitable trading arrangements with larger buyers through mechanisms such as fair trade and labeling based on method of production such as organic or by "mark of origin" appellation systems.

There many simple ways in which Sabai grass tribal farmers can add value to their produce, such as use of improved uniform seed, bulking and grading products, and in many cases, by working in marketing groups. Farmers can diversify their production and use part of their land for higher value crops and in some cases, farmers can sell their produce into higher value marketplaces. All of these methods aim to take advantage of the rapidly changing market environment being led by urban consumers, who have more sophisticated market needs such as organic and fair trade markets.

In order to take advantage of these potential options, farmers, however, must be able to understand market opportunities and be able to respond to changing market needs. Farmers must also provide products and services at a price that is competitive with rival suppliers and there is increasing social pressure to ensure that production systems are environmentally sustainable in Mayurbhanj district. To achieve desired levels of competitiveness, farmers and their service providers need to build strategies that incorporate the following elements:

- A clear market orientation, producing the right Sabai grass product for the right buyer at the right time and price.
- The establishment of production systems that makes efficient use of existing financial, human and natural resources.
- The incorporation of necessary post harvest handling and processing techniques.
- Appropriate business and marketing skills and organizational schemes which lead to economies of scale by reducing costs and increasing marketable volumes of produce.
- Improved links among market chain actors and flows of both market based information and new production technologies.

The Computer based statistical analysis was carried out by applying the various statistical tools like Coefficient Variation, t-test, Correlation coefficient, Regression analysis and Analysis of Variance (ANOVA). The analysis is based on multiple regression technique.

DATA ANALYSIS

The rural economic development data analyzes the various objectives; different techniques have been used for the analysis of the sample collected data. The data analyses have been undertaken mostly with the help of various marketing dynamics and statistical analysis. The analysis reveals that the Sabai grass products of 1.0% of the respondents are purchased by consumers, 3.0% by both consumers and middlemen, 15.0% by Government organization, 31.5% by non-government organization and 47.5% by co-operative enterprises. There are nearly 8000 SHGs that have been formed over the years. Sabai Grass Development Corporation was set up in 1994 to provide improved varieties of Sabai seeds and implements to women engaged in cultivation and trade. The bank caters to the farm credit establishment of the farmers through its 15 branches and 52 affiliated LAMPS. An analysis has been made to know the effect and significant contribution of indicators towards income from Sabai grass for economic development in the study area. For multiple regressions analysis, Independent variables taken are-

$Y = f(X_1 X_2 X_3 X_4 X_5 X_6 X_7 X_8)$

Where Y = Income from Sabai grass and Total Income,

Sale-X_1,	Age-X_5
Market Trend-X_2,	Family size-X_6,
Land holding-X_3	Education-X_7,
Transportation-X_4,	Occupation-X_8.

The form of equation fitted for production is given below linear model:

$$\mathbf{Y = C_0 + C_1X_1 + C_2X_2 + C_3X_3 + C_4X_4 + C_5X_5 + C_6X_6 + C_7X_7 + C_8X_8}$$

It shows that with increase in income from Sabai grass, the role of transportation (X_4) followed by sale (X_1) increases. Therefore, the factor transportation (X_4) and sale (X_1) have more effect on the dependable variable (Y) i.e. income from Sabai grass than other factors. It is found that transportation and sale plays an important role to increase income from Sabai grass in the study area. The factors like Market trend (X_2), Land holding (X_3), Age (X_5), Education (X_7) and Occupation (X_8) have negative impact on income from Sabai grass. It is also observed that the factor family size (X_6) has positive impact on income from Sabai grass. The correlation between a set of obtained scores and same score obtained from the multiple regression equation is called coefficient of multiple correlation. Thus, the correlation between Income from Sabai grass and other eight independent factors is 0.586. It means that scores in income from Sabai grass predicted from a multiple regression equation containing independent factors X_1,X_2, X_3, X_4, X_5, X_6, X_7 & X_8 correlate 0.59 with scores obtained in dependent factor Income from Sabai grass(Y). The analysis shows that 34% of the total variance of dependent income from Sabai grass is associated with the independent factors. Tabulated value of t-test for transportation (X_4) and sale (X_1) are more significant and have significant contribution towards income from Sabai grass. The multiple correlations between Total Income and other eight independent factors are 0.562. It means

that scores in Total income predicted from a multiple regression equation containing factors X_1, X2, X_3, X_4, X_5, X_6, X_7 & X_8 correlate 0.56 with scores obtained in factor Total Income (Y). The analysis shows that 32% of the total variance of income from Sabai grass is associated with the independent factors. Tabulated value of t-test shows that the Land holding (X_3) is more significant and has significant contribution towards Total Income in the study area.

ANALYSIS OF VARIANCE TEST

Analysis of Variance (ANOVA) for the factors in case of Income from Sabai grass:
The null hypothesis H_o is $C_i = 0$. If calculated F > tabulated F with (k-1) and (n-k) degrees of freedom with chosen level of significance ,hence reject the null hypothesis and accept that the data is significant. If calculated F < tabulated F, then accept the null hypothesis and conclude that data is not significant.

Table 2: Analysis Of Variance (ANOVA) For The Factors In Case Of Income From Sabai Grass

Source of variation	Sum of Square	Degree of Freedom	Mean Square	F-statistic (Calculated)
Between Row	4035.4979	209	19.3134	1.1322
Between Row & Column	49851.5556	1680	29.5735	1.7336
Between Column	21329.2392	8	2666.1549	156.2920**
Residual (error)	28522.3164	1672	17.0588	
Total	**53888.0534**	**1889**	**28.5273**	

The calculated value is 156.2920. This shows calculated `F' value is more than tabulated `F' value both at 5% and 1% level of significance. In order to know the effect of different factors, viz. **(i)** Fertilizer consumption per hectare of gross cropped area in kgs of nutrients **(ii)** Actual rainfall (in mm) received during the period of cropping **(iii)** Area under Sabai grass crop in hectare- a time series analysis has been carried out with the use of a multiple linear regression model. The analysis considers the relevant secondary data of Mayurbhanj District for a period of 5 years i.e. from 2003-04 to 2007-08 being collected for the season of Kharif and Rabi. The analysis has been made for Kharif (Autumn & Winter) season over a period of 5 years taking variable Y = Production in quintals, X_1= Area in hectare, X_2= fertilizer consumption per hectare of gross cropped in Kgs of nutrients, X_3 = Annual rainfall in mm. and also the analysis has been made for Rabi taking into consideration the above variables. It should be mentioned here that the data on fertilizer consumption have been collected in the form of total consumption of fertilizer per hectare of gross cropped area for each period of cropping i.e. Kharif and Rabi. The analysis was carried out with the total consumption of fertilizer. It is observed that only in case of fertilizer the t-statistic, tabulated value is close to calculated value at 5% level of significance, which shows that fertilizer only provides contribution to the production of Sabai grass. The use of Durbin-Watson d-statistics shows that no auto correlation is present. Also, for the Kharif season, fertilizer consumption has more contribution towards the production of Sabai grass. For Rabi season, it is observed that all the variables have more or less impact on production of Sabai grass in the study area. Computation of Durbin- Watson, d-statistic shows that no auto correlation is present.

DISCRIMINANT ANALYSIS

Discriminant analysis is a method of distinguishing between classes of objects. The values of various attributes of an object are measured and a rule (function) is applied that assigns a classification to that object. The discriminant function arrives at coefficients, which set the highest possible ratio. (Satpathy, M. D. & Sahoo, Bivariate Discriminant Vol. 1, No.2, PP 13-21).
Discriminant analysis is useful for situations where one need to build a predictive model of group membership based on observed characteristics of each case. The procedure generates a discriminant function (or, for more than two groups, a set of discriminant functions) based on linear combinations of the predictor variables that provide the best discrimination between the groups. The functions are generated from a sample of cases for which group membership is known; the functions can then be applied to new cases with measurements for the predictor variables but unknown group membership. On an average, people in family size & health play more roles for economic development in case of income from Sabai grass. A researcher wants to combine this information in a function to determine how well an

Table 3 : Standardized Classification Discriminant Function Coefficients [In case of Income from Sabai grass]

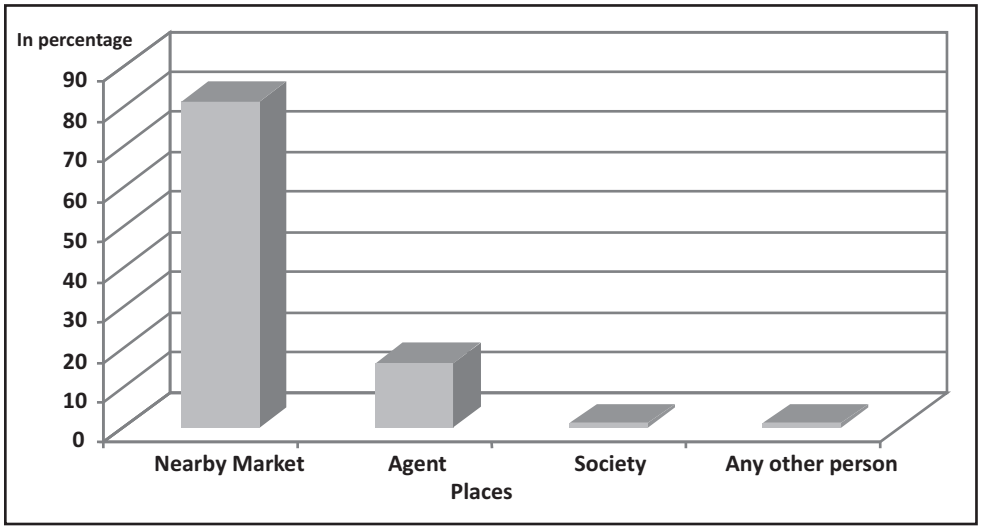
Factors	Income from Sabai Grass				
	1	2	3	4	5
Sale	1.960	1.994	2.336	2.739	2.724
Market Trend	5.741	5.139	5.033	5.005	5.168
Land Holding	0.357	0.283	0.250	0.183	0.198
Transportation	0.052	0.080	0.150	0.143	0.158
AGE	2.974	3.048	3.121	2.428	2.201
Family Size	9.334	9.794	9.616	10.351	10.273
Education	-0.363	-0.523	-0.478	-0.478	-0.498
Occupation	9.358	9.215	8.208	7.450	7.488
Constant	-55.217	-52.905	-47.792	-43.667	-43.881

individual can discriminate between the two groups.
(Overall and Klett, J. C. (1972), Applied Multivariate PP 243-279.)

CONCLUSION

Marketing and Rural Enterprise Development have been the two key follow-up actions for successful transfer of the developed technologies. Marketing is not merely buying and selling but a dynamic function that links the production sector with the consumption sector. In rural areas of Mayurbhanj, an efficient inter-organization linkage system has a very important contribution for the physical distribution of Sabai products. The innovative process of marketing of Sabai Grass i.e. -

Graph 2: Opinion On Places Of Sale Of Sabai Grass Products



(1) Informal nature of transaction and;
(2) Coordinated system of production and marketing has been adopted.
The Sabai grass finished product production has been carried out both at centralized places or at decentralized units, but the accumulation of product has to be done at a single unit or godown, which is considered as the source point in the linkage system. Once the destination nodes are identified, intermediate nodes and channels have been attempted to be traced back.
Mayurbhanj, the largest district of Orissa State is the most tribally concentrated district with 45 types of tribal communities. The development officials cannot have a thorough idea about the economic status of the tribals because

of lack of knowledge. In the village of Mayurbhanj district, nearly 85.7% of the people live in small family and 12.9% still maintains their traditional joint family. The study depicts that age distribution is skewed and found the age between 31 yrs. to 50 yrs. is maximum in the study area. Caste still continues to play a predominant role in Indian social structure. The cultivation of Sabai grass is second main occupation which represents 24.8 percent and only 1.0 percent is engaged in Government service.

Developing this knowledge with tribal farmers is a key element in developing sustainable and competitive Sabai grass enterprises. The source of income from Sabai grass is 52.9 percent from the primary source and 47.1 percent from the secondary sources. The total percentage of only 64.3 percent of the respondents holds the land where the irrigation facility is available and 35.7 percent of the respondents hold the land type of non-irrigated. These irrigation type lands are most suitable for the cultivation of Sabai grass during other than the rainy season.

Only 3.3 percent of the sample tribals have a collection of Sabai grass from the forest and the rest 96.7 percent do not find any possibility of collection of Sabai grass in the forest area. It was found from the family that 91.4% of the tribals are engaged in rope making and hardly 8.6% do not make the rope. Hence, it is observed that more than 50% of the family contributes their activity on the Sabai grass rope production.

Due to changes in professional status, it has impact on the income. It is also found that changes in age, family size and education do not change the total income in same direction. The land holding and transportation are important factors and have significant contribution to increase total income and rural economic development of the district. It is also found that changes in market trend and sale do not change the total income remarkably. It is also observed that the factor family size has positive impact on income from Sabai grass. On average, people in family size (10.351) play more roles for rural economic development in case of income from Sabai grass.

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