

## ARTICLE

# WASTEPICKERS GOES GREEN: TRANSFORMATIONS IN WASTE OCCUPATIONS IN XXI CENTURY

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## ABSTRACT

The article outlines the sociological aspects of the formation and transformation of the social group of waste collectors in terms of the sociology of occupations. The main forms in which there is an occupation today are highlighted: labor associations, cooperatives, representatives of the "green" professions group, traditionally fixed stigma in the social hierarchy, anomie due to the separation of customs, shadow illegal organization, self-employment, situational crisis forms of garbage disposal. In the twentieth century, environmental catacalism promotes the emergence of green professions, which also perform a cleansing function, but differing in quality of skills. The tougher the environmental challenges are, the more relevant all forms of employment will be.

## INTRODUCTION

**KEY WORDS**  
profession sociology,  
green jobs, green jobs,  
environmental  
modernization, waste  
collectors, social  
inequality, exclusion,

A waste collector (waste picker, rag picker) is a person who collects recyclable materials for sale or for personal consumption. Anthropocene, climate change, the level of total pollution and growing environmental risks produce the appearance of global environmental inequality, is the result of which garbage collectors make up 1-2% of the world's population and expanding settlements in industrial centers [3]. The main program in addressing to social and economic problems in the eco-modernization of countries in the context of following the goals of sustainable development to a green economy in sustainable jobs providing, involving the transition to cyclical production and transformation of the structure of the labor market, which moves the marginal sector to the official one. The article focuses on the activities of waste collectors and their specific usefulness in the nowadays, their social position in society, role in the complex global stratification system today.

## MATERIALS AND METHODS

The main method was the content analysis of articles for the years 2010-2019 on the global sustainable development reports, scientific articles of the scopus, web of science database. Search keywords: waste pickers, rag pickers, association of waste pickers, green profession.

## RESULTS AND DISCUSSION

In the twentieth century, the problem of garbage becomes global, there are acute questions about its quantity and toxicity. Greater race of mass production based on complex materials, generated waste, which does not decompose. New technologies are emerging -incinerators, sorting and processing plants, intelligent systems for tracing different fractions are being introduced, but only one fourth of the waste in the world is recycled [3]. Its divides the recycled market into two parts. A high-tech market is built into an economic system, that can provide financial investment in a separate collection and recycling system, and it requires well-educated, skilled green jobs that reduce the ecological footprint. Those countries that do not have the finances to create the industry of the collection and processing market choose landfill technologies and incinerators; if landfills are the most common decision of waste utilization, an informal market develops, where waste collectors become the main actors. This leads to a sharp differentiation of the division of the world arena into producing countries, utilizing countries. Since part of the waste stream in the form of unutilized goods settles in developing countries in the form of landfills where there are no recycling technologies. Developing countries are accepting waste streams from developed countries, and the social group of garbage collectors is growing.

The organization of forms of activity of waste collectors varies:

- 1) labor associations, cooperatives, federations and organizations and NGOs with a formal scheme and cultural ethics. In the 80s XX century garbage collectors organizations appeared. According to the Global Alliance Of Wastepickers [13] for 2016, there were 30 associations and 20 million registered garbage collectors, taking into account local cooperation. The most famous: in Mexico City - Socredad Cooperativa de Seleccionadores de Materiales, in Brazil - Bilo Horizonzo, Recife, Niteroi Salvador, Collector's Association of Bogotá in Colombia, The Movement of Excluded Workers in Argentina, SEWA in Asia, All India Kabari 4Mazdoor Mahasang in India , Zabaleen in Egypt, Women's Balikatan Movement in the Philippines. Associations as a

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form of employment or self-employment are most profitable both for employees and for the structures that hire them. Associations have a high level of psychological mutual aid and solidarity. There are formed families and dynasties, created norms of behavior in the organization, the rights of the organization are upheld. Waste collectors in cooperatives are attached to the idea of sustainable development, they see their future stable position in the green labor market. Declarations and missions of organizations appear in the global alliance of waste collectors that support the following: ensure the population is included in separate collection, abandonment of incineration technologies, landfills, proclaims the need to find institutions to share knowledge, experience and technology, ensure the contribution to sustainable development, protect laws and public policies that effectively attract waste collection organizations. Collectors should become participants in decision-making processes in order to improve working conditions, education and other capacity-building activities and to seek recognition and professionalization of their work.

## 2) Green Professions Groups

Green jobs have associated values in the context of environmental ethics, corporate responsibility and are linked to sustainable development goals. Currently developed and implemented joint activities of international organizations under the name "Green Jobs": UN, UNEP, International Labor Organization (ILO). The problems of labor protection, labor justice, and safety of working conditions are brought to the fore [4].

The impact of green economy activities and technologies is a significant change in the working conditions of existing employment. The waste management and recycling sector employs more than 500,000 people in Brazil, 62,147 in South Africa, from 400,000 to 500,000 in Bangladesh, and about 600,000 in Asia. Of the 27 countries, about two thirds of the countries have created platforms for predicting skills needs and ensuring the definition of professional market skills for a green transition [5].

Below are the distribution of existing jobs in different regions of the world in thousands of people, including waste management. Each of the represented ecosystem services sectors should include a waste management specialist. For agriculture, requiring the greatest control of pollution, the market is estimated at 976 thousand jobs, 157 thousand slave jobs allocated to the tree mining and paper industry, the water industry - 950 thousand jobs. Textiles (as a general direction of the market, rather than eco-textiles) are estimated at 49 thousand jobs, mainly related to ecosystem services. Tourism is estimated at 37 thousand jobs. The African market as a whole can create 59% of all jobs in ecosystem services, the Asian and Pacific markets are estimated at 47% of all jobs (second place), only then does the American (17%), European (16%), and Middle Eastern (15 %) [3].

The new green labor market, as estimated by the ILO and the UN, could create about 18 million jobs in the entire global economy, primarily affecting the sectors that contribute the most environmental stress to OS pollution with waste affecting air, water and soil, and therefore biota and human health status. The greatest contribution to the change in environmental quality is made by the energy and transport sector of the economy, which has the greatest climate contribution and impact on air pollution. In general, job creation means redistributing from the mining and manufacturing sectors to the industrial and household waste management sector.

Local and national authorities will be required to create solid waste management systems with clear rules and incentives to support the responsible waste treatment and reprocessing facilities in different waste streams. At the same time, the need for small support is growing. The main directions of the profession: Recycling: waste treatment specialist, waste minimization, recycling manager, ecologist, municipal recycling coordinator, green chemistry

Waste disposal at a landfill site: public works manager, operations manager, sanitary manager, hazardous waste engineer, hazardous waste coordinator, landfill operator, waste collector

Communication, education and marketing: an educational education specialist, a public relations manager, an environmental educator, a software services specialist

Industrial waste: manager, resource coordinator, executive director for industrial waste, chief specialist for special-purpose waste collection, industrial waste inspector

In Russia, for the time being, only a plan is being planned to create green jobs under the new General Agreement for the period 2018-2020. "Waste treatment analyst", professional standards in the field of housing and communal services of a specialist in the field of waste management, approved by the Order of the Ministry of Construction of the Russian Federation No. 203n of April 7, 2014. For a specialist in the field of waste management, two levels of qualification are established (degree of professional skill): 5th and 6th. The professional standard defines for the specialist in the field of waste management two labor functions: organizational (accounting and monitoring systems for the management of waste consumption and production); coordination (coordination of organization and control activities).

- 3) Traditionally fixed stigma in the social hierarchy - the caste in India, the Coptic settlements in Egypt [1].
- 4) Anomie due to the separation of customs. In the city of Manshiyat-Nasir (City of Scavengers) there is a whole guild of Christians - the Copts engaged in collecting and recycling garbage, the number of which is about 45 thousand people and destroys about 85% of the garbage of citizens, leaving part for their own needs, part for processing, and part domestic animals [2].
- 5) Shadow illegal organization. Italian and Russian garbage mafia. Formed due to the lack of ownership due to gaps in the law, which gave rise to mafia private structures.
- 6) self-employment. China, Southeast Asia. 3.5 million free waste collectors [11].
- 7) situational crisis forms of gathering. Economic crises, embargoes and military conflicts, environmental disasters that deprive people of their livelihood lead to temporary gathering [7; 14].

The main problem on the path of institutionalization to the green profession remains the informal market with exclusive groups that make up large areas in Egypt, Pепенadores, Catroneros and Bucabota in Mexico, Basuriegos, Cartoneros, Traperos and Chatarreros in Colombia, Wallonia in Ecuador, Bouzos in Costa Rica and Sirudzas in Argentina [6]. They need to take a decent status in the official state economy, or develop their own private sector with the help of supranational states or charitable assistance from sponsors. In cities with a collection system, four groups of waste collectors in cities can be distinguished:

- a) door-to door - scavengers who independently serve individual households by agreement. They independently invest in individual transportation systems and look for private companies collecting recyclables.
- b) Street waste collectors
- c) Municipal waste collectors are common in Mexico, Colombia, the Philippines and Thailand.
- d) Landfill collection: Pickers / scavengers sort waste at landfills. These collectors in the shadow market have the lowest status; they live in shacks built from building materials waste, on or near the dump. Distributed in Manila, Mexico City, Cape Town, Bangalore, Guadalaharu, Rio de Janeiro, Dar es Salaam, Guatemala, etc. [9, 10].

The method of organizing informal activities ultimately determines incomes, working conditions and social status, on the one hand, it is limited to municipal requirements, and on the other, it's own motivation to improve skills. The informal market is vulnerable due to its dependence on intermediate primary and secondary dealers, processors, brokers and wholesalers, which may also include both formal and informal sectors. Thus, the processing network takes the form of a hierarchy with different degrees of involvement in the formal market and a complex system of interactions. The economic success of the waste collector depends on the price of recycled materials, whether it is included in structures that reduce its vulnerability, level of training, agreements with local authorities and / or the private sector [8].

Public policy on waste management has traditionally been driven by the need to control public health and the environmental consequences of a violation of waste management, which determines the legal context in which the informal market operates, affecting the professional and labor status of the waste collector. There are three types of policies: repression, where the authorities express "concern" for inhuman and unhygienic working conditions (for example, in Colombia); neglect of this type of activity (for example, in some parts of West Africa for moral and ethical reasons); make their work possible only if they bribe or support certain political parties (for example, in Mexico City). And the last is support within the framework of the eco-modernization policy, among which local or national NGOs and societies sometimes spoke with the support of supranational agencies [2]. The main tool for promoting waste collectors to the official sector is the form of public-private partnership (PPP). Brazil has implemented the Integral Municipal Solid Waste Management law, where collectors are part of the solid waste management system and receive union support. In Viet Nam, Decree No. 59/2007 / ND-CP contains the rights and obligations of a person associated with solid waste management; in Indonesia, by presidential decree, garbage collectors are financed as a private sector that can be formally used in the economy and environmental protection [12].

## CONCLUSIONS

The phenomenon of waste collectors is universal. It does not lose, but increases its importance in the development of history with the growth of pollution and the need to take action. There are trends that have remained unchanged over time:

- the sociobiological role of the waste collector (as a decomposer) is becoming more acute in the context of global environmental inequality, the self-employed occupation of the waste collector is still marginalized
- -creation of the chain of exchange between the state and collectors depends entirely on the institution of environmental control and the distribution of roles. Waste collectors had status equal to the extent that the state allowed them to participate in the collection and create autonomous raw material markets, but the state's need for collectors and municipalities varied. The Institute of Environmental Control has played the most important role in promoting the status of collectors, despite ongoing public initiatives.

- the more valuable the secondary raw material was in ecological culture, the more steps were created in the hierarchy of waste collectors with a free degree of activity, and, accordingly, the more secondary resources they can return to the material flow.
- Tendencies with qualitative changes in the status of occupation history and the profession of waste collector are highlighted:
- -the skills and status of the waste collector could be inherited without involving the institute of education. In the twentieth century, environmental cataclysms promotes the emergence of green professions, which also perform a cleansing function, but differing in quality of skills. The complexity of the production and processing system creates the requirements of safety and labor protection, directly affecting the status and the possibility of survival in the professional environment. Green occupations have the greatest demand, which will grow, while self-employed waste collectors will face further legal restrictions on their activities.
- for the first time in history, sustainable professional and craft communities appear, regulated by an ethical-ecological complex of sustainable development with the possibility of growth.

#### CONFLICT OF INTEREST

There is no conflict of interest.

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