



## The Impact of Electronic Waste Burning on Women in Idhna, Hebron

## Project: Idhna's Women Demand an End to the Burning of Electronic Waste and for Finding Alternative Solutions

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### **Executive Summary**

This report, prepared by the Palestinian Center for Research and Cultural Dialogue for the Women and Media Development Center (TAM), presents the gravity of the risks and damage caused by the phenomenon of indiscriminate extraction of minerals from electronic waste in the town of Idhna, which is the epicentre of this harmful practice and phenomenon, not only in Hebron governorate, but in the entire West Bank. The report monitors the effects of this phenomenon on the health, environment, economic and social life of families in Idhna, particularly the impact on women, some of whom work directly in this profession, or support their husbands and children, as it is the source of income and livelihood for their families.

The report aims to highlight the phenomenon, monitor the volume of risks and damages caused, search for alternatives and possible solutions, and examine the role of the relevant authorities in curbing and stopping the phenomenon. It also aims to raise awareness on the subject and present facts to decision-makers.

This report includes an introduction, two chapters, and a conclusion with the most significant recommendations. The introduction is in the form of a foreword and a short preface to inform the reader of the nature and gravity of the phenomenon, and the nature of the damage it poses to the citizens of ldhna on various levels i.e. health, environment, social and economic. It raises fundamental questions that lead to an understanding of what is happening on the ground and the prospects for solutions.

The first chapter provides the theoretical basis and a background on the history of the phenomenon locally and globally, and on domestic legislation and international conventions dealing with it. The second chapter, which includes the main data and results, highlights the role of different entities and the opinion of experts and decision-makers and discusses the role of the occupation and its responsibility for the emergence of the phenomenon and the reasons for its continuity and its impact on social roles in Idhna. We also discussed the impact of the phenomenon on the health of women and their families, their social role and opinions regarding solutions and alternatives. The conclusion came fourth, summarizing the most significant conclusions and recommendations, and a set of recommendations was directed to each of the relevant stakeholders, consistent with the nature of their work, jurisdiction and duties.

The study shows the extent of the danger of the continuation of the indiscriminate burning of electronic waste in Idhna, which is not limited to this geographical area, but extends to the entire area of the Hebron Governorate, where agricultural and animal products are produced reaching several markets. This is in addition to the devastating damage to soil, groundwater, and all components of the environment, including air pollution.

Finally, the references that the report was based were from the Internet, some books and publications, and through field research and personal interviews.

## Introduction

More than 20 years ago, the town of ldhna, 12 km west of Hebron, gradually became an open workshop for extracting minerals from electronic waste. This "craft" became the profession of thousands of people in the town, which has a population of nearly 30,000, according to the Palestinian Central Bureau of Statistics (PCBS), and a whole generation has emerged that knows no source of income other than working in "Taqsh".<sup>1</sup> The word "Taqsh" is the commonly used name in Idhna for electronic waste and the process of extracting minerals from it by getting rid of plastic and rubber. It is often burnt in agricultural land and near water sources and the fumes pollute the air, cause the leakage of deadly heavy minerals, such as mercury, lead, barium, cadmium, and chromium, to soil and water. Direct damage of waste burning in Idhna extends to the adjacent villages of Al-Kum and Deir Samat.

The e-waste trade (scrap) has become an essential component of the town's economy, but at the same time, it has become a serious threat not only to the residents of Idhna, but also to most residents of Hebron and other provinces. The danger is not limited to humans, but goes beyond to animals, soil, water, vegetation, and all components of the environment.

Since women in a rural society have a dual responsibility inside and outside the home; as they are homemakers, employees, farmers and those responsible for taking care of children and household work, they suffer much more than men from the devastating effects of the phenomenon of electronic waste burning. Therefore, the concept of this study is to highlight the gravity of this phenomenon and to what extent it is damaging to the environment and a health hazard to families, especially women, in a town that treats about 70 thousand tons scrap annually. This is taking place in a geographical area not exceeding 21 km2 and densely inhabited by twenty-nine thousand people, about half of whom are females.<sup>2</sup>

Study Questions: What is the motive that led the people of a town who are known for their steadfastness in the face of the occupation, to kill themselves with slow poisoning? What is the stance of the official authorities in the town and in Hebron governorate and at the national level? What do experts and specialists say about this phenomenon? What is the impact of this phenomenon on women and their families, and how has it affected the social role of women? What are the alternatives in order to mitigate the damage?

**Methodology:** The descriptive analytical approach was used in this study, which is based on studying the reality on the ground and expresses it both qualitatively and quantitatively. This approach helps identify the strengths and weaknesses to be used in bringing about the change aspired for.

#### Study tools:

The following tools were used in the study to gather data:

- 1. Literature review of relevant studies and publications.
- Interviewing twelve female residents of Idhna, documenting their testimonies on the problem. This included a woman whose husband and two of her sons work in the profession of electronic waste burning for metal extraction.
- 3. Meeting with three Palestinian decision-makers working in the fields of environment and health and documenting their testimonies and opinions on the problem and the solutions they propose at various levels.
- 4. Interviewing four environmental experts and activists.
- 5. Interviewing two farmers.
- 6. Interviewing an activist who is leading a campaign against the phenomenon of scrap burning.
- 7. Participatory observation.

Details of the questions for each category are shown in Appendix No. (1)

Keywords

Electronic waste, hazardous waste, scrap, Taqsh (scrap), pollution, burning.

### **Chapter One**

#### Introduction

#### **E-Waste Definition:**

They are the remains of cell phones, computers, various electronic devices, fluorescent lamps, and incandescent lamps, as well as household electrical appliances such as televisions, refrigerators, washing machines, air conditioners, and so on. These items mostly contain up to 69 different chemical elements including basic metals such as copper and tin, and other metals and elements such as cobalt, indium, antimony as well as precious metals such as silver, gold, and palladium<sup>3</sup>.

The process of treating and disposing of electronic waste is a global problem that is increasing year after year. With more than 50 million tons of e-waste annually requiring treatment, disposal or recycling, we can imagine the magnitude of the threat to the world. This is especially true considering that only one fifth of this quantity is properly handled in accordance with international conventions and standards. The Nations Environment Program has stressed that electronic waste poses a real challenge, especially for developing countries.<sup>4</sup>

#### **Global phenomenon**

When a rich country offers a poor country used electrical devices, computers or phones, this means throwing away its toxic waste in that country but under the guise of doing good and providing support.<sup>5</sup> By doing so, they evade meeting their obligations before international laws and the conventions that criminalize the transfer of electronic waste from one state to the other and those that stipulate safe disposal methods, which are often expensive.

It is self-evident that the increase in waste associated with a certain commodity is directly proportional to the increasing demand for the use and consumption of this commodity. Since profit is the primary goal of each manufacturer or trader in a world governed by capital monopolies, the aim of producers is to increase sales and is based on increased consumption. This makes them manufacture goods of limited durability, forcing consumers to constantly replace them, especially in rich countries or countries producing high-tech.

#### **International Data**

In 2019, the world produced 53.6 million metric tons of electronic waste, only 17.4% of which was reassembled or recycled. A total of 44.3 million metric tons of electronic waste have not been documented, as it is disposed of in dumping sites and landfills, burnt, or traded illegally. A 2020 report by the United Nations Global E-waste Monitor expects this amount to reach 74 million tons by 2030.<sup>6</sup>

- 3 Human Rights Watch, 2017): As if you are inhaling your own death. Organization: Burning waste is suffocating the Lebanese. 12/1/2017 4 (International Telecommunication Union-ITU, 2019): UN and partners come together to address the challenges of electronic waste
- 4 (International Telecommunication Union-TLU, 2019): UN and partners come together to address the cha <a href="https://www.itu.int/ar/mediacentre/Pages/2019-PR01.aspx">https://www.itu.int/ar/mediacentre/Pages/2019-PR01.aspx</a>>
- 5 Basel Convention, 1989
- 6 (ITU, 2020): Global e-waste increase: a 21 percent increase in 5 years
- >https://www.itu.int/ar/mediacentre/Pages/pr10-2020-global-ewaste-monitor.aspx

According to a 2019 UN report, domestic air pollution in particular harms women and children because of their traditional household roles in society. About 60% of home air pollution-related deaths worldwide occur among women and children and more than half of deaths from pneumonia in children under the age of five can be attributed to indoor air pollution. The UN report indicates that pollution at home is mostly caused by fuel, high-emission heating, and cooking systems.<sup>7</sup>

Moreover, a massive pollution is caused by the burning of thousands of tons of electronic waste daily. We can imagine then the extent of the suffering that women and their children are exposed to.

On the other hand, producers dispose their waste elsewhere, turning poor and "developing" countries into a landfill for their hazardous waste, as proper disposal and recycling costs huge sums that rich countries prefer not to pay. Thus, they throw them in poor countries, sometimes under the guise of aid and donations of "used devices" and sometimes by smuggling them to those countries through local brokers. This turns these countries into dumps for dangerous waste that threatens the future of their citizens. This is especially occurring in Africa.<sup>8</sup>

The occupied Palestinian territory is no exception, where the Israeli occupation has been dumping thousands of tons of waste since 1967, be it through scrap dealers or by smuggling this waste to Palestinian towns, villages, and agricultural land, especially those adjacent to the Green Line.

At a conference at Ariel Settlement University in June 2017, Shoni Goldberg, Director of the Ministry of Environmental Protection's Jerusalem District, was asked if there were cases in which differences in legislations were used for the purpose of transporting waste from Israel to the occupied territory. He replied: "Yes. There is certainly waste, particularly hazardous waste and precious metal waste that Israelis transport to the West Bank for disposal."<sup>9</sup>

#### **Global Legislative Framework and Palestinian laws**

#### **1.0 International Conventions**

Countries around the world constantly try to develop international conventions to govern the disposal of hazardous waste in general and electronic waste in particular. The United Nations and its various agencies encourage member states to develop their domestic laws to harmonize them with international conventions. Some federations and consumer protection associations have developed policies and principles to reduce the volume of hazardous waste and ensure its proper treatment. Among the approaches has been the adoption the Extended Producer Responsibility (EPR) principle, which emerged in academia in the early 1990s and is a policy under which producers are responsible for all stages of the product's life, including managing its end-of-life. There are three main objectives of this principle:

(ITU, 2019): The growing challenge of e-waste. October 2019 (AI-Jabali, 2015): The African Continent: A Large Landfill for Electronic Waste. \*Environment and Development Horizons' electronic magazine, April 1,

(B)Tselem Report, 2017): Made in the country: Exploitation of Palestinian land to treat Israeli waste. December 2017

<sup>7</sup> 8 2015 9

- Motivating manufacturers to improve the environmental design and performance of their products.
- 2. Ensuring that products achieve high durability and usage rates.
- 3. Preserve materials through effective and environmentally sound assembly, processing, reuse, and recycling processes.<sup>10</sup>

#### The Most Important International Agreements Governing the Disposal of Electronic Waste:

#### **Basel Convention:**

The United Nations established the Basel Convention with the aim of stopping this dangerous and illegal trade and controlling cross-border transfer of waste. The agreement entered into force in 1992 and is considered the most comprehensive of its kind at the international level regarding hazardous waste.

It aims at protecting human health and the quality of the environment from the consequences of disposal, treatment and cross-border transport of hazardous waste, reducing as much as possible the generation of hazardous wastes travelling between state borders, and preventing its transfer to states where it cannot be legally, administratively and technically treated, so that it does not harm the environment. The convention also aims to reduce the generation of hazardous waste quantities and its toxicity levels, create a system to control the transport of hazardous materials across borders and assist "developing" countries develop a policy for hazardous waste management.<sup>11</sup>

#### **Rotterdam Convention:**

Formally, "the Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade". It is a multilateral treaty that promotes sharing of responsibilities regarding the import of hazardous chemicals. Voluntary work on the convention began in 1998 but became binding in 2004. The agreement aims to protect people and the environment from hazardous chemicals and wrong practices of using chemicals and pesticides<sup>12</sup>.

#### Stockholm Convention:

An international convention on Persistent Organic Pollutants (POPs), signed in 2001 and came into force in 2004. The Convention refers to a group of hazardous and persistent chemical pollutants, namely "POPs". These pollutants are characterized by four properties: Stability (i.e. remain for years or decades before decomposing into less hazardous forms), evaporating and spreading to long distances through air and water, accumulating in fatty tissues and most dangerously they are toxic. <sup>13</sup>

- 10 Baldé, C. P., Forti, V., Gray, V., Kuehr, R., and Stegmann, P., The Global E-waste Monitor 2017
- 11 (Basel Convention, 1989):

13 Stockholm Convention... The most important achievements in ten years, 2011: Stockholm Convention . The most important achievements in ten years <a href="http://www.brsmeas.org/Resources/Shared/scripts/appPubKit/docs/06a-Stockholm Convention-Major Achievements.Arabic.pdf">http://www.brsmeas.org/Resources/Shared/scripts/appPubKit/docs/06a-Stockholm Convention-Major Achievements.Arabic.pdf</a>

<sup>&</sup>lt; http://www.basel.int/Portals/4/Basel%20Convention/docs/text/BaselConventionText-a.pdf#page=83

<sup>12 (</sup>Food and Agriculture Organization of the United Nations, 2004): \*The Rotterdam Convention on Trade in Hazardous Chemicals and Pesticides enters into force\* February 24, 2004.

#### UN Environmental Program:

Founded in 1972 with the aim of coordinating environmental activities and helping developing countries implement sound environmental policies and practices, it has contributed to the signing of numerous international conventions on the environment such as the Basel Convention and the Montreal Protocol on gas emissions and other international conventions. The Global Ministerial Environmental Forum affiliated with the program publishes reports on progress in the environmental field, obstacles and problems facing the sector and provides important data and information to organizations and states with the goal of protecting the environment. The program declares that one of its main objectives is to minimize the noxious effects of chemicals on human health and the environment.<sup>14</sup>

#### **Bamako Convention:**

This agreement prohibits the import of any hazardous waste into Africa, regulates cross-border control and properly manages hazardous waste within Africa. The Convention is firmer and stronger in combating the phenomenon than the Basel Convention. Indeed, the Bamako Convention has come to compensate for the "failure" of the Basel Convention to protect Africa from hazardous waste.<sup>15</sup>

#### The 2013 Minamata Convention on Mercury:

The purpose of this agreement, as stipulated in its article 1, is to protect human beings from emissions and releases of mercury and its derivatives. Article 4 clearly prohibits the manufacture, import or export of mercury-added products after the expiry of the specified phase-out date for such products<sup>16</sup>.

There are many international protocols and conventions relating to the transport or treatment of hazardous waste, such as the Hazardous Waste Protocol 1996, the Kyoto Protocol for Climate Change 1997, the 1976 Protocol on the Protection of the Mediterranean from Pollution and the Maritime Protocol of 1994. All these protocols aimed at protecting humans and the environment from the risks of pollution resulting from the production, transport and disposal mechanisms of hazardous waste.<sup>17</sup>

It is worth mentioning that Israel claims compliance to the international conventions it has ratified, but the reality on the ground shows otherwise.

- 14 (UNEP): Why does UN Environment Programme matter? Retrieved 20 June 2021
- <https://www.unep.org/ar/nbdht-n-alamm-almthdt-Ilbyyt>

<sup>15 (</sup>UNDP): The Bamako Convention, retrieved 10 June 2021

<sup>&</sup>lt;htps://www.unep.org/explore-topics/environmental-rights-and-governance/what-we-do/meeting-international-environmental</pre>

<sup>16 (</sup>United Nations Environment Programme, 2013): Conference of Plenipotentiaries on the Minamata Convention on Mercury. October 2013. Revised on 6/20/2021 on the link

<sup>17 (</sup>UNEP): About chemicals and waste. Retrieved 20 June 2021

<sup>&</sup>lt;https://www.unep.org/explore-topics/chemicals-waste/about-chemicals-waste

#### 1.1 Relevant Local (Palestinian) Legislations:

#### Palestinian Environment Law of 1999

Article (2) of the law defines its objectives as follows:

Protecting the environment from pollution in all its forms, protecting public health and social welfare and introducing environmental protection into economic and social development plans.

Article (11) of the law stipulates that the Ministry (currently the Environmental Quality Authority), in coordination with the competent authorities, issues a list or more of hazardous materials and waste. Article (12) of the law prohibits any person from manufacturing, storing, distributing, using, treating, or disposing any hazardous substance or waste, be it liquid, solid or gas, except in accordance with the regulations and instructions specified by the Ministry (Environmental Quality Authority) in coordination with the competent authorities. Article (13) prohibits the import of hazardous wastes into Palestine and its passage through Palestinian territories, territorial waters, and economic zones except with consent from the Ministry. Article (23) also prohibits throwing, treating, or burning garbage and solid waste except in the places designated for that purpose, and in accordance with the conditions specified by the Ministry to ensure the protection of the environment.

The law has raised penalties, particularly for importers of hazardous waste, which amount to hard labour for life, and has put a high penalty for those who cause diseases and epidemics resulting from the storage or disposal of hazardous waste. However, the law places symbolic penalties for burning solid waste and for disturbance caused to others.<sup>18</sup>

#### Hazardous Waste Management System No. (6) for 2021

It is the latest system at the level of Palestinian legislation issued in March 2021, which works to harmonize Palestinian regulations and laws with the Basel Convention of 1989, on the transport of hazardous waste across borders. The system defines hazardous waste management as that including producing, sorting, classifying, collecting, storing, processing, possessing, disposing of, site aftercare and everything related to their collection and transport of hazardous waste.<sup>19</sup>

Regulation No. 6 is based on the provisions of Articles 12 and 13 of the Environment Law No. 7 of 1999 and its amendments, and the Palestinian Health Act, article 2, Section 12 and Article 42. This means that the offender will be fined up to 3,000 Jordanian dinars or imprisoned for up to three years.<sup>20</sup>

Cabinet Resolution No. (25) for 2010 on the environmental conditions of stone and marble quarries, tile factories and ready-mixed concrete: It contains texts in more than one article on the proper procedures for dealing with liquid and solid waste resulting from this sector and includes legal stipulations on controlling auditory pollution<sup>21</sup>

18 Palestinian Environment Law, 1999

20 Exclusive interview with M. Bahgat Jabarin, Director of the Environmental Quality Authority in Hebron Governorate

21 (Environment Quality Authority, 2016): Regulations: Cabinet Resolution No. (25) for 2010 on the environmental conditions of stone and marble quarries,

tile factories and ready-mixed concrete

<sup>19 (</sup>Palestinian Facts, 2021): Hazardous Waste Management System No. 6 for 2021

Environmental Impact Assessment Policy issued by the Council of Ministers in 1999: It is concerned with environmental assessment and environmental impact studies for developmental projects. It also tackles the environmental effects of each project. This policy list relates to projects that submit applications for licensing.<sup>22</sup>

Ministerial resolution of 2015 to adopt Al-Minya Landfill as the only landfill for Hebron and Bethlehem governorates: Article 2 stipulates the closure of all informal landfills and dumping sites in these two governorates and article 3 clearly prohibits all citizens, local government agencies from dumping or disposing of waste in any location other than the place specified in the text of the resolution (i.e. Al-Minya Landfill). The second section of the same article prohibits all authorities from burning waste in any way. The resolution stipulates that the violation of any of its articles is contrary to the Environment Law No. 7 of 1999 and imposes the penalty contained in article 65.<sup>23</sup>

#### Burning hazardous waste is a violation of the right to health and a safe environment

According to environmental laws in Palestine, Jordan and Egypt, the crime of environmental pollution is defined as any emergency change in the environment due to the entry of foreign materials, which disturbs the innate balance between its components.

In a comparative study under the title "Legal regulation of the environment in Palestinian legislation... A comparative study with Jordan and Egypt," prepared in 2018 by researchers Dr. Basil Mansour and Mr. Murad Al-Madani, the study concluded that legislators defined three aspects of the crime:

- A change in the environment that may be quantitative, such as the change in the quantity of certain substances in a particular area or qualitatively such as a change in the quality of the elements of the environment or spatially in changing the place of some of the materials in the elements of nature or it may be a temporal change.
- 2. This change is directly or indirectly the result of human activity.
- 3. Damage or potential damage to the environment<sup>24</sup>

Given what is happening in the town of Idhna, the three aspects are there and in serious violation of the environment and human health.

#### 1.2 Previous research on the phenomenon

Many research studies have been written about electronic waste and its effects on humans and the environment in which they live in Palestine, but few of those studies deal with its impact on women. Even those that dealt with the impact on women, focused on health and environmental aspects and rarely dealt with the social impact, especially the social impact of the alternative

- 22 (Environmental Quality Authority, 2016): Systems: Environmental Impact Assessment Policy 1999.
- <https://environment.pna.ps/ar/index.php?p=laws

https://environment.pna.ps/ar/files/Menia.pdf

<sup>23</sup> Environmental Quality Authority, 2016 (Environment Quality Authority, 2016): Legislation and Conventions - Ministerial Decisions

<sup>24 (</sup>Mansour, Basel, Al-Madani, Murad, 2018): Legal regulation of the environment in Palestinian legislation. Study comparing Jordan and Egypt, University of Independence Journal, Volume 5, 2018

projects that are more environmentally friendly. Those studies included:

- The study carried out by the CESVI Foundation in 2020 for the European Union, the Green Land Association and the North Hebron Chamber of Commerce on the project entitled: "Promoting sustainable growth in Palestine through the treatment of electronic waste in environmentally safe, innovative, and economically feasible ways."
- "The study on the social impact of the project on the informal sector pertaining electrical and electronic waste"
- This study was conducted in the south-western Hebron area and included the towns of ldhna, Deir Samit and Beit Awwa. These areas are covered by an EU-funded project that offers alternatives to the treatment of electronic waste in order to reduce the damage caused by the burning of electronic waste. The study showed a positive and comprehensive assessment of the results of this EU project among the respondents in the target areas, where stakeholders expressed willingness to make the electronic waste recycling sector officially recognized. This emphasizes the feasibility of alternatives and their ability to reduce the phenomenon of indiscriminate treatment of hazardous wastes that are detrimental to both humans and the environment.
- A study titled "The Gender Dimension in Environmental Protection and Sustainable Development", prepared by a researcher in the Faculty of Law and Political Science at "Batneh" University in Algeria, Somaya Hawadsi, and was published in the journal of "The Generation of Political Studies and International Relations" issue 18 of 28 June 2018. The researcher highlighted the role of gender in protecting the environment and achieving development at all levels. The study highlighted the double damage caused to women as a result of environmental pollution, and cited some statistics in this regard, noting that four women are affected by environmental pollution as opposed to one man. The study made several suggestions for activating the gender approach to environmental protection, all of which are participatory.
- The study entitled "Road Map for Organizing and Managing the Electronic and Electrical Waste Sector and Making it Official at the National Level in the West Bank",. The study was prepared by CESVI in 2019 with the support of the European Union for the North Hebron Chamber of Commerce and the Green Land Association. It identified 6 steps to address the topic:
- 1. Analysing European and international legislations and relevant international regulations and standards.
- 2. Developing a framework for the management of electronic and electrical waste.
- 3. Establishing an electronic and electrical waste monitor.
- 4. Categorizing of these wastes.
- 5. Electronic and electrical waste market and the designing of processing mechanisms.
- 6. Developing awareness strategies for citizens and stakeholders.

The study came up with several recommendations and mentioned that if implemented by the Palestinian government, the latter will be able to organize proper management of these wastes, such as focusing on environmental protection and public health, providing safety measures, ensuring worker's rights to a fair wage and social security, and enacting legislation governing the e-waste sector.

## **Chapter Two**

#### Data and results of the study:

This part of the study was based on gender evidence to present the facts on the issue of the burning of electronic waste in Idhna. It highlights the risks posed by the phenomenon to human health and safety as well as to the environment because of the toxic substances that such a waste contains.

This part of the study discusses the impact of the burning of electronic waste on the social reality of the population from environmental, social and economic perspectives as well as the on social and family relations. It also addresses the multiple roles women play and the extra burden on them resulting from the burning of such wastes.

This part also focuses on the role of the Israeli occupation as the largest supplier of electronic waste, which is predominantly transferred illegally. It will also address the reasons why people are burning electronic waste in Idhna.

This part of the study also provides a vision for alternatives to the burning of e-waste and the roles of the local council, the Environmental Quality Authority (EQA) and community leaders in reducing or eliminating this phenomenon, as well as some suggestions and recommendations to address the phenomenon and reduce its effects.

Electrical and electronic waste in the town of Idhna:

"The phenomenon is grave and there are many problems, and sometimes the burning takes place around four o'clock in the morning while we are sleeping. I suffer from allergies and breathing problems. I suffer more than others from the burning. Also, on many days, if I want to ventilate the house, I have to choose the time when there is no burning.

We can no longer sit in front of the house or on the balconies. Now we sit on the roof of the house, and it is the only outlet for us. Of course when they start burning, we go inside and close all the windows, and at night we have to close all the windows and use the air conditioner and an oxygen cylinder for my child, and this has increased electricity costs and family expenses. Our society is a patriarchal society, and when they pressured my husband, I stopped participating in the activities against them. We are four women in the People's Committee to combat Environmental Pollution in Idhna, and work like young men, but the obstacle is that they pressure us through our husbands and brothers.

Women are affected more than men by the burning of the waste. Our laundry turns black. Men go to work and come back to find everything ready and the house clean and are not exposed to the smog like their wife and children. We are the ones who accompany children to hospitals and stay in hospitals with them."

Electronic and electrical waste includes every electronic device that is operated by electricity or batteries. There is an expected longevity for these devices, after which they are destroyed,

and are no longer usable, so they are disposed of and becomes electronic waste. There are two sources of electronic waste in the west Hebron area, an internal source, which is waste resulting from the Palestinian community in the West Bank, and its percentage does not exceed 10% of the waste volume (and this is an approximate percentage since no accurate statistics are available about this sector). The second source, which constitutes 90% of electronic waste, is the Israeli occupation, which deals with the Palestinian areas as a dumping site for various types of waste, especially for its electronic and hazardous waste. This waste leaks hazardous chemicals to the soil or spreads in the air, causing high levels of pollution <sup>25</sup>.

Specialized studies confirm that most of the waste comes in the form of wires because they are easy to process, followed by electrical appliances such as washing machines, refrigerators, generators, and old televisions and computer screens. However, the benefit from the latter is small, because in Idhna they do not know how to treat and dismantle it and it also has no market <sup>26</sup>.

"Idhna has become well known for environmental pollution despite the fact that its inhabitants are known for their generosity and kindness. Most of the burning takes place at night. We wake up for the dawn prayer to find the atmosphere full of smoke and unpleasant odours. Health problems have increased and serious diseases such as cancer have increased. They do not care about the health of their children, they burn it in front of their homes without paying attention to the health of their children and their neighbours." Kh.A.G

Those working in this profession are mainly owners of waste treatment workshops, including unskilled workers and among them are some who have received university education but are unemployed, so they were forced to get involved in the family's work in waste treatment. Some have left their job to work in this sector because of higher income. There are also those who have the money to buy tons of scrap and waste and create their own project, as marketing is done quickly and easily, and working in this sector does not require special skills. Even women take part in this work in one way or another. Although they do not always appear in the field, they sometimes support their husbands.<sup>27</sup>

#### 1.1 The role of the Occupation in the emergence and aggravation of the phenomenon

The phenomenon of electronic waste burning in Idhna and western Hebron governorate areas began to worsen after the year 2000 and it spread very quickly. This was due to the Occupation's policies that economically suffocates citizens and exacerbate their economic crisis resulting from closures, land confiscation and preventing farmers from accessing their remaining agricultural lands. This has increased the rate of unemployment, caused the deterioration in their living conditions and prompted them to search for alternatives and job opportunities to secure the expenses of their families. The alternative was ready through the facilities provided by the occupation with the aim of getting rid of its dangerous electronic waste and facilitating its access in Palestinian towns<sup>28</sup>.

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 Interview with Fouad Sultan AI-Tamini, the former director of the e-waste treatment project with the North Hebron Chamber of Commerce

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 Interview with Fouad Sultan AI-Tamini, the former director of the e-waste treatment project with the North Hebron Chamber of Commerce

 27
 An interview with Eng. Bahjat AI-Jabarin, Director of the Environmental Quality Authority in Hebron Governorate

 28
 An interview with Eng. Bahjat AI-Jabarin, Director of the Environmental Quality Authority in Hebron Governorate

The Occupation has not only facilitated the access of its waste to Palestinian towns, but has allocated each area of the West Bank to a certain type of waste; the northern West Bank for chemical industrial waste, the Jordan Valley for dangerous waste from landfills that they transfer under the guise of it being compost, northwest of Ramallah and Al-Bireh villages for rubble, demolition residues and some oil wastes. Finally, they have allocated areas west of Hebron governorate, especially the town of Idhna, for electrical and electronic waste.<sup>29</sup>

The Occupation's transfer of its electronic waste to the occupied West Bank is an illegal act and a violation of the International Basel Convention. However, the Israeli occupation transfers these wastes to Palestinian governorates, as its main goal is to dispose them and save the expenses of recycling and treatment. In addition, recycling these wastes in the Palestinian areas is less expensive compared to that in Israeli facilities and the Occupation recovers the pure precious metals resulting from the treatment done by Palestinian merchants working in this sector, while leaving the harmful wastes and effects in the Palestinian areas<sup>30</sup>.

A 2011 study by the Israeli Environmental Protection Federation reveals that the proper treatment of "scrap" (except for engines) costs an average of \$650 per ton, while it costs the Israelis only \$100 per ton to transport these materials to the West Bank for indiscriminate burning and then sorting out clean minerals and returning them to Israel.<sup>31</sup>

However, not all areas where burning is carried out are located in Area C, thus waste often enters Idhna through settlement bypass roads. Area C is not controlled by the Palestinian security forces. This limits the ability of law enforcement agencies to prosecute violators. However, if Palestinian security forces seize any vehicle on the roads, the Environmental Quality Authority is informed to detect such waste and confirm whether it poses a threat to human health and the environment. In addition, smuggling these wastes limits the ability of the competent Palestinian authorities to examine waste in terms of quantity and quality.<sup>32</sup>

#### 1.2 – Highest risks resulting from the burning of electronic and electrical waste

"They burn near the wall, west of the town, in front of our house, and our lives have become captive to this burning. It even dictates when we hang our laundry as we have to choose the times when there is no burning. As soon as we see their vehicles passing by, we know there will be burning and we immediately close the doors and windows and prepare ourselves for the bad smells. In the past there was a time when the burning was really intensive and would take place everyday. Then, we had to leave our home to to my parent's house far away from our neighbourhood so we can rest from this disaster. If I had the chance to change my place of residence, I would not have hesitated for a moment" M.B.

The burning of electronic and electrical waste was classified primarily as hazardous based on the components that make up these wastes, and the heavy elements they contain that are

32 Private interview with Eng. Bahgat Al-Jabbarin, Director of the Environmental Quality Authority in Hebron Governorate

inexhaustible or rise into the atmosphere through fumes and gases. These elements penetrate the soil during burning or through ash and reach water resources. These elements may be radioactive or original. Heavy toxic metals include cadmium, chromium, and lead, which may be present in one of the components of electrical devices such as computer or television screens, etc. These dangerous elements are present in those wastes, be they electronic devices or cables, and dismantling them in an unsafe manner leads to the transfer of these elements to the body. Burning these wastes is one of the most dangerous practices as it helps the spread of toxic gases and compounds such as dioxins or sulfur and carbon oxides, which are scientifically proven to be carcinogenic for humans or animals. They also cause damage to the nervous system and lung and respiratory diseases such as asthma and others. The effusion of gases knows no boundaries and flying ash falls on the ground loaded with heavy elements. Currently, there are springs of water, such as the spring of Khaleh Muharib west of Idhna, which is contaminated. These elements are also transmitted through plants to animals and humans<sup>33</sup>.

Many injuries have been recorded among workers in this sector, especially since the waste that comes to the town is not sorted out and sometimes contains military remnants. It happened that a citizen died after a bomb exploded during the treatment of the scrap. There is no one to examine how hazardous or dangerous these wastes are when transferred to the Palestinian territory.<sup>34</sup>

#### 1.3 – The Most Notable Effects of the Indiscriminate Burning of Electronic Waste

#### Impact on the environment and health

<sup>a</sup>They destroyed the crops and contaminated the vegetables and olives. They kept burning in front of our house there by the wall until they contaminated the water in our cistern. The Environmental Authority checked the cistern and told us that the water was contaminated. It is a rain harvesting cistern and has become contaminated because the rain water coming into the cistern is contaminated." A.A.

This female resident of Idhna has summarized in simple terms the magnitude of the problem of environmental pollution caused by the burning of waste west of Idhna, and one of the problems caused by the burning of waste was the accumulation of flying black ash (ash) on tree fruits and plants.

#### "When I pick the fruits, I wipe every vegetable from the black dust with my head cover<sup>35</sup>." Z.F

This is observed on the olives that have turned black because of the accumulation of ash, knowing that this ash is loaded with heavy elements<sup>36</sup>, which means that these fruits have become contaminated and eating them poses a health hazard. Also, trees and plants during the process of evaporation and transpiration absorb these dangerous elements that penetrate their tissues<sup>37</sup>.

33	An private interview with Eng. Bahjat Al-Jabarin, Director of the Environmental Quality Authority in Hebron Governorate
34	Interview with Dr. Mahmoud Salimiya, Mayor of Idna

- 35 A white head cover worn by women in the village 36 see Annex no. 2
- 37 Interview with Eng. Bahjat Al-Jabarin, Director of the Environmental Quality Authority in the Hebron Governorate

"I don't buy vegetables other than from the ones they grow in greenhouses, all other kinds of produce are contaminated."

Another woman expressed her and her family's fears that crops would be contaminated in Idhna:

"We live a life full of contamination, the air is polluted, the environment is polluted, the house is polluted. We wake up in the morning to black dust filling our house, the doors, windows, and walls are dirty. We are not against people working and earning their livelihood, but we want them to stay away from residential areas. Idhna has become renowned for environmental pollution. The burning usually takes place at night. We wake up for the dawn prayer to find the atmosphere filled with smoke and unpleasant odours. Health problems have increased and serious diseases such as cancer have increased. They burn in front of their own houses and do not care for their own children. It is true that they earn lots of money, but at the same time it destroys entire families, and it destroys the health and environment of the human being, which is invaluable. This also affects the crops, especially the vegetables that we export to other regions. It affects our children and schools". Kh.A.G.

The heavy elements concentrated in the black ash have accumulated in the areas where the burning takes place and in the winter it seeps through the ground with rainwater contaminating the groundwater that people drink. There is a much higher concentration of heavy metals such as cadmium and lead in the areas where waste is burnt compared to what is found in other areas. At the same time, this is reflected in the types of diseases present in those areas, where there are high rates of lung cancer cases as well as abortions resulting from pregnant women inhaling toxic gases that affect the fetus. These elements can also affect the kidneys and cause kidney failure.<sup>38</sup>

One of the women we met suffered from three scrap workshops in her area of residence, where she noted the extent of the damage to her health and that of her son, who suffers from cerebral palsy.

"Our neighbourhood has 3 scrap workshops, and I told those who work in them several times, please have mercy on us and until when should I keep taking my son to the hospital? My son has a disability and most of the time is connected to the oxygen inhaler. When they burn they ask me to close the doors and windows. I say to them, for God's sake, you think this is a solution? "

Another woman stated that her child visits the doctors twice a month and that she is considering moving from the area in search of a safe and healthy place for her only child (she had him via the IVF) who suffers from chest allergy.

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"It's as if we had bought this boy, since we have already paid a lot to the doctors to treat him. Sometimes we go to my parents' place to escape the smoke. Burning is usually done at night. In the past, we used to sleep on the roof in the summer time, but because of the burning now we are deprived of this. All the vegetables, produce and olives were damaged and became contaminated and the burning takes place in front of our house next to the wall. My son has a chest allergy and is constantly receiving treatment. We take him to the doctor twice a week because of the burning, and I have to clean the house several times a day. I cannot hang the laundry anytime, and sometimes I have to collect them before they completely dry. We have a rainwater cistern in front of the house. We stopped drinking its contaminated water. The Environmental Authority ran a test on its water that is not suitable for drinking. The rate of diseases, especially cancer, such as lung cancer and skin cancer, has also increased."

In addition to cancer, respiratory and other diseases caused by the phenomenon of electronic waste burning, many health problems are expected to be discovered, so it is important to conduct studies to find out the extent of the real damage caused by this phenomenon.<sup>39</sup>

Many stories were told to us by women in Idhna about their suffering from this phenomenon. Here is the retired employee Um Salah describing the situation:

"I have a breathing problem and every time I smell the burning, I get shortness of breath and I feel like I am suffocating. I constantly go to the doctors. My doctor thought I smoked hookah because of the blackness in my lungs even though I have never smoked a cigarette in my life" J.T.

Another woman living in the southwest of the town said she suffered from high blood pressure and also has a joint implant making it hard for her to move. When she smells the burning smog, she covers her face with a cloth and closes the house on herself.

"I am sick, and I have no ability to work. I get tired and this pollution increases my fatigue and work to constantly clean. The electricity bill has increased due to the use of ventilators and air conditioning day and night. I suffer from high blood pressure, and I had a joint implanted in my leg and it is not easy for me to move. When I smell the burning I cover my face with a rag and lock the house. We have children and they keep getting sick and we keep going to the doctors and pay the bills. Our neighbour keeps burning and does not listen to anyone. I hope that he stops doing this. We avoid having a fight with him. One time one of the neighbours filmed him burning and threatened to complain to the police, so in return he increased the burning and defied all people. I spoke to him several times, but he would not listen and my husband asked me not to talk to him to avoid a fight. He asked me to lock myself inside the house, whenever they start burning. They burn in the firewood stove pretending to cook or bake, but smoke comes out from the furnace pipe and hurts us a lot. In summer time, we used to enjoy sleeping the night on rooftops in the breeze. Now, we are deprived of this and now we are trapped inside our homes. Smoke even penetrates our houses, especially from the door of the adjacent store. We own the store and it is our only source of sustenance, and we cannot close its door" M.T.

2- Economic Effects:

"The economy of Idhna is based on scrap. This was evident a few years ago when there was a decline in the stock market and the price of copper and iron went down. Then, the economy of the town went into deep stagnation. To be honest, I, as a wife of a scrap burning workshop owner, detest the method of burning and want a clean job, and we do not mean to harm anyone." ZG

Working in the electrical and electronic waste sector has created job opportunities for a large number of citizens and it generates a high income for some of them, but it is important to compare the benefits with the damages. The burning leads to the destruction of agricultural lands and the environment, which requires decades and lots of money to recover. Additionally, patients' costs of treatment is large, considering that treating a single cancer patient may cost the public treasury between 300,000 to 500,000 New Israeli Shekels (94-156 thousand USD). Furthermore, getting rid of waste residues (by-products of the burning) such as plastic materials and others increases the financial burdens on municipalities and local bodies and are done at the expense of other services, given that treatment of each ton of soil is estimated at about 5,000 New Israeli Shekels (about 1500 USD)<sup>40</sup>.

"We lost olives and citrus fruits and our crops were destroyed. An international organization visited us and ran tests on the olive groves and the water spring. They told us that our olives are contaminated, and we are not allowed to eat them because they contain carcinogenic substances, and they told us that the water of our spring is also contaminated. Thus, instead of we make soap of our oil." N.B.

The waste of burning operations constitutes 30% of the volume of waste transported by the municipality of ldhna and removing this waste is very costly<sup>41</sup>.

"Smoke reaches our house, and dust spreads everywhere, covering our crops that are no longer edible. If we object to what they are doing, they take revenge on us by sabotaging the farms and stealing agricultural equipment, as they did several times with our neighbour Abu Abdullah Al-Asoud, and indeed they stole our equipment from the land several times. We cannot do anything to them. They stole the electricity cables that conduct the electrical current to our land west of the town. The authority is corrupt and complicit with them. Diseases have increased in the town because of this scrap." ZV

#### **3- Social Effects:**

"My daughters and sons who live in the Western and Southern regions are the most affected people because there is burning in their area. My daughters wishes to leave that area, but cannot because of their bad financial situation. I do not visit my children a lot because I cannot tolerate the smog as they do because of my age" M.F.

The story of this woman is typical in the town of Idhna, and the burning has damaged the people's social relations, be they among members of the same family, within the clan or with neighbours in the town. The burning of scrap near houses and in agricultural land led to conflicts among families. In one of the quarrels between two clans instigated by the burning of waste resulted in two casualties, a number of injuries and many houses were set on fire as an act of revenge.

"Those people who burn scrap in the neighbourhood are tenants, their women and children do not live in our neighbourhood, so they do not care about us and our children. There was at one time underneath us a place for the scrap and the owner kept burning every day. I quarrelled with him several times and threatened him with stones. I told him: "I will destroy your workshop if you don't stop burning", and after many fights, he closed and moved out. However, our neighbour keeps burning and every day there are problems with the neighbours because of his actions. He says he burns on the firewood stove under the guise of cooking and baking, but all the smoke enters people's homes. It deprives us from sleeping on the roofs. We are deprived from sitting at the front door of the house in the afternoon because of the smell." J. T.

Among the most prominent threats to civil peace in the town is that some workers in the field of electronic waste burning form armed groups that intimidate citizens and owners of affected properties to silence any voice calling for an end to the phenomenon, which led to many confrontations and disputes <sup>42</sup>.

"We asked the chieftains to intervene to stop a person from burning in our land. We reported him to the police and he was imprisoned. Then we got him out of prison under the guarantee of those chieftains, but he resumed the burning and threatened me and my brother. I was threatened several times and once they threatened to kill me. For 10 years I have been facing them to protect my crops. They destroyed the olives that became inedible. Finally, they promised to stay 200 meters away from my land, but smoke spreads all over. In cooperation with the municipality, we blocked the road leading to the burning site, but they reopened it, and one night they threatened me with weapons when I wanted to block it again. The locations where most of the burning operations take place are: Khallet Al-Sararah, Tawal Musa, Karam Abu Sako - Bir Wadi Abu Al-Khail area, all of which are near the wall west of the town." N.B.

The authors of this research met two farmers who were subjected to armed attacks, because they complained about the burning. One of them is a farm owner near "Ain Al-Bass" southwest of ldhna, and the other is a landowner near "Ain Khelet Muhareb" northwest of the town. The two farmers reported that they were subjected to physical attacks and threats of being killed and their crops being destroyed. Indeed, the crops of those two farmers were destroyed and their water sources were contaminated because of the continuous burning. The threats also targeted one of the activists and her family because of her participation in activities and campaigns against the burning. She told us about her suffering because of this activity.

"They threatened to kill my brother and wielded their weapons in his face. My husband asked me to stop confronting them. They caused me many problems and pressured my father several times to prevent me from acting against them, and in the end, I revoked my membership in the Pollution Control Committee after the withdrawal of the police and the municipality. I was a member of a committee to combat waste burning, then withdrew after a lot of social pressure that was exerted on me and my family. It even developed to decisions and threats by the clans. They asked my father many times to silence me. They accused me of threatening their livelihood, that I reported them to the police and other parties and for exposing them on Facebook. I reached a point where I became worried about my family to confront them, especially that my 8-year-old son suffers from a disability and has difficulties breathing. Whenever he inhales the smoke, he loses his breath and sometimes I take him to the hospital. However, I had to stop my activity against the burning." A.B.

In some cases, women are forced to play the role of father and mother at the same time, especially if the husband suffers from a chronic illness or disability resulting from work in scrap burning or affected by it. Sometimes the health of a women is affected by the burning and they still have to continue carrying out their duties in difficult circumstances. Heba is a 35-year-old homemaker and her husband became disabled. She explains her situation:

"A couple of months ago, I had a chest x-ray and the doctor told me I have calcification in the lungs and my husband, as you can see, is disabled and on the wheelchair. I raise sheep here in front of the house. Even the sheep were affected by the smell and smoke, and our crops and land at Ain AI-Bass was damaged. We grow irrigated vegetables and other crops there and the spring has been contaminated. My son had a ureter transplant and could not bear all the suffocating smoke, and my mother-in-law is very old, and she is always locked into the house. I talked several times to those who do the burning and explained to them about our suffering, but they did not respond because they say that they are free to do what they want on their land and that we have no right to prevent them. There is no solution to the problem other than the wire peeling factories that extract metal without burning, but those people find it easier to burn. The police usually responds when someone reports to them. For example, one day I burned regular garbage in front of the house, and the neighbours reported me to the police. The police left when they realized it was not a copper burning. The neighbours reported me even though I usually don't report them when they burn copper. Every day I wish to leave this area because of this continuous suffering. We even find traces of black dust on our bed sheets. I call on the competent authorities to save our health and that of our children and to find an alternative solution for those who work in waste burning." H. J.

Women are capable and can do a lot against this phenomenon and defend the health of their families and source of livelihood, but the nature of society curbs their ability and, in many cases, causes frustration to these women.

"All the neighbours complain about burning, and everyone complains about its effects on health, but we cannot do anything, we cannot file complaints. We don't want problems with people, they consider it their source of livelihood and they do not care about complaints or anything else. We as women know the danger of this thing and its serious effects, but we cannot do anything, and I used to participate in activities against burning, but today I don't participate in anything." S. K.

All the women we interviewed confirmed that women can do a lot to confront the phenomenon of burning, but again the conservative nature of society and the social pressures on husbands and brothers discourage them.

"Once, during the month of Ramadan, our neighbour lit a fire at the Iftar time [sundown when daily fasting in stopped]. My husband begged him to put it out so that we could have our Iftar meal peacefully, but the burning kept going. We were trying to avoid problems with the neighbours, so I had to leave the house and go with my son to my brother's house away from here. On one occasion, I travelled to Amman and stayed with my family for a long time to take a break from this pollution." A. A.

Women working in the burning business are strong defenders of their husbands and children, given that their work is a good source of income for the family, and they attack and confront any woman who writes against the phenomenon, especially on social media.

"Women working in the scrap business play a very negative role because they are proud of the amount of money they earn, and consider it their duty to defend the family's livelihood, given that most of them are uneducated and have no other work. That is why they do not care about home work load as a result of their type of work and the pollution their normal work despite the enormous contamination. But female teachers, counsellors and health workers can play a key role in raising awareness. Some children and school students (sixth grade and above) are exploited and employed to take part in scrap burning. I participate in raising awareness of this issue through my work in schools." K.J.A.

Another woman adds: "I don't know about women working in the burning business, perhaps there were women who practiced this work, but now I do not know if they still work

in it, but wives of those who do the burning attack me on the Facebook when I criticize the phenomenon. They view the phenomenon as a source of income to their families and husbands." A.B.

#### 1.4 Measures taken to counter the phenomenon

"The Palestinian Authority (PA) is corrupt and complicit with them" Um Ahmed.

This is Um Ahmed's interpretation of the inability of authorities to end and eliminate the phenomenon, while another woman found that the police and the municipality are incapable of confronting those responsible for the burning.

"They even attacked the police and the municipality and set ambushes for them, and several times they set several fires at the same time to confuse the police and the municipality." A.B.

Um Salah had her own way when she forced a scrap dealer to move far from the area. She fought against him because of the devastating effects of his work on her life and family, and the inability of the relevant authorities to stop him:

"A long time ago there was a workshop for burning waste here and its owner was burning every day. I used to fight with him all the time, and in the end, I threatened him that I would break his shop with rocks. After all these quarrels, he closed down and moved out of here" J.T.

However, this business is not limited to one or two workshops. There are hundreds of scrap workshops in the town, which the relevant authorities are trying to manage, but to what extent have they succeeded in doing so?

#### First: the Role of Idhna Municipality

Idhna has 200 workshops working in the processing of electronic waste, including 20 to 30 workshops that earn millions of Shekels and their owners control this trade. They are the ones who resell the materials inside the 48-territories (back to Israel) after they have been sorted. Other traders sell their materials to those people.

The municipality has tried to provide some possible alternatives, such as a "peelers," where it rented an area of land and installed a "wire peeling machine" on it with the support of the European Union through the North Hebron Chamber of Commerce. However, workers in this profession do not go there, even if "the service is provided to them for free", because the weight of a ton of the purified metal produced by the machine would be less than it would be if it was burned. As copper extraction by burning cannot get rid of some impurities (like burnt plastic) stuck on the end-product, it is added to the weight as copper, thus is more profitable. Meanwhile, peeling machines produce a purer metal end-product and considering that the trader sells copper at the same price regardless of the way it was treated, the metal produced by burning has a better value. This is one of the problems for which they have not found a solution to so far, so the relevant authorities are forced to chase them (those in the burning business) all the times<sup>43</sup>.

Furthermore, burning usually does not take place inside a workshop, because whoever burns inside a workshop, the municipality will cut off the power to force them to stop and have them sign a pledge not to burn again. Currently, "Fatah" faction is being asked to support the efforts of the municipality<sup>44</sup>.

"Two days ago, one of the workers in our workshop burned copper coils. My husband himself put out the fire, and the quantity was small, and the colour of smoke was white, not black. Some people took advantage of the situation and took pictures and posted on Facebook, then we were surprised that the municipality cut off the electricity on our workshop" Z.G.

On the other hand, another woman considered that the municipality and the police were negligent in their work because they were not able to eliminate this phenomenon, and even accused authorities of ignoring the matter and dealing with it indifferently.

"Of the many times we reported to the municipality and the police, they came once at night and turned on the siren, as if they were alerting them. It seems the police is conspiring with them. Even our neighbour who happens to be a municipality council member does not interfere" J.T

Another perspective pertaining to the role of relevant authorities was expressed by a woman whose neighbors reported to the police about her burning regular waste in front of her house. She states:

"The police responds to anyone who reports to them. One day I started to burn ordinary garbage in front of our house, the neighbors called the police, and the latter left after they made sure that it was not a copper burning. They reported me for ordinary garbage burning, but when they burn copper next to us, I do not complain about them" H.J.

Secondly: The role of the Environmental Quality Authority in Confronting the Phenomenon of burning.

"We suffer from the burning, and it affects the crops a lot, and I have a chest allergy, and I cannot sleep because of the contamination. In the morning, I find the floor full of black dust. We cannot do anything but to close the windows and doors. I go to the doctors because of the allergy, and I expect it to become worse as the burning continues according to my doctors. In the beginning, we used to call the police, but the police wouldn't do anything about it, perhaps because it is Area C and there were many problems when the police chased them. We bear the costs of doctors and treatment due to burning. Those who are closest to the places of burning suffer the most. What is required is to search for means that do not cause harm to people, to stop the burning and to switch to the machines. I have never talked to any of the wives of those who burn because their response is known. They make their livelihood from the burning and they have no alternative. And I say to whoever burns copper "please, have mercy on us" and to the relevant authorities to find alternatives

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# and other job opportunities so that people stop burning scrap. We hope that this problem is solved with an appropriate solution." R.A.

In the year 2011, the Environmental Quality Authority set in its priorities for the 2011-2013 plan to confront the phenomenon in the ldhna area, and it began to work at the short-term and strategic levels. At the time, there were no studies or statistics on the subject, so data was gathered. They found that there was an average of 150-200 waste burning fires per day given that those who did the burning had some form of "popular support" among the residents. Most of the residents benefited from the burning business at the time and did not have a high level of awareness as they do these days. Now the situation has changed and facing the phenomenon has witnessed a substantial leap in terms of people's cooperation, the number of burning processes has decreased and reporting to relevant authorities has increased. The Environmental Quality Authority personnel go to the place and take measures to counter the burning process. The "popular support" has also declined and people have become more aware and cooperative with the authorities. Additionally, there are initiatives from the people to address the phenomenon of burning , such as the initiative of the Nofal family, who set up a tent in which the family's youth are constantly present to prevent burning from taking place in their land<sup>45</sup>.

Among the most prominent measures taken by the Environmental Quality Authority towards the phenomenon of burning electronic waste are as follows:

- Preparing studies on the phenomenon: In cooperation with civil society organizations, a number of studies on electronic and electrical waste were prepared and some statistics were collected.
- 2. Organizing awareness and education tours to combat the phenomenon

The Environmental Quality Authority has organized more than 150 educational and awareness programs and campaigns about the phenomenon targeting different groups, including women. They have also developed partnerships with the security agencies, the governorate, and the civil organizations to confronting this phenomenon.

1. Intensifying prosecution of those responsible for the burning

In 2020 alone, the Environmental Quality Authority personnel carried out 550 inspection and control missions, of which about 350 were in the Idhna area. During the last two years, about 80 cases were taken to court and more than 150 legal notices were given to those responsible for the burning, of whom more than 100 were forced to sign a judicial pledge to stop the act, as the goal is not to imprison people. After Palestine signed the Basel Agreement in 2015, the Palestinians had an international tool to confront the Israeli occupation in this regard. The signing of the agreement helped force the occupation to recover its hazardous waste seized by Palestinian authorities, and this happens almost weekly and has helped reduce the phenomenon of electronic waste burning<sup>46</sup>.

2. Establishing the Environment Police:

In an effort to combat the electronic waste burning in the Idhna area and its vicinity, the Environmental Police was established in 2018 through a memorandum of understanding between the Police and the Environmental Quality Authority. Currently, the environment police is one of the most active services. <sup>47</sup>

3. Harmonizing Palestinian laws and regulations to the 1989 Basel Convention:

The Environmental Quality Authority issued the Hazardous Waste Management System No. (6) of 2021, which works to make Palestinian laws and regulations go in line with the 1989 Basel Convention, regarding the trans-border movement of hazardous waste. Accordingly, the fine for burning electronic waste has reached 3,000 Jordanian dinars, or imprisonment for a period of up to 3 years<sup>48</sup>.

4. Working on regulating the electrical and electronic waste sector:

The Environmental Quality Authority has to a certain extent institutionalized this sector and organized the profession, but the problem is not only the smuggled Israeli waste, but difficulty in treating such waste is a problem faced by many countries. There is an urgent need now for sound management of electronic waste, especially with the increase in the amount of electrical and electronic waste produced by the Palestinian society. Therefore, efforts are dedicated to regulate this sector, and a number of facilities have now been licensed. Also, licensing of factories that provide alternative treatment to burning have become easier. Personnel at those facilities are taking capacity building courses on public safety<sup>49</sup>.

#### Third: The role of the Hebron Governor's Office

The phenomenon of burning scrap is an old phenomenon that the Hebron Governorate has suffered for almost a quarter of a century. Today, there are factories that operate in a way that does not pose a threat to the environment and humans through peeling. Yet, there are some people who try to make money at the expense of public health and these are being pursued through the relevant institutions and agencies. The governor's office is following up on everything new to eradicate the phenomenon, and sometimes violators are arrested according to the governor whose office plays a coordinating role with the relevant and specialized departments and bodies such as the Environmental Quality Authority, the Civil Defence, the Directorate of Agriculture, among others. As the awareness of the public has increased on the topic of waste burning and them witnessing the diseases occurring in the Idhna area, there has been a response from citizens in favour of limiting the burning. Despite the efforts of prosecution and monitoring by the competent authorities, the judicial procedures take a long time, and rulings are not deterrent, so most of them return to the burning after their release<sup>50</sup>.

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Interview with Eng. Bahjat Al-Jabarin, Director of the Environmental Quality Authority in Hebron Governorate

An exclusive interview with Eng. Abdel Hafez Kanaan, Head of the Health and Environment Department in the Hebron Governorate Office

#### Fourth: The role of the local community and campaigns against the phenomenon of burning

1. The People's Committee for Combating the Phenomenon of Environmental Pollution in Idhna: This committee was formed in 2011, and included both institutions and individuals, including women. The committee organized dozens of activities, events, sit-ins, and seminars. The committee also submitted several complaints to the police, the governor, and the prosecution with the aim of restricting violators and limiting the damages resulting from this phenomenon. This committee took the lead in proposing alternatives and encouraged those working in the burning scrap to switch to peeling machines.

One of the women we interviewed said that she was active with the committee for several years but withdrew from it due to social pressure exerted by scrap dealers on her husband and brother, in addition to the withdrawal of the municipality and the police from the committee's membership, which weakened its position.

Muhammad Al-Asoud is one of the founders of the committee, whom we met during the preparation of this research. He confirmed that the committee and despite the threats, has achieved many goals, as the number of those involved in burning has decreased by nearly 90% in the past ten years, because of cooperation of the local community and the Environmental Quality Authority. But he criticized the weakness of judicial rulings, the length of the litigation procedures, and the lenient sentences for violators compared to the amount of damage they cause.

Muhammad called for the application of the most stringent provisions in the Palestinian Environmental Law and the Penal Code, to eliminate the phenomenon of burning and make it costly for violators.<sup>51</sup>

In his turn, activist Anwar Awad, a founding member of the committee, said that they succeeded in creating a public opinion against the phenomenon of burning in Idhna, which prompted the official authorities to confront it, which contributed to significantly reducing the number of burnings.<sup>52</sup>

2. The campaign led by activist lyad Rjoub: Rjoub lives in the village of Al-Koum, adjacent to the town of ldhna, and has been leading a campaign that has been going on for years against the phenomenon of burning and processing scrap in populated areas. He says during an interview in this regard:

"The issue is not related to burning electronic waste only, but also to the existence of stores for collecting scrap waste in general, as it surrounds a residential area from the west, north and east. The owners of those stores find it easy to extract metals from plastic and rubber by burning, so they burn to extract metals in their workshops during the day. At night they hire workers instead to burn, and the smoke chokes us all the time. This is in addition to hundreds of tons of scrap piled up in each of these stores, continuously emitting odours and toxins, due to chemical reactions inside these piles, which contain oils, acid, fuel and other components."<sup>53</sup>

Among the most prominent risks, he said, which result from this scrap, are an increase in respiratory diseases and asthma, birth defects and miscarriages, an increase in cardiovascular diseases, and hundreds of catheterizations and open-heart surgeries for the residents of Al-Kom village with a population of only 3,500 people. Most importantly, there is a considerable increase in cancer cases, the disease that killed his brother before he reached the age of forty<sup>54</sup>.

Rjoub accused some officials (responsible of law enforcement) of negligence and collusion with scrap dealers, especially since most of the scrap comes from Israel and is transferred to Idhna in front of the Palestinian police without any accountability (there is a police station in Idhna). Rjoub also accused some responsible authorities of failing to do their duty under the pretext that this scrap is a source of livelihood for some families. This is in spite of the fact that these traders do not have any licenses for their facilities as well as their evasion of taxes as they sell most scrap extracts to Israelis in the surrounding settlements, where they are sent inside the Green Line and are made to seem as if they came from the settlements, according to Rjoub<sup>55</sup>.

#### **1.5 Alternatives and Solutions?**

"As long as there are workshops that buy scrap, burning will persist because there are types of waste that can only be processed by burning" A.A.

"After all the long experience and all the efforts to raise awareness, it has become necessary to resort to the law and deterrent solutions through the intervention of the Palestinian security forces, especially since the past years witnessed huge investments for some individuals, which made their interests clash with efforts exerted to organize this sector."<sup>56</sup>

"The authority is negligent and inefficient on this issue, because burning takes place in area C. This of course created several clashes between people. I think the solution to the problem is that those people use the peeling machines instead of burning. We hope that the government finds alternatives for the people working in burning copper because we cannot talk to workers in this field as they believe that this is their source of livelihood and is not subject to discussion. They do not care for the welfare of other people. For example, electricity bills have increased due to the excessive consumption of air conditioners and ventilation. This is besides people's losses in their crops and health expenses because we always visit the doctors. In general, our area is beautiful, and the air is fresh here, but we are deprived of all that even when we walk in the evening. Everything is contaminated and we no longer buy vegetables unless they are grown in greenhouses. Of course women are affected more than men because they stay at home most of the time, unlike men who spend most of their time outside the house." R. A.

A women who holds a bachelor's degree in educational counselling was interviewed. She believes that the solution is possible and within the law and falls on the shoulders of the relevant authorities:

54	Exclusive interview with lyad Rjoub, campaign leader against scrap processing and burning.
55	Exclusive interview with lyad Rajoub, campaign leader against scrap processing and burning.
56	An exclusive interview with Dr. Akram Amr, Director of the Green Land Association in Hebron Governorate

"The competent authorities must find alternatives and solutions for people who work in scrap, we cannot deprive them from their source of income. A schedule must be set that will include the places and times in which they are allowed to do the burning, and to ensure safety means for those who carry out the burning. They must regulate it within the law so that they can work in a safe environment and without fear of being chased, so that they become on equal footing with any other" K.J.A

Among the most prominent alternatives that the authorities have worked on so far were:

#### First: Wire Peeling Factories:

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One of the possible alternatives is cable peeling factories or metal extraction factories, which is safe and extracts minerals more effectively (i.e. without impurities). Yet, those factories still operate at limited capacity because they use small equipment, which takes longer to peel and produce one ton of wire. Meanwhile, it may only take minutes through burning. There are also fees on peeling reaching 500 Shekels per ton, while the burning process only costs a few shekels. Also, the burning keeps some plastic and other waste attached to the metal, which increases its weight. What is required is to bring in equipment capable of processing larger quantities per day, and thus accomplish the work in a shorter time and at lower costs to reach a stage where burning becomes more expensive than stripping. Additionally, peeling avoids people legal prosecution and problems with neighbours<sup>57</sup>.

Women's opinions varied, some of them blamed the scrap dealers while others blamed the central authority, yet most of them believe that the solution lies within the municipality, and it can, if they wanted, find an alternative.

"The municipality can allocate an area far from the population and put incinerators for burning with filters, and consequently the municipality will benefit from the fees as an additional income and the problem will be solved. I hold the municipality responsible." Z.G.

## Secondly: The establishment of the Naqaa Cooperative Society for the treatment of electronic waste

The Naqaa Cooperative Society, which has in its membership seventeen workshop employers who work in the electronic waste sector, has been officially registered. The Society owns a workshop for cable peeling and extracting metals using safe methods. The cooperative was established within the framework of the European Palestinian Center for Electronic Waste Management project<sup>58</sup>.

#### Thirdly: Other measures that may contribute to eliminating the burning phenomenon

- 1. Legal and security pursuit of those responsible for the burning, stiffening penalties, fining them large sums and imprisonment for long periods that may be deterrent.
- 2. Imposing fees on importers of electrical and electronic devices under the guise of recycling, as

the laws of some countries require importers of electrical and electronic devices to pay fees for recycling expired products. It is possible to resort to legislation of this kind in Palestine<sup>59</sup>.

- 3. Building local expertise and benefiting from the experience of developed countries by training workers in the e-waste treatment sector on state of the art technologies in this field<sup>60</sup>.
- 4. Preparing studies on this sector that would provide accurate data to be used for future plans. This is a precious sector and not properly taken advantage of. It is possible, if dealt with properly, that it would lead to the promotion of investment in this sector, which would create thousands of job opportunities<sup>61</sup>.
- 5. Eliminating this trade or moving it to remote places away from the population. Campaigners against the treatment of electronic waste believe that this trade does not generate any income for the public treasury. It rather exhausts the state treasury, where large amounts of money are spent for waste management and treatment of patients who became sick from the burning. Thus, they believe that this trade must be completely eliminated or moved to an empty and uninhabited area east of Hebron Governorate where the smog may be less harmful<sup>62</sup>.

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An exclusive interview with Dr. Akram Amr, Director of the Green Land Association in Hebron Governorate

An exclusive interview with Fouad Sultan AI-Tamimi, the former director of the e-waste treatment project with the North Hebron Chamber of Commerce. An exclusive interview with Fouad Sultan AI-Tamimi, the former director of the e-waste treatment project with the North Hebron Chamber of Commerce. Exclusive interview with yad Rjoub, campaign leader against scrap processing and burning.

## **Conclusions and Recommendations**

The study showed the extent of danger associated with continuing the indiscriminate burning of electronic waste in the town of Idhna. The damage is not limited to the geographical area in which this act is carried out, but extends to all areas of the Hebron Governorate, where plant and animal products produced reach various markets. This is in addition to the damage done to the soil, groundwater, and all components of the environment including air pollution and the direct risks to human health.

Indeed, there is an urgent need for intervention by relevant authorities to stop the burning and start treating its effects. Although Idhna Municipality has begun to address some effects such as treating contaminated soil, planting trees, and enlisting popular support to confront the phenomenon, fighting these effects will not be successful before stopping the burning completely so that all efforts do not go in vain. Hence, the study came out with a set of recommendations for stakeholders.

· Recommendations for Idhna Municipality:

- 1. Working on building the infrastructure for setting up projects and attracting investment in coordination with the relevant authorities to provide alternative job opportunities for those who resort to burning because of unemployment.
- Increasing legal pressure and pursuit of outlaws who practice burning and do not seek alternatives.
- 3. Imposing fees and fines as permitted by law on violators to make the cost of the fines of violation more than its feasibility.
- Regulating the profession and subjecting it to Palestinian laws and legislations, while developing safe alternative methods, facilitating investment in it, and making it safer for workers and citizens alike.

#### Recommendations for the Environmental Quality Authority

- Toughening the penalties, since despite the efforts made to issue regulation no. (6) for the year 2021, the penalties are still not deterrent enough as working in this profession generates high income.
- 2. Increasing the number of environmental police personnel and concentrating efforts in the ldhna area, the epicentre for the practice of waste burning.
- 3. Cooperating with the municipality of ldhna and all relevant authorities in seeking alternatives and developing projects that help reduce the phenomenon of burning.
- · Recommendations for the governor's office and the Palestinian security services
- Finding alternatives and solutions to bypass the obstacles of the occupation in reaching the violators, especially those who take advantage of the inability of the security forces to work freely in localities classified as "C" areas.

- Classifying lawbreakers as a threat to civil peace and national security because of what their actions may lead to i.e. intimidating or killing citizens, which will consequently increase tribal conflicts.
- Recommendations for the Naqaa Association and the European Project
- 1. Reducing treatment prices or making them symbolic to encourage those working in waste burning to resort to more environmentally friendly alternatives.
- Completing the rest of the project's phases and accelerating the pace towards an environmentally friendly alternative for the sake of those who have accepted the alternative and stopped burning waste.
- 3. Strengthening education and awareness campaigns and communicating with the public to delegitimize the "tribal "interventions that go in favour of burning as opposed to sound alternatives.

On the other hand, the Women's Media and Development Center "TAM" will work to contribute to raising the awareness on the dangers and hazards of this phenomenon and to cooperate with various parties to reduce it via the following :

- 1. Initiating a lobbying and advocacy campaign with the participation of the women most affected in Idhna to highlight the gravity of this problem. The campaign includes the production of one or more documentaries about the phenomenon.
- 2. Putting pressure on decision makers to develop legislation related to combating the phenomenon of burning.
- 3. Searching along with the relevant authorities for alternatives and solutions in order to stop harming the environment and public health.

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# Interviews pertaining to our report (primary sources)

- 1. An interview with Dr. Mahmoud Selimiye, Mayor of Idhna
- 2. An interview with Eng. Bahjat Al-Jabarin, Head of the Environmental Quality Authority in Hebron Governorate
- 3. An interview with Eng. Abdel Hafez Kanaan, head of the Health and Environment Department in the Hebron Governor's office
- 4. An interview with Dr. Akram Amr, president of the Green Earth Association
- 5. An interview with Fouad Al-Tamimi, the former director of the electronic waste treatment project in the North Hebron Chamber of Commerce.
- 6. An interview with Mazen Salimiya, coordinator of the e-waste treatment project.
- 7. An interview with activist lyad Rjoub, leader of the campaign against the treatment and burning of electronic waste in the areas west of Hebron
- 8. An interview with Abdel -Rahman Tmaizah, president of the Naqa'a Association for more environmentally friendly alternatives
- 9. Interviews with eleven women affected by the phenomenon of scrap burning in the town of Idhna
- 10. An interview with the wife of one of the workers in the field of e-waste treatment in the town of Idhna
- 11. An interview with the farmer Mohammed Al-Asoud, the founding member of the People's Committee to Combat Environmental Pollution in Idhna
- 12. An interview with the farmer Nidal Al-Batran
- 13. A telephone interview with Anwar Awad, a member of the People's Committee for Combating Environmental Pollution in Idhna

# Appendices

Appendix No. (1)

#### Interview questions

## Questions posed to the mayor of Idhna

- How the burning of electronic waste affects the social, economic, and environmental reality of the citizens in Idhna.
- The effect of electronic waste burning on social and family relations
- · To what extent are electronic waste incineration sites close to residential areas?
- How has the phenomenon of electronic waste burning affected agriculture?
- What hours of the day and how many times do incinerations usually take place during the day?
- The role of the municipal council and local community leaders in limiting or eliminating this phenomenon, and why will the efforts made to end this phenomenon will go in vain?

#### Questions posed to affected women:

- Does burning of electronic waste affect the role of women, and how and whether there is an increase in the burdens that fall on them and what are those burdens?
- How are women affected by this problem socially, health wise, economically, and environmentally...etc?
- Does the burning of waste increase the likelihood of women being subjected to violence and contribute to increasing violence against them?
- Do you find it difficult to spend time outside in the front or backyard, garden, or rooftop?
- Do you suffer from sleep difficulties due to air pollution?
- Did you have to leave your house during the burning?
- Have you had to or are you thinking of moving permanently to other locations to avoid the possible health effects of burning in an open place?
- To what extent are families and women aware of the risks resulting from burning electronic waste?
- Is there any party that provided you with information about the dangers of burning in an open place and the safety precautions to be taken?
- In addition to the direct health risks, are women afraid of the possibility of this phenomenon causing serious health problems for themselves or their family members in the long run?
- Are women participating in electronic waste incineration? Or what is the role of women in such a process?
- · Are there any burdens on women who have relatives (sons, husbands, brothers...etc) who

work in waste incineration? And what are those burdens? And how are those women affected socially, healthwise, and economically?

Questions imposed on experts and decision-makers: / Governor of Hebron / Bahjat Jabarin, director of the Environmental Quality Authority in the governorate / Dr. Akram Amr, President of the Green Earth Association for Health Development / Eng. Fouad Sultan, project manager for the treatment of electrical and electronic devices, and Mazen Salimiya, project coordinator/head of the Naqa'a Association (an association for owners of incinerators)

- What is the role of the Israeli occupation in the creation and continuation to the phenomenon of electronic waste burning in the western areas of Hebron Governorate? And what benefit dothe occupation authorities gain, does the issue go beyond being a disposal of hazardous waste?
- Does the proximity of these areas to the wall and their location in area C limit the ability of law enforcement agencies to hold those involved accountable?
- What are the effects and risks resulting from burning such wastes?
- How does the proximity of electronic waste incineration sites to residential areas affect residents and the environment?
- Who are the workers in burning electronic waste and what are the reasons that motivate people to work in this field?
- What are the alternatives and solutions?
- Where are the minerals extracted from the incineration of electrical and electronic waste marketed?
- What is the quantity and quality of electronic waste that is dealt with in the incinerators and where does it come from?
- The role of the Environmental Quality Authority, official bodies, ministries, security forces and civil society organizations in limiting or eliminating this phenomenon? What are the efforts made? and why have their efforts failed in confronting the phenomenon of burning so far? Why does the burning continue and an end has not been put to it?
- Are there studies on this phenomenon and its risks? And what did these studies find? Is it true
  that areas where waste is incinerated has a high concentration of lead and mercury and,
  exceeds that of other areas and the normal rate? Is it true that there is a rise in the percentage
  of some diseases in those areas more than other areas?
- Is the effect of the phenomenon limited to the areas where the burning takes place, or are the toxins transmitted through the air to other areas?
- What are the laws under which this phenomenon is dealt with?
- What are the alternatives and solutions for burning electronic waste? Why are not all manufacturers of electronic and electrical devices required to do free of charge recycling for their products?

#### Questions for activists and campaigners to combat the phenomenon

- What is the reason for the campaign that you lead or participate in against the phenomenon of waste burning? What are the risks and effects?
- How many people are affected by this phenomenon?
- Is there a general stance against the phenomenon? And if so, what prevents uniting efforts to confront it?
- What do you think are the reasons that prevent this phenomenon from reaching an end?
- How do you view the role of the various competent authorities, and to what extent do they do what is necessary to combat this phenomenon?

## Appendix No. (2)

#### Interviews with Women from Idna - Hebron

## A.B. A member of the committee of combating scrap burning :

#### Age: 38 years- Bachelor degree in management (former employee).

- I withdrew from the committee before my father and brothers and upon the withdrawal of the police and the municipality as well.
- There are 3 scrap workshops near our house. My son is sick and cannot inhale smoke or fumes of scrap burning. He is 8 years old and he gets connected to respirator several times.
- Several times, I talked to the those who burn electronic waste and implored to them not to burn near us since my son was in a coma in the hospital and in the intensive care for few days. They promised not to do that, yet resumed so doing after a while. However, they promised to tell us before hands that they would do the burning so that we close doors and windows. I also have respiratory allergy. Do you think closing doors and windows is a solution?
- They threaten to kill my brother and kept threatening my brothers because I reported to the police about them. Even my husband asked me not to go to the police. They also pressured my father so that I stop any activities against them.
- · We are deprived from sitting in our front yard and always stay home because of the burning.
- Financial burden: Every month, we pay more than NIS 500 because we stay home and turn the AC on all the time.
- Role of women: Since we live in a patriarchal society, we 4 women of us were members of the committee of combating scrap burning. Yet, we would always be pressured to withdraw from the committee through our brothers and husbands.
- Women are more exposed to pollution than men since they stay more at home. Also they have to take care for the children when getting sick from the burning and also escort them at the hospital besides the housekeeping.
- They always threaten us when we report about them.

- We are always in fight with the wife's of those who do the burning and always write comments in which they attack us because they consider the burning as their sustenance.
- I know somebody who does the burning for NIS 50 per day.
- One of chieftains in town developed cancer and he used to talk about the hazards of burning before he died , yet to no avail.
- Only few people do the burning, and they would be deterred if somebody got sick because of that.
- We got really frustrated upon the withdrawal of the police from the above-mentioned committee.
- The police and the municipality are always attacked by those who do the burning.
- Sometimes they do burning in several places simultaneously to confuse the police.
- Alternatives: That people who work with scrap to stop dealing with those who burn the copper
  . The latter can be purified in copper stripping factories in town. The municipality should follow
  up on this. We have been in this campaign for the past 9 years. We stopped it upon the police
  backing down.
- I am ready to follow up and be part of the campaign against the burning. My cell phone no. is: 0592961920.

It is a big problem and phenomenon. Sometimes, burning takes place around 4 a.m. I have breathing allergy and suffer a lot. Most of the time, I try to ventilate our home according to their schedule and not to mine.

We cannot sit in the front yard or in our balconies any more. The only place we sit is on the roof. And when they start burning we get inside and shut all doors and windows. We then turn on the AC and connect my child to the inhaler which became a financial burden. Because we are a patriarchal society, they pressured my husband and I in turn stopped confronting them. We were 4 women as members of the popular committee for combating environmental pollution. And we are active like young men. Yet, they always put pressure on us through our brothers and husbands.

Women are more affected than men by burning. Washed clothes turn black. A man leaves home early and come back late to see everything ready and clean. We and our children are exposed to smog most. Also we are the ones who stay with our children in hospitals when they get sick.

We have 3 scrap workshops in our neighbourhood. I asked them several times to have mercy on my son since I keep taking him to the hospital because of their burning. My son is handicapped and is hooked to the inhaler most of the time. I also suffer from breathing problem. When they burn, they tell me just close everything. For God sake is this a solution? A.B.

" They threatened to kill my brother and several times pointed the gun at his face. They threatened

my brothers because I reported about them to the police . My husband asked me to stop my campaign against them and pressured my father to stop me. Eventually, I dropped my membership at the anti-pollution committee after the withdrawal of the police and the municipality. I was a member of the committee of combating burning of electronic waste. Yet, I along with my family were exposed to a lots of social pressure. The case turned tribal and was embedded with threat at the beginning and they asked my father to stop me from reporting about them. They accused me of putting their means of subsistence at stake and that I incite people against them on the Facebook. I am now afraid for my family and my parents . My handicapped son is 8 years old and his lung problems and when inhales the smog I need to take him to the hospital sometimes. Despite of that , I decided to stop launching any campaign against them. They always fight with the police and the municipality. I am not aware of women doing burning. But the wife's of those who do burning always try to argue and confront us.

## M.B. 29 years- housewife (finished 8th grade)

- They do burning near the wall towards the west of the town and right across from our place.
   I put the washed clothes on the clothesline when they do not do the burning. As we see their cars passing by , we realize that they will start the burning. Therefore, we get inside the house and close everything.
- At some point burning would take place on a daily basis and we would leave the house for my parent's place . I would change my place of residence had I got the choice.
- Additional burden on women. Each morning I open the windows and try cleaning the ash from the burning that would take place the previous day.
- We never had a direct fight with those who do the burning. We communicate with the municipality when they do the burning.
- Solution: That store keepers refrain from purchasing burned copper allocating far away sites for burning. Most of the burning takes place in C areas near the wall.
- We did not communicate with any party to seek a solution.

#### Narrative:

- They do burning near the wall towards the west of the town and right across from our place. I put the washed clothes on the clothesline when they do not do the burning. As we see their cars passing by , we realize that they will start the burning. Therefore, we get inside the house and close everything.
- At some point burning would take place on a daily basis and we would leave the house for my parent's place . I would change my place of residence had I got the choice.

#### N.B. is a military man in the national security and a farmer at the same time:

• They have contaminated air, water and plants. I am a farmer and have a water source in my land, yet it is this water source is contaminated.

- I asked one of the chieftains to interfere and stop somebody from burning in our land. I also
  reported to the police. He was arrested and got out under the tribal bail. But he started to do
  the burning again and threatened to kill me and my brothers 10 years ago. My olive trees grove
  has been devastated and the olives are not edible any more. We started to manufacture only
  soap of the olives. Now they do the burning 200 meters away from my place. Yet, the smoulder
  effuses all over.
- In cooperation with the municipality, we have blocked the way that leads to the incineration site. they re-opened it and threatened me with weapons when I tried to block it again at night.
- The locations where the burning takes place most are : Khalet Sarasra, Twal Mousa, Abu Sako vineyard, near the well of Wadi Abu al-Khail. All these locations are near the wall and westward of the town.
- Losses: My olive and citrus trees were devastated . An international organization has already run a test on my produce and concluded that my olives and water source are contaminated and contain carcinogenic materials.
- Those people are powerful because they are supported by certain parties and are bums. They
  gain NIS 2000-3000 a day from the burning. Yet, the people's health is far more precious than
  money. The Wadi Aziz location is also highly contaminated where 35 people have already
  developed cancer.
- One of those who do burning has developed asthma. Then he realized how hazardous what he was doing.
- Solution: Stores that deal with incinerated copper should be closed down. It is becoming risky in town and this may lead to bloodshed.
- Narrative: My olive and citrus trees were devastated. An international organization has already run a test on my produce and concluded that my olives and water source are contaminated and contain carcinogenic materials.
- I asked one of the chieftains to interfere and stop somebody from burning in our land. I also
  reported to the police. He was arrested and got out under the tribal bail. But he started to do
  the burning again and threatened to kill me and my brothers 10 years ago. My olive trees grove
  has been devastated and the olives are not edible any more. We started to manufacture only
  soap of the olives. Now they do the burning 200 meters away from my place. Yet, the smoulder
  effuses all over.
- The locations where the burning takes place most are : Khalet Sarasra, Twal Mousa, Abu Sako vineyard, near the well of Wadi Abu al-Khail. All these locations are near the wall and westward of the town.

# A.A. 40 years old (Education up to 12th grade) -housewife

• Burning takes place usually at night. We used to sleep on the roof at night. But because of the burning we cannot do that.

- Our produce and olives all were harmed and became contaminated. Burning takes place near the wall and near our place. My son has a breathing problem and goes to the hospital twice a month because of the burning.
- They have deprived us from sitting in our front yard during the night and we have to get inside during this hot weather.
- I have to clean the house several times a day. I had to refrain from washing clothes and sometimes get them off the clothesline before getting dry because of the burning. Water in our cistern is contaminated and is not potable any more. This is based on the water test that was run by the Water Quality Authority.
- Lung and skin cancer cases have increased dramatically.
- One day, our neighbour started to do the burning at the time of Iftar during Ramadan . My husband tried to convince him to refrain from burning but to no avail. We try to avoid fighting with neighbours.
- Several times, I go far away to my brother's house away from the burning. I even went to my parents' in Amman for a while to get away from the pollution.
- Now burning is at a lower scale. In the past it was worse, and they used to do the burning close to olive groves and in agricultural lands.
- I always think of changing my place of residence. I had my son in IVF process. He got sick a lot from the burning and our family doctor told me ironically that we spent a lot on treating him as if we have bought him.
- As long as there are places purchasing the scrap, the burning problem will remain because many staples are recovered by burning.

"Our produce and olives all were harmed and became contaminated. Burning takes place near the wall and near our place. The Water Quality Authority ran a test on our rain-fed cistern and informed us it is contaminated because of the burning".

" We feel as if we have bought our son since we spent a lot of money on treating him because of the smolder. I sometimes take him away to my parents' place. Burning takes place usually at night. We used to sleep on the roof at night. But because of the burning we cannot do that.

Our produce and olives all were harmed and became contaminated. Burning takes place near the wall and near our place. My son has a breathing problem and goes to the hospital twice a month because of the burning".

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"As long as there are places purchasing the scrap, the burning problem will remain because many staples are recovered by burning."

H.G. Housewife 35 years (finished the secondary education) – She and her husband used to practice scrap burning.

- We get really affected from the burning . Our windows and walls are contaminated and odours are fatal and we cannot breathe.
- Two months ago, I had chest X-ray and was told I had calcification in the lungs. My husband is on the wheelchair.
- We raise cattle which were seriously affected from the odours. Our plants and produce at Ein ElBauss location . All our irrigated produce has been contaminated and harmed.
- One of my children had a ureter transplant and is seriously affected by the odours and smoulder.
- We have to wash clothes several times .
- My mother-in-law is an old woman and always confined at home because of the odour.
- I asked them several times to refrain from burning but they told me they would burn in their property and this was their only sustenance.
- The police listens to our complaints but those who do the burning do not care.

## Solution:

There are workshops for stripping but they find burning easier for copper unwrapping. Police responds to complaints. For example, I once burned regular garbage in the front yard. Upon a call from neighbours, the police arrived and realized that it was not copper burning. However, I do not report to the police when they do burn copper.

- I always hope to move out of this neighbourhood. We find black ash on our bed sheets.
- Tribal chieftains interfered and asked them to stop burning but they did not stop burning all the way.
- I ask the competent parties to save our well being and that of our children and seek alternatives for this burning process.

#### Narrative:

"Two months ago, I had chest X-ray and was told I had calcification in the lungs. My husband is on the wheelchair.

We raise cattle which were seriously affected from the odours. Our plants and produce at Ein ElBauss location . All our irrigated produce has been contaminated and harmed.

One of my children had a ureter transplant and is seriously affected by the odours and smoulder. We have to wash clothes several times. My mother-in-law is an old woman and always confined at home because of the odour. I asked them several times to refrain from burning but they told me they would burn in their property and this was their only sustenance.

The police listens to our complaints but those who do the burning do not care. There are workshops for stripping but they find burning easier for copper unwrapping. Police responds to complaints. For example, I once burned regular garbage in the front yard. Upon a call from neighbours, the police arrived and realized that it was not copper burning. However, I do not report to the police when they do burn copper. I always hope to move out of this neighbourhood. We find black ash on our bed sheets.

#### R.A. 48 years (Holds Bachelor degree in Arabic) - Housewife

- The burning of scrap hurts me a lot given that I have chest allergy. Things may aggravate I am afraid.
- Procedures: Closing doors and windows
- The Palestinian Authority is not fulfilling its obligations. This may be due to the fact that burning takes place in C areas. Many fights took place among the inhabitants because of the burning.
- The financial burden: High electricity bill, plants pollution and health care expenses.
- · Alternatives: Using machines for the stripping rather than the burning
- We do not dare argue with those who do the burning since they consider that as their sole sustenance.
- I purchase produce grown only in greenhouses, because the other kind of produce are contaminated.
- We hope that the government find alternatives for copper burning.
- Women are more affected than men since the latter are outside the house most of the time.
- Our locality is beautiful and breezy but we are deprived even from walking in the street.

#### Narrative:

I purcvhase only produce grown in greenhouses, because uncovered ones are contaminated .

" We suffer a lot and burning contaminate the produce and I am allergic and I cannot sleep because of the contamination . In the morning I find soot on the floor. We can do nothing but close doors and windows. I frequently visit doctors for chest allergy. They told me that my case will worsen if burning is continued. In the beginning we communicated with the police , but they did nothing because the burning takes place in C areas. Many problems occurred when the police chased them. Medical treatment as a result of that became a financial burden. The closer a person lives to the burning site the more s/he suffers. What is needed is to look for innocuous alternatives, to stop burning and use the machines. I never argued with the wives of those who do the burning since I know what their reaction will be. It is their only sustenance. I implore to the competent parties to look for alternatives and appropriate solutions. The Palestinian Authority is not fulfilling its obligations. This may be due to the fact that burning takes place in C areas. Many fights took place among the inhabitants because of the burning. People should use the machines for the strippingrather than burning. We cannot argue with those who do the burning since it is their only sustenance. They do not care about our welfare. The financial burden: High electricity bill, plants contamination and health care expenses. Our locality is beautiful and breezy but we are deprived even from walking in the street. Now, we purchase only plants grown in greenhouses and avoid uncovered produce. Of course women are more affected by the burning than men since they stay at home for longer periods of time.

## G.T. 60 years (retired school custodian)

- I am very affected by the burning, and each time I almost get chocked when I inhale the smolder
   Our houses and plants are contaminated as well as our entire environs. Doctors thought I was a hookah smoker.
- Cleanliness:
- Mr. Jaouni starts burning around 12 midnight and our Abu Juheisheh neighbors start doing that around noon time. I got exhausted from cleaning the house round the clock.
- Alternatives:
- I argued with our neighbor Isam and asked him why he would do the burning here. He asked: Where do you want me to do it? I said: There are machines for stripping copper. He then said: Do you want me to pay NIS 250 for the machine stripping? I said: You do not want to pay that amount but we pay it to the doctors because of the smolder. Then I could do nothing but return home. Those who do the burning do not own houses in our neighborhood. They alone rent apartments here and their families live somewhere else. That is why they do not care about our children.
- In the past, somebody had a store underneath who would do the burning. I had several fights with him and threatened to throw rocks at his store. Eventually and after several rows he closed down the store and moved out.
- In the past, we used to sleep overnight on the top of the roof. Yet , we cannot do that anymore. We even stay inside all the time because of the burning.
- Financially:
- We turn on ventilators and fans to get cool air because we are deprived natural air. This costs money. Moreover, we spend money on medication and on hospitals.
- The wives of those who do the burning do not have a say.
- We have complained a lot to the municipality and to the police. The latter come with the siren as a warning for them to flee. It seems that the police is an accomplice.
- Our neighbour here is a member of the municipal council but does not do nothing.

We had several fights with our neighbour Yacoub. He would do the scrap burning in a bakery.

Under the guise of cooking or bread baking. But we could smell the poisonous smoke all over the place.

## Narrative:

I am very affected by the burning, and each time I almost get chocked when I inhale the smoulder . Our houses and plants are contaminated as well as our entire environs. Doctors thought I was a hookah smoker. Yet, I never smoked.

Those who do the burning do not own houses in our neighbourhood. They alone rent apartments here and their families live somewhere else. That is why they do not care about our children.

I had several fights with him and threatened to throw rocks at his store and would vandalize it. Eventually and after several rows he closed down the store and moved out.

Our neighbour (Y)would do the burning on the heater under the guise of cooking or baking. He always has problems with the neighbours. The smoulder effuses all over.

In the past, we used to sleep overnight on the top of the roof. Yet, we cannot do that anymore. We even stay inside all the time because of the burning and cannot sit in our stoop in the afternoon either.

In the past, somebody from Taqqash family had a store underneath who would do the burning . I had several fights with him and threatened to throw rocks at his store. Eventually and after several rows he closed down the store and moved out.

We have complained a lot to the municipality and to the police. The latter come with the siren as a warning for them to flee. It seems that the police is an accomplice. Even our neighbour happens to be a member of the municipal council. He sees all this but does nothing about it.

## Kh.A. Aljoulani (48 years) - Bachelor degree in education -School superintendent

- Our air, houses and environment are all contaminated. We wake up in the morning with soot all over the place. We do not to affect their means of subsistence but want them to be away from residential areas.
- Although our town Idhna is well known for the generosity and the magnanimity of its inhabitants, it became well known for its high pollution.
- Most of the burning takes place at night. We wake up for the dawn-time prayer while they
  are burning and filling the atmosphere with smolder and hazardous odor. Several diseases
  including cancer cases have increased. They do not even care for the health of their own
  children and those of their neighbors.
- Alternatives: I demand that all get united and concert efforts to solve this problem by allocating a place in the desert away from people to do the burning.
- Social impact: It is true that scrap burning brings them fortune. Yet, this destroyed our families, the environment and the invaluable health of people. It also destroyed our plants and vegetables that we export outside. It really affected the marketing of our produce. It also affected our schools, students and children.

- Competent Parties: We cannot deprive those people from their sustenance, but people in charge ought to set a comprehensive plan to allocate appropriate places and times for the burning in an attempt to secure the safety of people and those who do the burning. I also ask that they enact laws so that those people work in a safe environment and away from being raided. In that case they can do their job like any other job.
- The only thing that we do is to close doors and windows and confine ourselves inside the house.
- We are deprived of sitting on the stoop of our house and breathe fresh air . We have to keep our children inside the house.
- Role of Women: Women and especially teachers and health department employees can play an important role in raising the awareness of people regarding consequent hazards.
- They even have children do the burning as well. They considerably exploit children as of 6 graders.
- Through my teaching , I participate in the awareness campaign.
- Their wives play a negative role because they brag about the amount of money their husbands earn from burning. They also believe that they have defend their sustenance. Needless to mention that those women are uneducated and work as housewives .
- I do not communicate with their wives.
- If we want for our campaign to be a success , we should seek alternatives.
- I know of nobody who changed their place of residence because of the burning. (Here her husband interjected and said he knew some people did change their place of residence and away from the burning sites.

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Most of the burning takes place at night. We wake up for the dawn-time prayer while they are burning and filling the atmosphere with smoulder and hazardous odour. Several diseases including cancer cases have increased. They do not even care for the health of their own children and those of their neighbours.

Our life is fully contaminated. Most of the burning takes place at night. We wake up for the dawntime prayer while they are burning and filling the atmosphere with smoulder and hazardous odour. Several diseases including cancer cases have increased. They do not even care for the health of their own children and those of their neighbours.

It is true that burning brings them fortune but this has destroyed the life of entire families. It also destroyed our plants and vegetables that we export outside. It really affected the marketing of our produce. It also affected our schools, students and children.

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## Z.J. 53 years (Secondary Education)Housewife and a wife of a scrap workshop

- The economy of Idhna is based on dealing with the scrap. The evidence on that is when a regression took place with the stock exchange, the scrap prices went down and the economy has witnessed stagnation.
- I as a wife of somebody who deals with scrap oppose the burning and in favor of clean methods so that we can financially benefit from that while avoiding harming others. My husband has been into this for the past 26 years. God knows how much we help people and students.
- Two days ago, one of the workers started burning the copper. My husband rushed to put the fire out. There was some white and innocuous fumes. Some people took advantage of that and took pictures that they published on the face book. We were then surprised that the municipality cut the power down and did not consider our clean history.
- The municipality ought to seek solutions and alternatives like using filters. There are many annoying industries besides the scrap- related ones. Why people concentrate on the scrap only? Garbage piles is a problem besides cutting off water supply...etc.

#### Alternatives:

- The municipality can find a place away from residential areas and install burning kilns with filters. In that case, the municipality will benefit from the fees and solve the problem for people at the same time. I hold the municipality responsible.
- Economy: Those who work with scrap finance building mosques and schools. The municipality collects fees from us in return of transporting the waste to AI-Minia landfill site in Bethlehem.
- We never had a problem except the most recent burning event I already told you about and was published on the face book and mobilized people against us.
- We were not hurt because of our work because we work clean and buy clean staples. There are people who got hurt. I am ready to be part of raising awareness campaign to help women who were hurt of this work.

 My husband deals with 200 tons of scrap daily out which 120 tons of iron. Waste comprises only 10%.

#### Narrative:

The economy of ldhna is based on dealing with the scrap i.e. iron and copper. The evidence on that is when a regression took place with the stock exchange, the scrap prices went down and the economy has witnessed stagnation.

I as a wife of somebody who deals with scrap oppose the burning and in favor of clean methods so that we can financially benefit from that while avoiding harming others.

Two days ago, one of the workers started burning the copper. My husband rushed to put the fire out. There was some white and innocuous fumes. Some people took advantage of that and took pictures that they published on the face book. We were then surprised that the municipality cut the power down.

The municipality can find a burning site away from residential areas, and install burning kilns with filters. In that case, the municipality will benefit from the fees and solve the problem for people at the same time. I hold the municipality responsible.

#### S.KH. Housewife -59 years-Uneducated

- We find the soot all over after we wake up in the morning. The only thing we do is to close doors and windows.
- We stay inside the house as long as the burning is in progress.
- Women's stance: All female neighbours complain, but we cannot do anything. We do not dare report to any party. We seek no problems or fights with others.
- Those who do the burning do not care about the complaints since they consider burning is their sustenance.
- Most of the burning takes place in the middle of the night.
- · We the women are aware of the hazards of this but we cannot do anything.
- I used to participate in activities against the burning but not anymore.
- Solution: The only solution is to be patient and we do not seek any trouble with neighbours.
- Now I do not have the desire to participate in any activity against burning.

#### Narrative:

All female neighbors complain, but we cannot do anything. We do not dare report to any party. We seek no problems or fights with others.

Those who do the burning do not care about the complaints since they consider burning is their sustenance.

We the women are aware of the hazards of this but we cannot do anything.

I used to participate in activities against the burning but not anymore.

## M.F. -68 years ( primay school education):

- My children are considerably affected by the burning since they live in the south-western side of the town where people do most of the burning. We have no choice but to close all doors and windows.
- I usually do not go and visit my children and I cannot tolerate what they do tolerate given my old age. I also have two handicapped daughters in that I try to have them avoid inhaling the smolder. Thus, we stay most of the time in our house which is located in the middle of the town. Even here, we get some soot and inhale the smolder.
- My son-in-law has a breathing problem and he is the one affected most.
- The solution lies in that those who do the burning ought to be ethical and to stop harming other people. Also, competent parties should follow up on that matter. The scrap can be sold as is and without burning and storekeepers can then treat it in an appropriate way.
- Women here keep talking about this phenomenon all the time.
- My daughters wish to have the opportunity to move out , but they cannot because of lack of financial sources.
- All are responsible for this. The PA and the municipality are most responsible.

#### Narrative:

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I usually do not go and visit my children and I cannot tolerate what they do tolerate given my old age.

# M.T. 63 years (Completed only 3rd grade at school)- Housewife

- I suffer from hypertension and had my knee joint replaced . So I cannot move easily.
- I wear a piece of cloth and get inside the house when I smell the burning.
- Our neighbour does the burning all the time and would not listen to the calls of the neighbours to stop doing that . We try to avoid having fights with him. One day, a neighbour took pictures of him burning and threatened to go to the police. The latter in turn and as a sign of defiance he increased the rate of burning.
- I implored them to stop burning several times but to no avail. My husband asked me to not talk
  to them to avoid having any problem. He asked me to get inside the house as they start the
  burning in a firewood stove under the guise of cooking or baking. But the fatal smoke comes
  out of the pipes and is spread all over the place.
- In the past, we used to sleep the night on the top of the roof in summer time to enjoy the breeze. Now, we are deprived from so doing. The smolder gets into our house through the store we own

which is adjacent to our place. This store is only means of subsistence.

- I am a sick woman and the burning will aggravate the burden of household work on me. It will also raise the electricity bill because of the round the clock ventilation we have to run.
- We keep taking our children to the doctors because of the high rate of contamination as a result of burning.
- The solution lies in their keeping away from residential areas and that the people in charge follow up to that.

#### Narrative:

I am a sick woman and the burning will aggravate the burden of household work on me. It will also raise the electricity bill because of the round the clock ventilation we have to run.

I suffer from hypertension and had my knee joint replaced . So I cannot move easily.

I wear a piece of cloth and get inside the house when I smell the burning.

We keep taking our children to the doctors because of the high rate of contamination as a result of burning.

Our neighbour does the burning all the time and would not listen to the calls of the neighbours to stop doing that . We try to avoid having fights with him. One day, a neighbour took pictures of him burning and threatened to go to the police. The latter in turn and as a sign of defiance he increased the rate of burning.

My husband asked me to not talk to them to avoid having any problem. He asked me to get inside the house as they start the burning in a firewood stove under the guise of cooking or baking. But the fatal smoke comes out of the pipes and is spread all over the place.

In the past, we used to sleep the night on the top of the roof in summer time to enjoy the breeze. Now, we are deprived from so doing. The smoulder gets into our house through the store we own which is adjacent to our place. This store is only means of subsistence.

#### Z.F. -60 years – Farmer and a housewife:

- Smoulder and soot reaches our house.
- The soot is covering all our plants and produce. They are not edible anymore. I have to clean each piece of the produce from the soot.
- If we cross those who do the burning or have a fight with them, they will revenge and damage our harvest and steal our agricultural equipment as they did with our neighbour Abu Abdallah A'soud. Indeed, they did steal our equipment several times. We cannot do anything to them. Also, they did steal electrical wires in our property to the West of the town.
- The Palestinian Authority(PA) is corrupt and an accomplice.
- Rate of diseases has been aggravated in town because of the burning.
- I did not talk to any of them for I fear their revenge.

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