CHAPTER – FOUR

ALTERNATIVE OCCUPATIONS
ORGANISATION AND WORKING CONDITIONS

4.1. Introduction

Construction and sand lifting activities are rapidly expanding these days in our study area. In course of development process different types of construction such as residential buildings, commercial centres, cold-storages, rice-mills, government buildings are taking place in different parts of this area. Construction activity was slow and sporadic till the early 1980s. From the 1980s onwards construction activities registered a phenomenal growth. These growing construction activities needed a constant supply of labour to match the increasing demand. This is a positive effect of the expanding construction sector on the rural labour market. Construction activities directly absorb the rural workers and thus pull the labourers from the agriculture works.

In our study area the growing construction sector has also promoted another non-agricultural activity which we have already mentioned as sand-lifting activity. Everybody knows the importance of sand in construction works. Sand is required in a fixed proportion with cement in construction works. So the demand for sand is a derived demand and this demand has increased substantially as a direct consequence of expanding construction sector.

In our study area, the river-bed of Dwarakeshawar is a source of good-quality sand. This sand is used in local area and also in adjoining towns including Kolkata. Sand is lifted from the river-bed and the local casual workers are engaged in it. Thus sand-lifting has emerged as a labour absorbing non-agricultural activity. It has become an alternative source of earning to many poor households living near the river-sides. Thus construction sector has indirectly created another sector where unskilled casual labourers get employment opportunities although its terms and conditions of employment are different from construction activity.

Before trying to make any analysis of the workers' choice between agriculture and such type of non-agricultural activities it is important to know the organisational structures of these two activities.
4.2. Organisation in Construction Activity

Generally the construction activity is characterised by high degree of differentiation in terms of workforce and enterprise. Basically the workforce comprises unskilled labourers, apprentices, labour-contractor (often head-mistry) and professionals. The entire construction industry relies on the process of contracting and sub-contracting which fosters the proliferation of intermediaries whose function is to provide labour for different clients. We may loosely define 'contracting' as a relationship under which the contractor does a specified type of work for the client at a specified rate. Thus contractor is an agent who performs a specified task on a contract basis. When a series of contracting occurs, the subsequent contractors are known as 'sub-contractors' to the main contractor. In our study we observed that labour contractor who is often called 'head-mistry' is the main contractor. Sub-contracting does not take place to any significant level in our study area.

In our study area most of the construction works begin on the basis of a contract between the labour contractor (head-mistry) and the builder (the man who intends to build a house). The scope and quality of the construction activities depend on the nature of contract. The head-mistry plays a crucial role in the contract and subsequently in the construction activities. It is found that the builder purchase land from the land-owner, raw materials like sand, bricks, iron rods from the local traders directly. But they do not hire the labourers directly. They do so indirectly through the labour contractors. This is because they can not contact with the labourers who live in diverse villages of our study area. They can not keep regular contact with the labourers. It is not possible for the builder to go to each labourer directly and regularly and employ them. So the builder is the indirect employer but the labour contractors are the direct employers of labourers.

In case of some small works like simple addition to an existing unit of a building, activities can be carried out entirely by paid labourers or done by the owner himself with a little help form outside. Activities of this kind do not take much time. Usually the builder has to depend on the labour-contractor for supplies of labourers. So the recruitment of labourers is ultimately done by the labour contractors. In fact existence of such de facto employer is inevitable. Labourers come from different places and there are many builders. Unlike in agriculture, there is an information gap between the employers (builders) and the workers. Workers do not know to whom work is available and the builders do not know whom to hire as a worker. This information gap is filled by the labour contractor.
Labourers from the adjoining villages come to the labour-contractor in the morning on foot, by cycles or sometimes by bus. The contractor allocates this pool of labour to different work-sites according to the need of the project and also considering the skill of the labourers. A register is maintained by the labour contractor to note the attendance of labourers. The register is the record for the work done by labourers each day and of the wage payable to each worker. At the end of the day, the labour contractor totals up the amount payable to each worker. At the time of payment, contractor deducts some percentage of amounts payable to the workers as his service charge. Thus the worker would receive a sum net of ‘service charges’ payable to the contractor. In this system workers have no direct link with the builder and the contractor emerges as a de-facto employer.

The basic function of a contractor (often called as head-mistry) is to supply the necessary workers to the builders and also to complete the construction works. His function is not confined only in the labour supply but it ends with completion of a given construction work. The agreement is made on the basis of a rate which is fixed for a given period. At the time of our investigation, 2002-2003, the rate was Rs. 40.00 per square feet construction of roof area including plastering. With this rate a contractor makes an agreement with a client. Thus labour contractor becomes an enterprise where he himself is self-employed and his enterprise runs on the basis of hired labourers. The economic and working conditions of the workers depend on the good reputation of the labour contractor to the builders and sound financial condition of the contractor.

Now good reputation of the contractor depends on some factors. While making the agreement a builder considers the following points regarding a contractor. In other words a labour contractor (who is the owner of enterprise) to be competitive in construction activity requires having the following good qualities.¹

1. **Size** - Size of the enterprise denotes the number of workers (mason and ordinary workers) regularly employed or supplied by the contractor. In our study area it is found that generally the minimum size of an enterprise should consist of 30 labourers at a time. Without this labour force an enterprise can not exist. If a contractor does not hold this number of labourers, he would not be able to compete with other enterprises.

¹ The Information is collected through discussions with some labour contractors.
With this minimum size an enterprise have the capacity to build more or less 15000 square feet of roof-area in a year.

(2) **Investment Capacity** - To achieve such a minimum size, at the present prices a contractor has to invest around Rs.1.20 lakh towards costs of equipments and wage payments to labourers. There are some contractors who can invest more and become large contractors. The large contractors become able to obtain most of the building contracts (particularly big contracts) and thus they become dominant in the market.

(3) **Quality of Work** - Although labour cost charged to the builders per square feet of roof area is more or less the same, works performed by different contractors are not of same quality. Some perform better than others because of their good entrepreneurship and skill. Good entrepreneurship requires - good organisation, larger capital investment, better equipments, existence of good number of labourers, frequent supervision of construction sites and personal skill and experience etc.

(4) **Timely Completion of the Work** - A builder decides a time-frame of his proposed construction works. This time frame is agreed upon at the time of agreement. Any delay of the stipulated time not only raises the cost of construction but also creates hazards to the builders. A labour contractor is good if he can complete the work in time. A contractor earns bad reputations if he fails to complete the work in time. A builder considers this fact at the time of selection of a labour contractor. Generally big contractors having large number of labourers earn good reputations in the market. They can run different works at different sites simultaneously and face little problem to complete the work in time which the small contractor can not. Sometimes small contractors make agreement in excess of their capacity. They generally fail to complete the work in stipulated time. This adversely affects the cost of construction (when it is delayed). For this reason a builder considers the past record of a contractor when selecting him for agreement.

All these factors simultaneously determine the position and status of a labour contractor in the market. Apart from these, a sense of confidence, reliability, trusts and similar other factors are important behind the selection of particular contractor by a builder. As already stated workers’ conditions depend also on the position and status of a contractor.
A reputed contractor provides stability of employment opportunities and consequently stability of yearly income, timely payment of wages, advances in case of any emergency etc.

4.3. Organisation in Sand-lifting Activity

Sand-lifting activity has emerged as a direct effect of expanding construction activities. It has become a major source of employment in some parts of our study area. Sand, an important raw-material for construction works, is lifted from the river-bed of Dwarakeshwar. A major portion is transported to Calcutta and a minor portion is used locally. Thus it has a strong urban link. But it exists in the rural area and so other than agriculture it has become a major source of earning for the poor people.

Sand is a natural material ownership of which is vested on the State Government. It is abundant in supply. Production of it involves only lifting from the river bed which is owned by the government. But the government does not take any direct initiative to lift the sand. Basically sand-lifting is a quarrying business. The government leases out the sand-lifting points to any interested person. The primary initiative of sand-lifting is taken by these persons who make a contract with the government by paying a royalty at a fixed rate. With this condition the person concerned is entitled to lift sand from any point of a specified area of the river bed. That person employs labourers for lifting and loading of sand to the trucks. Thus finally he becomes the seller of sand. He tries to make a profit over the lifting cost and royalties given to the government. Thus there is a selling price. This price is formed by adding royalty (paid to the government) and profit with the lifting cost.

Pricing: Price = labour costs of lifting + govt. tax / royalty + profit margin of the contractor. We have seen that normally 200 cft sand makes a truck full. At the time of our investigation in 2002-2003 the normal price of 200 cft. good quality sand was Rs. 240 /

The different cost components of this amount are as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour cost of lifting</td>
<td>Rs. 150</td>
</tr>
<tr>
<td>Govt. royalty</td>
<td>Rs. 60</td>
</tr>
<tr>
<td>Profit margin</td>
<td>Rs. 30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Rs. 240</strong></td>
</tr>
</tbody>
</table>

Looking at the system of sand-lifting, we have found that there are two steps. In the first step, sand is lifted from the riverbed to a boat. A bucket is used to collect sand from the
river-bed. In shallow water, it is not difficult to lift sand from the river-bed but in deep water, it becomes very difficult. A man has to use both his hands and legs to collect sand from the river-bed. A group of six labourers lift the sand from the river bed to a boat. This group is called boat labourers. The rent of boat is treated to be equal with the cost of a labourer. The total wages for the boat labourers is Rs. 80.00 per 200 cft sand.

In the second step a truck is loaded with sand from the boat. A separate group of labourers carry the sand-full baskets on their head from boat to truck. The weight of each basket is around 50 kgs. When the truck is loaded fully with 200 cft sand, the sand-lifting process is completed. It is observed that total process is very labourious, tedious and hazardous. In the second step a group of eight labourers is used to carry the sand from boat to a truck. These 8 labourers are called truck labourers and they get Rs. 70.00 per 200 cft of sand.

We may note here that total labour cost is the earning of labourers and it is equal to Rs. 150.00 per 200 cft sand. Per-truck average labour cost (average earning of labourers) for boat labourers is Rs. 11.40 (Rs. 80 ÷ 7) and per-truck average labour cost (average earning of labourers) for truck labourers is Rs 8.75 (Rs 70 ÷ 8). Thus these are like piece-rate wages of respective labourers. Here we see that earnings of boat labourers are higher than earnings of truck labourers per 200 cft of sand. It is due to the fact that the boat-labourers require some technical skill to lift the sand from the river bed and in most of the times from underground water. Truck labourers are merely load-carriers. They have only physical strain and no skill is required. So the boat labourers get slightly higher than the truck labourers.

**Average Daily Wage earning of a Sand-lifting Labourer**

Here we see two groups of labourers --

- Boat labourers \((n_1=7)\) with mean income \((x_1)\) Rs. 11.40
- Truck labourers \((n_2=8)\) with mean income \((x_2)\) Rs. 8.75

Now we find the mean \((x)\) of the composite group by the following formula:

\[
Nx = n_1x_1 + n_2x_2
\]

Here \(N = n_1 + n_2 = 15\)

\[x_1 = 11.40\]

\[x_2 = 8.75\]

So, \(15.x = 7 \times 11.40 + 8 \times 8.75 = 150\)

Or \(x = 150/15 = 10\)
So we see that the average income of a sand-lifting labourer irrespective of his group is Rs. 10.00 per 200 cft of sand.

Here it is to be noted that there is no fixed daily wage payment in the sand-lifting activity. The payment to the labourers is made on the basis of tasks completed. This is like a piece-rated wage rate. Given the piece-rated wage of Rs 10.00 per truck on an average, the daily wage earning of a labourer depends on the number of trucks that he can load. Here work capacity of a labourer determines his wage earning. It is reported by the labourers at the time of field enquiry that normally a labourer can load maximum six trucks in a day. So on an average daily wage earning of a sand-lifting labourer is at most Rs. 60.00.

4.4. Economic Background of Workers and Entry into the Non-agricultural Occupations

Generally it is found that people who come to work in such non-agricultural activities constitute the marginalised section of our society. All in their families including child and old have to work to earn their livelihood. They are the labouring class whose only task is to supply the manual labour to various needs of the society but they themselves remain beneath the lamp of development. They are bound to give such manual services because they have no other alternatives.

These workers come to the job market at their early ages. Previously they were often engaged to look after the cattle in the houses of big and medium cultivators. They were habituated with agricultural works and gathered experiences during this period. Generally they have to remain attached to a cultivator’s house and have to give the services all the day. As they were minor and inexperienced their wages were low. Due to the poor economic conditions they did not get the scope to go to the school. Thus they remain almost illiterate.

At present, as already stated, rural households simultaneously undertake a number of activities both agricultural and non-agricultural. There are some households where different workers participate in different activities and also some households where a single worker participates in multiple economic activities. In this context we find an intergenerational diversification of work-efforts among such families. A generation-gap exists in selection of occupations. Agriculture is slowly being relegated to the place of subsidiary occupation from the place of principal occupation. The new generation is trying to migrate in non-agricultural
activities from agricultural activities. This is a part of their livelihood strategy as well as a part of upward social mobilisation.

There are generally no operational standards as to what are desirable qualifications of a construction worker prior to recruitment. The normal means of entry into the activity is by working under an experienced mason (mistry). This informal training is the normal and easy means of entry into the trade. The mistry functions as the 'port of entry' into the job. Over time the worker get experienced. A worker's chance to gain experience on more complicated equipments and tasks depend on – (1) his ability to make friends who would support him. Usually mistry helps him in this case and (2) his relationship to his first-line supervisors who is in a position to assign him to jobs on which he can gain experience.

After entry into the construction trade, it is possible to continue through a system of transfer from one work site to another possibly with same labour contractor. At the time of entry through direct recruitment, labourers are taken as unskilled and evidence suggests that they are accepted during the peak periods when plenty of workers are required. Once the laborer picks up the trade and accepts the terms and condition of the contractor, it is possible that the worker might be accepted more or less as a permanent worker. This does not mean that the relationship will be formalised through legal means like appointments, benefits etc. This is an unwritten (and mostly oral) understanding between the two parties to the extent that the contractor would aim to provide continuous job-opportunities to the worker. This might be achieved by transferring the worker from one work-site to another on a regular basis. This way the worker is assured of continuous job opportunities and the contractors need not search for labour at all times. Thus a reservoir of labour is created for the building contractors.

Works in sand-lifting sector such as excavation, digging, carrying head-loads etc. essentially involve hard physical labour. In such activities, physical labour is more important than skill. Consequently for the labourers coming from various forms of agricultural backgrounds there is no technical problem to join this activity because there is no radical change in the pattern of works. There is no formal procedure to enter the sand-lifting activity. A worker residing nearby villages of the sand-lifting points can join this activity. For this he has to make a contact with the head of the workers of any sand-lifting point through any existing worker or through anybody who has any connection with the head of the workers. Whenever any demand arises for any extra worker or replacement of any worker is required,
those who have been waiting for some months are given chance. Once a worker accepts the chance he can continue by accepting the informal rules of working in the sand-lifting points.

4.5. Problems of Workers in Non-agricultural Occupations

One problem faced by the sand-lifting workers is the under-utilization of the working capacity on some days. It is because of the fact that availability of sand-lifting works depend on the total number of trucks arriving at the sand-lifting points to purchase sand. The workers get ample opportunities of work on those days when many trucks arrive at the sand-lifting points. They can earn the normal income in these days by utilising their normal working capacities.

But arrival of trucks depends on some external conditions. We have noted that movements of trucks are hampered by bad conditions of road, congestion of roads and blocking of roads (by break-down of vehicles on roads – there is no system of rapid clearance of roads). Again due to bad weather, particularly in rainy seasons movement of trucks is badly affected. With these problems, arrival of trucks for sand transportation becomes low and each worker gets less number of trucks to load. In rainy season when the river is full, sand-lifting becomes a difficult task. Consequently they can not fully utilize their working capacities and earn lower level of wages than the normal. Although they may not remain fully unemployed for a full day, they remain deprived of adequate employment in a day. In agriculture usually there is no such problem of partial unemployment in a day.

In construction activity two types of workers are found in our study area. First, there are some workers who come from the neighbouring villages. Second, there are some workers who live in the semi-urban area where the construction sites are mostly centred. For the first type of workers, time and cost of traveling act as a barrier to work in construction. Most of the construction workers have to commute 4 to 6 km. riding on the bicycle to reach the construction sites. Again most of them go to their home to take their mid-day meal. On an average the total journey in a day ranges from 8 to 24 km. (considering two to four times journey from home to work-site). This is in excess of their work-time and physical burden. This is nothing but relative over-utilization of their working capacity. In agricultural works there is seldom such extra physical burden.

Although there are problems of under-utilization and over-utilization of physical capacity, poor workers seek employment in these sectors. They are guaranteed with a
minimum income daily in sand lifting works and maximum days of employment in construction works. Agriculture workers do no get such advantages. There is either full-payment or no-payment (full-day absorption or no absorption) in agricultural activities. Again in the lean seasons there is minimum scope to be employed in agricultural works. Due to this reason poor workers often seek employment in construction works and sand-lifting works.

But workers face hazards and hardships while working in these sectors. We have found that sand-lifting involves very hard physical work. Boat-labourers have to lift the sand by using legs at first. Then they transfer the sand-full buckets from legs to hands and fill the boat. Truck labourers then carry the sand-full baskets on their head and fill the truck. The whole process requires back-bending physical labour and physical energy is exhausted quickly in such work. It requires high calories to compensate the exhausted energy. Likewise in the construction sector workers have to carry bricks and other materials on their head. They have to carry all those heavy materials on the ground and even to the roof-top. They have to work with iron-rod, cement and sand. These works involve tough physical work.

4.5.1. Health Hazards of Workers

We have collected some information on the health hazards arising from working in those two sectors and also in agricultural sector. One worker from each household under three occupational segments was selected for interview. The major problems of the workers are body pain, indigestion problem and excess physical strain. The following table gives an idea of different types of health problems prevailing among the laborers.

Table-4.1

<table>
<thead>
<tr>
<th>Types of problem</th>
<th>Number of agricultural workers</th>
<th>Number of sand-lifting workers</th>
<th>Number of construction workers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body pain</td>
<td>13 (26)</td>
<td>22 (44)</td>
<td>20 (40)</td>
<td>55 (37)</td>
</tr>
<tr>
<td>Indigestion problem</td>
<td>6 (12)</td>
<td>13 (26)</td>
<td>8 (16)</td>
<td>27 (18)</td>
</tr>
<tr>
<td>Skin disease</td>
<td>2 (4)</td>
<td>3 (6)</td>
<td>8 (16)</td>
<td>13 (8)</td>
</tr>
<tr>
<td>No problem</td>
<td>29 (58)</td>
<td>12 (24)</td>
<td>14 (28)</td>
<td>55 (37)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50 (100)</strong></td>
<td><strong>50 (100)</strong></td>
<td><strong>50 (100)</strong></td>
<td><strong>150 (100)</strong></td>
</tr>
</tbody>
</table>

Source : Field enquiry

Note : Figures in parentheses indicate percentage to total
Above table shows that 37 percent of total sample workers are without any health hazard. So a sizeable number of workers, 63 percent suffer from any kind of health hazards. They have reported that these are their regular problems and they suffer most of the days of the year. Many of them take medicines purchased from quack doctors to make them fit in such hard works. But these ultimately adversely affect their physical condition and make them unfit for such work in the long run. The above table shows that only 24 percent and 28 percent of sand-lifting workers and construction workers respectively have reported that they face no health hazards. The remaining 76 percent and 72 percent workers respectively reported their various physical hazards arising out of the nature of the job they work in. But for agricultural workers this is only 42 percent. From this we have an idea that sand-lifting and construction are both hazardous job as it is experienced by most of the sand-lifting workers and construction workers. Agricultural jobs are relatively less hazardous than sand-lifting works and construction works.

By a close looking of the table above, it is found that the major problem of all types of workers is pain in the body especially on the spinal chord which is caused by the carrying load, working by bending the body etc. But skin disease is special problem to the construction workers. Mixing cement with sand gives rise to skin problem to the construction workers. Indigestion problem and excess physical strain are the two problems causing sufferings to most of the workers in sand-lifting. These hazards have detrimental effects on their physical conditions and so also on their earning capacities particularly in later years.

4.5.2. Other problems

Sand-lifting labourers bring ready-made food from their home. But the problem is that unlike in agricultural sector, no fixed time is available to take that food. Workers even restrain themselves from taking food whenever a truck reaches the sand-lifting point to load sand. This is because different groups of labourers compete with each other to get the first chance of loading the truck. It is because they want to earn their desired income as early as possible and to return home. So they have to take food at different times whenever they get short intervals. No fixed time can be maintained by them to take food.

In the hot summer, the labourers have to take shelter beneath the trucks to protect themselves from the direct sunlight. The situation is same when it rains. In winter also they remain unprotected from the cold air which blows heavily through the river channel. No
protective facilities are found to exist in the sand-lifting points against such inhuman working conditions.

Apart from the adverse working conditions, the nature of work in sand lifting forces them to grow some unusual habits. The workers who lift sand from the deep water reported that they had to take abnormal amounts of chili in their daily diet to keep their body hot all the time. In due course it becomes a habit and turns to an addiction. Thus they become accustomed to an abnormal taste which affects their digestive system.

Other than chili, some workers are found to be addicted to alcohol. These workers reported that they took alcohol to get a psychological relief from the physical overwork and to get some mental enjoyment. A major part of their daily income goes in this bad practice. This not only curtails other necessary expenditures such as on food, but also it affects their health conditions.

We have already mentioned that sand-lifting involves very hard physical labour. It requires high calories to compensate the exhausted energies. Workers are required to take balanced diet to keep their health in good condition. But they are not able to take adequate protein-based food like meat, fish, egg, milk etc. due to their poor economic conditions. So they regularly suffer from ill-health, under-nutrition, and malnutrition etc. It is found that they are affected by continuous physical disorder.

Thus both the sand-lifting labourers and construction workers have to work in bad working conditions. In their place of work, they do not get drinking water to quench thirst, food to overcome hunger, first-aid in their injury and sun-shade for their rest. In case of agricultural workers, food and water are supplied in the fields by employers. The employers of sand-lifters do not make any arrangement to supply water and food at the sand-lifting points.

4.6. Preference of Workers towards Non-agricultural Works

There is a long tradition of rural workers to work in agricultural sector. Agricultural works are available within the village area. There is direct employer-employee relationship. It is found that in-work hardships and hazards are less in agricultural works than in non-agricultural works. So working conditions in most cases are not so bad as in non-agricultural works. Again they are not traditionally habituated in non-agricultural activities like
construction sector and sand-lifting sector. Then why do some workers go miles away on foot or by cycle to find jobs in such non-agricultural activities? What factors motivate them to prefer working in non-agricultural sectors? In macro studies along with other factors, push and pull factors were identified as important factors. But in this micro level study we have seen neither push nor pull factors are unmixed. So we have made a close interview with the non-agricultural workers to know the actual causes behind such motives and sought their answers regarding the causes of such motives. Obviously different causes based on different considerations are found from their responses. We have classified the different causes under four heads:

1. **Psychological cause** - This is related to a workers’ taste to work or not to work in a particular field. In this case a worker simply states that he does not prefer to work in agriculture. The reasons given by him are subjective in nature.

2. **Physical cause** - This is related to biological feeling of workers after completion of works. A worker may think that agricultural works are more laborious than construction or vice-versa. The reasons given by him are also subjective in nature.

3. **Economic causes** - These are related to the economic problems of the workers. Workers have reported various adverse economic conditions like seasonal unemployment, unsecured payment, lower income, general poverty as the various causes for selecting a particular occupation. These causes are objective in nature.

4. **Structural causes** - Workers have reported some causes which are related to the overall economic conditions of his surrounding area. For the same set of sample workers we have obtained the following response. The following table summarises the responses.
Table - 4.2

Distribution of Non-agricultural Workers Regarding Causes of Occupational Choice

<table>
<thead>
<tr>
<th>Causes</th>
<th>Number of responding workers in sand-lifting</th>
<th>Number of responding workers in construction</th>
<th>Total number of non-agricultural workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological factors (does not like agricultural works)</td>
<td>4 (8)</td>
<td>10 (20)</td>
<td>14 (14)</td>
</tr>
<tr>
<td>Physical factors (hazardous and strenuous)</td>
<td>4 (8)</td>
<td>9 (18)</td>
<td>13 (13)</td>
</tr>
<tr>
<td>Economic factors (poverty, unemployment, security of income and high income)</td>
<td>29 (58)</td>
<td>20 (40)</td>
<td>49 (49)</td>
</tr>
<tr>
<td>Structural factors (availability, surplus, labour, mode of wage payment etc.)</td>
<td>13 (26)</td>
<td>11 (22)</td>
<td>24 (24)</td>
</tr>
<tr>
<td>Total</td>
<td>50 (100)</td>
<td>50 (100)</td>
<td>100 (100)</td>
</tr>
</tbody>
</table>

Source: Feld enquiry
Note: Figures in parentheses indicate percentage to total

From the above table it is found that psychological factors and physical factors are equally important among the construction workers but in case of sand-lifting workers these factors are not so important as the economic and structural causes. Most of these causes are linked with both push factors and pull factors. However analysing the nature of the causes we discuss these dividing into two - the economic causes and other causes.

4.6.1. The Economic Causes

(1) More Employment Opportunities or Greater Scope of Job Availability

Generally a worker wants to earn maximum possible income in a year. Given the daily wages, income depends on the number of employment days available to him. Non-agricultural activities give more days of work in a year than agricultural activity. In an irrigated area an agricultural worker can get maximum 165 days of work while a worker in our selected non-agricultural activities can get about 300 days' work in a year. Only in rainy season, the sand-lifting activity becomes discontinued. Agriculture aggregatively still creates more man-days of work but work availability is concentrated in some selected periods of the year due to the seasonal effects. If two hundred mandays are needed on a particular day but no man days are needed on the next day, a worker can get only one day of employment opportunity because he can supply only one man-day on a particular day. Although compared to agricultural activities less man-days are created in such sectors, the requirements of these man-days are not concentrated in some particular periods but persist throughout the year. So a labourer gets employment opportunities throughout the year in such type of non-agricultural
sectors but a labourer gets employment opportunities only in some periods of the year in agricultural activities. How many days a worker can get employment in agriculture? The collected information regarding the days of employment in different seasons of the year in agriculture shows that a casual labour can get maximum 165 day of work in different activities. Here we give the different activities for crop production (farm activities) and corresponding days of employment.

Table – 4.3

Expected Days of Employment in Different Activities of Agriculture in a Year

<table>
<thead>
<tr>
<th>Activities</th>
<th>Maximum Days Available</th>
<th>Months of the Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sowing of aman paddy</td>
<td>20</td>
<td>August - September</td>
</tr>
<tr>
<td>Weeding</td>
<td>15</td>
<td>September - October</td>
</tr>
<tr>
<td>Harvesting of aman paddy</td>
<td>30</td>
<td>December - January</td>
</tr>
<tr>
<td>Sowing potato seeds</td>
<td>30</td>
<td>November - December</td>
</tr>
<tr>
<td>Maintenance of potato fields</td>
<td>15</td>
<td>January - February</td>
</tr>
<tr>
<td>Harvesting of potato</td>
<td>15</td>
<td>February - March</td>
</tr>
<tr>
<td>Packeging of potato</td>
<td>20</td>
<td>March - April</td>
</tr>
<tr>
<td>Production of boro</td>
<td>10</td>
<td>April – May – June</td>
</tr>
<tr>
<td>Production of til</td>
<td>10</td>
<td>May – June - July</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>165 Days</strong></td>
<td><strong>5 months &amp; a half</strong></td>
</tr>
</tbody>
</table>

Source: Field enquiry

A labour who depends solely on agricultural works can get job opportunities for the maximum number of days as noted above. On the contrary, a construction worker or a sand-lifting worker is generally absorbed on as many days as he can work. In our field study it is reported that on an average they can get 300 days or ten months of work. This is more than that in agriculture and this is somewhat regular employment.

In other words agriculture provides periodical employment but non-agricultural activities provide regular employment opportunities. Again agriculture gives less number of days of employment and non-agriculture activities give higher number of days of employment to a particular worker. Daily wages being more or less the same for both agricultural employment and non-agricultural employment, yearly wage income becomes less in agricultural employment and more in non-agricultural employment. To avoid such periodic unemployment and lower income, labourers prefer to work in non-agricultural activities where employment is regular and so annual income is higher and stable.
Shrinkage of Traditional Non-farm Employment Opportunities

Previously rural labourers got some employment opportunities which were not directly related with crop-production. These opportunities include primitive manufacturing like making earthenware, thatch roofing, blacksmithy, husking operation, repairing of primitive irrigation apparatus, making bullock carts, making shoes, weaving, bamboo works, rope making and net making etc. These activities are sometimes called off-farm employment. A section of rural people was fully engaged in those activities. They were called village artisans. Again those who work in agriculture, could be employed in lean seasons in those off-farm activities.

These off-farm employment opportunities have been drastically reduced in scale and by nature due to development of substitute products and due to technical development. Some of these activities are not found at all and some exists in modified form. When these activities change their form, they have become more technical. The present positions of some of the activities are given below:

<table>
<thead>
<tr>
<th>Previous Activity</th>
<th>Present Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making earthenware</td>
<td>Almost obsolete due to use of plastic products</td>
</tr>
<tr>
<td>Thatch roofing</td>
<td>Almost disappeared due to use of asbestos or tin</td>
</tr>
<tr>
<td>Blacksmithy</td>
<td>Reduced due to use of tractors and machineries</td>
</tr>
<tr>
<td>Husking operation</td>
<td>Almost disappeared due to emergence of rice mills/small husking units using machines</td>
</tr>
<tr>
<td>Bamboo work</td>
<td>Almost disappeared due to emergence of plastic goods</td>
</tr>
<tr>
<td>Making irrigation tools</td>
<td>Almost obsolete due to use of modern methods of irrigation</td>
</tr>
<tr>
<td>Rope and net making</td>
<td>Reduced in scale due to use of plastic ropes and nets</td>
</tr>
</tbody>
</table>

Thus traditional off-farm employment structure in rural areas has almost disappeared.

But alternative employment structure of the same nature for the rural unskilled labour has not developed. The alternative products are being produced in the urban industrial areas and new types of jobs, new methods and techniques have emerged. Here we may refer the findings of economic census, 1998. Comparing with 1990 economic census it has stated that development of technology reduced the dependence on agricultural enterprises and the emphasis shifted to the manufacturing and services sectors of the non-agricultural economy (Refer to table 2.3). Most of the rural workers may fail to get themselves adequately trained and thus slow to adjust with new types of work. Rural workers and artisans who were fully
absorbed have to leave their permanent occupations because they find it difficult to adopt the modified form with their poor technical knowledge and poor capital stock. These off-farm workers were forced to work either in agriculture or in such non-agricultural activities. In most cases they prefer to work in non-agricultural activities e.g. sand-lifting, construction, roadside vendors, small transporters etc.

3. As already mentioned, agricultural employers can not give the job security and income security throughout the year. Agriculture itself is vulnerable to uncertainty. Again cultivators very often face crop failure after the huge investment in agriculture. In such unforeseen situations the medium-sized farmers who are direct employers of agricultural labourers face severe economic crisis and are not in a position to give the workers wages in time. Total wages are paid in irregular installments and workers face problems to maintain their daily expenditures in such situations. Workers at present try to avoid situations where there are uncertainties in wage payments.

4. Some times daily wages are paid partly in cash and partly in kind, mostly in food. But rural workers, at present, prefer to receive their wages in cash and not in kind. Such a practice still prevails among the employers in agriculture. But it is not preferred by the rural labourers and so some workers do not want to work in agriculture.

4.6.2. Other Causes

1. **Age Factor** - Also age of the workers becomes an important determining factor behind their choice between agriculture and non-agricultural activities. Due to the hard physical work, labourers of higher age (generally above 40) do not prefer to work either in sand-lifting or in construction works. One worker from each household under three occupational segments was selected at random to get an overview of the age structure. The following table gives an idea about the age-structure of workers engaged in these sectors.

<table>
<thead>
<tr>
<th>Age</th>
<th>Number of agl. workers</th>
<th>Number of sand-lifting workers</th>
<th>Number of construction workers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 30</td>
<td>9 (18)</td>
<td>23 (46)</td>
<td>43 (86)</td>
<td>75 (50 )</td>
</tr>
<tr>
<td>31 – 40</td>
<td>24 (48)</td>
<td>20 (40)</td>
<td>6 (12)</td>
<td>50 (33 )</td>
</tr>
<tr>
<td>Above 40</td>
<td>17 (34)</td>
<td>7 (14)</td>
<td>1 (2)</td>
<td>25 (17 )</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td><strong>50</strong></td>
<td><strong>50</strong></td>
<td><strong>150</strong></td>
</tr>
</tbody>
</table>

*Source: Field enquiry*

*Note: Figures in parentheses indicate percentage to total*
The above table shows that 75 (50 percent of the total) workers are in the age-group of below 30. Out of these 75 workers 43 workers are in construction sector, 23 workers are in sand-lifting sector and only 9 workers are in agricultural sector. This shows that workers of lower age (below 30) prefer to work either in construction sector or in sand-lifting sector. Very few workers in this age group prefer to work in agricultural sector.

On the other hand only 17 percent of total workers (25 out of 150) are in the age-group of above 40. Out of these 25 workers, 17 workers are in agricultural sector, 7 are in sand-lifting sector and only 1 is in construction sector. This shows that worker of higher age-group do not prefer to work in construction and in sand-lifting. They prefer to work in agriculture. An intimate conversation with the workers reveals that workers generally can not work for long years in construction and sand-lifting activities. A continuous work of 10-15 years in such non-agricultural activities makes their physical strength so exhausted that they become unproductive in such non-agricultural activities. Again daily commutation from their villages to the working sites of such non-agricultural occupations becomes difficult and old-age workers can not bear the extra physical burden arising from daily commutations. To maintain their livelihood, they seek some easier tasks which are sometimes available in the agriculture in their own villages. They do not want to go to any distant place out of their villages to do any laborious works in construction or sand-lifting at the older stage of life. The nature of job and the working conditions in agriculture fit to most of the old-age labourers. They feel easy in agricultural works. As a result, as workers grow in age more and more, most of them shift towards agricultural activities – with low income and sporadic employment. Thus we see that ‘age’ considerably influence the choice between agricultural works and non-agricultural works.

2. Sex - Again sex of worker is found to be a determining factor for taking any activity as occupation. A female worker, considered to be unfit for carrying heavy head-load, does not get entry into the sand-lifting sector. Only male workers are found working in this sector. Similarly they are restricted in construction works also. They are not engaged in some types of construction works like raising walls, plastering of walls etc. They are seen to be engaged only in carrying of bricks, soil and sand etc.

So proportion of male workers to female workers is high in construction sector. On the other hand entry of female workers in agricultural sector is more liberal. Female workers
can do most of the works in agricultural sector. So sex of the workers becomes crucial factor for working in any non-agricultural activity.

3. For casual workers, daily job-searching may be difficult task in a situation where supply of labour is greater than demand in an area. A worker has to contact many landowners (direct employers) to be absorbed for maximum days in the year. It is a difficult task to find a job in this manner. Also this is not a dignified and easy method of finding work daily. Labourers at present prefer a systematic way of finding a job.

Labour contractors and lifting contractors are the direct employers in construction and in sand lifting activities respectively. One employer in such activities can give regular employment to many workers in a year. Once a worker enters in the group of any contractor, his regular employment is more or less assured. Thus the workers remain free from uncertainty of employment and income. We summarise the above findings in a structure below

<table>
<thead>
<tr>
<th>Activity</th>
<th>Ultimate employer</th>
<th>Direct employer</th>
<th>Number of direct employers</th>
<th>Scope of regular employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand-lifting</td>
<td>Government</td>
<td>Lifting contractor</td>
<td>Limited</td>
<td>Substantial</td>
</tr>
<tr>
<td>Construction</td>
<td>Builders</td>
<td>Building contractor</td>
<td>Limited</td>
<td>Substantial</td>
</tr>
<tr>
<td>Agriculture</td>
<td>Land-owners</td>
<td>Land owner</td>
<td>Many</td>
<td>Little</td>
</tr>
</tbody>
</table>

Given the above structure workers prefer to work in sand-lifting activity and construction activity because number of direct employers are limited and scope of employment opportunities are substantial. In agriculture, workers have to contact with many direct employers and get little employment opportunities with each employer.

4. In sand-lifting, system of piece-meal wage rate exists. In this system neither work-time nor the daily wage rate is fixed to the workers. What the workers earn daily depends on their individual work-efforts. The more time they work, the more money they earn. They have full freedom to work more and to earn more or to work less and to earn less in a day. This system itself requires less supervision to make the workers more productive. So the lifting contractors (direct employer) or the government need not keep close notice on the performance of the workers except ensuring full load carried by trucks. In agricultural sector
there is strong supervision because farmers (direct employers) keep a close monitoring of the intensity of work done by their hired workers. Sand-lifting workers in particular enjoy a freedom of choice between work and leisure. As neither work-time nor daily wages are fixed they enjoy the liberty to leave the work site at any time of the day. So the labourers enjoy more freedom in sand-lifting activity than in the agricultural activity. This is also a reason as to why some rural labourers prefer to work in sand-lifting rather than in agriculture.

5. Change of Outlook - The society in general is showing a preference towards industrialisation and urbanisation. Possibly rural areas are not exception to this trend. This change of outlook also affects the young workers to make the choice between agricultural and non-agricultural works. Construction works are mainly centered on urban or semi-urban areas. Workers prefer to work in such areas. Again the working conditions and the nature of the work in non-agricultural activities seem to be sophisticated in relation to the agricultural works. Agricultural workers have to spend the day between slush and mud. Possibly it seems to be unsophisticated to some young workers. They do not prefer the unsophisticated nature of the agricultural job. Not only unsophisticated, agricultural work has become risky nowadays. Cultivation at present is too much dependent on the use of pesticides and insecticides. Spraying pesticides and insecticides involves not only health hazards but also occasional risk of life. Snake-bite is a major problem and it is a common event at the time of spraying the pesticides and insecticides. To avoid such risks in agricultural fields, most of the rural workers, particularly young workers do not prefer to work in agricultural sector. They prefer to build their working career in some alternative jobs which are urbanised, sophisticated and available in their own areas.

Again workers’ preference and attitude towards any profession largely depends on their employers’ attitude towards that work where they employ the workers. At present agriculture has become an outmoded profession in rural areas particularly to the young and educated land-owners possibly because of its low return. In fact the farmers who hire the labourers do not consider agriculture as a viable and main source of income. They do not consider agriculture as a sustainable source of income in their life. Rural workers in their daily experience has seen that agriculture is not as dignified as other types of works in manufacturing and services which has a better system and better organisation of work. In such declining attitude towards agriculture, rural casual workers possibly lose their interest in
agriculture at present. Rather they prefer to work in non-agricultural sectors which the society in general thinks to be prospective means of development.

But it is also to be admitted that all the workers do not get chance of free entry in non-agricultural activities. There are some normal barriers for entry into the construction sector and sand-lifting activities. For example, as we have already discussed old-age workers do not enter the sand-lifting sector and the construction sector. Again time and cost of daily commutations are important barriers to the entry into the non-agricultural occupations. In our study area labour contractors do not make arrangement for the stay of workers at the construction sites.

Again female workers living in distant villages can not take part as they are not habituated with cycling. There are some female workers who come to the construction sites by bus (where it is available). They have often to cover a distance of 10–15 km. Their participation depends on the time of journey, timely availability of buses and bus-fare. If these factors go against them they can not join the work in due time and lose a day's employment. So workers, particularly female workers of remote villages work in agriculture only. In agricultural these factors are not important. Agricultural activities are spread over the villages. A worker can get agricultural works in his own village or in any nearby village. *Time, hazards and cost of travelling are unimportant for agricultural workers.*

4.7. **Conclusion**

In conclusion let us first make a brief resume of our above findings regarding these two alternative occupations. Some of the important observations are --

i. Some labour contractors who act as intermediaries between the builders and the workers control these two non-agricultural activities. Economic conditions of the workers largely depend on these intermediaries. Welfare of the casual workers largely depends on these intermediaries. In agriculture, labour contractors are not found in our study area.

ii. System of wage payment and mode of wage payment are different between the agricultural activity and non-agricultural activities. System of piece-meal wage prevails in sand-lifting activity. But wages are given on daily basis in agriculture and
construction activities. Again wages are paid only in cash in sand-lifting and construction but often partly in cash and partly in food in agriculture.

iii. There are some common causes for the variations of wages given to the workers in various occupations. Male – female disparities are common in both agriculture and construction occupations. Generally male workers get higher wages than the female workers.

iv. In construction sector there are different types of workers; skilled, semi-skilled and unskilled. Daily wage incomes are different for different workers according to their skill. At the time of entry to construction works, workers are treated as unskilled. But there are scopes of improving the skill – from just a labour to a mason and to get higher wages. Here skill of work makes the variations of wages paid to the workers.

v. Generally workers at their early ages enter into the agricultural occupation. Due to their low physical capacity they are given lower wages than a matured labour. Here physical capacity of work is all that matters. In most cases the employers in agriculture knows beforehand the working capacity of a labourer and pay him accordingly. Thus wages paid to agricultural workers also differ according to their physical abilities.

vi. Agricultural workers may not be paid uniformly in all the villages. In our study area agricultural wage varies due to local factors also. In some parts of our study area, agriculture is underdeveloped due poor irrigation facilities or poor fertility of land. In those areas wages paid to workers remain low as compared to other parts. Thus it varies from one part of the block to another part.

vii. Some basic work-time amenities are not provided by the labour contractors at the working sites of the non-agricultural activities. These include water, food, sun-shade etc. But some of these are supplied by agricultural employers to save the time of taking food at home. Generally these facilities do not involve any extra work load.

viii. Construction workers and sand-lifting workers have to commute daily 4 to 6 km. to reach the working sites. Their total journey in a day ranges from 8 to 24 km. This is in
excess of their work-time physical burden. In general agricultural workers have no such extra physical burden.

ix. Workers face different types of hazards and hardships in different types of activities. We have collected some information on the health hazards arising from working in those sectors. These hazards have detrimental effects on their physical conditions and so also on their earning capacities in the later periods of their working life.

Despite the inconveniences a strong preference towards the construction and the sand-lifting activities on the part of the casual workers are found in our study area. It is our concern - how they are benefited by joining in such activities. In this paper a micro-level household study has been made for a small area of Bankura district to see the effects of occupational diversification of wage-earning households on their economic conditions. In the next chapter I shall try to compare the structure of employment and wage earning of construction households and sand lifting households with that of agricultural households and see the effects on the level of poverty. I have tried to find out whether such non-agricultural occupations have any impact on the wage incomes of the diversified households.