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Political Economy of Waste-Pickers: their Health and Well-Being

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Abstract

Socio-economic backwardness of a region is often seen as a result of slow process of urbanization in the developing countries. On the contrary a large section of urban population lives in utter poverty and consequently is compelled to work under subservient condition. Waste-pickers present an example of this phenomenon. In this background this study tries to unveil the underlying historic-socio-political processes that lead to such a paradoxical situation. The main thrust is to explain the contradictions of the various approaches towards health economics, and how 'developments' in the field of health and medicine have propelled the generation and continuation of such marginalized groups like waste-pickers.

Introduction

The socio-economic backwardness of a region is often seen as an outcome of slow processes of industrialization and urbanization. Under this conceptualisation development is seen as a substitute for urbanization and all social sins of the developing countries prevail due to slow growth of economy. Paradoxically, sometimes the unwanted condition in the society are said to exist due to 'unmanageable' pace of urbanization. This contradiction is due to the fact that large sections of urban population live under utter poverty. Consequently, they are compelled to work under unprofitable and unhealthy conditions.

The group of waste-pickers can be seen as an exemplary epitome of the interplay among the phenomena of industrialization, urbanization and poverty in the developing countries. Waste-pickers come from the poorest section of the society and earn their livelihood from waste of the others and put their individual health under hazardous conditions.

As they share a portion of the burden of municipal bodies that are unable to collect the entire waste generated in the third world cities, it seems that waste-picking is an activity that prevails due to inability of municipal bodies to collect the solid waste. Nevertheless, presence of such an activity has more to do with the supply side conditions of the labour market rather than demand of such labour under advanced capitalism. In the developing countries growth of population in the urban areas especially in the metros is comparatively higher. With increasing mechanisation and automation of the production process, more and more people are becoming jobless. At the same time in the villages, due to similar mechanisation,

agriculture has become unable to absorb the increasing labour-force. In such a situation these people have no option than to indulge in such an unproductive and hazardous activity. Economy, health or for that matter any other commodity or service is not only an outcome of demand and supply alone but also of politics that plays a fundamental role in deciding their status by various means. In this background the present study tries to explore the existing causal relationship between meagre economic status and pitiable health conditions of this marginalized group. The study is a field based research done in Delhi during 2002.

Political Economy of Waste-pickers

Estimates show that in the third world cities about 1 to 2 percent of the workforce is estimated to be engaged in these activities and the informal labour force in this sector known as waste-picker or rag-picker or garbage-combers collect 12 to 15 percent of the total generated waste in urban areas (Saha, 2001). In Bangalore, the informal sector claims to collect about 15 percent of the total municipal waste going to the dump sites (Baud and Schenk, 1994). For, Bagota, it was estimated that 30000-50000 people earn their livelihood from collecting recyclable waste. In Karachi, the informal sector reduces municipal waste collection by 10 percent (Ali, 1993), while for Mexico; waste-pickers are estimated to remove 10 percent of the municipal waste (Bartonne, 1991). Apart from reducing burden of municipalities in the developing countries, waste-pickers also provide some 60 percent of the waste papers (raw material) to the paper industry. Paper industry generates one third of the raw material from the waste papers (Beukering, 1998).

Reasons for Choosing Waste-picking as a work

About 52 percent of the total respondents have no other alternative to run their families. This category also includes people who have been working at different places and were compelled to leave due to various reasons, like unemployment, retrenchment, lower level of skill and so on. About 25 percent of the waste-pickers who were surveyed opined that the job of waste-picking is economically more reliable than the work they were doing earlier. Some of the waste-pickers in this group were working in petty manufacturing sector before taking to waste-picking. Paradoxically, majority of waste-pickers answered in favour of working in other jobs even at comparatively lower economic returns. It seems that the expected lower returns visualized by the waste-pickers in 'other jobs' (where they are ready to go) is higher than what these people were getting in their previous jobs that they have left.

About 16 percent of the respondents cited other reasons like poor health, old age, harassment by the employer etc. for adopting this as a strategy for survival. Children were dominant among the group that reported harassment from employer as

Table 1: Previous employment of waste-pickers and the reason for leaving it

Previous employment / *Reasons for leaving*	*Factory worker*	*Agri-cultural labourer*	*Vendors / hawkers / shop-keeper*	*Sweeper*	*Tailor/ weaver*	*Servant*	*Rick-shaw-puller*	*Total*
Economically more reliable	10	7	4	2	2		1	26
Cheated and beaten	2				1	2		5
Factory closed or shop demolished	3		2					5
Poor health	2						2	4
Others		1	1					2
Total Number*	17	8	7	2	3	2	3	42

* 50 waste-pickers directly came to the job and 8 waste-pickers did not respond
Source: Field Survey, November-December 2001

the reason to come to this job. Some of the ladies, who have come here, were working as maid-servants. They came here partly due to lower wage-rate and harassment by the employer.

Previous employment of the current Waste-pickers

People usually try for an upward mobility in the occupational structure. Nevertheless, waste-picking attracts large number of people in its realm, despite being one of the lowest among jobs. It is, thus, important to look into the types of occupation that were available to and exercised by people before coming to the ambit of waste-picking.

About 8 percent of the waste-pickers did not answer about their previous employment but did say that they had nothing to do and thus came to this job. Majority of factory workers left the job because it was economically not viable. It is not a healthy sign to note that in a country that is going through structural change; waste-picking is more economically reliable than working in a factory. Some regulation in terms of minimum wage seems a must in the informal sector, which provides jobs to about 70 percent of the urban labour force. Some of them did report about closure of the factory and the incidence of cheating by the employer. Agricultural labourers also find waste-picking economically more sound. The argument has been supported by others like rickshaw-pullers, hawkers, vendors and so on. The prevailing condition in the contemporary labour market compelled them to take up this activity as there was recession in most of the economy or the earnings were too low to work and sustain.

Collection of Waste

An effort was made to identify the type of waste (item-wise collection), their selling price for each item on the basis of the information given by the interviewed waste-pickers in Delhi. This is also an attempt to cross verify their average per day collection and average daily income. On an average a waste-picker collects about 20 to 25 Kilograms of recyclable waste material. Quantity and price of the average daily collection is based on the response that has been given by waste-pickers in different parts of the city. Interestingly their reporting varies on the basis of the location, where they are operating and the time they put to work. The selling price of waste material does not seem to vary much across the city and is mainly based on the quality of recyclable waste. This does not mean that the price of waste material is uniform or is kept uniform by certain force. Rather waste-pickers answer in a generalized way like '*raddi is sold one rupees per kilogram, empty bottle of wine is sold 50 paisa each*' and so on. It was reported by the majority of waste-pickers that price of recyclable waste varies according to change in weather. The items listed in the table have been sorted and in almost each category, there are several sub-categories like paper – *raddi*, fresh paper, *gatta*, newspaper, and so on.

The quantity varies substantially among different groups. Usually children do not work for the whole day and their average daily collection remains about 60 percent of that of a male waste-picker. Similar situation prevails in the case of females also. On an average a waste-picker works for 8 to 10 hours a day. Some of them reported that they used to work for more than 12 hours. Their disclosure does seem true as it goes along with their comparatively higher income. Waste-pickers work from the wee hours in the morning till late at night at various places. One of the waste-picker was found picking waste in a residential colony (Deer Park) at around 9.30 in the evening.

Average distance covered by waste-pickers and their income is always not correlated as place of work often becomes more important in terms of income than the distance covered. Waste-pickers, who are working at market places, earn more than the street-pickers even though the former usually work at only one place. In any case waste-pickers usually cover an average distance of 6 to 8 kilometres in a day. Even, those working at a market place come from a distance of almost 3 to 4 kilometres as slums are usually not located adjacent to the market. However, if two waste-pickers are working at similar localities, then distance has substantial effect on the income. This is more important in case of street-picking. A street-picker normally covers more than 10 kilometres per day and generally uses a bicycle. The bicycle generally belongs to *Thekedar* (the small dealer/traders/dealers), who does not charge a rent for the bicycle.

Sorting and frequency of selling are interrelated phenomena. All the waste-pickers those were surveyed answered that they used to separate the material just before

selling. They sell their daily collection after rudimentary sorting. They put things in different categories: namely paper, plastic, glass, and metal. Some of the waste-pickers, basically those who are working with the family in the market area, accumulate their daily collection for a week. The females and children are involved in this type and thus, are mainly operative in the market areas. They perform sorting on the day when market remains closed. In this type, as quantity of waste is comparatively less, they do not sell it daily. Some waste-pickers sell their waste even without rudimentary sorting. Women and elderly are prominent among them. They put the sack at the *Thekedar's* shop and take whatever money that is offered to them. Children, in majority of cases present distinctive feature. They collect only special type of waste like in one case, a boy collects only plastic scrap because he gets a substantial amount from that.

Average income of waste-pickers in Delhi

Average income of waste-pickers is mottled. Some of the waste-pickers are able to earn about 100 rupees, while some can only manage 30 to 40 rupees. A waste-picker generally earns about 62.50 rupees daily. There has been a direct relationship between the age of a waste-picker and his/her daily income. It is noticed that children and elderly are earning less than adults.

Average income of children in the age-group of 5 to 9 is worked out to be about 31 rupees. It is less than the half of an adult's daily income. A child in the age group of 10-14 earns about 50 rupees per day, which is about 50 percent more than the children in the age-group of 5 to 9 but is about 30 percent less than the youths in the age-group of 15- 29. Maximum earning was found among the waste-pickers in the age-group of 30 to 44 and here daily income was recorded as about 74 rupees, 9 rupees more than what the youths earn in the age-group of 15-29. These youths are earning about 15 percent

Table 2: Level of income with respect to the age-group of waste-pickers

Level of income (Rs) / Age-group	Average daily income (in Rs)	Number of waste-pickers					
		Less than 40	41- 55	56-70	71-85	More than 85	Total*
5 – 9	30.70	10	0	0	0	0	10
10 – 14	49.50	5	3	2	0	2	12
15 – 29	65.90	0	6	16	5	8	35
30 – 44	73.60	2	3	6	3	4	18
45 – 59	70	1	2	1	2	3	9
More than 60	45	0	2	1	0	0	3
Total*		18	16	26	10	17	87

* Out of 100 waste-pickers 13 did not respond *Source*: Field Survey, January 2002

less than the waste-pickers in the age-group of 30 to 44. It goes down to about 70 rupees for the waste-pickers of the age-group of 45-49. Old people are earning about 60 percent of the highest earning members amongst the waste-pickers.

It is visible that the time given in the collection process has direct impact on the daily earnings of a waste-picker. Children and elderly devote less number of hours in collection and so earn less. However, the percentage variation in daily earning among the groups does suggest that children especially in the age-group of 5-9 are economically exploited. The children in this age-group are earning 50 percent less than the next age-group of children. Besides, elderly and children had reported similar hours of work daily, but their income varies. It seems that small children are unaware of the market price and also do not understand the cheating that can occur during weighing the materials. In the majority of cases dealers pay abruptly and not according to the weight of the material. The average selling price reported by children strengthens this argument. Besides, they are made to work by the *Thekedar* in the godowns without any payment (Choudhary, 2003).

Waste-pickers in the urban space

Economic growth and accumulation of wealth is an obvious outcome of industrialization and concentration of population, which contains a greater variety of skills and resources. Majority of the current urban population have moved out of rural hinterland and constitute the proletarian mass of workers in urban areas. The cities have become an ensemble of physical, social and economic entities that are constantly interacting with each other and consequently influencing their respective local and regional settings through the development of some and creating wide variety of physical, social, economic and environmental problems to the rest. The present trend of growth and migration in India indicates that increasing number and size of cities are emerging as highly attractive and acceptable forms of settlement. This trend is guided by the principle of 'more you get the better you are'. Nevertheless, majority of the people are proved unfit for the race of capital accumulation, though, paradoxically they are in the hope that some day they will also be a part of 'the same race'. Urban areas are often diverse ethnically, culturally, and economically. The close interaction and interdependence of these diverse groups within cities and towns can enhance social cohesion. On the contrary, disparity among the urban populations can lead to social stress and alienation of certain groups like that of waste-picker (for details on marginalisation of waste-pickers see Choudhary, 2005).

Lack of resource is perhaps the single reason that makes most of the workers in the urban labour market vulnerable to accept highly unfavourable working conditions including low and unprotected wage-work. Consequently, they are left with little option other than choosing the self-employment

in the marginal activities like waste-picking. It is obvious that people earning their livelihood through waste-collection constitute the poorest section of the urban population in the developing countries (Macqueen, 1987; Choudhary, 2003). As an activity, waste-picking does not need formal training and needs very little capital. Most often, there exists a conspicuous omission about their numbers in most of the records of an urban body or for that matter economic census of a country ((Baud and Furedy, 2003; Choudhary, 2008).

Waste-picking, like in a dualistic economy, has a 'dominant' sector represented by dealers and wholesalers and a 'dependent' sector consisting of waste-pickers and itinerant buyers. Waste-pickers hardly have any share in the decision making process of the distribution of social product and are nothing but a marginalized group (Choudhary, 2003, 2005). They hardly have been entertained by other categories of employer if they know previous work. The world does not recognize their contribution in the maintenance of urban public health at the cost of their individual health, by reducing the work of municipality. Besides, waste-pickers were found unaware of the happenings outside their job. They hardly take part in different events or activities that take place in their social environment.

Waste-picking is a comparatively new phenomenon and has been concentrated in the urban areas. The actors in this occupation are from various social strata. However, majority of waste-pickers in Delhi are from the lowest social strata i.e. *dalits* (Choudhary, 2008). They have grown as oppressed in the society but rituals have often made them feel like a part of the social structure. Their job is not secure in the sense that they suffer from numerous non-recoverable diseases like lung cancer, tuberculosis (T.B.) and so on. Under such circumstances, which are not uncommon among them; they are most likely to return to their native places.

Health Problems of the Waste-pickers

Economic expectations have been the main force for migration. If the migrated population do not find suitable jobs in the urban areas, they start working in petty sectors like waste-picking. The problems of collection and disposal of the waste are severe in metros of the developing countries. Door-to-door waste-collection is expensive and municipalities are unable to afford it. Collection points can easily become small garbage dumps, especially when collection is intermittent. Unlike industrial waste, most of the domestic solid waste is not a direct threat to health, which contains few hazardous chemicals. However, fecal matter is often mixed with domestic waste, which gets contaminated. Solid waste is not kept in closed containers and is not removed regularly. In such a scenario, solid waste often creates one of the most visible environmental problems for the low-income communities. It leads to health risks for the people who come in contact with this.

The group that is most directly exposed to solid waste is that of the waste-pickers in various parts of the city. An individual's health get affected by this problematic practice, which results in infections from domestic waste, injuries from sharps objects like broken glass, blades, syringes etc. in garbage, and so on. Their health related problems due to the exposure of solid waste in most general case can be put under following categories:

- Chronic respiratory, ophthalmic diseases from exposure to dust, gases, etc.
- Toxication, cancers from exposure to hazardous waste, gases, etc.
- Cuts from sharp wastes leading to infection
- Chemical burns or wounds
- Spondylitis and other diseases due to spinal-cord injuries
- Snake, scorpion bites
- Viral (dengue, yellow fever) or parasitic (malaria, filariasis) diseases transmitted by vectors breeding in waste-generated ponds.

The reasons for these illnesses among the waste-pickers are varied and casual. Hazardous working conditions, poor nutritional intake for them and their children, unawareness about 'available medical facilities' and many more factors are responsible for their illness. Various studies have tried to analyse the reasons of illness and disease and observed certain factors (Zaidi, 1991). On the basis of the field observation and the responses of the waste-pickers, the conditions or factors that make the waste-pickers vulnerable to the various diseases have been presented below:

$D = f(O, N, W, S, H, E, H_f)$

Where,

D = Vulnerability of an individual or family for the Disease

O = occupational risk

N = nutrition

W = availability of safe drinking water

S = condition of sewerage and sanitation

H = housing condition and its location

E = level of education and awareness status

H_f = access to health facilities

Most important thing that comes to the mind after looking at these formulated factors is that what is responsible for these observed factors. The first word that strikes is the 'economy'. It is the economic condition of an individual or the household that determines the level of nutrition, housing condition and level of education of the individual and his or her dependents. McKeown was not irrelevant in stating that, "the enormous increase in population and dramatic improvement in health that human have experienced over the past two centuries owe more to the changes in broad economic and social conditions than to specific medical advances or public health initiatives" (McKeown, 1976).

Social condition of an individual is always important and prominent especially for marginalized groups because 'resources shape access to health-relevant circumstances, whether the list of such resources happens to contain in a given time or place' (Link and Phelan, 2002). The waste-pickers spend a fair amount of money on private health care, which is more expensive but also more easily accessible to them than public sector heath care that is supposed to be free but conflicting with the working hours. The apathy of waste-pickers does not end to the prevalence of disease or illness or even early death, which is associated with their work. It rather has an added impact on the economic, mental and social conditions of the individual waste-picker and their family. Further, in the economic terms, it constrains their mobility, as they have to fulfil the liability that has incurred during the period of illness. The poor health of waste-pickers often has been one of the limiting factors for their deteriorating economic condition and vice-a-versa. Health risks are typically low in the priority list amongst these people, who lack basic needs. Waste-pickers are undoubtedly from the community that lacks basic needs of food, clothing and shelter. They even do not have money to take preventive measures against most common diseases for their children or for themselves. Only availing the curative measures are enough to put them in a continuous 'cycle of indebtedness' (Figure 1).

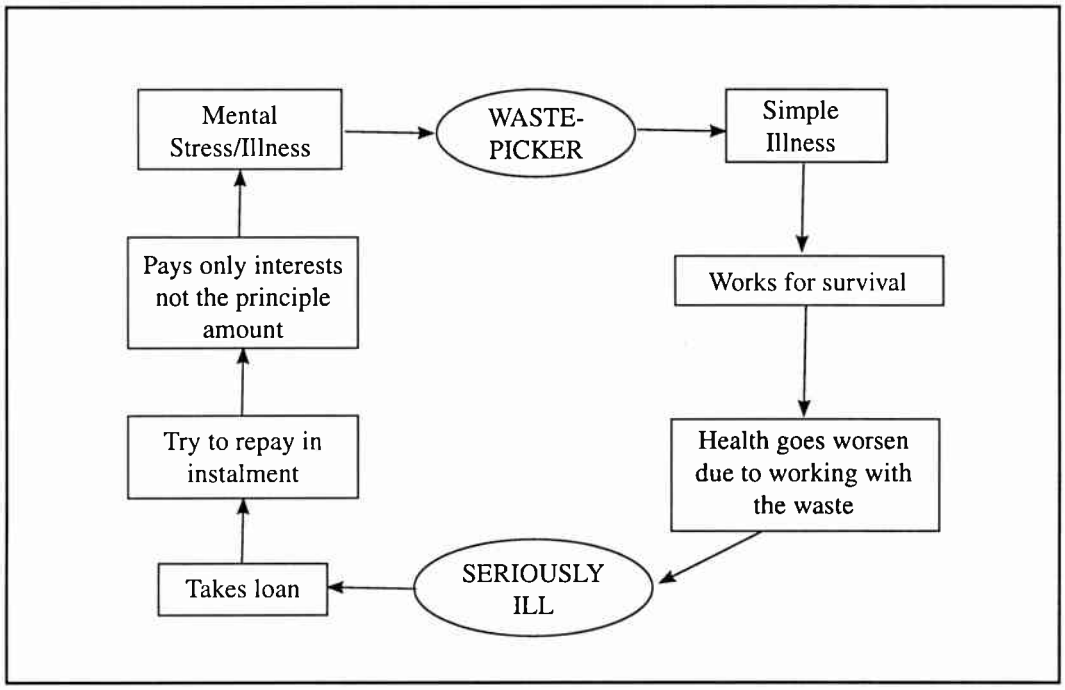

Fig. 1: A Vicious Cycle of Indebtedness among Waste-pickers

In case of short term or long-term health problems, waste-pickers are compelled to take loan from the *thekedar* for the treatment and also for meeting the daily expenditure. *Thekedars* are the only source that these poor marginalized people can approach as they are not entertained by the formal source of credit like banks, or various financial agencies, which pledge for a security. Even if they could take a loan from these sources, in most cases they are not likely to go, as they require only a small sum of money. When the problem is severe, which in most cases is likely to be, the amount of loan becomes heavy. Waste-pickers generally fell ill with normal danger of leaving work once in a week or in a fortnight. In case of simple injuries, they continue working with the waste, which makes these injuries severe. In case of severe injuries, they have to leave the job for a particular period of time and are compelled to take loan for their survival. Once they borrow money from the *thekedar*, they in all probability do not come out of this 'cycle of indebtness'. They are never in a position to earn the total amount along with due interest that is to be repaid to the *thekedar*. Consequently, waste-pickers pay back the loan in instalments, but never pay the final instalment. Seeking relief from their miserable life of unremitting, unrecognized and demeaning travail, the waste-pickers often smoke, drink heavily, and take drugs. These impair their minds and bodies further, thus keeping them trapped in their malaise.

The responsible factors and processes

The fundamental question here is 'whether the waste-pickers are poor so they are ill' or 'because they are ill so they are poor'. In multidimensional space, the relationship between illness and poverty is manifold. On the one hand, as they are poor so they are compelled to work in such subversive situation, at the same time due to illness their family economy never comes out of the 'cycle of indebtness'. The prevalent vicious cycle of illness and indebtedness among waste-pickers is result of two-fold phenomenon: one at the economic front and a related one due to the development in the field of disease and medicine.

Economic Reasons

Cities are visualized as an expression of the capitalist mode of production that is earmarked by the tendency of capital to get over concentrated. Accumulation of capital in the last century has deeply changed the structure of the labour market and the processes it involves. Disappearance of the so called 'industrial reserve army' due to stagnation in the industrial occupation and employment with an increase in the employment in the service sector have been the hallmark of capitalist development in this period. Under late capitalism, industrial wages tend to be inversely related to the rates of unemployment and under-employment of workers in various sectors and they feel less united and become competitive among themselves and with the unemployed since

they no longer play the role of an 'industrial reserve army' (Mingione, 1981, p.56). The city and general well-being are antithetical to each other. Thus, a contemporary city presents a picture of contrasts. It represents the 'leading edge of civilization'; on the other hand, it also witnesses all that is undesirable in a 'civilized society'. In a nutshell a city is an epitome of problems and major contradictions of the modern times.

The greatest division in the present-day labour market is between the employed and the unemployed. Economic restructuring that is earmarked by deindustrialization, tertiarization, accelerating automation in manufacturing as well as in services; the demand of 'skilled labour' according to new international division of labour etc. has contributed to the growth of unemployment in capitalist economy.

In the third world 'peripheral economy', (*1) where a quarter of population is still living under the condition of absolute poverty (i.e. below officially defined poverty line) 37 visible unemployment has not been rampant in these cities as unemployment is a luxury and poor people can hardly afford to remain unemployed. Their weak position in striking bargains in their favour against their powerful employer always subjects them to work below minimum levels of their biological survival i.e. under the terms and conditions of utter destitution.

Most often scholars tried to explain the phenomena of unemployment through rapid growth of population, but its nature is more complex and it emanates from the very process of economic development that is increasingly collaborating with the forces of globalisation on the one hand and imposing structural changes upon the traditional structure on the other (Nagpal, 1996). Increasing mechanization of agriculture has resulted in the incapability of the rural areas to absorb growing labour force. The conditions of small and marginal farmers have become quite precarious under such circumstances. They find hardly any other way but to sell their land in order to meet the overhead costs of mechanized forms of agriculture. These people along with the labour force released from agriculture are migrating to near by towns and cities including the metropolitan cities in search of employment. Unfortunately they barely get anything except frustration and disappointment because there they encounter numerous others that have migrated from the rural areas to these towns under similar circumstances in search of better opportunities of survival and are trying to avert 'poverty'. As Marx says, "The process, which creates capital relations, can therefore be nothing than the process that divorces the workers from the ownership of the conditions of his own labour; it is a process which operated two

*1. 'This mode of production consists of two interrelated parts: a capitalist sector integrated into the world economy, and a range of petty capitalist forms of production oriented more towards the domestic economy', M. Pacione (2001, p. 476).

transformations whereby the social means of subsistence and production are turned into capital, and the immediate producers are turned into wage-labourers." (Marx, 1967, p. 873)

The evidences of the patterns of capitalist development in recent times reveals that majority of these less developed countries have experienced slow growth of wage-earning employment in spite of rapid growth of output. This evidence also reveals that in most of the cases total labour force greatly exceeds in size over the official enumerated wage-earning labour force in each country.

Under the changed situation more and more people are supposed to get involved in different types of jobs for their livelihood, that are not governed by any regulation of the Government. Moreover, these workers do not get any protection of job, wages and health from their employers. On the contrary, they are also subjected to economic and extra economic exploitation carried out by their temporary employers. The situation is more alarming in the developing countries. The emergence of a downgraded manufacturing sector is an example of such informalization and it is becoming more frequent and common in the Third World countries. Paradoxically the extent of informal sector does not end here. A number of service based activities like shoe shining, showing *Tamasha* (localized art of earning money by entertaining people), selling water at entertainment places etc. too fall under the ambit of informal sector in the developing countries like India.

There exists a fierce de-segregation in the labour market, which depends on the forces like institutional barriers, the characteristics, credentials and resources of the individual, which determine the control as well as access to highly differentiated job market. In turn the labour market too structured in every modes of production (*2) and contributes in generating socio-spatial variation in poverty and affluence.

Developments in the field of Health and Medicine

The developments in the field of health and medicine have also different meanings and connotations for different classes. The 'class' under consideration here, is again at the receiving end. Let us see what these developments have meant and done to the 'masses'.

Advent of capitalism as a production system is associated with two important developments, which are generally championed by the proponents of capitalism, in the field of health that have changed the demographic characteristics of the existing population. Nonetheless, these developments simultaneously have also contributed in

*2. Third world urban economy identifies the following categories of labour in a disaggregated labour market: protected wage-work, competitive regular wage-work, unprotected wage-work, self- employed and family labour and marginal activity. M. Pacione (2001, p. 481).

the creation of marginalized groups like waste-pickers in the urban areas. First, this development resulted in drastic decline in infant and child mortality rate along with a positive decline in maternity death rates. The second, however related one, has been the improvement in longevity of people for almost all classes. Earlier human beings used to live for 30 to 35 years that has gone up to 75 to 80 years in case of urban elite. Many other things like increasing gap in mortality on the basis of gender, class, region, space etc. happened. But here, I confine myself with the first two.

Capitalism has claimed that major decline in mortality rate is the result of a well-connected network of medical system and development of preventive and curative medicines. However nutritional improvement has historically been proved fundamental for it, as 'major infectious diseases have been declined much before the availability of medical countermeasures' (Eyer, 1984, p.23). It has been supported by experimental field trials that nutritional improvement especially for 'protein has a much greater impact on sickness and mortality than public health or medical measures' (Eyer, 1984, p.25). Here, the objective is not to debate the McKeown thesis or its disapproval by many like Colgrove.

Moreover, these two resulted in an explosion of population in developing as well as developed societies and created surplus population. The created surplus population was fuelled with the change in the mode of production i.e. from agricultural to industrial or from feudal to capitalist. This gave birth to a new social and economic class as 'wage earning labourer'. They have become asset-less and brought to the industrial centres to work in factories and for serving those who work in these establishments. Not surprisingly they started living in the urban areas away from their 'homelands'. The very basic process of capitalism is itself the source of increased stress through many ways including uprooting of people from stable communities and makes them a commodity in the labour market. Long hours of work or long time unemployment both created a distress among them and their diet changed that created the need of medicines. Apart from increase in diseases, capitalism is marked with increased drugs consumption.

The new capitalist system started accumulating surplus production and created products that brought new type of diseases. The production techniques under this new process itself gave birth to many cardio-vascular and other diseases. The development of new products, processes and raw materials in industrial work has imposed occupational and environmental hazards. These risks greatly increased the frequencies of certain diseases for the specific section of population. Since the profit is the main criterion, these risks have increased over the period under the capitalist social process.

Health and Economy

Theoretically as well as in practice, urban centres are known for concentration of people, occupations, services, facilities and so on. In the similar fashion, urban areas have historically been marked with the concentration of medical facilities so as of various diseases. Industrial cities of the West had experienced severe epidemics in the late eighteenth and early nineteenth century. At present, urban residents in the developing countries have a far greater burden of premature death and disease than do their counterparts in the developed countries. The relative poverty and inadequate access to basic services and opportunities are some of the fundamental reasons for this in the developing countries. Health-profile of a population depends on many factors. It is a combination of existing environmental risks (local or regional, biological and social), the proportion of the population facing these different risks and the socio-cultural-demographic profile of the city. Besides, health-profile gets affected with availability and accessibility to health services and the groups within the city that utilize or are supposed to utilize these services.

Health can be considered as an important ingredient of economy or in other words, economy can be deemed as 'science of health', if we take classical definition of economy as 'science of wealth' and the famous saying 'health is wealth'. Popular perception of health varies from physique to physical strength to longevity to extent of different illness like T. B., cancer, different kinds of fever and so on. In the changing time, the nature of health (body), economy, polity and space has got transformed. Hegemonic and capillary forces have replaced the use of naked, brute and coercive forces. Under present day capitalist system, various artefacts of the socio-cultural setting including health, education and various promises, temptations and honours are offered by the modern liberal democratic state (Butola, 2001). Under this proposition, health is amenable to all the laws of the wealth. In fact, wealth has been the basis of all powers and an invincible force of governance, and then health too has become an effective instrument for the same in different ways in different time. Not surprisingly, the health and physical well-being of the population has become one of the essential objectives of contemporary political power.

In historical past, economic justification of good health or a 'disease free body' has been the reason for advancements in the field of health and medicine. As early as in the seventeenth century Petty attempted to quantify the value of human life and expressed individual's value in terms of that person's contribution to national production. He reached on the conclusion that 'it is not in the interest of the state to leave *Physicians* and patients to their own shifts' (Petty 1676, quoted in R. Feign 1980). Similar arguments were advanced by Chadwick, a utilitarian, who influenced the public health legislation in first half of nineteenth century in Britain (Lee and Mills, 1983). Chadwick advocated

that treatment of human beings should at best be treated as investment in the human capital. He argued that better sanitation was a good investment, and that prevention of disease could offer greater benefit than the building of hospitals to treat those diseases. Next fifty to sixty years, these ideas dominated the health strategies of developed and developing countries, though developing countries due to poor economic condition could not implement it at policy level.

It was this utilitarian view of human body and its use as labour that promoted the improvement in the sanitation and living condition and control of many diseases worldwide. Aggregate estimate of economic effect of malaria was done in terms of lost output even in the colonies like India, where a detailed survey of five villages was conducted to investigate the effect of malaria on labour supply and earnings (Russell and Menon (1942) quoted in K. Lee and A. Mill 1983, p.12). Human capital approach i.e. estimating productive value of human life too was incorporated in the economics of health and through out 1940s and 1950s attempts were made to analyse the economic cost of disease.

This view has subsequently come to the concept of a welfare state and in a way as a means to buy labour peace and increase labour productivity. Inter-capitalist competition and class struggle wrought far-reaching transformation of all aspects in the urban society. Different types of social discontents had been found developing in the large cities. Besides this, with the adoption of Keynesian policy of demand side urban consolidation through the fiscal and monetary management, cities were shaped as 'consumption artefacts'. The over-accumulated capital and labour power were switched into the successive production of physical and social infrastructure, often called secondary and tertiary cycles of production and consumption. In this backdrop, the bourgeoisie tried to find new ways to keep the revolutionary turmoil under control. It was in this process that capitalist (often through various agencies of the state) accepted the responsibility for various facets of social reproduction in the form of health, education and often even beyond that.

The health of the public is anchored in the fundamentals of life. However, most innovations require investments that can be made only to the extent that government is able to extract. Therefore, advances in public health including preventive medicine depend on the allocation of 'scarce' resources, primarily through actions in the political arena. To satisfy the popular demands, their governments share these objectives but find it 'hard in managing the economy' that must be allocated from the 'limited resources' between competitive uses like military, law and order, social security and so on. It is widely spread that both group of peoples including those who live close to the level of subsistence as well as those who are citizens of affluent nations, are resistant to transferring their money to the state in terms of 'heavy tax'. But reality remains that demands for health expenditures is in

competition with other 'priority areas' such as defence, law and order, social security, housing, education and so on.

With the advent of advanced capitalism in the developed nations, its impact on the developing nation has been felt in the form of deregulation, decentralization and disinvestment. What happened during Regan and Thatcher in United States and Britain respectively, is bound to happen in the third world countries. Not surprisingly, the state in the developing countries like India after initiation of liberalization process has started withdrawing itself from every sector including social sectors like health and education. According to its nature, capitalist as a class will invest in anything only up to a point it remains favourable (either through acceleration in production or is a must to buy labour peace) to the production process and continues to give encouraging results.

What Next

We all know about the necessity rather provisions of hand gloves, masks, stick and so on and so forth for the unfateful group. One can rightly suggest provisions for supply of safe drinking water, better sanitation and other improvements in the slums – the place where these waste-pickers generally live. Besides, the role as well as need of micro financing by governmental or non-governmental organisations to avoid the 'cycle of indebtness' is well understood and has been suggested as a short-time measure to underplay the problem. These measures together do form one kind of alternative, commonly called reformative. Nevertheless, this is a temporary kind of solution. And under this, the situation may or may not improve. Even if it improves in one city here Delhi, the same conditions will continue to prevail at other places in different cities in various other countries as Engels has said "The breeding place of disease, the infamous holes and cellars in which the capitalist mode of production confines our workers night after night, are not abolished; they are merely shifted elsewhere. The same economic necessity, which produced them, in the first place produces them in the next place also." (Engels (1969) quoted in P. Saunders 1989: 26)

Another alternative will be structural in nature and for this we need to re-look on the structure of society, means and modes of production and its ownership. However, the job in hand here is not to suggest an alternative or to judge whether reformative measures are more beneficial to the marginalized groups like waste-pickers. This highlights some of the pertinent questions that economists, planners and other social scientists are committed to address for the better development of the larger section of the society.

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