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Waste pickers in Tunisia: Between Social Precarity and Ecological Awareness

(Case Study within the DECODE Project)

Introduction

This study focuses on the *barbecha*, or waste pickers in Tunisia, who are often invisible yet essential to the urban and environmental landscape. In a context marked by a growing waste management crisis, the activities of these informal actors prove crucial for maintaining city cleanliness, recovering recyclable materials, and preserving the environment. However, their role remains marginalized in public policies, and their ecological contribution is rarely recognized.

Since the 2000s, the Tunisian state has implemented a national waste management strategy through the creation of the **ECOLEF program**, managed by the National Waste Management Agency (**ANGED**). Based on the “producer–recycler” principle, this system aimed to encourage waste sorting and recycling. However, despite these institutional efforts, citizen participation has remained limited, and the system has gradually given way to informal networks where *barbecha* play a central role in waste recovery and the circular economy while remaining a marginalized social group (Chebbi 2023).

This situation places the *barbecha* in an ambiguous space: they are both indispensable actors in the circular economy and marginalized workers subject to insecurity, precarity, and stigmatization. Their relationship with the environment cannot be reduced to a simple economic activity; it is a complex interplay of survival, dignity, and lived ecological awareness.



The case study conducted as part of the **DECODÉ – Waste, Work, and Worth** project adopts this perspective. It seeks to analyze how the *barbecha* perceive, experience, and contribute to environmental protection, while also exploring the social and symbolic dimensions of their work.

General Framework and Key Issues

The analysis of *barbecha* work is situated within broader contemporary debates on informal labor, environmental justice, and the social value of ecological work. These waste pickers represent a silent form of resistance to the logics of waste and consumption. They transform discarded materials into resources, thereby restoring meaning to what has been thrown away.

Their daily practices reveal a tangible and embodied relationship with the environment, one based not on abstract ecological discourse but on direct, lived experience in the field (Cirelli, Florin, 2015). This relationship is simultaneously economic (a source of income), ethical (a sense of pride in contributing to national cleanliness), and ecological (an active role in waste reduction).

In a context where environmental policies often remain focused on technical and institutional approaches (Cirelli 2015), the *barbecha* embody a form of popular ecology, a way of “making do” through resourcefulness, solidarity, and civic responsibility.

This study thus aims to make their practices, knowledge, and aspirations visible not as mere beneficiaries of aid, but as co-authors of environmental sustainability.

Methodology

The study is based on a participatory community research approach, inspired by action-research methods. The work was carried out in collaboration with a group of six *barbecha* (three women and three men), aged between 37 and 87, who operate mainly in the Tunis region.

The method used was Photovoice, adapted to field constraints. Initially, participants were to take their own photos and videos illustrating their daily work, challenges, and perceptions of the environment. However, this approach proved difficult to apply, as the pace of *barbecha* work did not allow them to handle a camera without disrupting their activity and reducing their income.

The process was therefore adjusted: researchers accompanied the *barbecha* in the field, observing their work and collecting their narratives. Photos and videos were taken at the participants' request and under their direction, with them selecting the moments and situations to document. This adaptation respected their pace and dignity while ensuring genuine participation in data production.

The research process unfolded in five stages:

1. **Preparatory meeting** with the *barbecha* to present the approach and co-construct the research questions.
2. **Field accompaniment and visual collection** through observation, discussion, and guided documentation.
3. **Organization of a focus group** to collectively validate images and analyses.
4. **Participatory thematic analysis**, allowing the *barbecha* themselves to identify key themes.
5. **Co-production of a collective narrative** through a report and a StoryMap that highlight their voices and practices.

This approach, grounded in the direct participation of the actors, made it possible to avoid representational bias and to produce a faithful, vivid, and reflective portrayal of their relationship with the environment.



Results and Analysis

1-The Work of the *Barbecha* as an Ecological Contribution

The *barbecha* see themselves first and foremost as actors in environmental protection. They affirm that without their daily efforts, Tunisian cities would quickly be overwhelmed by waste. Mourad explains:

“Plastic feeds entire families, but it also saves the environment; otherwise, it would stay in the ground for a hundred years.”

Saida adds:

“Sometimes we clean more than the municipality. Without us, the streets would be buried under trash.”

These testimonies express an ecological pride that remains largely ignored by institutional frameworks.

Although their motivation is primarily economic, the activity of the *barbecha* is rooted in a logic of waste reduction, recovery, and valorization. Through sorting, collection, and resale, they actively contribute to material circularity and urban cleanliness. Their role, therefore, goes beyond mere subsistence; it represents a form of environmental citizenship, in which



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commitment to the community is expressed through daily work often carried out under precarious and socially devalued conditions.

Waste picking is thus not only a means of individual survival but also a crucial, albeit unrecognized, link in the urban cycle of recycling and waste management.

2-An Ecological Awareness Born from Experience

Although the *barbecha* do not use the technical vocabulary of ecology, their daily practices reveal a deeply lived environmental awareness. They observe the effects of pollution on the city and public health, recognize the value of recyclable materials, and understand the consequences of wastefulness. Waste is not merely an object to be eliminated; it is perceived as a potential, reusable, and valuable resource.

This perception represents a symbolic reversal in the way waste is viewed. Where most people see only dirt and rejection, the *barbecha* see economic opportunities and ways to protect the environment. Their work embodies a form of “ecology of survival,” in which livelihood and environmental preservation are inseparable.

This concrete relationship to materiality is expressed through daily gestures of sorting and reuse. As Fatma explains:

“At first, we collect everything together: plastic, dry bread, cans, everything goes into one bag. Then, when I arrive where I settle, I sort everything separately: plastic on one side, *bach* (soft plastic) on another, bread on another, cans on another, and yogurt cups too.”

Through this empirical knowledge, the *barbecha* transform waste into value and actively contribute to urban sustainability and the circulation of resources, reaffirming their central role in an informal yet essential circular economy.

These marginalized social actors reinvent the use of objects such as baby strollers transformed into collection carts to contribute, through often grueling and undervalued labor, to a dynamic circular economy, particularly through plastic recovery, which institutional systems struggle to manage effectively.

Over time, the *barbecha* have developed a true understanding of the value of sorting. This ecological awareness does not originate from institutional programs but emerges from their

daily practice of sorting, collecting, and reselling. Through their field experience, they have learned that separating plastics, dry bread, metal, and cardboard is essential for maintaining cleanliness and for waste valorization. As Fatma notes:

“We like everything to be always clean to keep the plastic apart, the bread apart, everything separated, that way the environment stays clean.”

Their relationship to sorting thus goes beyond economic efficiency; it reflects a broader conception of respect for the environment and community life. Through their work, the *barbecha* express the hope that this practice of selective sorting born out of necessity might one day become a shared habit among all citizens. In this sense, their experience represents a form of collective ecological learning, based on practice rather than institutional norms.

3-Knowledge and Adaptation to Field Risks

The *barbecha* develop a detailed, empirical understanding of the dangers inherent in their activity. They can accurately identify physical risks such as cuts caused by glass or medical waste, exposure to toxic and biological substances, and inhalation of persistent, unhealthy odors accompanying their daily work. The size and weight of their loads highlight the harsh physical strain of the job. Their bodies bend under the weight, reflecting a constant confrontation with the material reality of waste with its mass, texture, and resistance.

In response to these challenging conditions, the *barbecha* have developed a genuine practical expertise. Their field experience enables them to identify hazardous areas and devise ingenious adaptation strategies, such as making hooks from paint roller handles, reinforcing bags by hand, defining safer routes, and maintaining constant vigilance. Through these discreet skills, they transform precarious and dangerous work into a form of practiced mastery, evidence of practical intelligence and everyday creativity.

Gender plays a significant role in shaping this social vulnerability. Women *barbecha* face a double exposure to the dangers of the job: in addition to physical risks, they endure harassment, verbal abuse, and social stigma. This reality highlights the inequalities structuring informal labor and shows how gender dynamics affect both safety and social recognition (Azaitraoui, ...).



Despite these constraints, the *barbecha* demonstrate remarkable resilience and solidarity. They help one another, share tips for protection, and organize informal networks of mutual support to cope with everyday risks and challenges. Their lived experience constitutes a form of valuable empirical knowledge, grounded in practice and often ignored by public authorities and waste management institutions.

Discussion

The sociological analysis of the *barbecha* case reveals several key dimensions of their relationship to both the environment and society. First and foremost, their activity embodies a popular and practical form of ecology, one grounded in daily action rather than abstract discourse. The *barbecha* act concretely upon their environment, adding value to recoverable materials and contributing to the reduction of pollution and waste in urban spaces.

Yet, this contribution remains largely invisible at both the social and institutional levels (Cavé 2015; Chebbi 2025). Despite the vital importance of their work, the *barbecha* are excluded from formal waste management systems. Their empirical knowledge, accumulated over many years of field experience, is rarely recognized as a legitimate form of expertise (Cirelli, Florin, 2016).

This situation also reflects a form of environmental inequality: the *barbecha* bear alone the costs and risks associated with exposure to waste, without receiving any of the symbolic or material benefits of the so-called “green transition.” In the face of these challenges, they express a clear demand for recognition and dignity. Beyond material needs such as access to proper equipment or safer working conditions, they wish to be acknowledged as genuine partners in waste management systems rather than as intruders or marginalized outsiders.

Thus, this study shows that the environment cannot be reduced to a technical or political field of action; it is also a social space, structured by relationships, hierarchies, and struggles for recognition. Within this space, informal actors such as the *barbecha* play a central yet often overlooked role.



The Photovoice technique proved particularly valuable in this context. By actively involving participants in the research process and capturing rich visual and narrative perspectives, it enabled a closer, more trusting relationship. The act of accompanying them and documenting their own work on their own terms fostered a sense of agency and legitimacy among the *barbecha*, which in turn allowed for more open and honest exchanges. Showing participants their photos during the focus group has prompted deeper reflections on their experiences and perceptions, leading to a more nuanced and interpretive understanding of their ecological practices and social realities.

Therefore, combining Photovoice with individual interviews would further enrich the data. This integrated approach will not only enhance the reliability of the findings but will also reveal new analytical dimensions that might otherwise remain hidden.

Conclusion

The case study of the *barbecha* in Tunisia highlights the paradoxical position occupied by these informal workers: socially marginalized, yet ecologically indispensable. Through their daily activities of collection, sorting, and recycling, they actively contribute to the preservation of urban environments and the sustainable use of natural resources. Their contribution, often



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ignored by institutions, lies at the very heart of ecological waste management and the valorization of recyclable materials.

The *barbecha*'s relationship with the environment is characterized by a lived, pragmatic ecology, deeply embedded in the material realities of labor. Far from the theoretical or institutional rhetoric of sustainable development, their ecology is expressed through simple, repetitive gestures, collecting, sorting, and reusing that reflect a tangible commitment to cleanliness and the preservation of shared spaces. Their practice thus embodies an everyday ecology, where survival, dignity, and environmental awareness intersect.

To recognize the *barbecha* is to acknowledge an alternative conception of sustainability, a *popular sustainability* grounded in lived experience, community solidarity, and the moral value of work. Such recognition cannot remain merely symbolic; it requires concrete action, including the provision of adequate protective equipment, the establishment of regular dialogue between *barbecha* and local authorities, and the public valorization of their role within society.

Ultimately, this study sheds light on a reality too often overlooked: environmental protection is not the exclusive domain of institutions or technology, but also depends on the silent labor of those who, each day, collect what society discards. Through the *barbecha*, we glimpse a true ecology of dignity, where survival itself becomes an act of citizenship, and informal work stands as a discreet yet essential engine of environmental sustainability.