

State of women entrepreneurship in Manipur: study on molasses production

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ABSTRACT: Women have experimented through various occupations for their livelihood. They usually sold local made liquor at nearby markets. However they have to bear many odds like stigma and discrimination for the sake of life. Later, some women entrepreneurs had started molasses production and their success story had influenced others and felt them for better earning. This paper attempts to explore socio-economic aspects of these SC women workforce of Kakching through empirical and exploratory research with a view to analyse present status of women workforce engaged in molasses entrepreneurs; search whether it is possible to give a sustain economic conditions; challenges to render the trade successfully and; examine the prospects with the coming of India's Look East Policies. It concluded with possible suggestion and recommendations that prompted by the findings.

Keyword: sugar beet juice, molasses entrepreneurs, women workforce, work culture, resource mobilization

I. INTRODUCTION

It is known to all that entrepreneurship plays an important role in the socio economic development. (Prasain 2003: 41) In different ways, many scholars characterised the molasses though it is agreed a byproduct of sugarcane. During the refining of sugar cane and sugar beets, the juice squeezed from these plants is boiled to a syrupy mixture from which sugar crystals are extracted. The remaining brownish-black liquid is molasses. (Cleasby 1963: 345-48) *Light molasses* comes from the first boiling of the sugar syrup and is lighter in both flavour and colour. It's often used as a pancake and waffle syrup. *Dark molasses* comes from a second boiling and is darker, thicker and less sweet than light molasses. (Curtin 1973) *Blackstrap molasses* comes from the third boiling and is what amounts to the dregs of the barrel. It's very thick, dark and somewhat bitter. (Hendrickson and Kesterson 1971: 667) Molasses, sugar byproduct, the brownish liquid residue left after heat crystallization of sucrose (commercial sugar) in the process of refining. (Fang *et al.*, 1998)

Latin word *melaceres*, meaning honey-like, is thick dark syrup that is a byproduct of sugar refining later known as Molasses. (Molasses contains chiefly the uncrystallizable sugars as well as some remnant sucrose. Centrifuges are used to drain the molasses off from the sucrose crystals. Molasses is often reprocessed to retrieve more of this remnant sucrose. Fang *et al* 1998) It comes when sugar is crystallized out of sugar cane or sugar beet juice. The pressing of cane to produce cane juice and then boiling the juice until it crystallized was developed in India as early as 500 B.C. (Columbia Encyclopaedia) However, it was slow to move to the rest of the world. In the middle ages, Arab invaders brought the process to Spain. Molasses on the other hand used prominently in the infamous slave trade triangles of the late seventeenth century. Mention may be made, in the history United States, the first was the Molasses Act of 1733, which imposed duties on all sugar and molasses brought into North American colonies from non-British possessions. (Curtin 1983) The second was the Great Boston Molasses Flood of January 1919 when a molasses storage tank owned by the Purity Distilling Company burst, sending a two-story-high wave of molasses through the streets of the North End of Boston. (Aung 2002; Shanmugam, 1998)

It is worth to say that molasses is the finished product obtained from sugarcane juice after it has undergone three stages of production process. In the First stage, the sugar juice from sugarcane is extracted through-traditional mechanism. In the second stage, the extracted sugarcane juice is boiled until it forms a thick viscous matter. In the third last stage this thick viscous matter is used as a raw material for obtaining the final product in different shapes and sizes with the help of different wooden and tin frame. Indeed, there has been a culture among the women of the Kakching to struggle for livelihood without much depending on the male members of the family. Still this ideal form of work culture prevails in Kakching. The trade of molasses production indicates lots of prospects and opportunities for the entrepreneurs already engaged in the field in particular and for a new entrant into the area in general. For a successful molasses entrepreneur the talent and necessary skills for production of molasses supposed to earn experience in the field. The early womenfolk have been inculcating to the younger generation like daughters, daughter in-law, younger sister or their granddaughters. The production process of the existing molasses at Kakching by the women folk is mainly based on traditional concept and techniques where there is low purchase of hydrated molasses tin, low finished products. The marketing process is also of the traditional way of selling at usually fixed rate, for systematic

marketing of the finished product of molasses. Whole process of the molasses production needs to develop with modern equipments. (Stanchev 2005) The various groups of people living in this present society have been observing various rites, ceremonies, occasions in their respective culture throughout the year with traditional favour and gaiety. In all the said rites, ceremonies and occasion there is a felt need to use indigenous products i.e. molasses. In short, the molasses product has become an indispensable part in all the rites occasion and ceremonies of all the existing culture of the various people. On the other hand molasses is ingredient for big feast, sharadha ceremonies, rites and other occasion of all communities. And all the edible food made with molasses that are available in the markets is also preferably used to use. *Kabok, Molasses Heingan, Leibak Hawai Kabok, Thoiding Kabok, rice and Maize Kabok, Chini Khoibak, and other Kaboks etc.* With these facts, and significance it is an attempt to explore the socio-economic aspects of women workforce presently engaged in the trade. Indeed this area of study is still seemingly ignored by both the scholars and concerned authority. Socio economic conditions of the state will be definitely improved if concerned authorities look in to the matter seriously.

II. RESEARCH DESIGN AND METHODS

The area of the study is based in Thoubal district as the molasses production or entrepreneurs are usually done in this district. Though the district is a part of Manipur valley, the area of the district is not entirely plain. The district has a total geographical area of 514 sq. km. The district is inhabited by several ethnic communities such as Meiteis, Meitei-pangals (Muslim), other tribes like Chiru, Gangle, Hmar, Kabui, Kom, Lamkang, Maring, Paite, Simte, Tangkhul, Vaiphei, Zou and others and scheduled caste like Loi and Yaithibi and migrants like Bengalis and Nepalis have also settled in certain parts of this district maintaining their own cultures and traditions. (Habibullah 2010) Of them, scheduled caste women engaged in molasses production. According to (Census 2011), total Scheduled Caste population of Manipur Census 2011 is 97042. Of this 47563 are in rural areas and 49479 in urban areas. In terms of proportion, the Scheduled Caste population constitutes 3.8 % of the total population. The highest number of Scheduled Castes has been recorded in Thoubal district (40593) and the lowest in Tamenglong district (22). In terms of gender composition, there are 48714 males Scheduled Castes (Rural -24126 and Urban-24588). Female Scheduled Castes numbered 48328 (Rural -23437 and Urban-24891). (District Census 2011) Besides, among the Districts Thoubal has reported the highest numbers of cultivators (77,331) and agricultural labourers (33106).

It is an empirical and exploratory research which is based on primary & secondary data. The universe of study covered 14 production units operating at present in Kakching. The secondary data collected from available literatures maintained by these production units with proper consultation and other books and journals. The selected women entrepreneurs or farmers were studied through different methods. It collected samples from every unit of production from Thoubal district through unstructured questionnaire. Moreover, this work emphasised participatory method using focused groups, key informants, individual interviews, as well as observation. Participants in the research include owners of the molasses production unit, sugarcane farmers (including outgrowers), employees in the unit, and the surrounding communities.

III. REVIEW OF LITERATURE

Indeed, except few literatures developed by the present writer in the different seminars and workshop none of the others attempted to the present area of study (molasses and socio economic development) though some scholars worked already on the scientific and medicinal purposes. Some of them may be noted, Dhaneshwari (2012a) Women Entrepreneurs of Kakching, Manipur deals in Molasses production:-The challenges ahead. She argued that Molasses is a finished product from sugarcane under certain process. The production of such product is done by only women Entrepreneurs particularly at Kakching. The women involved in the work can get a regular income and some women entrepreneurs can also provide jobs to about 4 to 5 peoples in one unit of production. These women entrepreneurs believed that under Indo-Myanmar border trade such goods can be exported if Manipur Government takes necessary steps. As such the study could not find out a proper mechanism for better socio economic conditions as it was attempted to focus some basic issues in the paper. At the same time their trade activity that takes place domestically as well as internationally are practicing under informal activities. This situation draws attention of Government and other promotional agencies for further expansion of Molasses production and to be practiced in an organized manner. "Molasses product under informal trade Via Moreh-A perspective to Explore", the finding shows that formalization of molasses trade will help to sustain the business; otherwise its survival under informal border trade is risky. Though sugar is one of the items permitted under Indo-Myanmar border trade but molasses is not in the lists. A proper channelization of information regarding the quality of molasses produced at Kakching to reach to all consumers in Myanmar is quite needed. The product has a peculiar natural quality which enhanced growth process to those consumers of the product. For survival of the products in the trading, the development of producing unit in order to acquire the capacity for large scale production is quite necessary. (Robita 2006: 245)

Regarding the definition of molasses (Hubert 1963) argued that the history of the Word ‘molasses’ (*Melasse* in German and Dutch) is not mentioned in Etymological dictionaries since it is quite definitely and clearly derived from the Romanic languages. (Gurudas & Purkayastha 2000) It occurs in the same word from and with the same meaning in French, la melasse, *i.e.* syrup or sugar honey and it has its counterparts in other Romanic languages, melassa (Italian), melaza (Spanish), melaço (Portuguese), going back to the feminine form of the Latin adjective mellaceus, -a, -um, *i.e.* honey-like, and ultimately, to mel (Latin), honey. Accordingly, it originally was used in the context (substantia) mellacea, *i.e.* honeylike substance. The term molasses is applied to the final effluent obtained in the preparation of sugar by repeated crystallization.

Literature relating to the early history, production and processing of molasses is presented by different scholars (Madsen 1953) and (Anonymous 1959) for sugar beets; (Meade and Chem 1977) and (Anonymous 1970) for sugar cane and by (Hendrickson and Kesterson 1965) for citrus molasses. The use of molasses in livestock and poultry feeds dates back into the nineteenth century and has been the subject of several excellent review articles (Scott 1953; Cleasby 1963; Van Niekerk 1980; Waldroup 1981). In North America, one of the earliest documented reports showing the value of cane molasses in cattle feeding was published (Gulley and Carson 1890), for swine (Lindsey *et al.*, 1907) and for poultry (Graham 1906). The extent to which molasses has been used in animal feeds varies from a small amount used to eliminate dust and feed wastage to serving as the major source of dietary energy. It concluded that average composition and selected nutrient content of the various types of molasses is presented and stated that often found with many industrial by-products, the chemical composition of molasses shows wide variation. (NRC, 1971; Curtin, 1973 and NRC, 1979; Nathan 2005)

Many scholars have studied molasses in different way but most of them emphasised on scientific value and as fodder material. Obviously, it might be very little that analysis accentuated on the socio economics relevance of the molasses production and entrepreneur. Some of them may be mentioned, (Sahadeo 1998) “Molasses exhaustion has been investigated in South Africa since 1949, (Bruijn *et al.*, 1972) applied a laboratory exhaustion procedure which has since been used extensively. The same approach and equipment have been used to investigate the effect of selected impurities on molasses exhaustion. The analysis concluded with its finding that “exhaustion tests on final molasses from South Africa, Swaziland, Zimbabwe and Reunion Island have shown that the target purity formula applies well in all cases. Considering that the experimental error in such a test is expected to be fairly high, the purity differences obtained are considered to be acceptable; this confirms the applicability of the target purity formula”. (Shanmugam 2009; Osunkoya & Okwudinka 2011) analysis examined that *Saccharomyces cerevisiae* is the cheapest strain available for the conversion of biomass substrate. In the analysis, it is used for bio-ethanol production from sugar molasses. The influencing parameters that affect the production of bio-ethanol from sugar molasses are optimized. The optimized conditions were found by analyzing the sugar molasses in the process of fermentation under various parameters like temperature, pH, and time, to obtain maximum yield of bio-ethanol. Wornick, study shows the current situation and perspective on biomass-to-ethanol. (Wornick 1969) Various conversion pathways are compared from technical, economic, and environmental points of view. This study also deals mainly with the yield of ethanol from molasses with respect to the *dilution ratio* and the *amount of yeast* used for fermentation keeping the temperature and fermentation duration constant. (Gupta 2002) After the study it was observed that with an increase in yeast quantity the ethanol yield decreases in a fluctuating manner until the quantity of yeast is about grams it begins to increase again with the action of the yeast greatly depending on the dilution ratio. It concluded that the yield of ethanol is greatly dependent on the quantity of fermentable sugars present in the biomass. (Thu Lan *et al.*, 2008; Pohit and Nisha 2000) Thailand is considered another emerging market for fuel ethanol in Asia.

At present, ethanol in the country is mainly a fermentation/distillery product of cane molasses, although cassava and cane juice are considered other potential raw materials for the fuel. This study aims to evaluate the environmental impacts of substituting conventional gasoline (CG) with molasses-based gasohol in Thailand. The analysis was mainly based from three phases in the life cycle assessment (LCA) procedure carried like inventory analysis, characterization and interpretation. (San Thein and Toshihiru 2008; Kamala 1998) Small and medium enterprises (SMEs) engaged in sugar processing in Myanmar have emerged as an outgrowth of traditional home-grown manufacture of Jaggery (it is brownish yellow, crystalline, hard and non-centrifugal sugar obtained from clarified and solidified sugarcane juice) (Aung 2000 *op cit.*) Myanmar entrepreneurs were not able to jump directly in to the modern sugar industry, but instead passed through nearly three decades of development from pioneer works, innovation, and transformation into an appropriate business structure and growth into a cluster pattern in the large market centres of Myanmar. (USDA 2011; AAFCO 1982) study argued that sugar cane molasses is a rich source of sugars, is available in organic form, and may be a viable supplementation option to corn. It concluded with on-farm response to molasses has been variable; Research results show minimal impact on ruminal fermentation when molasses is fed at 5% of total DMI; (Heuze *et al.*, 2012) analysis shows sugarcane molasses is a viscous, dark and sugar-rich byproduct of sugar extraction from

the sugarcane. It is a major feed ingredient, used as an energy source and as a binder in compound feeds. It is very clear that the present attempt might be first of its kind in this field of molasses in Manipur. No doubt, it might be also another advance study in the context of socio economic analysis on molasses entrepreneurs in India. Moreover, it is true that molasses studied are found in different scientific analysis like medicinal value and other experimental laboratory works. (Habibullah 2010) As such the present study can bridge up the gape which is of analysis on molasses entrepreneurs and socio economic perspective experiencing from scheduled caste women in Manipur.

IV. TRANSFORMATION OF EXTRACTING MOLASSES

The existing molasses production in the state is indeed age old methods. Traditional or indigenous knowledge is basically generation-wise accumulation of traditional experiences, informal experiments through trial and error method, and intimate understanding of nature. This is actually related to mode of production that is again dependent on ecological resources, biodiversity and micro-environment. (Dasai 2004) That production system might be pre-agricultural, agricultural, small scale farming, and other agro-based units, and finally trade links of so many types differentiated on the basis of type of the capital. (Taneja 2002; Taneja *et al.*, 2000) Together, these production units postulate division of labour that again illustrates the entire social system and related belief-faith-fear system or the Supernatural. (Patric 1999) In a sense, we can say that it is a combination of social, economic, political and religious institutions that also organize the society. As a whole, we can treat the cognate of indigenous knowledge of the aboriginal or native people in the form of a system. (Das 2013; Khanka 2003; Kurukshetra 1999)

By experiencing the modus operandi of the molasses production in Manipur it can be summarised that Molasses (Chini Angangba Matum) is a finished product from sugarcane under certain process. In the First stage, the sugar juice from sugarcane is extracted through-traditional mechanism. In the second stage, the extracted sugarcane juice is boiled until it forms a thick viscous matter. In the third last stage this thick viscous matter is used as a raw material for obtaining the final product in different shapes and sizes with the help of different wooden and tin frame. The production of molasses is done by only women Entrepreneurs particularly at Kakching, Thoubal District. The women involved in the work can get a regular income and some women entrepreneurs can also provide jobs for about 4 to 5 peoples in one unit of production. These women Entrepreneurs believed that under Indo-Myanmar border trade such goods can be exported if Manipur Government takes necessary steps. As the molasses production becoming a profitable trade which has lot of demands by the customers of all sorts; from the Local domestic and demand even from the international market there is a rising member of new and budding entrepreneurs in the production of molasses. They become a leading entrepreneur in the said field. Indeed, there has been a culture among the women of the Kakching to struggle for livelihood without much depending on the male members of the family. Still this ideal form of work culture prevails in Kakching.

V. STATE OF MOLASSES ENTREPRENEURSHIP

Present status of the women workforce engaged in the trade, in reality, this ancestral trade is continuing in an unorganized manner but its form has improved a lot in the recent past. The product is sold with proper packaging as an improvement in the mind set of these women workforce who take care the question of hygienic of the product which was greatly posed in the earlier days. (Robita *op cit.*, 253) The molasses product is sold in a regular basis enabling to maintain a certain volume of trade in a specified period of time. Nowadays these women workforce can make a regular earning thereby enhancing their standard of living. The benefits of chain reaction arises due to regular flow of income is significantly indicated in the line of improving overall environment of their respective family. Now, the status of these women in the society is improving to the extent that their role is acknowledged as a vital one.

In the initial stages, different challenges have been faced by these women workforce. To mention some of the challenges - like shortage of capital, lack of knowledge of the business, insufficient equipment needed in the production process, lack of support from family members, less experience in marketing process leading to sell only small volume, lack of infrastructure, including work sheds, low efficiency of the finance used leading to wastage of firewood etc.

- **Environmental Maintenance:** Since the producing unit is operating at the midst of thickly populated residence area of the town, many complaints from the neighbouring inhabitants posed towards the functioning of these units. The complaint relates to the creation of smoke and smells spreading from the producing unit.
- **Lack of infrastructure:** Due to small size of warehouse, necessary materials cannot be kept sufficiently in a systematic manners leading to congestion in work place. (Priyokumar 2008:101) Further some spaces nearby the work area are occupied by the producing unit to pile up necessary raw materials leading to disturbance to the neighbourhood.

- **Challenges regarding the maintenance of residue of the producing unit:** It is one of the big problems facing presently by the producing unit and watching for a solution. Due to inability to maintain the residue in a scientific manner, there is at alarming signal for the possibilities of causing air pollution, water pollution and land pollution in the surrounding area.
- **Unit-specific Problems:** Women involves in these production unit as an entrepreneurs are generally not well educated. Due to less education, they face problems to communicate with trader coming from other parts of the countries. This factor ultimately cause communication gap leading to difficulty in the expansion of market.
- **Lack of Health care of the working women:** Most of the women involve in the production work are not enjoying nutritious food and at the same time regular medical checkups are also not done. These situation arise the question of maintaining Healthy physique of these women workforce for a happy life.
- **Low Exposure:** As the production units of molasses are not formally recognized by the Government, the unit cannot be expanded at a large scale. Therefore sufficient income cannot be generated so as to popularize among the General public.
- **Challenges in decision making:** Since most of these women entrepreneurs are not well educated, they are in difficulty in decision making policy. Decision making in relation to the quality of product, the price of the product, marketing source, scope of expansion etc' need variety of information which they are unable to collect.
- **Lack of New Technology:** The production units are still running under traditional mechanism and also no promotional agency is ready to provide financial assistance for upgrading production technology of these production units. It is also believe that such assistance from any source cannot be enjoyed by this production unit in near future and also the production process of molasses is made at the present in an unorganized manner.

VI. FINDINGS

- There is ample scope for the expansion of the trade as there is a possibility for increasing of the sugarcane production and the experience of women workforce in the trade has been increased remarkably.
- As production has been increasing gradually and the market size too has been expanding, there is prospect for creation of employment in the state through this business/or trade.
- These producing units are one of the small scale producing units which is quite suitable in the economic condition of the state. The idea implies that such business can be established with small capital that brings regular return to the women entrepreneurs. Under 'India's Look East Policy' the central government has mad effort to uplift the economic condition of North East India. In this context there is an opportunity for participating in this process by women entrepreneurs' deals in molasses production.
- As stated by expert that the climatic condition of the Manipur state is quite friendly for plantation of sugarcane. Under these favourable climatic conditions, the prospect increasing production of raw materials has no doubt.
- It is also indicated by expert that molasses cakes can be used in varied ways. For instance, it can be used in making organic manure, human medicine for different treatments, a kind of adhesive etc.
- Another favourable economic environment of molasses production is created in the countries as a whole since the sugar industries efficiency Act 1988 has exempted Tax-on export and import of molasses. This environment encourages our women entrepreneurs to look for international market for their product.
- It is imperative from the study that a thorough research of the market in Myanmar is highly needed in order to understand its market environment. It is claimed by many consumers of Myanmar that the molasses of Kakching is tastier than those of Myanmar products. This indicates that, if the products can be popularized to larger population of the Myanmar, there can be scope for expansion of molasses export from Kakching, Manipur. This indicates that there is further prospect for the expansion of market of molasses product.

The opportunities of the successful molasses for the development of socio-economic aspects may be highlighted. As I mentioned above money is needed for various multi-task. Besides if we have or earn manageable amount of money through a genuine business, which implies not in illicit acts of earning, can have a delighted and dignified life. Eventually it automatically established a better status in the society and supposed to recognise their contribution. It is late to draw attention all the stakeholders that concerned authority and NGOs have to make efforts to encourage that morally and materially so as to materialise the women entrepreneurs specifically SC women molasses entrepreneurs with the coming of Look East Policy. By conceiving the emerging demands, more and more molasses products and their utility, prospect for those who engaged molasses entrepreneurs is also widening day by day. To some extent they can have sustain income which is evident by successful women entrepreneurs that they can improve their standard of living and also can extend financial assistance to their family members and relatives rather their neighbours too.

VII. CONCLUDING OBSERVATION

Despite having various challenges, women entrepreneurs harvested sugarcane and merely sold it with a very less profit to Khansari Sugar Factory Located at Wangbal, Thoubal District, Manipur which is now extinct. Since then they resolved themselves that it is not an easy task for any scheduled caste women workforce to initiate a new enterprise/business for a lasting solution for all round development. So many previous years had been spent by these women folk just to find an occupation or business setup or enterprise for the larger good. They re-iterate their resolution with greater commitment and enthusiasm to set up a new enterprise at home premises. They liaison for getting flying pan, sugarcane juice tub as loan from local rich merchant/businessman for making molasses cake. They sold the finish product at Kakching Bazar. In these substantial income had been generated they felt that, they could produce thing at home and earned regular income from their production. In the production of molasses by Scheduled caste woman folk they borrow buckets, tub, from their neighbours. At that time, their neighbour urges to return back the borrowed items in the midway of the production process. At last, it could not produced molasses thereby they start looking for another production process. The innovating new idea in the production process by inventing bucket & wooden frame fit for the purpose. The scheduled caste women workforce of molasses production of Kakching had undergone a numerous hit and trial method for greater efficiency and effectiveness in the production process. They become more result oriented and refined due to the long experience, challenges and various difficulties they faced during the molasses production. Thereby they overcome different hurdles in the production and marketing of the finished product. The women workforce of the molasses production of Kakching were followed generations after generation by replication the production process of molasses from their mothers in laws, grandmother, grandmother in-law. As the molasses production become more Lucrative and demanding by the customers of all sorts; from the Local domestic and demand even from the international market there is a rising member of New and budding entrepreneurs in the production of molasses. They become a leading entrepreneur in the said field. But the question is that still it is not a recognise one in the sense that no funding agency or government had initiated to develop such prospective entrepreneur. If Manipur Government initiates some concrete measure to improve the production process so as to reach the standard of a product in international market, it has scope to bring many facets of benefits in the Manipur state in terms of Employments, Resource Mobilization, and income generation to the women entrepreneurs. The finding shows that, it is indicated from this research that Molasses production of Kakching has been gradually increasing since the functioning of these units about 40 years back. Under this environment if Government extent suitable measure towards these women entrepreneurs. It is also confirmed that the Molasses production has been increasing gradually and still there is scope for further expansion in future too. Taking advantage these increased production and tendency of increasing production in future; it is time to look for chain production activities.

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