TODDY TAPPING AS A RURAL LIVELIHOOD: EVIDENCE FROM KANNUR DISTRICT

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ABSTRACT

The study tries to analyse the socio-economic conditions of Toddy tappers, one of the traditional occupations in Kerala is gradually disappearing from our society. The present study was focused on Kannur district. The samples for the study were taken from 'Narath' and the only one-woman toddy tapper from Kannur, belongs to ‘Panniyode' in Kannur district. The main objective of the study is to understand the social and economic condition of toddy tappers. For toddy tapping work is not require any educational qualification. Here most of the people have the qualification of SSLC or tenth standard, after this they stop their study. Along with social and economic problems health problems of the workers are considered. The reasons for decreasing the number of Toddy tappers are also analysed. Working condition, salaries, family background, reasons why women are not engaged are the issues taken. The study also considered why women are not coming in this field by considering the case of only women toddy tapper in Kannur.

1. INTRODUCTION

Toddy locally known as "kallu," is a popular alcoholic beverage in Kerala, India. The skilled toddy tappers play a crucial role in this process, climbing coconut trees to carefully extract the sap from flower buds. The fresh toddy has a sweet taste and mild alcohol content. This traditional practice is not only a means of livelihood for the tappers but also an integral part of Kerala's cultural heritage, reflecting the unique connection between the community and the coconut palm. A toddy tapper is a skilled individual engaged in the traditional practice of extracting sap from palm trees, particularly coconut palms, to produce toddy. These tappers climb the trees to carefully make incisions in the flower buds, allowing the sap to flow into collection containers. This process requires expertise and is often passed down through generations. Toddy tappers are integral to the production of toddy, a mildly alcoholic beverage, and their role is culturally significant in regions where this practice is prevalent, such as Kerala in India. Toddy tapping involves physical exertion and potential risks. The repetitive climbing and manual labour can lead to musculoskeletal issues, and exposure to heights may pose safety concerns. Additionally, the traditional methods and tools used might impact the overall health of toddy tappers. The declining participation of youngsters in toddy tapping may be influenced by changing societal expectations, higher risk, alternative career opportunities or a lack of interest in traditional occupations. Majority of the respondents says that youngsters are not attracted, that is because the youngsters are not interested in these traditional job they are interested in white collar jobs. It is the reason that the number of toddy tappers are decreasing, but whole over Kerala, statistics of Kerala toddy workers welfare fund board, more than 700 of the new comers are youngsters. There are some technological innovations from the part of youngsters like 'SAPER' AI - based tech to revolutionise coconut tree tapping - new technology can monitor health of a tree and detect optimal time for tapping. There is only one-woman toddy tapper in Kerala belongs to Panniyode, Kannur, Kerala, sheds light on the challenges faced by this traditional occupation. The decreasing number of toddy tappers, particularly due to the lack of interest from youngsters, underscores the need for attention and support. The absence of government assistance further emphasizes the socio-economic struggles within this sector. A comprehensive discussion on the socio-economic conditions of toddy tappers, women's participation, and the government's attitude could provide insights into potential solutions for sustaining this traditional job.

The challenges faced by toddy tappers, including a declining number of coconut trees, the influence of foreign beverages and limited government support, underscore the vulnerability of this traditional occupation. The shift of toddy tappers to other professions, particularly due to the lack of interest from youngsters preferring white collar jobs, adds to the concerns. The socio-economic conditions of toddy tappers during the COVID-19 pandemic and the role of the welfare board highlight the need for comprehensive research to address the issues and sustainability of this fading occupation. The range of support provided by the welfare board, including educational scholarships, cash awards, gold medals, laptops for professional courses, and other developmental activities, reflects a holistic approach to the well-being of toddy tappers' children. The present study was a simple attempt to analyse the socio-economic conditions of toddy tappers in Kannur district.

2. LITERATURE REVIEW

Sathish (2012) explains that toddy tapping in the state has fallen on evil days with drinking fast changing to more stylistic ways of liquor consumption. Toddy shops are steadily closing, leaving toddler tappers in a maelstrom of issues. Malayali workers from the adjacent districts of Coimbatore, Salem, etc. members of the – 'ezhava and - thandaan' communities were mostly engaged in this profession in Kerala. But now members of scheduled caste, tribe and even adivasi's are doing it. The government policy stipulates that there should be five toddy tappers and 50 coconut palms attached to every toddy shop in the state. The wages are low; there is low offtake of toddy during monsoon.

Srikumar (2018) states that Palakkad which is known as the rice bowl of Kerala has also another peculiarity which makes the district famous for. It is the largest production of toddy in the state. Even when controversies are brewing around toddy deep inside in Chittor there is world of toddy tappers unconnected to all these. Navrang (2019) expresses his view that in the realm of women's empowerment, Sheeja's (APPENDIX-I) entry into the traditionally male dominated field of toddy tapping in rural Kerala marks a significant departure from societal norms. Originating from Panniyode in Kannur district, Sheeja, at the age of 33 defied gender stereotypes by becoming the first women toddy tapper in the state. Her foray in to this perilous profession, typically reserved for men's dominant jobs. Sheeeja's transition to the role of a toddy tapper stemmed from compelling financial circumstances within her family, triggered by her husband's physical incapacitation following a road accident. Despite initial reservations from her

husband and the surrounding community, Sheeja undertook the formidable task of learning the trade from scratch, overcoming challenges associated with tree climbing and sap extraction at dizzying heights. As she embarked on his unconventional path, Sheeja's journey became a collaborative effort with her husband, Jayakumar, who played a crucial role in training her. Starting with shorter trees, Sheeja gained confidence and experience, ultimately conquering the initial reservations she had about the physically demanding job. This collaborative approach not only defied gender norms but also addressed safety concerns associated with women engaging in such hazardous work. Sheeja's daily routine, characterized by climbing eight palm trees a day to earn Rs. 350, showcases her dedication to providing for her family. The traditional attire she wears, equipped with knives and a black jug, reflects the cultural nuances of toddy tapping in Kerala. Additionally, her adherence to cultural traditions, such as refraining from tree climbing during her menstrual cycle due to religious beliefs, adds a layer of complexity to her narrative. Moreover, Sheeja's adaptability is evident in her diversification of income through moonlight in other odd jobs and exploring rubber tapping. Her observations regarding the impact of climate change on toddy yield highlight the intersectionality of Sheeja's pioneering role as Kerala's first woman toddy tapper.

Babu (2019) based on the statistics of Kerala Toddy Workers Welfare Fund Board, more than 700 of the newcomers are youngsters. At present, 51000 labourers are working in this sector and 1000 among them are newly joined. The labourer who taps highest quantity of toddy in each district is presented with a cash prize of ₹ 50000. ₹60000 is provided as treatment aid for accidents which occurs during the job and ₹6 lakh insurance for accident death. ₹40000 is granted for children's marriage and monthly pension up to ₹5000 depending on the number of years in the industry. The benefits would amount to ₹4 lakh by the time of retirement.

Appala Naidu (2019) The profession of toddy tapping is on the verge of extinction in the Machilipatnam coast, despite having a handful of security measures and the abolition of tree tax in 2018. In rural Andhra Pradesh, climbing trees to get toddy is one of the riskiest ways to make a living. Most of the Gowda caste's impoverished families in Eastern Krishna work in this field, but hundreds have quit over the years. The community decides the victory in the Machilipatnam Assembly and Lok Sabha segment.

Umar shareef (2020) The government is easing its stringent curfew rules despite the rising Covid-19 cases in the country. Economy brings a lakh of farmers rendered jobless

by the lockdown, who are already affected by a falling demand and low income, making whatever little money they can through toddy tapping, dangerously scaling over 20-metre-tall trees twice a day. The lockdown confining them into houses. But all our requests fell on deaf years. The state government had allowed Famers to tap. Unable to bear the loss of income, a few toddy tappers in Kanyakumari district crossed borders to Kerala hoping to earn a better life and a steady income. The lockdown, however, left the relatively better off toddy tappers in Kerala too under financial stress as they have remained jobless for nearly three months. Prabalika M. Borah (2020) explains that he article offers a close-up view of Siddipet's toddy culture during the covid-19 era, highlighting the toddy tapper's resilience and the beverage's cultural significant. It emphasizes the district's success in maintaining zero COVID-19 cases and playfully attributes it to the magical properties of – 'white water'. 'The narrative describes the village setting, the harvesting process, and the significance of the – 'moduga' leaf in serving toddy. The socio-economic impact of toddy tappers during lockdown, their cautious approach to sales, and the safety measures taken underscore the community's commitment to health. The piece also touches on the changing consumer preferences, with people opting for fresh and natural foods, presenting an opportunity for the toddy industry. The article skilfully weaves in elements of tradition, safety, and community spirit, offering readers a concise yet comprehensive overview of the toddy culture in siddipet's amid the challenges posed by the pandemic. Sajeevkumar (2021) It is not only tipplers but today tappers too are facing the brunt of covid-19 pandemic in Kerala. The lockdown in second covid wave has expect customers away from toddy shops. Forcing tappers to dump in the open the brow extracted from coconut palms-for both wants of customers and closure of toddy shops. Around 4 lakh litres of toddy are being emptied to the ground on a daily basis learning 25000 toddy workers in the state in a mess. Since April 26, Toddy Out Lets has been closed, which has also kept out customers. It is easy for foreign liquor out lets to open for buss lies the next day after shut down is lifted. But not for toddy which requires a long-drawn process to make the coconut tree ready for extractions this can take at last six months. Bindiyachari (2021) Production of coconut feni has been on decline as for every toddy tapper. Locally called - 'render' are of various other traders' toddy. Traditional toddy tapping requires the tapper to climb a coconut tree thrice a day-not an adventure many of younger men from families traditionally in to the graft are willing to take up. Arti Das (2022) Shweta Gaonkar is making space for woman in a male – dominated profession, and bringing new tools to the job. Shweta Gaonkar

instructs laborers in the art of toddy-tapping and educates farmers on using a climbing device. Telangana Hindu Bureau (2023) Toddy tappers who died in fall from trees accidently during their daily chores will get life insurance for of 5 lakh like farmers under the Rytubheema scheme of the state government. This was announced by Chief minister K Chandra Sekhar Rao while reviewing relief for tappers in accidents.

3. DESIGN OF THE STUDY

Objectives of study

1) To understand the socio-economic and health conditions of toddy tappers and women's participation in the field of toddy tapping.

2) To understand the attitude of the youngsters towards toddy tapping and extinction of toddy tappers

3) Government attitude and policies for the protection of toddy tappers

Research methodology

The study is based on 50 samples. Data analysis was on the basis of convenience sampling. A well-structured interview schedule was used for this study from which the primary data is collected from the respondents and secondary data are also used for the study. The questions included in the interview schedule was directly linked with the topic. There were 50 questions and were prepared in simple language, so the respondents can easily analyse it. The questionnaire was served to the respondents directly. Secondary data are collected through internet, newspaper, articles, and magazines. Here, in this study convenient sampling technique is used for selecting the sample. In convenient sampling technique, the researcher selects those units which are convenient to them. Tables, percentage method, charts and graphs were used for analysis.

Toddy-tapping, a traditional practice in many tropical regions, can be analysed within a theoretical framework that encompasses various dimensions: cultural, economic, and ecological. Culturally, toddy-tapping often holds deep roots in local traditions. The process involves skill and knowledge passed down through generations, creating a cultural identity tied to this ancient practice. The social significance of toddy-tapping can be explored through rituals, festivals, and communal gatherings that revolve around the extraction and consumption of toddy. Economically, toddy-tapping plays a vital role in the livelihoods of many communities. It serves as a source of income for tappers and contributes to the local economy through the sale of toddy and its by-products. Understanding the economic dynamics involves examining market trends, pricing mechanisms, and the overall economic impact on both individual tappers and the

broader community. Ecologically, the theoretical framework considers the impact of toddy-tapping on the environment. This involves studying the relationship between palm trees and their ecosystems, assessing the sustainability of toddy extraction, and addressing potential ecological consequences such as deforestation or depletion of tree resources. Balancing economic benefits with ecological sustainability is crucial for the long-term viability of toddy-tapping. The theoretical framework also includes factors like climate, as variations can affect toddy production. Additionally, the physiology of palm trees becomes a focal point, studying how the tapping process influences the health of the trees and the overall ecosystem. In conclusion, the theoretical framework of toddy-tapping involves a holistic approach, encompassing cultural, economic, and ecological dimensions. By examining these aspects, researchers can gain insights into the intricate interplay between tradition, livelihoods, and the environment, contribute Toddy-tapping, a traditional practice in many tropical regions, can be analyzed within a theoretical framework that encompasses various dimensions: cultural, economic, and ecological.

4. DISCUSSION

The study concentrates on the socio-economic conditions of toddy tappers belonging to Kannur district. Toddy tapping is one of the traditional practices of Kerala. Even though the industry is running on its later stages, still a large majority are depending on this sector for meeting their livelihood. Here a simple attempt was made to conduct a study about the toddy tappers. The information collected from toddy tappers are tabulated and interpreted and presented in the following section. There was a stark gender contrast among the respondents, with 98% being male and only 2% were female. The low participation of women in this field can be primarily attributed to the perceived challenges of high risk and strenuous work. 56% of the respondents are categorized as above poverty line (APL), while 40% fall into the below poverty line (BPL) category. The remaining 4% belong to a category other than BPL and APL. A notable proportion falls within the BPL category, indicating economic diversity among the surveyed population. In 74% of cases, the head of the family exclusively performs toddy tapping, while in 26%, other family members are involved in this activity. The contrast between individual responsibility in the majority and shared family engagement among 26% highlights the diversity in family contributions to toddy tapping activities. 80% of the respondents possess qualifications up to SSLC, while 20 % have completed higher secondary education. Notably, none of the respondents holds qualifications beyond higher secondary.

Table 1.1 Monthly income of the respondents

Income category	No. of respondents	Percentage
Below– 6000	0	0
6000 – 7000	1	2
7000 – 8000	1	2
8000 – 9000	2	4
9000 and above	46	92
Total	50	100

Source: Primary data

Table 1.1 indicates that 92% of the respondents fall into the income category of 9000 and above. 4% falls into 8000 to 9000 category and 1% of the respondent falls into 6000 to 7000 and 7000 to 8000 both categories. Almost 90% of the respondents could meet their needs with their wages, and only 10%of the respondents says that, they could not meet their needs with their wages. 68% of the respondents inherited this job from their parents. 24% selected toddy tapping accidently and 8% prefer this because they do not get any other job. It is a full-time work. Toddy tappers have to work entire year it is not a seasonal job.

Table 1.2 Other income earning activities

Category	No. of respondents	Percentage
Plucking coconut	1	2
Farming	2	4
Coolie work	2	4
Nil	45	90
Total	50	100

Source: Primary data

The respondents are performing different other activities in addition to toddy tapping like plucking coconut, farming, daily wage work etc. Table1.2 shows that 90% of the respondents are doing only toddy tapping. 4% are doing daily wage work during their free time and another 4% choose farming and 2% engaged in plucking of coconut. These people are performing these additional jobs because they have limited toddy tapping jobs. So for getting a better income they depend on this job. 62% have debt burden and 38% of the respondents responded that they do not have debt burden. 92% of the respondents borrow from Bank. The other sources such

as family, chit funds, friends, and other sources, each is utilised 2% of the respondents to take debt.

The job conditions of toddy tappers, such as working at heights and exposure to weather conditions, can impact their health. Physical strain, lack of safety measures, and inadequate protective gear may contribute to health challenges over time. Additionally, prolonged exposure to the sap of the toddy palm and the use of traditional tools can lead to musculoskeletal issues and skin problems.

Table no: 1.3 Difficulties during rainy season

Category	No. of respondents	Percentage
Insect bite	10	20
Slippery	40	80
Total	50	100

Source: primary data

Table no: 1.3 indicates that most of the respondents, that is 80% of the respondents faced the problem of slippery during the rainy season and 20% of them faced the problem of insect bite during the rainy season. No one faced the problems other than slippery and insect bite during the rainy season. 100% were opined that selling toddy to shop at morning is the preferred time. The reason provided is that fresh toddy is available only during morning, indicating a unanimous opinion among the respondents about the timing and freshness of the product.

Table no: 1.4 Quantity of toddy availed from one coconut tree

Quantity (in Litres)	No. of respondents	Percentage
Less than 1	4	8
1 – 3	46	92
3 –5	0	0
More than 5	0	0
Total	50	100

Source: Primary data

Table no: 1.4 indicates that 92% of the respondents mentioned that they obtain 1 to 3 litres of toddy from one coconut tree, while the other 8% reported getting 0 to 1 litre from one coconut tree. No one claimed to harvest 3 to 5 or more than 5 litres of toddy. The quantity of toddy

produced can be influenced by factors such as the age and health of the toddy palm, environmental conditions like temperature and rainfall, proper tapping techniques, and the regularity of tapping. Additionally, the quality of maintenance, fertilization and disease control measures can impact toddy yield. Furthermore, the geographical location and soil quality play its own roles in toddy production. Adequate care and timely tapping intervals without causing damage to the palm are essential factors. Varieties of toddy palms and their genetic characteristics also contribute to variations in the quantity of toddy produced.

74% of the respondents responded that they have beat the bunch 0 to 10 times in order to get the toddy and16% responded that they have to beat 10 to 20 times and 6% responded that they have to beat above 30 times in order to get the toddy. Only 4% responded that they have to beat 20 to 30 times in order to get the toddy. The rhythmic beating of toddy palms by toddy tappers serves a practical purpose—it helps to stimulate the flow of sap. This beating, usually done with a mallet, creates vibrations that enhance the extraction of toddy. The repeated tapping on the palm's inflorescence encourages a steady flow of sap, which is collected for the production of toddy. Beating the toddy palms can potentially increase toddy production by stimulating the flow of sap. The rhythmic beating helps in loosening the sap and facilitating its extraction, contributing to a higher yield. However, it's crucial to strike a balance, as excessive or improper beating may harm the tree and have negative effects on overall production.

Based on the survey results 78% of the respondents need more than 30 days to produce toddy and 14% of the respondents need 21 to 30 days and 8% needs 11 to 20 days in order to produce toddy. No one could produce toddy in less than10 days. Toddy tappers climb trees multiple times a day to extract toddy by beating bunches. This process is not limited in morning but also occurs at noon and in the evening. The frequency of climbing is essential for obtaining a sufficient quantity of toddy. Based on the information collected 84% of toddy tappers needs to climb 20 to 30 times daily, while 16% mentioned that they climb 30 times daily. None of the respondents indicated climbing below 10 or 10 to 20 times per day. The survey results shows that 16% of the respondents are climbing more than 30 times per day. This underscores the physically demanding and repetitive nature of toddy tapping to ensure a steady yield.

Toddy production varies based on geographical locations. The higher percentage (80%) obtaining more toddy from the coconut trees near the rivers, which indicates that these areas are more conducive to toddy production. River side locations must offer better condition, such as favourable soil quality, adequate moisture and optimal climate, contributing to higher toddy

yields. In contrast 14% of the respondents gets more toddy from the coconut trees nearby waterless areas may face different environmental conditions, impacting toddy production. Other 6% gets more toddy from the coconut trees from the areas other than river side and waterless areas. This disparity highlights the influence of geographical factors on the quantity of toddy obtained from the coconut trees in different areas.

Table no: 1.5 Most Demanded Toddy

Category	No. of respondents	Percentage
Sweet toddy	44	88
Fermented toddy	5	10
Other types of toddy	1	2
Total	50	100

Source: Primary data.

Table 1.5 indicates that specifically 88% of the respondents, believe there is a higher demand for sweet toddy. This toddy is typically supplied to toddy shops. In contrast, 10% of the respondents expressed that fermented toddy has more demand, while 2% mentioned a preference for other types of toddy. These results provide insights into the perceived popularity of different toddy varieties among the surveyed individuals.

Table no: 1.6 Other purpose of fermented toddy

Category	No. of respondents	Percentage
Vinegar	36	72
Food products	10	20
Other	4	8
Total	50	100

Source: Primary data.

Table 1.6 indicates that 72% of the respondents stated that the fermented toddy can be used in the production of vinegar and 20% responded that the fermented toddy can be used in the production of food products and the other 8% indicate that the fermented toddy holds value for activities other than the production of vinegar and food products. This implies diverse perceptions regarding the versatile applications of fermented toddy among the surveyed individuals.

Survey results show 60% of the respondents experiencing increased benefit in winter season suggests that this period is conducive to higher productivity, possibly due to favourable climate conditions. Similarly, 40% reporting more benefits during rainy season which indicates that another season with optimal condition for toddy tapping. The absence of benefits in summer season, suggests that this time might not be favourable for toddy tapping, overall, these results highlight the crucial role of seasonal variations in shaping the productivity patterns of toddy tapping activities. 50% stated that climate is the most important factor for getting more toddy. 28% stated that rain and winter season is the reason and 12% stated that during winter season productivity increases is the reason for getting more toddy. 10% of the respondents stated that growth of coconut trees is the reason for getting more toddy. 72% of the respondents will lease 5 to 10 coconut trees and 16% will lease 1 to 5 trees and 12% will lease 10 to 15 coconut trees.

Based on surveyed information 56% are of the opinion that the reason for decreased participation of women in toddy tapping is due to the hazardous nature of the job. 40% of the respondents are of the opinion that patriarchal societal norms was the reason and 4% thinks that there is other reasons, and no one thinks that lower wages are the reason for the decreased participation of women in toddy tapping so the nature of challenges faced by women in this industry, encompassing both safety and societal norms. Only 10% of the respondents claim awareness of government policies for the protection of toddy tappers. This stark imbalance underscores a crucial communication gap, signalling the need for improved dissemination of information about government regulations and initiatives in the context of toddy tapping.

Survey reports provide the information that 50% favouring the monitory assistance provided by the welfare board and 46% endorsing a family support package from the welfare board for toddy tappers. A minority, constituting 4%, suggests alternative forms of incentives. This visual representation emphasizes the diverse perspectives within the respondent group. The data underscores the importance of tailoring welfare programs to accommodate varied preferences, acknowledging the significance of both monetary aid and family-centric support in addressing the needs of the surveyed population.

Information shows that 60% of the respondents are getting social security benefits in the form of pension, 28% are getting insurance and 12% are getting the social security benefit in other forms than pension, insurance and welfare. Strikingly, no respondents indicate receiving social security benefits in the form of welfare. This data underscores the prevalent distribution of social security benefits among respondents, emphasizing the predominant reliance on pension

and insurance mechanisms. There was a significant gap in health coverage among the surveyed individuals, revealing a potential area for improvement in welfare initiatives. The notable majority lacking health insurance suggests a need for reassessment and expansion of the welfare board's support to enhance the wellbeing of a larger portion of the respondents.

Every respondent unequivocally asserts that the illegal sale of toddy would result in the e-cancellation of their license. strikingly, there is a unanimous absence of the respondents claiming no penalties for such illicit transactions this collective agreement suggests a strong awareness among participant regarding the stringent consequence associated with illegal toddy sales. The absence of any respondents denying penalties emphasizes the perceived gravity and enforcement of regulatory measures, reinforcing the importance of adherence to legal guidelines in the toddy industry.

Respondents expressed a negative impact resulting from the emergence of foreign beverages. Surprisingly, none of the participants reported a neutral or positive stance on this matter. The respondents unanimously suggest a widespread or issue related to the introduction of foreign beverages. The absence of any respondents denying a negative impact emphasizes the need to explore and address the perceived drawbacks associated with the presence of foreign beverages in the context under study.

64% of the respondents, expressed satisfaction with the welfare board's PF offerings. Conversely, 36% indicated dissatisfaction, stating that the welfare board is not providing any PF to the respondents. These finding suggest a noteworthy division in respondent's perceptions regarding the welfare board's role in PF provision, highlighting potential areas for further investigation or improvement in welfare initiatives.

Significantly 90% of the respondents believe that youngsters are not attracted to toddy tapping, indicating a prevailing perception of reduced interest among the youth. In contrast, a smaller 10% are of the opinion that youngsters are attracted to toddy tapping. This data reflects varying views on the engagement of young individuals in this traditional occupation. Youngsters may be less attracted to toddy tapping due to a shift in preferences towards modern and diverse career options, limited awareness about the potential income from traditional occupations, or concerns about the physically demanding nature of toddy tapping. Additionally, the cultural perception of toddy tapping might not align with the aspirations of the younger generation, who may seek opportunities in industries with greater technological advancements and perceived

stability. Social stigma or lack of incentives could also contribute to the diminished interest in pursuing toddy tapping as a livelihood.

The reasons behind the decline in toddy tappers with 60%, attributing it to the limited availability of coconut trees. Additionally, 20% associate the decrease with prioritizing to education, while 10% each identify reduced interest among youngsters and the rise of foreign beverages as contributing factors. This data suggests a multifaceted challenge, encompassing environmental, socio-economic, and cultural aspects, influencing the diminishing number of toddy tappers. It highlights the need for comprehensive strategies addressing various factors to sustain and revive this traditional occupation.

Table no: 1.7 Types of tools used for curving

Category	No. of respondents	Percentage
Knife	42	84
Mud	2	4
Kurunu leaf	1	2
Locational tools	5	10
Total	50	100

Source: Primary data.

Table 1.7 provides insights into the tools used by tappers for carving toddy, highlighting a predominant use of knives by 84%. The data further reveals a 10% utilization of tools based on location, showcasing regional variations. A noteworthy 4% employ mud for carving, indicating unconventional practice. Additionally, 2% incorporate 'Kurunu' leaf, emphasizing diverse approaches. This data underscores the varied techniques employed in carving.

54% of the respondents encountered restrictions preventing them from engaging in outdoor toddy tapping, show casing the impact of COVID-19 lockdowns on traditional activities additionally, 36% faced financial hurdles, underscoring the economic strain experienced by a substantial portion of respondents. Another significant aspect is that 10% of the respondents had to sell toddy at reduced prices during the pandemic, reflecting challenges in sustaining livelihoods. These findings illuminate the diverse effects of the COVID-19 pandemic on respondents, encompassing limitations on activities, financial difficulties, and economic repercussions in the context of toddy production and sales.

5. RESULTS

The study reveals a gender disparity with only 98% male and 2% female, indicating a lack of diversity. The main reason for this imbalance is that challenges such as high risk and arduous work prevent women's participation in the sector. Other gender identities were not represented in the data. The findings shows that lack of participation in toddy tapping within the family stems from various factors. It could be due to generational shifts, where younger members are less interested or have alternative employment opportunities. Additionally, concerns about safety, labor intensity, and environmental impacts may deter participation, leading to a decline in this traditional practice. In the study area most of the respondents will lease 6 to10 coconut tree. A survey on toddy tappers' educational qualifications revealed that they have minimal formal education, with many having only completed primary schooling. However, a small percentage have pursued higher education, primarily vocational courses related to agriculture or entrepreneurship, enhancing their skills in toddy tapping and management. In the study area we found the respondents work more than 5 hours per day. The age of the respondents were in between 40 to 50 years old, with a notable absence of youth engagement. Factors contributing to this trend include perceptions of the job as physically demanding, low financial returns, and a lack of interest among younger generations in traditional occupations. The survey results on toddy tappers' educational qualifications revealed that majority possess minimal formal education, with many having only completed primary schooling. However, a small percentage have pursued higher education, primarily vocational courses related to agriculture or entrepreneurship, enhancing their skills in toddy tapping and management.

Toddy tapping poses many risks, and falling from trees can lead to serious injuries or even death. Pesticides, which are dangerous chemicals used in tree care create health issues, the risk is there when handling sharp tools like knives. Proper safety equipment and training are essential to mitigating these hazards. Toddy tappers work from 6 am to 9 am and 2 pm to 5 pm daily, indicating a structured work schedule. This consistent pattern suggests the job requires dedication and regularity. As it's year-round and not seasonal, it likely provides stable employment, offering financial security throughout the year. For most of the Respondents thinks that the incentives to the Toddy Tappers should be in the form of monitory assistance. The correlation between job conditions and health among toddy tappers is evident. Unsafe working environments, prolonged

hours, and lack of proper breaks contribute to physical strain and mental stress. Adequate funding should be allocated for improved conditions, promoting worker well-being and productivity while reducing health risks. Majority of the Toddy Tappers are not getting the incentives provided by the welfare board. The study reveals that 54% of the respondents encountered restrictions preventing them from engaging in outdoor toddy tapping, show casing the impact of COVID-19 lockdowns on traditional activities additionally, 36% faced financial hurdles, underscoring the economic strain experienced by a substantial portion of the respondents. Toddy tappers are getting social security in the form of pension. Toddy Tappers selected toddy tapping as their job due to inheritance Toddy tappers doesn't have any job other than toddy Tapping. For majority of the respondents have low savings. For most of Toddy Tappers could meet their daily needs with their wages. Majority of the toddy tappers have to climb 20 to 30 times per day. For majority of the respondents replied they get more toddy from the coconut tree which are nearer the rivers. Sweet toddy has more demand. Fermented toddy can be used for the production of vinegar. For most of the respondents get more benefits in winter season. Tappers will lease 6 to 10 coconut trees.

Tappers regularly work more than 5 Hours per day. Most of the Respondents is unaware of the government policies related to toddy Tapping. For Majority of the Toddy Tappers thinks that the incentives to the Toddy Tapping wouldn't encourage youth into it. Majority of the Toddy Tappers are not getting the incentives provided by the welfare board. For most of the Respondents are getting social security in the form of pension. Majority of Toddy Tappers Responded that the welfare board is not providing health insurance to the tappers. The licence of the tappers would be cancelled when the Toddy is sold illegally. All of the Toddy Tappers States they had a negative impact with the emergence of foreign beverages.

Most of the Respondents States that the welfare board is providing PF for the respondents. For Majority of the respondents thinks that the limited availability of coconut trees is one of the reasons for decreasing the number of toddy tappers. Most of the respondents use knife as a tool for curving, an activity related to tapping. Majority of the Respondents couldn't go outside due to COVID – 19 lockdown, for them tapping was the major problem faced by the Respondents during lockdown.

Develop Eco-Tourism in toddy tapping regions for an immersive experience of the traditional art of toddy tapping and coconut farming. Offer financial support and incentives for toddy tappers to adopt modern, sustainable tapping technologies,

improving efficiency and product quality. Develop mobile apps facilitating direct sales between toddy tappers and consumers, promoting transparency in pricing and product information. Facilitate partnerships between local artists and toddy tappers for creating artwork and cultural events that celebrate the heritage and significance of toddy tapping. Launch educational programmes to involve the younger generation in learning and participating in toddy tapping, preserving traditional knowledge. Promote research and development initiatives focused on improving the quality of toddy production while safeguarding the health of coconut trees. Execute awareness campaigns emphasizing toddy tapping's cultural significance, promoting its heritage, and underlining the imperative need for preservation. Provide low- interest loans or grants to aid toddy tappers in upgrading equipment and adopting sustainable practices. Invest in better infrastructure for easier access to toddy tapping areas, improving transportation and storage for harvested toddy. Set up gardens for toddy tappers to grow different crops, encouraging eco- friendly farming and boosting their earning. These were some suggestions put forward for improving the conditions of tappers.

6. CONCLUSION

It's concerning to see the decline of the toddy tapping occupation, exacerbated by factors like a decrease in coconut trees, competition from foreign beverages, and lack of government support. The shift to other professions and disinterest among youngsters in traditional jobs highlight the changing socio-economic landscape. The impact of the COVID-19 pandemic has further highlighted the vulnerabilities of toddy tappers, with their welfare being crucial during such challenging times. The study aims to shed light on these socio-economic conditions and the challenges faced by this community.

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APPENDIX -I














Toddy tappers use a few essential tools to extract sap from palm trees:

1. *Tapping Knife:The design of the toddy tapper's knife can vary depending on the region and the specific type of palm tree being tapped. Different types of palm trees may have different characteristics, such as the thickness or texture of the trunk, which could influence the design of the knife used for tapping. For example, in some regions, toddy tappers may use a curved blade knife with a hook at the end to make incisions in the palm tree trunk, while in other places, they may use a straight blade knife. Additionally, the size and weight of the knife may vary based on the preferences and traditions of the toddy tappers in different areas.

2. Collecting Vessels: Containers such as clay pots, plastic or rubber containers, or even traditional vessels made from bamboo or coconut shells are used to collect the sap as it flows from the incisions.

3. Strainer: After collection, the sap is often strained to remove any impurities or debris before further processing.

4. Climbing Equipment: Depending on the height of the palm trees, climbers may use ropes, ladders, or specialized climbing gear to reach the top safely.

5. Storage Containers: Once collected, the sap is often stored in containers until it can be processed further or sold.

6. Bone: Using a bone for beating toddy (sap from palm trees used to make a traditional alcoholic beverage) is a cultural practice in some regions. The bone is believed to impart certain flavors and characteristics to the toddy, enhancing its taste. Additionally, the bone may be chosen for its durability and effectiveness in stirring and extracting flavors from the toddy. It's a traditional method passed down through generations in certain communities where toddy tapping and consumption are common.

7. Stone: The stone typically used by toddy tappers to make knife sharpeners is called a sharpening stone. They're used to sharpen the blades of knives by grinding and honing the edges to achieve a sharp cutting surface. Toddy tappers require a sharp knife to effectively tap palm trees for collecting toddy. A sharp knife ensures clean and efficient cuts, allowing them to extract the sap without damaging the tree. Additionally, a sharp knife reduces the effort needed to make each incision, making the tapping process smoother and more productive. These tools may vary slightly depending on the specific techniques and traditions of the region where toddy tapping is practiced. toddy tappers use kurunu leaf and clay to fill gaps in the sap, and the kurunu leaf provides a cooling effect that increases toddy production. It's interesting that the tools may vary based on the region. The only women toddy tapper sheeja gave us the information about the clay and she also tell about the tools may undergo changes according to the region