

# **A Study on Occupational Health and Safety Situation of Tokais in Dhaka City**

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## Background

Tokais, informal waste/garbage collectors, perform an essential role in the economies and societies of Bangladesh. Tokais generally have low incomes, and often live in deplorable conditions, lacking access to water, sanitation, and other basic infrastructure. As a result of their poor living conditions and nature of their work, they face tremendous health and safety risks. Why and what types of health hazards and safety risks they are facing? To find out these answers need a systematic investigation. This study mainly has been designed to explore the health and safety conditions of the Tokais in Dhaka city.

### 1. Objectives of the study

- to know the socio-economic condition of Tokais;
- to discover occupational health and safety status of Tokais;
- to identify the types of occupational injuries and diseases of Tokais associated with the process of garbage collection;
- to know the impact of garbage collection on the health of Tokais;
- to propose solutions to ensure health and safety of Tokais at workplaces;

### 2. Methodology:

A total of 21 Tokais of Dhaka city was interviewed randomly using an interview schedule. The respondents were interviewed at Mohammadpur, Adabor-Shyamoli and Mirpur areas of the city.

**3. Gender:** Of the 21 Tokais, 16 were male while five female.

### 4. Age of the Tokais

Age range	Number
05 – 14	08
15 – 24	01
25 – 34	06
35 – 44	02
45 – 54	03
55 – 64	00
65 – 74	01
Total	21

Among the Tokais, eight were children fall under the age group 5-14 while six were young men under the age group 25-34. Only one Tokai was found above age 65.

### 5. Education

Level of education	Number
Illiterate	16
Can read and write only	02
Primary	03
Total	21

Most of the Tokais (n-16) were illiterate while two could read and write only and three had primary level of education.

6. **Schooling for child Tokai:** Of the total tokais, eight were children under the age fourteen. None of the child Tokais had gone to schools.

7. **Family Member**

Family members range	Number
01-05	09
06-10	12
Total	21

Twelve Tokais had 6-10 family members while nine others had 1-5 members.

6. **Place of Living**

Type of place	Number
No identified place	01
Rented slum room	19
Roadside	01
Total	21

Most of the Tokais (n-19) lived in rented slum rooms, one had no identified place hile another stayed beside the roads after the work.

7. **Garbage collection place**

Name of the areas	Number
Adabor, Shyamoli, Kallyanpur	06
Mirpur-Agargaon	04
Mohammadpur	11
Total	21

Among the 21, eleven collected garbage from Mohammadpur area while six from Adabor, Shyamoli, Kallyanpur and four from Mirpur-Agargaon area.

8. **About NGO:** None of the Tokais could not mention the name of any NGOs working in their working area or working for them.

9. **Daily Family Income**

Income range in taka	Number
100 - 199	05
200 - 299	07
300 - 399	02
400 - 499	06
500 - 599	01
Total	21

10. **Involvement of other family members:** Eleven Tokais said that their mother, brother or sister was doing the same work while the rest said they had no family members involved in garbage collection.

11. **Reason for taking Tokai profession:**

-- Thirteen Tokais said that they selected this (Tokai) profession to meet the family needs as they were extreme poor.

-- Three Tokais said that they chosed this profession because they got more money from this work than any other similar works.

The other respondents gave the following statement:

- I chose this profession as I enjoyed the work.
- I could not do hard work as I was an old man.
- I had no option to do other similar works.
- I could work independently in this profession.
- I took this profession willingly.

## 12. Duration of profession

Year Range	Number
Below one year	05
01-05	10
06-10	04
11-15	00
16-20	02
21-25	00
Total	21

Ten Tokais had been working for the years between one to five years.

## 13. Working days in a week

Work for 4 days	01
Work for 5 days	01
Work for 6 days	12
Work for 7 days	07
Total	21

Twelve tokais worked for six days in a week while seven for seven days.

**14. Daily Working Hours:** Of the total Tokais, four Tokais used to work for seven hours in a day while eight for eight hours, four for ten hours, one for eleven hours and three for twelve hours and one for 14 hours.

- a. The tokais were not involved in any other professions. Only one peddled the rickshaw alongside collecting garbage.

**15.** All the Tokais mainly collected plastic made materials, iron, broken glasses, leather made materials, papers and wooden materials etc.

**16.** Eight Tokais collected garbage by only bare hands while thirteen collected those by bare hands with the help of sticks.

**17.** All tokais keep their garbage in the sack bearing on their shoulders.

**18.** All tokais sell garbage to the vangari shops.

## 19. Daily income from garbage collection

Income range in taka	Number
50-100	12

101-200	07
201-300	01
301-400	01
Total	21

Twelve Tokais earned Tk 50-100 from garbage collection in a day while seven Tk 101-200 and the rest two above Tk 201.

**20. Daily expenditure during and for garbage collection**

Expenditure in taka	Number
No expenditure	02
20-30	14
31-40	01
41-50	04
Total	21

Fourteen of the Tokais spent Tk 20-30 for food and rickshaw fare while four Tk 41-50 and two did spent money for those purposes during the garbage collection.

**22. Work Satisfaction:** Nine tokais said that they were enjoying their work while 12 others said they did not enjoy garbage collection profession.

**23. Access to safety messages:** All the Tokais except one said that none was informed them about the danger of garbage collection. The only female garbage collector said that she was told by a woman that she should leave the work as “it is a dangerous work.”

**24. Knowledge about Health and Safety:** All the tokais said that they did not know how to maintain health and safety during garbage collection.

**25. Injuries in two months:** Fifteen Tokais were injured in last two months (from when the study conducted) while the rest did not suffer from any injuries by garbage collection. Of the 15 injured, four received injuries in hand by broken glasses, three in hand and leg by the glasses and tin and the rest injured Tokai received injuries respectively in hand and led by glasses, niddles, hard objects, dog bite and slipping. Of the injured, eleven received treatment while four others did not received any treatment. Seven took treatment from local drug stores, three from hospitals and one from local doctor. Eight Tokais stopped their work after receiving injuries, while four did not stop their work and the rest three Tokais did not response to the query whether they stopped work or not following injuries. Of the Tokais who stopped their work following injuries, two were absent from the work for two days while the rest six were for four days, six days, eight days, ten days, 13 days, 30 days respectively.

**26. Injuries in one year:** Of the 21 Tokais, nine were received injuries in last one year (since data collection period). The causes of injuries are carrying sacks on the shoulders for long time, cut by glasses, chest, back and waist pain by picking waste, fall into the dustbin after slipped out as well as leg broken after getting hit by hard objects. They mostly received injuries in hand and legs. Four of the injured were given treatment in local drug stores, three from hospitals and two did not receive any treatment.

**27. Use of Safety Equipment:** None of the Tokais used any safety equipment during the work.

**28. Safety Equipment needs:** All the Tokais wanted safety equipment for assisting their work and protecting them from ill-health and injuries. They wanted glove, boot, apron, sun-glass and mask and stick. All the Tokais expressed their attitude that they will use the safety equipment if the equipment are provided.

**29. Disease and Illness:** All the Tokais suffered from various diseases or illness (NB: need to be presented individual illness). Of those who suffered from diseases, 13 Tokais think that they became ill due to garbage collection work while seven Tokais think that there was no relation between their illness and garbage collection. One Tokais did not response to the query. They observed that they become ill or suffered from diseases as

- garbage collection is dirty work
- garbage spreads bad smell
- have to work unhealthy environment
- not using personal protective equipment
- earlier well
- have to work with toxic waste

**30. Time off:** Of 21 Tokais, twelve took time off during the period of 30 days because of health problem.

**31. Sleeping:** Of the total, thirteen faced sleeping problem resulting from their work.

**32. Food:** Some tokais bring food for lunch from their house while some others buy some snacks like bread, banana, biscuit. Nine of the Tokais came to their workplace from their house along with food while six bought some dried food like biscuit, bread, from nearby shops. Three Tokais did not take food during their work period, two others from roadside mobile hotels and one took food from the garbage.

**33. Water:** Nineteen of the Tokais drunk normal tapped water during their working period while one from water bodies or normal tapped water while another did not drink water in workplaces. Fourteen of the Tokais drunk water from hotel or shops, two Tokais both from hotel/shop and Wasa lines, three from Wasa lines, one from water bodies and ponds while one did not drink water.

**34. Hygiene:** Thirteen Tokais always washed hands with soap before taking food while four sometimes and the rest four did not wash hands. Sixteen Tokais always washed hands with soap after the work while three sometimes and the rest three did not wash hand after the work.

Eleven always cleaned wearing clothes with soap after the work while eight sometimes and two did not clean their clothes after the work. Seventeen Tokais did not do handshake during their work. Three Tokais sometimes did handshake while one used to do this.

Nineteen Tokais always took bathe after their work while one sometimes and the rest one did not take bathe after the work.

Nineteen Tokais did not face any other problems during their work while two faced problems--weakness and cold wave--respectively.

**35. Recommended measures given by the Tokais for ensuring health and safety:** The respondents were asked what measures should be taken to ensure their health and safety. Twenty Tokais mentioned that they should use mask, gloves, apron, boots to protect them from injuries or diseases while 19 mentioned caps, 16 protective sun-glasses.

Fifteen Tokais said Hepatitis B vaccine should be given to them while Tetanus was mentioned by 14 Tokais and health check up for every six months and arranging primary treatment by 15 Tokais.

Five Tokais said that public awareness is needed to ensure health and safety of garbage collectors while seven said they should have health insurance. Ten Tokais supported that household garbage should be kept in separate basket so that they can understand that which materials will be risky for them.

**36. Harmful substances:** Fifteen of the Tokais said that they had not addiction to any harmful substances but four mentioned that they took cigarettes and one said that another took hemp.

**37. Conclusion and recommendation:** The study may conclude that the informal garbage collectors, Tokais, are in most vulnerable condition in the Dhaka city in terms of health, hygiene and safety at workplaces as well as their living. But such study result presented based on surveying only 21 Tokais cannot represent the state of health and safety of the informal garbage collectors. A larger scale survey is needed to know the overall condition of Tokai as well as their health and safety condition.