CHAPTER VII
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SUMMARY, FINDINGS AND SUGGESTIONS

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CHAPTER VII

SUMMARY OF FINDINGS AND SUGGESTIONS

7.1 GENERAL

This chapter is devoted to highlight the major findings and suggestions of the foregoing discussion. The main objectives of the present study are to study the socio-demographic features of palmyrah tappers; to analyse the income and savings pattern of the palmyrah tappers; and to know the problems of palmyrah tappers.

To ensure representativeness the random method of selection has been used in the study at every stage. The present study is based on the primary data collected from a sample of palmyrah tappers households from Thoothukudi district. In Thoothukudi district all the eight taluks are selected, where there were 37,150 palmyrah tappers households. In this study proportionate stratified random sampling
method has been followed. The size of the sample was fixed as 300 households taking into account the time, cost and administrative considerations.

Based on the analysis and interpretation of the conditions for palmyrah tappers in the previous chapter, the researcher have found out certain important findings from this study. The following are the findings.

7.2 FINDINGS

7.2.1 Socio Economic Background of Palmyrah Tappers

The study discloses that out of 300 respondents, 161 constituting 53.70 per cent belong to Tiruchendur taluk. In Thoothukudi district, the major portions of palmyrah tappers are concentrated in this taluk. Out of the total, 82 respondents belong to Satankulam taluk, 24 respondents belongs to Vilathikulam taluk, 12 respondents belongs to Srivaikuntam taluk, eight respondents from Kovilpatti and another eight respondents from Thoothukudi and three respondents from Ettayapuram taluk and the remaining two respondents from Ottabidaram taluk.

Majority of respondents are Christians. This indicates that the Christian respondents actively participate in tapping works. Most of the respondents (59.70 per cent) belong to backward community, 17 per cent belongs to most backward community and only 11 per cent comes under forward community. Majority of the three age group respondents namely youngsters, middle aged and elders belong to backward community, which constitutes 59.30 per cent, 66.30 per cent and 55.40 per cent respectively.
The study viewed that nearly 75 per cent of the respondents are literates. It is a peculiar situation in our study area that everyone has a positive attitude towards education. It is found from the study that even illiterate respondents are trying to educate their children to their extent possible.

The study concluded that 27 respondents are not sending their children to school. It is observed that lack of proper motivation by the parents, financial problems, childhood labour, social disabilities, improper functioning of primary schools, and distantly located higher educational institutions are the causes for the poor state of education among the palmyrah tappers. Usually they stop their studies with high school level or higher secondary level. The teenage boys go for company works, while the young girls do household works. Majority of the respondents say that, to look after the younger children in the family, is the main reason for not continuing their children's education.

The study remarked that majority of the palmyrah tappers households are large size. But youngsters' family size is small when compared to middle aged and elders. Education creates awareness among the youngsters. Most of the households had minimum two dependents in their families. Similarly only seven households had more than three dependents in their families.

Majority of the palmyrah tappers are living in kutcha houses because their standard of living is low. The study further viewed that among the 300 respondents, only one respondent's house is not electrified, which provides an evidence for the economic backwardness of these palmyrah tappers. Of them 299 houses have
electricity, 35 enjoy free supply of electricity provided by the government, whereas 264 respondents have paid the electricity charges.

The study concluded that the standard of living of the palmyrah tappers is improved in the case of water facilities, because 74 per cent respondents families take water from their own pipe connections. Most of them have own lavatory facilities.

The study discloses that 44.70 per cent of the palmyrah tappers take up this occupation because of traditional reasons. Nearly, 33.30 per cent of the palmyrah tappers take up this occupation because they prefer it out of interest. Out of the total palmyrah tappers, 30.30 per cent climb under lease system. There are tappers who have their own trees too. 209 respondents have adequate number of own trees for their occupation.

The palmyrah tappers of the selected eight taluks of Thoothukudi district for the present research study are not better off in all aspects of socio and economic life. Majority of the palmyrah tappers belong to the Christians, having a big family size, some of them are illiterates and few of them have studied only upto middle school level. The palmyrah tappers villages have poor drinking water facilities.

7.2.2 Income Pattern of Palmyrah Tappers

Out of the total respondents about 16 per cent of the respondents tapped less than 20 trees per day. About 38.30 per cent of the respondents tapped 20-30 trees per day and 29.70 per cent climb 30-40 trees per day. 12.70 per cent of the respondents climb 40-50 trees per day and only 3.30 per cent of the respondents tapped more
than 50 trees per day. This is really a tragedy on the part of the palmyrah workers, because it will affect the physical health very much so, the government should do something for the better social and economic life of these people. The youngsters and middle aged group respondents are not interested in the palmyrah tapping works.

Palmyrah tappers are engaged in the tapping work for 10 months every year. Most of them are landless so their dwelling places are mainly in porombokes. Out of the total tappers, 40 per cent tappers are willing for alternative employment, but they do not get adequate work on all days during the off season too. About 60 per cent of the tappers are not willing for alternative employment.

Out of the total palmyrah tappers, only 0.70 per cent tappers go to other districts for tapping. They prefer to go out mainly because they do not get adequate work if they remain at home. They either go with their families or as individual tapper. About 99.30 per cent tappers do not migrate to other places and they are doing work in home village as coolies, occupying themselves in fibre extraction and vegetables grading. But they do not get adequate work on all days during the off-season too. Only a small percentage may get work everyday.

The analysis concluded that 19.3 per cent of the households earn between ₹250 to ₹300 per day and 18.30 per cent of the households are reported to have an income below ₹200 per day. The income range between ₹200 to ₹250 accounts for 11.30 per cent of the households. Nearly 15 per cent of the households are covered under the income range of ₹300 to ₹350 per day. It is clear from the analysis that over 7.70 per cent of the households have per day income of ₹400 to ₹450 and the
remaining 11.70 per cent of the households have the income above ₹450 per day.

The average annual income of youngsters, middle aged and elders group are ₹1,07,814.81, ₹1,11,622.45 and ₹1,07,567.57 respectively. The overall annual average income of the palmyrah tappers is ₹1,08,936.67. The major source of income for three groups are tapping activities and tapping allied works and they are significant at 5 per cent level. The other sources like agricultural, salary, income from properties and earnings of other family members are not significant.

An attempt has been made to examine the relationship between income per day of the palmyrah tappers of the sample respondents and social factors like age, religion, community, education, family size, nature of tapping and nature of employment. The ‘F’ test was employed and concluded that there is an association between income per day and the social factors such as age, religion, community, education and nature of employment. Therefore, the hypothesis is rejected. But, there is no association between income per day and the social factors such as family size and nature of tapping. Therefore, the hypothesis is accepted.

Among the three groups of tappers, the problems faced in their occupation are marketing problems, poor facilities and lack of market information, since the respective ‘F’ statistics are significant at 5 per cent level. Most of the palmyrah tappers are engaged in agricultural activities and they earn income to their households. They are also satisfied with their work. It is inferred that the palmyrah tapping is dangerous and a low income yielding sector, people feel that there is lack of involvement and they can better be educated and set up a better standard of living.
Due to the above reasons the respondents hesitate their generation to enter into the work related to palmyrah.

The palmyrah tappers are willing to save their money but their savings are not regular. So they save their money occasionally in private finance companies. Majority 75.70 per cent of the palmyrah tappers are not exploited by the private financial institutions, private chit funds, friends and relatives. At the same time, 24.30 per cent of the palmyrah tappers are exploited by the private financial institutions, private chit funds and friends and relatives. Most of the palmyrah tappers are availing pledged jewel loan. Among them, 33 respondents were from youngsters group, 53 respondents were from middle aged group and the remaining 87 respondents were from elders group. Credit or generally called borrowings is provided by banks, self help groups, money lenders, friends and relatives.

In the study area, nearly 48.60 per cent of the palmyrah tappers have borrowed from self help groups. The borrowing fund from self help groups is easier as they provide credit by membership fee and pawning the ration card. The study shows, that on an average every household has a debt of ₹47,800.02. The amount of borrowing is the highest among the younger’s group as ₹52,574.11 and it is lowest among the middle aged and elders groups. The borrowed amount may be used for consumption or for other purposes. Palmyrah tappers in general borrow heavy amount of money irrespective of their income.

‘F’ test was employed to examine the hypothesis that, there is no significant relationship between the different sources of indebtedness of the palmyrah tappers
and three aged groups. The ‘F’ values are significant in the palmyrah tappers development societies and employers. The other factors like public financial institutions, private chit, money lenders, self help group and friends and relatives are not significant to the debt among three groups. Hence the researcher concluded that there is a significant relationship between the palmyrah tappers development societies, employers and the indebtedness of the three aged groups.

The assets owned by the palmyrah tappers are house, land, jewels, vehicles and consumable durables. Their largest asset is house. It is clear that young palmyrah tappers have the highest assets value than the middle aged and elder aged respondents. The ‘F’ values are significant only in the consumable durables (3.1235) among the three groups. The other factors like land, house, jewels and vehicles are not significant among three groups. Therefore, the hypothesis namely “there is no significant relationship between assets owned by the three aged groups” is disproved in the case of consumable durables. Hence the researcher concluded that, there is a significant relationship between the consumable durables and assets owned by the youngsters, middle aged and elder aged groups.

An attempt has been made to examine the relationship between annual value of jaggery production and the social factors like age, religion, community, education, family size, nature of tapping and nature of employment. The ‘F’ test have employed and found that there is an association between the annual value of jaggery production and the social factors such as age, religion, community, education, nature of tapping and nature of employment. Therefore, the hypothesis is rejected. But, there is no
association between the annual value of jaggery production and the family size. Therefore, the hypothesis is accepted.

It is clear that the value of jaggery production in the month of May among the middle aged group was ₹6,481.43 which was higher than the average value of jaggery production of all the households. ‘F’ test was employed to test the hypothesis that there is no association between the mean value of jaggery production during its season May and the age group of the respondents. The result shows that, there is an association between the mean value of jaggery production in the month of May and age group of the respondents. Therefore, the hypothesis is rejected.

The annual average jaggery production of youngster’s age group was 585.39 kgs, middle aged group was 702.48 kgs and elders age group was 577.13 kgs and overall respondents was 619.66 kgs. The annual average jaggery production of middle aged group was higher than all other age group households. The ‘F’ test was employed to examine the hypothesis that there is no association between the annual average jaggery production and different age groups of the households. Since the calculated value is greater than the table value the hypothesis is rejected. Hence, there is a significant relationship between the annual average jaggery production and age groups of the palmyrah tappers.

The annual average income earned out of jaggery production of middle aged group was higher than all other age group households. In order to find out the nature of the relationship between the annual average income earned out of jaggery production and age of the palmyrah tappers, ‘F’ test was employed to test the
hypothesis that there is no association between annual average revenue earned out of jaggery production and the age groups of the respondents. Since the calculated value is greater than the table value the hypothesis is rejected. Thus, it can be concluded that there is an association between annual average revenue earned out of jaggery production and age of the palmyrah tappers in Thoothukudi district.

7.2.3 Consumption Pattern of Palmyrah Tappers

Consumption is a major criterion for the well-being of the people. It stimulates individuals to earn more income. The level of living of an individual is indicated by his level of consumption. A low level of income leads to low level of consumption, which in turn results in low level of income. The level of consumption at times may be low even in an advanced economy. This may be due to lack of effective demand as a consequence of over production. But in the case of under-developed economy, low level of consumption is not due to over production but due to low level of income. Consumption in turn is measured most appropriately by the average daily calories in-take per persons. Generally, the approach is to analyse how much different families spend on meeting their actual expenditure on commodities in obtaining what is considered necessary for the maintenance of health and working capacity.

The study discloses that on an average, every palmyrah tappers family spends about ₹1, 09,594.17 on household expenses. The average amount spent on food is more which is about ₹33, 540.67 (30.60 per cent). They spend more on social and
religious functions, which come about 5.64 per cent of their income. The expenditure on education is very much less. This indicates the poor standard of living of the people.

The ‘F’ statistics is also employed. The result shows that, only clothing expenditure (2.999) and social and religious expenditure (3.098) are statistically significant at 5 per cent level. The other variables like food, shelter including repairs and maintenance, fuel and lighting, health care, education, entertainment and travel, liquor intoxicants, tobacco chewing and other expenses are not significant.

Linear consumption functions were fitted by taking the per capita consumption expenditure of the households as the dependent variable and the per capita income of the households as the independent variable to study the quantitative relationship between the consumption and income in the palmyrah tappers households. The marginal propensity to consume and the marginal propensity to save were derived from the consumption functions for the households. From the analysis it could be inferred that with every increase in the annual per capita income from the existing mean level by one rupee, the annual per capita consumption would increase marginally by 0.86 rupees in the palmyrah tappers households.

It was evident, that most of the per capita income earned was spent on the consumption. This indicates that persons in the palmyrah tappers households were lining with intense poverty and they spent more on the consumption.
7.2.4 Social Status of palmyrah tappers

If there is a change in social status, the society also changes a lot and therefore the analysis is made, to find the prospects of the palmyrah tappers. Prospects of the sample respondents are analysed on the basis of social factors.

‘F’ test is employed to test the relationship between the age of the palmyrah tappers and the social status variables. Among the social status variables like membership in various associations, rapport with officers, interest in religious activities, self image, involvement in social services, recognition in the society, departure from superstitious beliefs, self discipline and expenses on luxurious items are significant at 5 per cent levels. The other variables such as leadership quality, status of life, changes in the life style, co-operation, helping tendency, changes in communication system, departure from unfair practices, departure from social tensions, changes in unethical value, investment and participation in administration are not significant with the age of the palmyrah tappers.

The factor analysis technique is used to reduce the long list of variables that influence the palmyrah tappers and to make meaningful decisions. In this study, factor analysis is applied for the social status, economic status and problems faced by the palmyrah tappers and the results are given one by one. In order to find the appropriateness of this analysis, Kaiser Meyer Olkin (KMO) and Bartlett’s test of Sphericity is used. Self development, good recognition, proper identification, modern life style and self assessment are the factors influencing the social status of the palmyrah tappers.
Regarding the importance given on these factors, the significant difference among the three age group of tappers perception on social status have been identified in the case of self development, good recognition and modern life style, since their respective ‘F’ statistics are significant at five per cent level. The self development, proper identification and self assessment has a greater influence on social status and the value of jaggery production. Hence there is a relationship between the social status variables and the different age groups of palmyrah tappers.

7.2.5 Economic Status of palmyrah tappers

Among the economic status variables like able to spend adequately for expenditure on consumer durables, housing conditions are improved, able to spend adequately for shelter, able to spend more for consumption, able to repay of loan, expenditure on purchase of jewels increases, reduction in child labour and increase in standard of living are significant. The other variables such as able to spend adequately for the education of children, reduction in indebtedness, awareness of family planning, able to spend adequately for food consumption, decrease in family size results in high per capita income, expenditure on purchase of land increases and increase in employment opportunities are not significant with the age of the palmyrah tappers.

The ‘F’ test is employed to test the relationship between the age of the palmyrah tappers and the economic status variables. The economic status are too many, but the present study is confined to fifteen factors and reduced to five variables by using factor analysis such as increase in standard of living, adequate
finance, reduction in debt, more consumption and proper planning. Regarding the importance given on these factors, the significant difference among the three age group of tappers perception on economic status have been identified in the case of increase in standard of living, adequate finance and reduction in debt, since their respective ‘F’ statistics are significant at five per cent level. Increase in standard of living, adequate finance and more consumption has a greater influence on economic status and the value of jaggery production. Hence there is a relationship between the economic status variables and the different age groups of palmyrah tappers.

7.2.6 Problems faced by palmyrah tappers

The problems are inevitable in the palmyrah tapping work. At the same time the level of acceptance, attitude and involvement of the tappers are equally important to the contents of tapping work. The problems are too many, but the present study is confined to twenty six problems are reduced to five variables and are given different names by using factor analysis as lack of finance, inadequate facilities, lack of efforts by government, poor market information and family problem. Regarding the importance given on these factors, the significant difference among the three age group of tappers perception on problems has been identified as lack of finance and inadequate facilities. In this study Multiple Linear Regression Analysis is used to explain the dependent variable of the income from jaggery production based on the problems faced by palmyrah tappers. Inadequate facilities, lack of efforts by government and poor market information are statistically significant. There is a relationship between the problems faced by the tappers and the value of jaggery
production. Hence there is a relationship between the problem status variables and the different age groups of palmyrah tappers.

Alcoholism is thought to arise from a combination of wide range of physiological, psychological, social and genetic factors. Majority of the palmyrah tappers have drinking habit and most of them are elders. They consume very often. The age of addiction of the tappers here varies from 13 years to above 23 years. Some of the palmyrah tappers respondents were addicted to toddy. This brand is prepared by them, so there is no expense for them. Alcoholism is one of the reasons for multiplication of population, low earnings and poor education. The addiction habit is also hereditary in nature. Most of them told that their father is not using any type of alcohol. The researcher concluded that majority, of the respondent’s friends and co-workers only introduced them to drink. The study reveals, that majority of the palmyrah tappers family members also have drinking habit. Therefore, the generations are also addicted for alcohol.

An analysis of the data presented, has shown the production trend in different months. The mean production is increased per month from January to July. It starts declining from August. The average total production per month of all the groups was 178.47 kgs The potentiality of the industry is such that an economic amount of wealth can be produced if all the tappable trees are utilized. The average value of total jaggery production per month of all the groups was ₹8,031.16. The researcher concluded that, the average value of jaggery production is high in the middle aged group when compared to youngsters and elders groups. Therefore, the middle aged
group palmyrah tappers are actively participating in the tapping activities. The climbing of trees is done three times a day. Most of the respondents collect neera for eight hours per day. Majority of the palmyrah tappers feel that the price of jaggery is low. Therefore, the government should strictly adopt the minimum support price in the study area. Majority of the palmyrah tappers depend on middleman because through them immediate cash for their products can be obtained. Village level traders, middleman, direct market sales and the co-operative societies are the different source of selling points.

The objective of Multiple Discriminant Analysis is to predict an object’s likelihood of belonging to a particular group based on several independent variables. It is used in the study to discriminate the high and low level of tappers. The study discloses that the significant discriminant economic status factors among the three age groups are increase in standard of living, adequate finance and reduction in debt, since their discriminant co-efficient are significant at five percent level. The above said factors are identified as higher among middle aged and youngsters.

The study discloses that the important discriminant social status among the three aged groups is self development, good recognition and modern life style. The respective standardized discriminant co-efficient is higher among middle aged than the elders and youngsters.

The level of perception on important problems among the different age groups may be different. The study discloses that the significant discriminant function co-efficient are noticed in the case of lack of finance and inadequate
facilities. The important discriminant problem perceptions among the three groups of respondents are lack of finance and inadequate facilities which is higher among the middle aged respondents than among the elders and youngsters.

The productivity factors in the present study are value of production, quantity of production and income per day. Regarding the level of productivity factors, the significant differences among the three age groups have been examined with the help of one way analysis of variance. The higher mean value of productive factor is identified among the middle aged. The important discriminant productivity factors among the three groups are quantity of production and value of production. The productive factors are high among the middle aged groups than among the elders and youngsters.

The respondents are classified into highly and poorly performed on the basis of their value of production. Out of 300 respondents, only 95 respondents are coming under the category of high and low performed respondents. Out of 95 respondents, 53 respondents have high performance whereas, the remaining 42 respondents have poor performance.

The factors namely, social status, economic factors and problem perception may be different among the high and poor performed respondents. It is imperative to identify the discriminant factors among the highly and poorly performed respondents for some policy implications. The mean difference and its statistical validity among the two groups of respondents have been examined and the discriminant power of the factors have been analysed with the help of Wilks Lambda.
The significant mean differences are noticed in all the three factors namely, social status, economic status and important problems. The higher mean differences are noticed in the case of social status and problem status. The higher discriminant co-efficients are seen in the case of economic status and problem status, since their discriminant co-efficients are significant at five per cent level. It shows that, the above two factors influence more in the discriminant function. The higher relative contribution of discriminant function in Total Discriminant Score is identified in the case of economic status and problem perception. The economic status among the highly performed are higher than poor performed whereas, the problem perception is lesser among highly performed than among the poorly performed.

7.3 SUGGESTIONS

Based on the analysis and findings of the study, the following suggestions have been made for improvement of the palmyrah tappers.

➢ Government and voluntary organizations have to take necessary steps to develop the life of palmyrah tappers and use of palmyrah products.

➢ Government policies and programmes should be oriented towards human resource development which in turn includes education, healthcare, nutrition, and economic empowerment.

➢ Education of the children of the tapping community upto higher secondary level should be made compulsory so that they can be motivated for higher studies, by enabling them at least a few of them to leap into government or private sector employment. This will definitely enhance the socio-
economic status of the family but also avoid their dependence on tapping as
the only source of livelihood.

➢ The government should fix the minimum price for palm products and
establish a support price for jaggery.

➢ The palmyrah tappers must be technically trained to increase the
productivity by the training institutions.

➢ Lack of finance and inadequate facilities are the main problem faced by the
palmyrah tappers. Government should take strong action against proper
storage facilities and introducing minimum support price.

➢ The government must introduce palm society and daily market in different
places to control the higher commission.

➢ Most of the households have poor asset holding in the study area. In order
to strengthen their asset position, they could be assisted to enhance their
income earning capacity through self employment schemes.

➢ If the State government introduces sale of toddy, certainly the palmyrah
tappers would get more revenue from their trees. Since toddy was poor
man’s drink it should be patronized by the government for introducing of
toddy shops in the state.

➢ The poor were squandering their precious income in Indian Made Foreign
Liquor (IMFL) shops and if the government permit for toddy, it would
increase employment opportunities thereby helping to create equal
distribution of wealth in the rural areas and it can be accepted as a natural drink with medicinal value.

➢ In India, Indian Made Foreign Liquor (IMFL) is available in all states for sale. Government should not give step motherly treatment to palmyrah tappers. Though many states have permitted sale of toddy, which is a natural drink, states such as Tamilnadu are denying the rights of farming community to sell toddy. So, toddy should be encouraged for sale as natural drink.

➢ The successful and efficient Tamil Nadu government should take a special attention to improve the standard of living of the people who work on the palmyrah trees.

➢ If the toddy tappers have tied up with self-help groups for manufacturing gift items like pen-sets, fancy shopping bags and jewellery boxes, it could be an eco-friendly substitute to plastic products. Government should take care of the training part, to implement such schemes.

➢ The palmyrah climbers, were struggling even to feed their children properly and could not ensure quality based education due to skyrocketing price rise. Hence the government should consider their demands positively. Steps were needed to make productive use of all palm trees in the state.

➢ The ban on felling palm trees should be enforced strictly. Assistance should be extended for persons engaged in developing mechanical devices for climbing palm trees.
Urging the government to encourage palm-based products utility items should be made out of palmyrah products alternative for plastic and paper. Invitations for all government functions should be printed on palm leaves, and urged the government to explore the feasibility of exporting palmyrah products.

7.4 CONCLUSIONS

The study gives a clear idea of income and expenditure pattern of the households of palmyrah tappers in Thoothukudi district and brings to light certain causes for socio-economic backwardness of the tappers community. It is hoped that suggestions made in the study, will serve as a decision in solving many problems of tappers who, for centuries, have been basically poor and downtrodden. The palmyrah tappers are having poor socio-economic conditions. The level of income is not sufficient to nourish their family with nutritious food. So they spend whatever they earn and borrow from money lenders. They can earn just for their ‘hand to mouth’ living from the palmyrah climbing but they are not able to come up in life. Hence they want their children to be educated for their betterment. The pressure on the food supply will not only come from the increase in the population but from the deterioration in the natural resource base caused by factors such as deforestation, which causes flooding or drought burning of fossil fuels, leading to global warming and the pollution of soil and water by the overuse of agrochemicals such as fertilizers and pesticides.
The challenge facing scientists, researchers, extension workers and farmers in the next millennium is to find appropriate ways of utilizing the earth's resources to feed the predicted doubling of the human population while at the same time improving the living standards of rural people. Directly, it provides employment to the toddy tappers, indirectly a significant section of people who lives in the rural segment gets livelihood through abundant source of palmyrah palm by marketing the products and products of the tree. And also it is a tree of eco-friendly and ultimately most economical one.

7.5 SCOPE FOR FURTHER RESEARCH

Based on the findings of the present study the following issues have been identified for further research from the personal experience of the researcher.

1. Income and expenditure pattern of palmyrah tappers in Thoothukudi district.

2. A study of the economic impact of expenditure on consumption of intoxicants by palmyrah tappers.

3. This study gives scope for further research to be undertaken in the export of palmyrah products.

The researcher hopes that the present study will lead to many similar studies in future, which may contribute effectively to the well-being of the tappers community everywhere. Finding alternative methods of extracting the sap to avoid the laborious and dangerous procedure of climbing the palm trees twice daily to tap the inflorescences.