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STUDY OF ECONOMICAL, ENVIRONMENTAL AND HEALTH STATUS AMONG THE FEMALE BIDI WORKERS IN VILLAGE AREA OF ANGUL DISTRICT OF ODISHA

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ABSTRACT

Residential environment can influence our health in many ways. Health can be adversely affected by poor water quality, bad sanitation condition, types of houses, housing using fuels and nature of works done by the dwellers for earning the bread. Housing environment can influence our health in many ways. Health can be adversely affected by poor water quality, bad sanitation condition, nature of houses, housing using fuels and nature of works done by the dwellers for earning the bread. bidi is also called poor man's cigarette, made up of coarse uncured tobacco, tied with a string at one end. The bidi rolling is mainly a labour-intensive industry in India, coming under the category of un-organized sector, the lion share being women. The principle objective of this paper is to understand and analyze the quality of housing environment and status of health among the bidi workers. Angul district of Odisha, (India) has been selected as a study area, famous for mango cultivation and vegetable activities. The study is based on primary and secondary sources of data. Health is the most serious problems of workers in bidi industry. The working places of bidi industry are unhygienic, dingy and overcrowded, having little facilities of drinking water, even toilet facility and first aid. During the entire working time the bidi workers are exposed to tobacco fumes, thus these incidences create serious diseases (major and minor). The study also provoked that among the major diseases cough and cold diseases are mostly found (33.33 per cent) and Tuberculosis disease is at the lowest (9.00 per cent). The researchers suggested that there is an urgent need to issue the Health Card to the workers for treatment and curing of various diseases at government hospitals at subsidy rate.

KEYWORDS: Bidi rolling, Tobacco, Diseases, Unhygienic, Health Card.

INTRODUCTION

There are about 300 major manufacturers of branded bidis but there are thousands of small-scale manufacturers cum contractors who account for the bulk of the bidi production in India1. Government estimates of the total number of bidi workers is about 4.5 million2, majority of who are home based women workers Housing environment covers the natural and human dimensions. In broader terms, the housing environment consists of natural and built up environment. The natural environment includes air, water, land, climate flora and fauna while the housing environment encompasses the types of houses, sanitation conditions, sources and quality of drinking water, types of fuels are used in the kitchen, sewerage system etc. Residential environment can influence our health in many ways. Health can be adversely affected by poor water quality, bad sanitation condition, types of houses, housing using fuels and nature of works done by the dwellers for earning the bread. Bidi rolling is one of the major informal or unorganized sector activities in India, the lion share being women. The employment size of bidi workers is next only to agriculture and handloom sector in India. The government of India estimates that there are about 4.4 million workers (Ministry of labour and Employment, 2015) engaged in this particular cottage industry. Bidi is also called poor men's cigarette. As it is cheap form of tobacco consumption, it is extremely popular amongst the lower economic groups and rural population of India as well as neighbouring countries too. Sanat kumar and Vinod (2015) expressed the view that bidi working sectors are the most vulnerable sector of the society. In India most of the bidi workers are women who operate from their homes and are isolated from the rest of the industrial workforce. The study also reveals that women workers are suffer diseases mainly from cough and cold, Tuberculosis (T.B), backache etc. diseases. The Researchers suggested that there should be organized health awareness programme for bidi workers in rural areas of India. Srinivasan (2012) insisted that bidi workers are vulnerable segments of country's labour force. Almost 98 per cent of the bidi workers were from the marginalized sections of the society and therefore they were socially and economically backward. Poverty is the main reason that induced the respondents to take up bidi work as an occupation. The bidi industry is present all over the country. The study reveals that the condition of bidi workers at present as well as in the past has not been conducive. Vinod Sen (2004) insisted that India has an important place in the bidi production in the world. Among all the states of India, Madhya Pradesh has the highest number of workers. The study reveals that there are many reason of bidi workers for suffering of ill health; viz. working environment, unsafe drinking water, inadequate health facilities, long hours of working, low income and poor housing condition. Siddiqui, S.H., and

et. al. (2015) observed that in Odisha, Angul and Sambalpur district occupy a important place in bidi making sector. The researchers are highlighted the working condition and health status of women bidi workers in Angul district of Odisha. The study also reveals that most of bidi works are supervised by contractors or middleman, so no employer-employee relation is established in between worker and employer.

The workers spend continuously hours for rolling or blending of tobacco in unhygienic, dingy and overcrowded places having little facilities for drinking water, toilet or even first aid. Most of the raw materials (tobacco) of this cottage industry comes from Kheda and Vadodara districts of Gujarat and Bedagaun district of Karnataka. The leaves of Kendu (Diospyros melanoxylon) and kanchal (Bauhinia racemosa) found in the forests of Madhya Pradesh, Odisha and Tamil Nadu states, which are used as wrapping material.

Men, women and children are involved in the process of bidi making, an easy-way of earning a wage in the rural areas of Angul district of Odisha. People are engaged in bidi workers facing serious problems including poverty, health hazard, family problems, poor housing facilities, insufficient nutrias food, unhygienic environment, illiteracy, physical stress and debt etc. The researchers are very much keen to learn about the conditions of bidi workers. The findings of the study will be very much useful to Ministry of Labour and Employment, Government of India and NGO's working for the development of this unorganized sector. In Odisha bidi rolling activity are well performed in the districts of Angul, Sambalpur, Bouda, Sonepur, Bolangiri, Sundargargh and Jharsuguda. district is called Hub of the bidi rolling district in the Odisha, where near about 95 per cent of the rural women's are engaged in this sector. The famous 502 Hyder bidi Indusrty is located in Sambalpur district. Bidi making is a popular cottage industry in many parts of the Angul district of Odish, Indial. It is the third largest occupation activity after agriculture and vegetable in the study area.

Bidi Industry in India

Bidi rolling is one of the major informal sectors in India. India is the largest producer of bidi in the world accounting for about 85 per cent of the total world's production. The Government of India estimates that, there are approximately 4.4 million full time workers and another 4 million people engaged related with bidi industry related jobs in India (Verma and Rehman, 2005).

Presently, the states of Madhya Pradesh account for the highest share of bidi employment industry (17 per cent), followed by the state Tamil Nadu (14 per cent), Andhra Pradesh (14 per cent), Karnataka (12 Per cent, West Bengal (11 per cent) and Uttar Pradesh is contributed 10 (per cent). The annual production of Bidi is more than 1000 crores in total number. India exports bidi to the countries of Asia, Africa, and Europe.

Objectives of the Research

The primary objectives of this study are-

1. To examine the status of housing environment among the women bidi workers in the Malda district of West Bengal.
2. To study about the problems faced by women bidi workers in the area to be studied.
3. To identify various diseases faced by women bidi workers in the study area.

A Geographical Outlook of the Study Area

Geographic point of view Angul is located in the centre of the state of Odisha and lies between the latitudes of 20°31′N and 21°40′N and longitudes of 84°15′E and 85°23′E. The altitude is between 564 and 1,187 metres (1,850 and 3,894 ft). The district has an area of 6,232 km2 (2,406 sq mi).

Angul is one of the most important district in Odisha with regard industries. Angul District is densely populated as per the 2011 census. About 86.4 per cent peoples still live in rural area. For administrative purposes Angul district is divided into 8 development blocks. The district headquarter is Angul Bazar, also known as Angul town, which was once the proposed capital of Odisha. Angul, Sambalpur, are most famous historical place in Odisha. Rice, Mango, Jute, Oilseeds and silk are the most notable products of the district. The special variety of mango is produced in this region. The main rivers of the district are- the Mahanadi and the Brahmani. There are total number of 225 Gram Panchayats, 2 Municipalities, 1 Notified Area Council (NAC), and 23 Police stations functioning in the District of Angul.

Rural Development & Panchayat Raj - Panchayat Raj: Status of PRIs. There are 12,620 Village Panchayats in the State spread across the 30 districts and the 385 Blocks. The average number of Village Panchayats per district is 421 and per Block is 32. Average literacy rate in Anugul district as per census 2011 is 86.82% of which males and females are 92.00% and 81.05% literates respectively. In actual number 160,387 people are literate in urban region of which males and females are 89,653 and 70,734 respectivel.

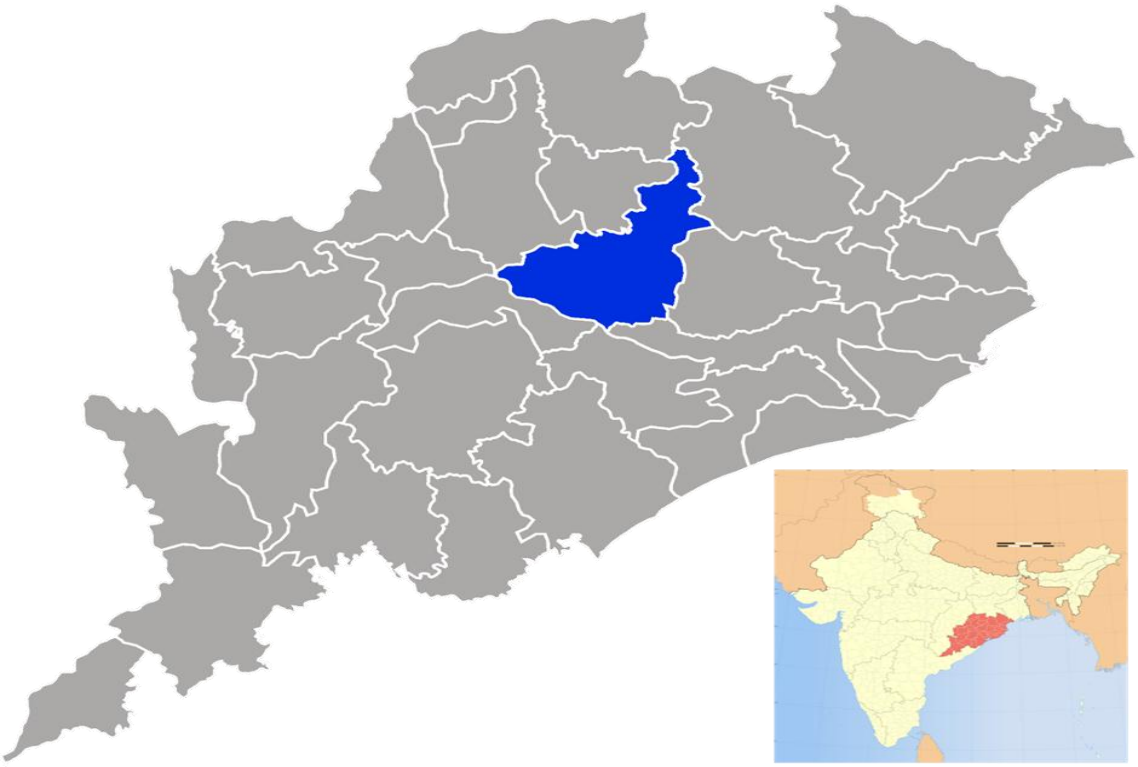

Fig. 1: Map of Odisha showing Angul district. Fig. 2: Map of India.

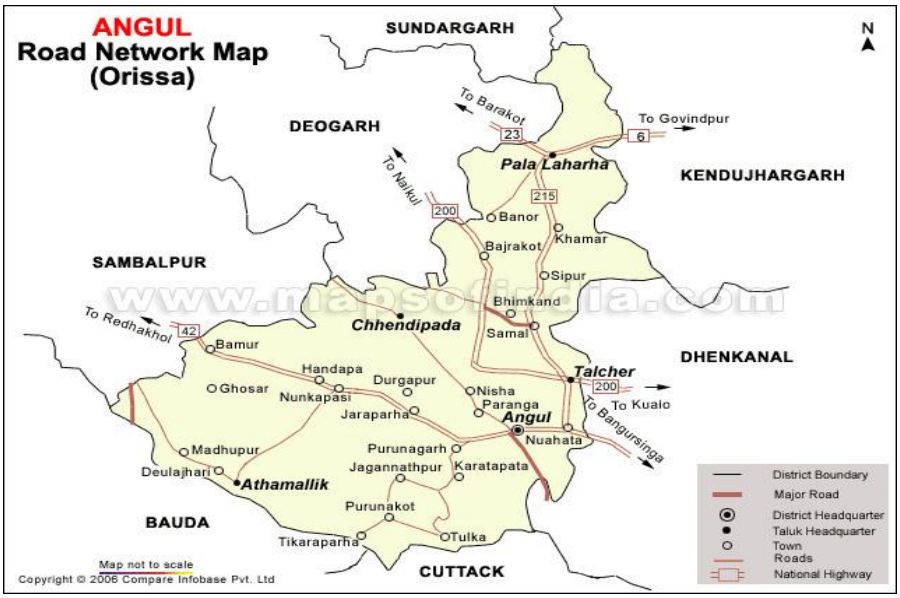

Fig. 3: Map of Angul district.

2. DATA BASE AND RESEARCH METHODOLOGY

The present work is based on both primary and secondary sources of data. Primary data have been collected through intensive field survey based on well structured questionnaire with regard to objective in mind. For conducting field survey 6 villages (Thakurgarg, Asanbahali, Boinda, Nakchi, Paikasahi, Madhapur) has been selected from Athamallik block of Angul

district and each villages 50 respondents has been selected based on random and stratified sampling techniques. A total 300 Household has been taken. The sampled villages have been selected on the basis of certain criteria as given below-

a) Socio-economic and cultural status of villages with regard to bidi rolling activities.

b) Three villages have been selected near the main road.

c) Three villages selected far away from the road.

d) The villages which having more than 50 per cent of women's were working on bidi rolling activities.

The Secondary sources of data has been collected from District Statistical Handbook (2011), Ministry of Labour and Employment, Government of Odisha, Various Government Offices, Various Government Reports, Magazine, Journal, Articles, Research Papers, News paper etc.

After obtaining the data, simple percentage method has been used to show the different aspects of socio-economic and health status of women bidi workers, so the study could vividly explain. The map of the study area has been prepared through Arc GIS 10.1 Software.

3. RESULT AND DISCUSSION

Table 1: Sources of fuels used in cooking.

Fuels used for Cooking	Numbers of Respondents	Percentage
Woods	144	48.00
Others Materials	74	24.67
Kerosene Oil	34	11.33
LPG	48	16.00
Total	**300**	**100.0016.00**

Table-1 Shows that 48.00 per cent respondent are used woods, 24.67 per cent are used other materials such as coal and soft leaves, 16.00 per cent are used LPG and remaining 11.33 per cent respondent are used kerosene oil for cooking.

Sources: Based on Field Survey, June 2019

Table 2: Sources of Drinking Water.

Drinking Water Sources	Number of Respondents	Percentage
Hand pump	164	54.66
Swallow Well	34	28.00
Government Water Supply	84	11.34
Well	18	6.00
Total	**300**	**100.00**

Sources: Based on Field Survey, June 2019

Table-2 Shows that 54.66 per cent respondent are used Hand Pump, 28.00 per cent are used Swallow Well, 11.34 per cent are used Government Water Supply and remaining 6.00 per cent respondent are used Well for domestic and drinking purpose**.**

Table 3: Type of Houses.

Types of Houses	Number of Respondents	Percentage
Tiled House	134	44.67
Asbestos Roofed	75	25.00
Thatched House	55	18.33
RCC Roofed	24	8.00
Mud House	12	4.00

Source: Based on Field Survey, June 2019

Table 3 shows that 44.67 per cent of the respondent's houses have tiled house, 25.00 per cent of the respondents have Asbestos roofed, 18.33 per cent respondents have thatched house, 8.00 per cent have RCC roofed, 4.00 per cent have mud houses.

Table 4: Availability of Toilet Facility.

Toilet Facility	Number of Respondent	Percentage
No	216	72.00
Yes	84	28.00
Total	300	100.00
Toilet Facility	Number of Respondent	Percentage

Sources: Based on Field Survey, June 2019

Table-4 Shows that 72.00 per cent respondent does not have Toilet Facility they are still defecating in open areas and only 28.00 percent respondent have toilet facility.

Table 5: Space Availability (Per Person).

Space Availability	Number of Respondents	Percentage
Crowded	116	38.67
Over Crowded	108	36.00
No Crowding	76	25.33
Total	300	100.00

Sources: Based on Field Survey, June 2019

Table-5 Shows that 38.67 per cent respondent are living Crowded, 36.00 per cent are living in Over Crowded, 25.3 are living normal spaces in their houses.

Table 6: Kitchen Facility of the Bidi Workers.

Kitchen Facility	Number of Respondents	Percentage
Open Kitchen	154	51.33
Kitchen Facility Chimney	85	28.33
Kitchen with Ventilation/ Window	61	20.34
Total	300	100.00

Sources: Based on Field Survey, June 2019

Table-6 Shows that 53.33 per cent have open Kitchen in their houses, 28.33 respondent have kitchen facility with Chimney and only 20.34 per cent have kitchen with Ventilation.

Table 7: Reasons for not satisfied with wage.

Reasons	Number of Respondents	Percentage
Unable to meet household expense	144	48.00
Unable to carry children's Education	74	24.66
Hardly carry health expense	48	16.00
All the above	34	11.34

Source: Based on Field Survey, June 2019

Table-7 shows that 48.00 per cent of the respondents family were unable to meet the household expenses, 24.66 per cent of the respondents family were unable to meet children education, 16.oo per cent of the respondents are unable to meet the health expenses and rest of them 11.34 are faced all the above problems**.**

Table 8: Major diseases among bidi workers.

Major Diseases	Number of Respondents	Percentage
Cough and Cold (Allergy**)**	91	30.33
Lungs Problems	52	17.34
Asthma	48	16.00
Rheumatic Problems	46	15.33
Malaria	36	12.00
Tuberculosis (T.B.)	27	9.00

Source: Based on Field Survey, June 2019

Table-8 shows that Cough and Cold (Allergy) which is the highest percentage diseases (30.33 per cent), lungs problems diseases that is 17.34 per cent, Asthma diseases suffered by 16.00 per cent, Rheumatic problems suffered by 15.33 per cent, and Malaria suffered by 12.00 per cent and Tuberculosis is the lowest disease suffered by female bidi workers. The main causes of major disease are long years of bidi rooling activities**.**

Table 9: Minor diseases among bidi workers.

Minor Diseases	Number of Respondents	Percentage
Backache	84	28.00
Headache	52	17.33
Eye Problems	46	15.34
Problems Pain in Limb and shoulder	41	13.36
Gastric Problems	36	12.00
Stomach Pains	27	9.00
Piles	14	4.27
Total	300	100.00

Source: Based on Field Survey, June 2019

Table 9 shows that 28.00 per cent were suffered from backache, it is highest percentage of diseases due to long hours of works, headache suffered by 17.33 per cent, eye related problems faced by 15.34 per cent, Pain in limbs and shoulder is 9.00 per cent, Gastric problems suffered by 12.00 per cent, piles diseases suffered by 4.27 per cent, Stomach pain suffered by 9.00 per cent. These diseases are fall under minor diseases.

Major Findings of the study

The researcher has been find out the following important findings. This are-

1. The housing environment includes the dwelling units and the areas immediately surrounding i.e. (neighborhood). Thus, the housing environment can be a major determinant of our healt.

2. The household environmental problems are of special important because the maximum times of the people are spent inside the houses. When the housing environment like water supply is irregular and of poor quality, sanitation is inadequate and poor, kitchen are smoky, congestion in the house per availability of room then the environment inside the homes is likely to cause more critical for people health.

3. Vulnerability assessment of the different income household among the female bidi workers in the district has reveled that most of the bidi workers faced all the residential environmental risk factors and the had to bear most of the health problem due to very low income.

4. Most of the bidi workers working 12 hours daily for rolling of 1000-1500 bidis in the study area which is very much arduous and monotonous work.

5. The wages provided to the bidi workers are also very low (Rs 120 per 1000 of bidis rolling) most of the workers are unable to fulfill at least basic household expenses.

6. The bidi Contractors exploit the poor workers in terms of rejection the bidis. But the contractors are selling the reject bidis to the bidi factory and no wages for rejected bidis are given to the workers.

7. Most of the bidi workers suffered from major diseases (Tuberculosis, Asthma, Cough and Cold) due to long years of practicing of tobacco related raw materials work and minor diseases (Eye problems, backache, headache) due to long hours of continuous sitting at one place.

Suggestions and Policy Implications

After going through various aspects related with the quality of housing environment and health status among the female bidi workers in the study area, the following suggestions has been recommended.

1. The Ministry of Labour and Employment, West Bengal should increase the wage rate of Rs. 120 per 1000 bidis to Rs 200 per 1000 bidis.

2. Provision of LPG Gas to the every bidi workers by the Prime Minister Ujjwala Yojna (PMUY).

3. Proper sanitation facility and drainage system to be develop in the study area.

4. There is an urgent need to issue the health card by Ministry of Labour and Employment, Government of West Bengal to the workers who poses bidi employ card for medical treatment at subsidized rate in the Government hospital in the study area.

5. Provision of regular supply of safe drinking water by the Government pipeline system.

6. The payment should be made on regular basis to the bidi workers.

4. CONCLUSION

Unhealthy conditions of work, unsafe drinking water, inadequate health facilities, long hours of working, low income and poor housing condition (like fuels, kitchen, toilet facility) cause a number of major and minor diseases to the bidi workers in the study area. Although the bidi industry is providing employment opportunities especially to the women in the Angul district of Odisha. The Government of Odisha has launched various welfare schemes to the bidi workers by passing several legislation, yet workers have been facing acute problem like disparity in minimum wages and lack of social security. In view of the operation of middlemen or bidi contractors, no employer-employee relation is being established. It shows the role of intermediaries in this industry. Timely wages are not being paid to the bidi

workers and also the wages are not fully paid. Poverty is the main reason that induced the respondents to take up bidi work as an occupation.

However as Robert Frost said "the woods are lovely, dark and deep, But I have promises to keep and miles to go before I Sleep," in the context of quality of housing environment and health status among the female bidi workers in Angul districts too while the change in the mind-set of the people and the resulting outcomes are visible and heartening, certain challenge remain to be meet in the upcoming years.

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