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NAIRJC JOURNAL PUBLICATION

North Asian
International
Research Journal Consortium



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ISSN NO: 2454 - 2326

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“SEASONAL MIGRATION AND SUGARCANE HARVESTING WORKERS: A SOCIOLOGICAL ANALYSIS”

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ABSTRACT:

This research paper focus on seasonal migration and sugarcane harvesting workers: a sociological analysis and measuring the work, which during the sugarcane harvest produces significant weight and body fat loss, especially in the first harvest season. Seasonal migration of agricultural workers during sugar cane harvesting season has been an established phenomena. This loss was even more pronounced in migrants with the largest number of seasons worked previously. A sugarcane farmer is an owner of a sugarcane field. Plantation of sugarcane is done by farmers from October to March, sometime in June - July. Then sugarcane farmer registers the date of plantation in sugarcane office. After one year of the registered date sugarcane factory sends the sugarcane harvesters for cutting of sugarcane. These losses may indicate an accelerated wear-out of this population due to the work process and payment conditions, Sugarcane harvesting work causes weight and body fat loss and gains in the lean body mass index, which suffers wear-out when working on consecutive harvests. It can also cause changes in biochemical markers of chronic systemic inflammation. Further studies will make it possible to comprehend the relationships between stress, wear-out, labor longevity and health in sugarcane harvesting. The demand supply flow affects the sugar industry and the sugarcane growers. The industry faces the problem of excess sugar in the consecutive years when the sugarcane production is higher, the sugarcane harvesting needs to be well planned so the sugar mills can get the matured and fresh cane and the sugar growers can be benefited by timely harvesting of their sugarcane which will affect for better sugar cane yield, the losses occurred duly by non harvesting of sugarcane in proper time can have a big loss to sugarcane grower, as well as sugar mills because of unsecured environmental factors changing day by day which ultimately change the mindset of sugarcane grower and attract to different cash crops . The post harvest sugar lose is one of the most vexing problems of sugar industry and has attracted widespread attention in the recent years.

Keywords- Seasonal Migration, Sugarcane Harvesting Workers, Agricultural Labourers, industry, cutting, environmental, farmer.



INTRODUCTION:

Migration is a global phenomenon, Uneven economic development, inter-regional disparity and differences in living standards between socio-economic groups are some of the important reasons responsible for migration. Avenues of better employment and higher wages serve as pull factors, where as non-availability of employment opportunities in backward regions, draught and scarcity conditions are push factors. Migration is the third component of population change, the other two being mortality and fertility which work in a biological framework whereas migration is influenced by the wishes of the persons involved. Usually each migratory movement is deliberately made, though in exceptional cases this may not hold true. Thus migration is a response of human organisms to economic, social, political and demographic forces in the environment and an important symptom of social change in society. The sugarcane industry in India is an important contributor to the national economy through the production of multiple products for national and international consumption as well its contribution to recent regulatory requirements for bioethanol to be included as a constituent of petroleum-based fuels. The production and processing of sugarcane is a major source of employment in India. In recent years, the world has looked at ethanol extracted from sugar cane, due to the need to seek alternative fuel sources, considering the uncertainty of future oil availability and issues involved in global warming. Thus, India has worked to improve the production techniques of ethanol, used as fuel for vehicles and machines. These facts turn India into a potential supplier of these products and put the country into an economically favorable position for multinational investments, which would result in economic development. In India, sugarcane belt is spread in Maharashtra, Karnataka, Uttar Pradesh, Andhra Pradesh, Madhya Pradesh & many more states. Sugar, Sugarcane harvesters & sugarcane farmers are the burning issues in India. Many studies were conducted on Industrial workers; but nobody touched this most vulnerable, unorganized group. Most of the workers are poor, live in houses that often lack basic sanitation and tap water, with a total lack of hygiene. They receive merely curative medical care through the public health system. Addiction, domestic violence, children dropping out from school, unemployment, living condition & health are the major issues. A sugarcane farmer is an owner of a sugarcane field. Plantation of sugarcane is done by farmers from October to March, sometime in June -July. Then sugarcane farmer registers the date of plantation in sugarcane office. After one year of the registered date sugarcane factory sends the sugarcane harvesters for cutting of sugarcane. Sugarcane harvester is a person who is engaged in cutting, tie up & loading of sugarcane in vehicle. Mukadam (contractor) is person who recruits 3-5 teams of sugarcane harvester each consisting of 12-25 labours. Mukadam is a bridge between factory & sugarcane harvester. He is engaged in financial, managerial & in provision of basic requirements to teams. Seasonal migration of sugarcane cutting workers in Maharashtra is the common phenomena during post independent

period. Ahmednagar district located in midwestern part of the state, with its seventeen cooperative and four private sugar factories is not an exception to this fact. In search of wages, thousands of sugarcane cutting workers seasonally move to the district from neighboring regions, particularly from Marathwada, Khandesh and westernmost part of Vidarbha. This seasonal migration of sugar cane harvest workers encompasses a smash in their steady life and brings them in a new environment of insecurity, instability and uncertainty. Thus, the present study has been conducted to understand the status of sugarcane harvest workers in the district.

SEASONAL MIGRATION:

Seasonal and circular migration of labour for employment has become one of the most durable components of the livelihood strategies of people living in rural areas. Migration is not just by the very poor during times of crisis for survival and coping but has increasingly become an accumulative option for the poor and non-poor alike. This paper shows why some groups of people have succeeded in entering accumulative migration pathways while others have been excluded. A social exclusion and livelihoods approach that moves beyond neo-classical economics and structuralist theories is adopted. This helps us to understand that migration patterns are determined by people's access to resources, the (institutional, market, policy) environment, intra-household relations, wider social relations, and not just the productivity and demand for labour in an area. In Andhra Pradesh (AP) and Madhya Pradesh (MP), important factors have been the historical development of different regions, interlocked markets for credit, output and labour, marketable traditional skills, other livelihood options that are complementary to migration, the availability of surplus labour within the household, cultural norms regarding the sexual division of labour, as well as decisions related to children's education. Caste emerges as an important determinant of who is excluded from positive migration streams. This is because of the strong correlation between belonging to a Scheduled Caste and being poor, illiterate and asset less as well as being discriminated against by employers and contractors. Contrary to received wisdom, the cases presented here show that people from poor areas can be on positive migration pathways and people from well-endowed areas can be on coping migration pathways. Indeed, one person's coping strategy is often another person's accumulation strategy. Thus we find that migrant sugarcane cutters, earth workers and agricultural labourers from remote and poor villages of AP and MP have improved their standard of living significantly and are investing their savings in agriculture and educating their children. On the other hand, some migrants from the prosperous canal-irrigated coastal areas migrate for coping purposes. And what of social policy? Although millions of poor labourers are in circulation for the best part of the year, policy continues to be ill-equipped to deal with this phenomenon, with the result that, outside their home areas, migrants have no entitlements to livelihood support systems or formal welfare schemes. Neither

are they paid a full wage, because contractors deduct a part of that too. The additional burden posed by a lack of access to basic facilities is borne mainly by women and children. We conclude by identifying ways in which policy can enhance the positive outcomes of more accumulative migration and also provide support to reduce vulnerability in the case of the poor who migrate to survive.

WHO MIGRATES AND WHY:

We investigated the determinants of the likelihood of migrating in AP and MP using regression analysis. Our dependent variable is given the value 1 if at least one member of the household migrates during the year, and 0 otherwise. Our explanatory variables are the (log) value of land assets, the (log) value of livestock assets, the (log) value of agricultural assets, three dummy variables corresponding to the different caste groups Scheduled Tribe, Scheduled Caste and Backward Caste (the reference caste group is Other Castes), size of the household and lastly the 'inverse dependency ratio' of the household (ratio of working members to non-working members). We estimated the regression using the logit method. We expect that households with more land and assets will be less likely to migrate, and that larger households with a higher inverse dependency ratio will be more likely to migrate. The results were as follows.

THE PUSH FACTORS:

Those that compel a person, due to different reasons, to leave that place and go to some other place. For instance, low productivity, unemployment and underdevelopment, poor economic conditions, lack of opportunities for advancement, exhaustion of natural resources and natural calamities may compel people to leave their native place in search of better economic opportunities. In most developing countries, due to population explosion land-man ratio has declined resulting in significant increase in unemployment and underemployment. Introduction of capital intensive methods of production into the agricultural sector, and mechanization of certain processes reduce labour requirements in rural areas. The non-availability of alternative sources of income (non-agricultural activities) in rural areas is also important factor for migration. In addition to this, the existence of the joint family system and laws of inheritance, which do not permit the division of property, may also force many young men to move out to cities in search of jobs. Even sub division of property leads to migration, as the property become too small to support a family.

THE PULL FACTORS:

Refer to those factors which attract the migrants to an area, such as, opportunities for better employment, higher wages, facilities, better working conditions and amenities etc. There is generally city ward migration, when rapid growth of industry, commerce and business takes place. "Migration from the country side to the cities bears a close functional relation to the process of industrialization, technological advancement and other cultural changes which characterize the evolution of modern society in almost all parts of the world. Under the capitalistic model of development, there is a tendency for large proportion of investments to concentrate in the urban centers which encourage people to move to urban areas in the expectation of higher paid jobs. In recent years, the high rate of migration of people from India as well as from other developing countries to U.K., U.S.A., Canada and Middle East is due to the better employment opportunities, higher wages and the chances of attaining higher standard of living. Sometimes the people are also attracted to cities in search of better cultural and entertainment activities. Thus, pull factors operate not only in the rural-urban migration, but also in other types of domestic as well as international migration.

SUGARCANE:

Sugarcane is one of the main cash crops of India. From its juice, sugar, gur, alcohol etc. are produced. After the extraction of the juice the fibrous mass left behind is used for making paper and sound insulating board. In villages it is also used as fuel. Sugar cane cutter migrants are economically backward. They are unskilled but hard workers. Sugar factory fixes wedge rates for sugar cane cutting. Sugar cane cutting in farm to cane crushing in factory is very time spending process which affects the earning of these workers. These workers take advances from the factory every year when they came next year or seasons, they have to cut their advance into their income that is why they earn not more. Economically they are weak and backward with very low saving. They do not have their economic planning at all. They spent their money in marriage, to buy new bullocks, buffalo, and goats, to built new houses, to build well and to buy new land for agriculture in their native places.

SUGARCANE CUTTERS IN INDIA:

Sugarcane cutting is said to have begun roughly 30 years ago from when contractors came to look for cheap labour to cut sugarcane in irrigated parts of the district. What started as a coping mechanism has now become an extremely well-paid alternative to local agricultural wage labour and is attracting more and more households who are able to mobilise the necessary contacts and resources. According to the villagers, more than 40% of the

population migrated for this work in 2001. On average, a team of three adult workers will bring back Rs 15000 as savings from one season's work. These people are certainly not the poorest of the poor although their older relatives may once have been. In fact, wealth ranking places many of them among the non-poor. Their large and well-maintained houses, together with the growing numbers of milch animals in their possession, are also evidence of this increasing wealth. Migrants usually stay away from Oct/November for about 4–6 months. The main castes migrating are the Mudiraj, Lambada and Madiga. This kind of migration requires assets in the form of a pair of working bullocks and a bullock cart. Three or four persons migrate with one bullock cart and a minimum of two cart parties will work on one farmer's land. There are 141 pairs of bullocks and 47 bullock carts in the village because some migrate with one cart and two pairs of bulls. Workers are paid Rs140–60 for each tonne of sugarcane cut and transported to the crushing unit. The payment depends on the distance covered. One cart can transport up to two tonnes in a day. Many sugarcane cutters take an advance of roughly Rs 5000 in the month of June, well before the cutting season. This is usually given by farmers to known parties, therefore social contacts and networks are all-important. This kind of arrangement, which is the interlocking of credit and labour markets, provides the employer with a guaranteed workforce at a predetermined rate. Whether or not the labourer is disadvantaged by this arrangement depends on whether they are in a position to negotiate a good wage. This may take up to a month. 24 Although this kind of migration is viewed very positively in terms of its economic impact, it has some negative implications too, particularly for children's education. Smaller and younger families face the greatest hardship because they may not have childcare in the village and must take their children with them. The children are not admitted by schools in the destination.

SUGAR PROCESSING AND HARVESTING WORKERS:

Sugar cane grows for 12 to 16 months before being harvested between June and December each year. When harvested, the cane stands two to four meters high. Queensland's sugar cane is harvested by self-propelled harvesting machines. Some growers contract machine owners to harvest their crop, while others own their machines or share ownership with other growers. There are two methods used to harvest cane. In some cane-growing areas it is possible to harvest the cane green. The left over cuttings form mulch which keeps in moisture, stops the growth of weeds and helps prevent soil erosion. In other areas, the sugar cane is burnt to remove leaves, weeds and other matter which can make harvesting and milling operations difficult. In both processes the harvester moves along the rows of sugar cane removing the leafy tops of the cane stalks, cutting the stalks off at ground level and chopping the cane into small lengths called 'billets'. These are loaded into a haul-vehicle travelling alongside the harvester. The cane is then taken to a tramway siding or road haulage delivery point for

transport to the mill. After harvesting, the stubble left behind grows new shoots, producing a "ratoon" crop. Two or three ratoon crops can be grown before the land is rested (or planted with an alternative crop such as legumes), ploughed and replanted for the cycle to start again.

Process of Harvesting:

Harvesting: Sugarcane matures in 10-12 month in North India and 18-20 month in South India. Brix value is 16-18 in Dec and Jan at or below 20⁰ C. Different Indicators of harvesting are leaves become yellow, plants stops growing and arrows come out, cane produces metallic sounds, buds swell out and eyes start sprouting.

Time of Harvesting:

Harvesting of sugarcane at a proper time i.e. peak maturity, by adopting right technique is necessary to realize maximum weight of the millable canes (thus sugar) produced with least possible field losses under the given growing environment. Harvesting either under-aged or over-aged cane with improper method of harvesting leads to loss in cane yield, sugar recovery, poor juice quality and problems in milling due to extraneous matter.

Therefore, proper harvesting should ensure:

- * To harvest the cane at peak maturity (i.e., avoiding cutting of either over-matured or under-matured cane)
- * Cutting cane to ground level so that the bottom sugar rich internodes are harvested which add to yield and sugar
- * De-topping at appropriate height so that the top immature internodes are eliminated
- * Proper cleaning of the cane i.e., removing the extraneous matter such as leaves, trash, roots etc.
- * Quick disposal of the harvested cane to factory.

Harvesting Schedule: In India harvesting of sugarcane is carried out at 10 to 18 months stage, depending upon the planting time and crop maturity. In sub-tropics, autumn crop is harvested at 15 month stage, whereas spring and summer (late-planted) crops at 10-12 months. Early varieties are harvested at 10 months stage, mid-late 10-12 months and late after 12 month stage. In tropical zone adsali crop is harvested after 16-18 months stage.

Manual Harvesting:

Hand knives, cutting blade or hand axes are used for manual harvesting. It requires skilled labourers as improper harvest of cane leads to loss of cane and sugar yield, poor juice quality and problems in milling due to extraneous matter.

WORKING CONDITIONS OF SUGARCANE WORKERS:

Arduous Work and Inhuman Working Conditions Sugarcane planting, harvesting, and processing is tiring, hot, dangerous work and requires a large number of workers whose work habits are to be intensely coordinated and controlled. It is drudgery to the labourers, and damages or wounds to the hands are caused by the leaves having serrated margin with spines in the leaf sheath. Due to such morphology of the crop, the slavery once got associated with cane cultivation (West, 2008). After many revolutions around the world and independence in India, the practice got abolished and took some other forms. In India, attached labour became an important component of large sugarcane farms. With every effort towards the increase in income and welfare of the labour, and the availability of other avenues generated through employment generating schemes, working in sugarcane fields is generally not preferred thus contributing to supply-demand .

Housing:

Housing Though, shelter is the basic need of man, the sugarcane harvest workers cannot fulfill their need of housing. They use to stay in the temporary hut cum tent like structure. It is because of the continuously changing work place and poor economic condition; workers may not get good housing facility. As the size of this temporarily built tent like structure is very small, it can accommodate only two to three persons, preferably couples and remaining members of the family have to stay in open field. Workers either stay in the vicinity of sugar factory or sugar cane field, where the environmental conditions are unhygienic. Absence of toilets and bathrooms further worsen the living conditions.

Health condition:

Food and Health It is because of the wide spread illiteracy, the workers are not food and health cautious. Poverty does not allow them to spend necessary money on food. Lack of knowledge about nutritional requirement and negligence towards personal fitness are the reasons behind poor health conditions of these people. Low calorie food viz. Bhakari, the roasted preparation of jowar, wheat or bajra with chili paste and onion or rarely with some

curry is the staple diet of these people. Frequent drinking of tea is the common habit seen in both men and women. This monotonous consumption of food with low nutritional value results into malnutrition. Low level of blood hemoglobin and worsen body-mass index are commonly found in children and women. Only 2% of the workers know their blood group. It is because of the uncertain scheduling of work, both men and women are not particular in taking regular bath. During illness, workers do not take complete rest due to their target oriented heavy load of routine work. Parents found casual about immunization of their children.

PROBLEMS OF HARVESTING WORKERS:

The basic problem of sugarcane harvesting is that the harvesting of the sugarcane should do in time. The growth of sugarcane is not stable it changes from time to time depending upon the climatic changes sometimes excess of sugarcane production and sometimes shortage of sugarcane in 2-3 years the sugarcane, both affect the operation of sugar factories. If the sugarcane of members of sugar factory is not harvested in the crushing season the sugar factory has to pay the penalty or compensation to the members, in both the cases the sugarcane grower is the real sufferer. The working of traditional system is based on the records collected from the growers with regard to the date of cultivation date and the alphabetical name of sugarcane growers on the record of the factory. The system functions according to the date of cultivation also to the name of the sugarcane grower taken alphabetically from a-z and the next year vise-a-versa. The sugarcane growers whose names are in between the alphabets a- z are suffering as per both records while arranging from a- z and z-a. When there is shortage of sugarcane preference is given to the sugarcane which is not on the record of the factory. no single system shows the date on which the sugarcane was harvested. These can be affected by nature road and other facilities required for harvesting of sugarcane. On the side of the sugar factory the factory could not give information about what are the different quartiles that can show that how much of the sugarcane is been harvested of the members. The factory doesn't know how to prepare and maintain region wise records to be used for proper planning and even harvesting. The problem is studied by the researcher and a mathematical model is being prepared so that it shows the use of significance of quartiles in giving percentage of sugarcane harvesting of the members of the factory.

CONCLUSION:

Sugarcane harvest produces significant weight and body fat loss, especially in the first harvest season. This loss was even more pronounced in migrants with the largest number of seasons worked previously. The work may cause a slight increase in muscle mass (lean), which occurred in a smaller scale with more experienced workers. These losses may indicate an accelerated wear-out of this population due to the work process and payment

conditions, which prevents the adoption of breaks and regulation of workloads, stimulating the exacerbation of physical overload and predisposing workers to permanent muscle-joint injury. In addition to that, thermal and environmental conditions come to this picture as aggravating factors. Besides that, new studies will be vital to better clarify the medium and long term effects of this type of work on health and social welfare of these workers, since this work will still be present for many years in India. seasonal migrant sugarcane cutters and transport labourers? Is it a meaningful exercise? All such questions arise. It is interesting to know the fact that the migrant sugarcane cutting and transporting labourer's perse is not a homogeneous category. In other words, can we claim that the seasonal migrant sugarcane cutting and transporting labourers hail from one general class category or from one caste composition? The very compositions of seasonal migrant sugarcane cutting and transporting labourers become an attractive theme of investigation. In this paper, it is found that traditionally backward communities such as Scheduled Caste, Nomadic and Denitrified Tribes and Other Backward Classes are still in large number in unorganized sector like sugarcane harvesting field. Scheduled Caste workers background (social and economic) is poor than all other sections of workers in the field. The seasonal migratory, poor, illiterate population engaged in the seasonal and strenuous nature of work, deserve special attention for their social welfare and health care. A comprehensive, well coordinated, community based, long term, continuous care approach is necessary. A well defined policy and its proper implementation is needed. All such activities need to incorporate, elements of Primary Health Care, occupational health care, social welfare programme like provision of crèche / day care centers, education drives, health education, counseling, Nutrition supplementation etc.

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