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PRECARIOUS, MORE PRECARIOUS, MOST PRECARIOUS? THE QUALITY OF LIFE OF WASTE PICKERS IN THE KAROO

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Towns in the Karoo region currently offer few income-generating opportunities, resulting in people seeking informal waste-picking opportunities on the streets and landfills. This article aims to investigate the level of precariousness of waste pickers in the context of the Karoo towns in comparison with the rest of South Africa using Sen's capability approach. A cross-sectional research design was used, interviewing 75 informal landfill waste pickers and 23 street waste pickers in nine Karoo towns. The results indicated that, in some respects, the situation of the Karoo waste pickers is more precarious than those in other areas of South Africa.

Keywords: Amartya Sen, capability approach, Karoo, waste picker, waste reclaimer, quality of life

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BACKGROUND TO THE STUDY

The name **Karoo** originates from the Khoi word *Karus*, meaning dry, barren, thirsty land (Karoo Information Travel Directory, 2020). Dry, barren, hard and thirsty lands such as the Karoo are usually sparsely populated (1.6 people per km^2 in the case of the Karoo) and tough to make a living on (Atkinson *et al*., 2016; Nel & Hill, 2008).

FIGURE 1
LOCATION OF THE GREAT AND LITTLE KAROO IN SOUTH AFRICA

Source: Wikipedia, 2020

The Karoo region covers 400 000 km^2 or 40% of the geographic space of South Africa (Nel & Hill, 2008; Nel, Taylor, Hill, & Atkinson, 2011) and is generally seen as marginalised and underdeveloped, with most of the region situated at vast distances from the country's major economic hubs and, of particular significance, lacking its own manufacturing activities. The region's economy predominantly depends on farming, mining and tourism (Atkinson, Schenck, Matebezi, Badenhorst, Umejesi & Pretorius, 2016), although mining and farming have shed a great deal of labour during the last twenty years (Atkinson *et al*., 2016; Nel & Hill, 2008). According to the Health Systems Trust (2018), the Karoo, in comparison with other rural areas in South Africa, has a high level of access to basic services such as water (95%), sanitation (68% have flush or chemical toilets) and electricity (80%), but the 2011 census (the latest one

available) indicated that the unemployment rate in the Karoo was 49%, compared to South Africa's overall unemployment rate of 29.8%. Nearly half of Karoo households earned less than the minimum income level of R18 000 per annum in 2011 (Health Systems Trust, 2018). Urbanisation has brought population growth, but economic and agricultural decline to the area (Nel & Hill, 2008; Nel *et al*., 2011). In addition, the post-apartheid government divided the Karoo region among four provinces (Northern Cape, Eastern Cape, Western Cape and Free State), which aggravated their marginalisation, seeing that, as far as service delivery is concerned, provincial governments tend to prioritise urban development, leaving rural areas such as the Karoo lacking in services (Atkinson, 2016; Nel & Hill, 2008).

As a result of the above factors, a significant number of people are unemployed or informally self-employed and dependent on government grants,[1] which to a great extent exclude men under the age of 60 as recipients (Kahn, 2018). In an attempt at survival, waste picking has become a viable option for earning a living in areas where there is a buy-back centre (BBC) for buying recyclable waste and/or a scrap-metal dealer operating in the town (Department of Environment, Forestry & Fisheries (DEFF), 2020a). Waste picking is a familiar sight in cities and towns across South Africa (Blaauw, Pretorius, Viljoen &Schenck., 2020; Iwu, Eze, Opute, Dongo, & Dongo, 2020; Samson, 2019; Schenck & Blaauw, 2011; Schenck, Blaauw & Viljoen, 2016a; Schenck, Blaauw &Viljoen, 2016b; Timm, 2015; Viljoen, 2014). Informal waste collectors are found on the streets and on landfill sites. Some push trolleys and carry bags, while others are on horse carts or bakkies, but all are usually on their way to BBCs (also referred to as "the middle man"), where they sell the recyclable waste (Blaauw et al., 2020; Iwu *et al.*, 2020; Timm, 2015; Viljoen, Schenck & Blaauw, 2012; Viljoen, Blaauw & Schenck, 2019). Although they are recognised for their contribution to increasing recycling rates and the diversion of recyclables from landfills, informal waste pickers worldwide work under deplorable conditions (Gutberlet, 2021).[2]

Chen and Carré (2020) point out that the informal economy is as old as humankind itself. Historically all employment was informal until policies were introduced that created the divide between formal and informal. Chen and Carré (2020) explain that 61% of all people worldwide are working informally, though their work remains undervalued. According to Rani (2020), in the Global South, 80% of the workforce consists of informal workers, the majority of whom are self-employed and not fully precarious. Informal work was thought to be a transitory phenomenon that would decline with economic growth, but that expected transition has never been realised. Rogan and Cichello (2020) believe that informal employment, or informality, reduces poverty and does not perpetuate it, although Lund (2020) cautions that informal work does not necessarily reduce inequalities. Lund (2020), Chen and Carré (2020) and Samson (2019) agree that enabling environments should be created for informal workers.

The concept of precariousness is defined as "the state of being dangerously likely to fall or collapse" (International Labour Organization(ILO), 2012:28). Precarious informal work is seen as work that is unstable, typically accompanied by lower wages, hazardous working circumstances and an absence of benefits (ILO, 2012; Iwu et al., 2020; Reyneke, 2016) and lacking an official government-funded safety net for protection. The ILO (2012) indicates that the state of precariousness depends on context such as the country, region, existing social structures and labour market that impact on the lives of the individual, their family and community. Informality as such does not in all instances necessarily equate to precariousness (Rani, 2020).

The aim of this article is to investigate the relative precariousness of the waste pickers in the context of nine Karoo towns in comparison with the rest of South Africa. Many studies highlighting the precariousness of waste pickers in South Africa have been published, but none have focused on waste pickers working in remote Karoo towns (Nzeadibe & Mbah, 2015; Reyneke, 2016; Schenck, Blaauw,

1 South Africa has an extensive social protection system which includes 18 million recipients and 20% of South African households.

2 It is estimated that waste pickers in South Africa are responsible for diverting 90% of the recyclables from landfills (Godfrey, Strydom & Phukubye, 2016).

Swart, Viljoen & Mudavanhu, 2019a). The question was therefore: how do the informal labour market outcomes compare between the self-employed waste pickers in these remote areas in South Africa such as the Karoo and those in the rest of South Africa?

THEORETICAL FRAMEWORK

Sen's capability approach (CA) was used as the theoretical lens for the article as it provides a holistic, multifaceted and contextual view of poverty, precariousness and wellbeing (Burgess, 2009; Taylor, 2018). Taylor points out that Sen's view on poverty describes restricted capabilities and "the inability to exercise humanity's most basic freedoms" (Taylor 2018:133). For Taylor (2018), it is this inclusive definition of poverty that demonstrates why a comprehensive approach such as the capability approach is needed as a lens to look at poverty, inequality, vulnerability and, as in this article, precariousness. Sen (1999) argues that the wellbeing of a person would be improved with the expansion of the capabilities, opportunities, and freedoms of the person. Anything that holds the person back should be taken into account. For Sen (1999), increasing a person's freedoms is integral to the CA.

According to Sen (1999), Robeyns (2005), Egdell and Beck (2020) and Conradie, Human-Hendricks Roman, (2019), the following aspects are important in considering the enabling factors that increase a person's freedoms:

- The ability of an individual to make an autonomous choice regarding valued functionings, also referred to as "agency";
- The relevant capability set needed to achieve a life that a person can value (Egdell & Beck, 2020);
- The possible "adaptive preferences" (Nussbaum, 1997:293) of a person who cannot realise/achieve their capabilities due to structural poverty, inequalities and prohibitive current and historical circumstances;
- The political-economic situation as well as the political will to implement enabling policies;
- The health, social and networking opportunities available to the person.

Precariousness in this article thus refers to the circumstances that prevail when people's capabilities, opportunities and freedoms are restricted and when safety nets are unavailable to support them. In the discussion of the results of this study, we will reflect on the possible factors that contribute to people's precarious positions and the barriers to their wellbeing that hold them back.

RESEARCH METHODOLOGY

A cross-sectional research design was used for the study. Cross-sectional studies look at the research phenomenon at a particular moment in time. It takes a snapshot of a proportion of individuals in the research population (Alexander, Lopes, Riccheti-Masterson & Yeats, 2015). A questionnaire was used to interview 75 landfill waste pickers (LWPs) and 23 street waste pickers (SWPs) in nine Karoo towns during 2016.

The questionnaires consisted of quantitative and qualitative questions eliciting insights into the socio-economic circumstances of the LWPs and SWPs: their family life, health and safety issues as well as their experience of their overall wellbeing at that moment in time. Author 1 and an assistant visited nine Karoo towns, interviewing waste pickers on the landfills and streets who were available and willing on that particular day. One town had many waste pickers on the landfill. A group of students from the University of the Western Cape were duly trained as fieldworkers to assist with interviewing the waste pickers on landfill 9. They were well prepared to conduct the interviews under the direct supervision of Author 1. SWPs were mostly found and interviewed at the BBCs where they sell their recyclables.

In addition, the researchers documented their own observations of activities and interactions they could discern on the landfill.

Ethical clearance for the study was obtained from the University of the Western Cape's Research and Ethics Committee. The data were analysed using Braun and Clarke's (2006) thematic analysis for the qualitative answers and StataSE version 15 to analyse the quantitative data. To compare whether the circumstances of the Karoo waste pickers are more precarious or less precarious than waste pickers in other towns, we compared the results with previous studies that are comparable.

The following four studies were used in this comparison: Schenck, Blaauw and Viljoen (2012) completed a study of 400 landfill waste pickers on nine landfill sites in the Free State province. Viljoen's study published in 2014 interviewed 914 street waste pickers in the major cities in South Africa. Schenck, Blaauw, Viljoen and Swart (2018) completed a further study of 373 landfill waste pickers on nine landfills in South Africa. The last study used for comparison studied 50 street waste pickers in Bellville, Cape Town (Yu, Blaauw & Schenck, 2020).

In each of the above studies the same questionnaires were used, which makes the comparison in this study feasible. Two sets of questionnaires, one for landfill waste pickers and one for street waste pickers, were completed. The questionnaires were similar except where they explored the operational aspect of waste picking.

RESULTS

Observations

In the nine Karoo towns visited, waste pickers were operational if there was a BBC to buy the scrap or the recyclable material from them. Many of the towns visited did not have any BBCs and therefore waste picking could not realistically take place. Some of the towns, such as Carnarvon, only had scrap-metal dealers as it would not be not cost-effective to recycle other products, owing to the distance of recyclers situated in cities. Places such as Laingsburg, Victoria-West, Loxton and Calitzdorp had no BBCs and no waste pickers at the time. In Calitzdorp we met a woman and her daughter who tried to set up an informal BBC at her house, but transport, space, access to cash (turnover) and the lack of support from the municipality were barriers to growth and, in fact, survival. Most difficult of all, the woman had to transport the collected waste to Oudtshoorn, 50 kilometres away, to be sold to a larger, formal BBC, which in turn sold it to recyclers in the cities. In Victoria-West and Fraserburg we were told that there was a weekly truck which bought scrap metal, but this was not confirmed.

In Ladysmith we arrived at the local landfill, which was locked, and no access was granted. We were told that the waste manager had closed the landfill to the waste pickers. A visit to the informal BBC in the township confirmed the situation. The result was that the BBC was facing possible closure as only waste collected from the streets was sold to it. The BBC and waste pickers in the town faced a bleak future. In Prince Albert we found no BBC, but there was a swop shop where children were encouraged to clean the town on Wednesday afternoons. The waste they collected would then be exchanged for stationery for school and food to take home. The recyclable waste would then be bought and collected by a BBC in a neighbouring town which came to fetch it weekly.

In Calvinia there were waste pickers and a scrap-metal dealer. In addition, a woman collecting glass was present on the landfill, informing us that she collected glass to be sold to a glass-recycling company in Cape Town that collected the glass every three months. She regarded this arrangement as financially viable in comparison to having no income.

RESULTS FROM THE INTERVIEWS

Gender

It is predominantly men who earn a living through waste picking in South Africa. The results in this study are in line with the other studies in South Africa where males comprise the majority of waste pickers.

TABLE 1
GENDER OF THE KAROO LANDFILL WASTE PICKER AND STREET WASTE PICKERS

Landfill waste pickers (n=75)	**Street waste pickers** (n=23)
Male 76% Female 24%	Male 69.6% Female 30.4%

Source: Research data

In the study done by Iwu *et al*. (2020) in Cape Town in 2018, of the 39 SWPs interviewed, 31 (79.5%) were male and eight (20.5%) were female. In Pretoria Schenck and Blaauw (2011) found that SWPs were 97.2% male. Additionally, Blaauw *et al*. (2020) discovered that on Free State landfills 51.7% of LWPs were male and 48.3% were female. Schenck *et al*. (2019a) found that, on nine landfills in five provinces, only 39.4% of LWPs were female. The lower percentage of female LWPs in that study was also a consequence of the fact that one of the landfills studied allowed only men on the landfill. In a study on the SWPs in the major cities in South Africa conducted by Viljoen (2014), 91.1% of SWPs were male, while only 8.9% of SWPs were women.

It is therefore surprising to find more women SWPs in the Karoo towns than in the areas examined by several of the previous studies elsewhere in South Africa. Women were regularly found on the streets accompanying their partners. The Karoo towns are small and relatively safe, with shorter distances to travel with recyclables than in cities, which makes collections easier for women. In the cities and larger towns, however, it is more difficult for women SWPs to operate, owing to unsafe environments, vulnerability to crime and long travelling distances. The percentage of women waste packing on landfills in the Karoo is lower than the percentage collecting on the streets as well as on landfills in the Free State. We were told by some women on the landfills that they often fell prey to gangs and to those using drugs who were prone to steal their collected recyclables and/or money. The streets seemed to be a safer option for women with their partners in the Karoo, although they had access to fewer recyclables on the streets than on the landfills.

Age

In South Africa a person below the age of 35 is regarded as a 'youth', according to the extended definition of youth. The following table contains the age categories of waste pickers who participated in this study.

TABLE 2
AGE OF WASTE PICKERS IN THE KAROO

Landfill waste pickers (n=75)	**Street waste pickers** (n=23)
Younger than 35 – 46.5%	Younger than 35 – 22.7%
Most prevalent age category (15–24) – 26.8%	Most prevalent age category (34–44) – 31.8%

Source: Research data

In the Karoo towns the percentage of young LWPs was more than double that on the streets. Only 22.7% of the SWPs were below the age of 35, while 46.5% of the LWPs are classified as youths. In the study by Schenck *et al*. (2019a) on nine landfills in South Africa, as well as in the study by Blaauw *et al*. (2020) on nine landfills in the Free State, 42% of LWPs were younger than 35. Viljoen's (2014) study of SWPs in South Africa's major cities found that 44.4% of male SWPs were younger than 35, while 22% of female SWPs were younger than 35. It is probably more difficult for older women to collect recyclables on the streets than it is for younger males. The age of the waste pickers in the Karoo towns ranged between 18 and 70. A few children were seen on one of the landfills but were not interviewed, as our ethical clearance did not allow the interviewing of children. Sasaki, Araki, Tanbunan and Prasadja (2014) found that older people preferred to collect on the landfills, as recyclables could be accessed more easily than on the streets. They encountered people up to the age of 80 on landfills. The other South African landfill studies also reported LWPs older than 65 (Blaauw *et al*., 2020; Schenck *et al*., 2019a).

Possible reasons why there were so many young LWPs include the fact that access to recyclables was easier on landfills than on the streets, and there was also a higher sense of "community and support". However, groups of young men who steal or grab the valuables collected by particularly the women and the elderly on the landfills were a problem that was steadily becoming more prevalent (Schenck *et al*., 2019a). During the data collection in the Karoo, the landfills in one of the towns were inaccessible to the fieldworkers owing to the presence of a gang that was "controlling" the landfill. We were advised not to enter, as it was too dangerous. We interviewed the LWPs at the BBC in the town. It is likely that well-managed landfills and/or material recovery facilities could support the collections of a wider age range of pickers.

MARITAL STATUS

A surprising result from the research was the fact that so few waste pickers were married and that a substantial percentage were either single or living with a partner.

TABLE 3
MARITAL STATUS OF THE WASTE PICKERS

Landfill waste pickers (n=75)	**Street waste pickers** (n=23)
Married 6.7%	Married 4.4%
Single 69.3%	Single 47.8%
Widowed 5.3%	Widowed 13%
Separated 2.7%	Separated 8.7%
Living with a partner 16%	Living with a partner 26.1%

Source: Research data

Similar findings were made in the other studies, although the number of married waste pickers was far lower in the Karoo than in the other studies. While 47% of the SWPs in Pretoria were married (Schenck & Blaauw, 2011) only 29% of the LWPs in the Free State were married (Blaauw *et al*., 2020) and 43% of the LWPs were married, according to the study by Schenck *et al.* (2019a). Muller (2015) reported similar results. However, the fact that waste pickers participating in these studies were not married does not mean that they were not responsible for children and other family members. In the study by Schenck *et al*. (2019a), the LWPs took care of, on average, four other people, while the LWPs and SWPs in the Karoo were responsible for three people, on average.

When sharing these observations with some of the waste pickers, "poverty" was highlighted as the main reason for not being able to get married. This phenomenon is noteworthy and needs further investigation.

HOUSING

According to Statistics South Africa (2018), 81.1% of all households in South Africa live in formal housing. Due to the major urbanisation that is taking place, the Karoo towns are not an exception when it comes to people moving from farms to towns.

In this study 52.2% of the SWPs resided in houses, while 26% resided in shacks and 8.7% indicated that they slept on the street. The LWPs were slightly better off, as 57.5% were sleeping in formal houses and 38.3% indicated a shack or backyard shack/room as their place of residence. Another 4.1% slept on the landfill.

The Free State LWP study found that 46.1% of LWPs resided in houses, while 47.3% resided in shacks (Blaauw *et al.*, 2020), and in the study by Schenck *et al.* (2019a) pertaining to LWPs on nine landfills in South Africa, 38.1% of LWPs resided in formal housing while 54.3% resided in shacks or backyards shacks.

The study on SWPs in the major cities in South Africa showed that SWPs were worse off regarding housing, as 17.8 % of SWPs slept on the streets, 14.4% slept in the veld, 30.3% resided in shacks and only 22.6% resided in formal houses (Viljoen, 2014). In many of the cities SWPs did not sleep at home

as they wanted to be at the bins first thing in the morning. In the Karoo towns, however, SWPs generally lived fairly close to where household bins were put out and could thus sleep at home.

SCHOOLING OF THE WASTE PICKERS

Investigating the educational levels of the waste pickers provides an indication of important capabilities.

TABLE 4
SCHOOLING OF THE KAROO WASTE PICKERS

Landfill waste pickers (n=75)	**Street waste pickers** (n=23)
Completed Grade – 12 4.3% Some secondary schooling – 35.7%	Completed Grade 12 – 8.7% Some secondary schooling – 39.1%

Source: Research data

In the study by Schenck *et al*. (2019a) on nine landfills in South Africa, 7.9% of LWPs had completed Grade 12 and 43% had some secondary schooling. Similarly, in the study by Iwu *et al*. (2020), only 18% of the 39 participating LWPs had completed Grade 12. In the study done in Pretoria in 2011 (Schenck & Blaauw, 2011), only 1% of SWPs had completed Grade 12, while the majority (76%) had some primary schooling. In the study of 914 SWPs in the major cities in South Africa Viljoen (2014) found that 92.9% had not completed their schooling and 44% only had some secondary schooling. In the study on Free State landfills, 5.8% LWPs had completed Grade 12 and 48.5% had some secondary schooling (Blaauw et al., 2020).

The results of the Karoo study are similar to the rest of the South African studies, with 4.3% of LWPs and 8.7% of SWPs who had completed Grade 12. Poverty-related problems were given as the main reason for not completing school, such as that they could not afford school or school clothes, or that they had to leave school to look for work to care for family members. Other reasons provided also indicated family conflict and behavioural problems at school such as being expelled, having been bullied and failing academically. It was also pointed out that growing up on remote farms made it difficult to complete school. Karoo farms are generally vast and situated far away from towns. If there was no transport and/or accommodation for children, they would not easily be able to attend school.

Upon further questioning on whether they had any other formal or informal training, 85% of the SWPs and 86.2% of the LWPs in the Karoo indicated that there were no further training opportunities for them, which renders them less competitive in the formal job market (Sasaki *et al*., 2014).

The participants' limited schooling and lack of educational capabilities prevented them from moving to the cities in the hope of getting other jobs – which left waste picking as one of their only income-generating options. The opportunities to earn a living informally in the Karoo are fewer than in the cities. In one of the towns, we investigated informal work opportunities further and saw only one informal trader, no street-food sellers and limited day-labourer opportunities. The waste pickers confirmed that waste picking was their only option to receive an income.

FOOD SECURITY

There are two important aspects pertaining to food security, namely food availability and food access. Food availability refers to the effective or continuous supply of food at both the national and household level. South Africa is regarded as a country with sufficient food (Statistics South Africa, 2019). Food access includes the ability (access and affordability) to acquire sufficient food (Burchi & De Muro, 2016). Food access refers to whether households or individuals have enough resources and capabilities to acquire appropriate quantities of quality food, either through buying or producing the food themselves. The Statistics South Africa (2019) report on food security in South Africa indicated that 21.3% of the population still suffered from hunger (Statistics South Africa, 2019). The results of this study showed that food insecurity proved to be a bigger issue for waste pickers in the Karoo than elsewhere. From 23 SWPs interviewed, 30.4% shared that there were days during the last month that they had gone without food. Two of the waste pickers indicated that they had gone hungry for at least eight days during the last

month. The LWPs were even worse off, as 33% indicated that they had experienced hunger during the last month. This is therefore also one of the main reasons for waste picking, as it allows waste pickers some access to food from bins and landfills.

On the question of whether they searched for food in household bins or in dustbins on the streets, 28.6% of SWPs confirmed that they found bread, fruit, vegetables and meat from bins. Among the LWPs in this study, 75.7% indicated that they took food from landfills for personal use. Bread, canned food, vegetables and meat were the most common food collected or "*Anything that is still good enough to eat*" (OU6)[3].

They also shared that people and institutions would bring food, such as:

"Tinned foods, soup and bread from the army" (OU3)

"Prison services bring food, and people from the town" (SE4)

"Sometimes shops drop food here and a lady from church" (DA2).

The study on nine landfills by Schenck *et al.* (2019a) established that 50.8% of LWPs searched for food on landfills.

The next section describes additional items removed from landfills to reuse or sell, in addition to the food taken from landfills.

COLLECTIONS FOR PERSONAL USE

Gutberlet and Carenzo (2020) highlight the fact that waste pickers are undeniably at the heart of the circular economy, as they collect recyclables but also objects for reuse. Similar to the results of the other studies by Viljoen (2014), Schenck *et al*. (2019a) and Blaauw *et al*. (2020), this study found that the waste pickers in the Karoo said that, in addition to collecting food, they also collected other items to be reused, either for personal use or to sell.

In the case of the SWPs in the Karoo, 52.6% collected items such as electronics (cell phones, for example), household goods, shoes and clothes. Iwu *et al*. (2020) confirmed that in Cape Town SWPs also searched for more than just recyclables. They collected clothing, electrical appliances and electronics, empty containers (for storage purposes) and furniture.

Unsurprisingly, 90.7% of LWPs in the Karoo collected other articles for personal use. As stated previously, none of the Karoo towns have recycling initiatives such as sorting at source, mainly due to the distance from major cities and a lack of funds. The implication is that all goods that are thrown away will go to the landfills. The LWPs had easy access to goods that could still be reused**.** Items mentioned that were collected by LWPs were crockery, blankets, shoes, clothes, soap, toiletries, electrical appliances and electronic goods, wood, bricks, money/coins, radios, spectacles, toys, buckets, earphones, towels, hats, television and furniture. As one of the women pointed out, the landfill is referred to as the "*ou mies*" or the "*old lady*" who looks after them and provides what is needed. What they cannot buy, they can find on the landfill.

The reuse practices of the LWPs is something to take note of and something that should be valued, as reuse is one of the major focuses of the National Waste Management Strategy (Department of Environment, Forestry & Fisheries (DEFF), 2020a); in fact, it is listed as second-most important in the hierarchy for waste management. Much focus is placed on recycling, but little attention is devoted to the reusing of goods, particularly by waste pickers – an under-researched aspect of waste management that deserves greater notice.

EMPLOYMENT HISTORY

Another aspect explored in the study was whether waste pickers had previously worked in a formal environment.

3 Codes allocated to the waste pickers for verification on the captured spreadsheet. Codes were given according to town where interviewed

TABLE 5
PREVIOUS EMPLOYMENT

	Landfill waste pickers (n=75)	**Street waste pickers (**n=23)
Worked before	68.1%	81.8%
Never worked before	31.9%	18.2%

Source: Research data

Iwu *et al*. (2020) confirmed that long-term unemployment is a serious matter with devastating consequences for economic welfare, social instability, deprivation, and social exclusion. In comparison with the results of this study, Blaauw *et al*. (2020) established that in the Free State 56% of the LWPs had never had a previous job, while in this study only 31.9% of SWPs and 18.2% of LWPs had never had a previous job.

In particular, the majority of the SWPs in the Karoo have been in seasonal and informal employment in the past, for example, as farm labourers, cleaners, domestic workers, apple pickers and grape cutters and packers. Further exploration revealed that many waste pickers had been hired as seasonal workers in the past by fruit farmers in the Western Cape. However, with the influx of migrants from the Eastern Cape and foreigners from countries such as Zimbabwe to the Western Cape, the respondents were no longer hired on a regular basis.

On the question of whether they were looking for a full-time job, 66.7% of the SWPs and 78.7% of the LWPs answered positively. For the SWPs, the reasons cited for not looking for a job were mainly related to their age and health. They were either too old or had a medical condition which prevented them from working on a full-time basis. The LWPs also mentioned age and medical reasons, but the main reason given was related to the fact that they saw waste picking as their job: "*I am recycling*" (OU26); "*We work for ourselves*" (BW5); "*I am happy here and there is no other work*" (OU12).

PERCEPTIONS ABOUT WASTE PICKING

We explored what appealed to the waste pickers about collecting waste on the streets and landfills.

Most SWPs highlighted that waste picking assists them to "*earn a few pennies and work well with others*" (BW9); "*get money*" (BW12); and "*To earn money when not shearing sheep*" (MID5). It was interesting to note that some waste pickers needed money for other, perhaps more unusual purposes, such as to buy food for their pigeons.

LWPs also gave other reasons for waste picking, which could be divided into the following four themes:

Providing an income and being independent

Reasons for waste picking indicated by participants included obtaining an income "*to support my family*" (BW7), but also for other needs: "*The place* [landfill] *provides for our needs. You will always find something here*" (CAL2).

It was also of note that some waste pickers shared that they collected waste to increase their income as their pension or government grant was not sufficient: "*I have children which I must care for*" (CAL3); "*It adds to my income*" (CAR2); "*I don't want to have debt and want to be independent*" (CAL3). These sentiments expressed by the LWPs indicated a definite element of agency among them, highlighting that their activities on the landfill were a manifestation of their desire to make an independent living and care for their families as best they could. This is consistent with what was found in other studies (Schenck *et al.*, 2019a; Viljoen, 2014). When examining their sense of agency, it is also important to note that waste pickers work independently and not for a boss: "*we work for ourselves*" (BW5).

Opportunity to work, be busy and of value

For the LWPs in the study, the landfill not only provided an income and goods to reuse but a work opportunity. One elderly lady explained that she did not want to sit at home and do nothing because then "people bother me" (SE1). The LWPs illustrate their agency through assertions such as that they collect

on the landfill "*to keep me busy*" (SE4); to "*have something to do here*" (CAL1); and to "*keep me out of trouble*" (GR2). Other stated: "*I like the fact that I am able to work*" (OU13) and "*I enjoy the work environment*" (OU13).

Most of the SWPs in Cape Town from the study by Iwu *et al.* (2020) started waste picking to make ends meet, and they should be acknowledged for creating jobs for themselves and others (Colombijn & Morbidini, 2017; Samson, 2019).

OPPORTUNITY TO COLLECT, SELL AND REUSE

Reuse can be achieved by using items more than once, making useful items from waste such as toys, artworks, ornaments, shoes and carry bags, and sharing unwanted household items with others who need them and can use them, rather than throwing them away.

The participants of this study explained their reuse practices on the landfill: "*I always get something here to sell*" (CAL2); "*get good clothes to either use or sell*" (CAL2); "*pick up goods that are valuable*" (OU34)"; and "*I like to collect wood to sell*" (OU18).

A sense of community provided by the landfill

It was evident in the study by Schenck et al. (2019a) that a sense of community is fostered on landfills among the waste pickers. The LWPs in this study shared that they "*work well together like a family*" (GR1), and that they spend leisure time together on the landfill: "*we listen to the radio and play ball with each other*" (DA4). One particularly honest participant explained that he "*enjoys the freedom and being able to drink*" (OU32).

WHAT WASTE PICKERS DO NOT LIKE

On the question of what they do not like about waste picking, the SWPs identified several challenges, outlined below.

Firstly, the income they earned was "*too little*" (SBW1) and "*not steady*" (SBW2). Some "*misuse*" (SBW3) their income; concerns were raised that some of the SWPs used the money for alcohol and drugs.

The physical challenges of being on the street were also emphasised, indicating that it was "*difficult carrying the stuff*" (SBW4) and that they had to "*walk far to the BBC*" (SOU2). Others mentioned the "*hard work and being exposed to the elements and the weather*" (SGR5) and "*being out in the hot sun and cold weather*" and "*working in bad weather conditions*" (SGR6).

The stigma linked to waste picking and the low self-image of waste pickers in Cape Town were well depicted by Peres (2016), including the public's perception of and negative responses to waste pickers as being dirty, intensifying their negative self-image. One SWP clearly stated: "*Do not enjoy it. Not good for my self-image*" (SMI1). Another SWP emphasised that he could not identify with waste picking as a job: "*this is not my job*" (SMI2). Peres (2016) and Colombijn and Morbidini (2017) confirm that the problem of stigma would persist for as long as the surrounding community viewed the waste pickers in a negative light.

LWPs mentioned some of the same dislikes and challenges as those of the SWPs. Like SWPs, LWPs in the study highlighted that they did not like the insecurity of their income or the poor income. Of bigger concern were the health risks on the landfill: "*The smells are bad*" (OU22) and there are "*lots of germs*" (CAL2). Trucks also posed a significant danger when "*moving in and out of the site*" (OU5). In addition, it was mentioned that they did not like to be exposed to smoke, dust and fumes, and that they were without protection. LWPs indicated that they would welcome the provision of gloves or face masks.

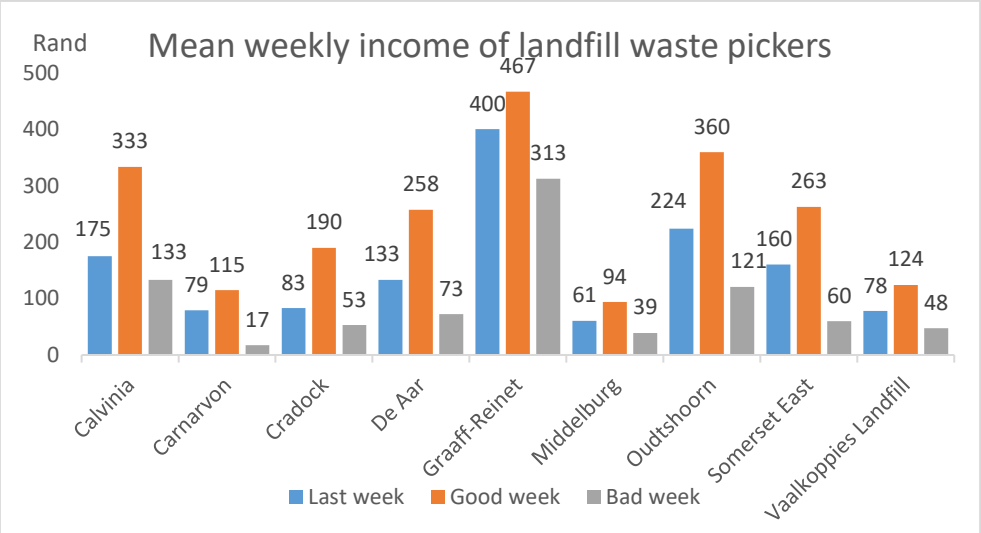
Another noteworthy aspect that emerged was the fact that the LWPs had no roof or shade as protection "*against the elements such as the heat, cold and rain*" (OU22). Only one of the landfills in the Karoo provided facilities such as shade and toilets and made water accessible to the collectors.

Iwu *et al*. (2020) and Schenck *et al.* (2019b**)** highlighted the health risks all waste pickers are exposed to. Similar to the study by Schenck *et al*. (2019b), LWPs in the Karoo mentioned "*the gangsters on site are dangerous*" (CR3) and that some of the pickers "[fight] *with each other*" (DA3), all of which posed challenges on the landfill, in particular where landfills were not properly managed.

INCOME OF THE WASTE PICKERS

The main reason cited for waste picking on the streets and landfills was to earn an income. The following figure illustrates the income of the LWPs interviewed in the Karoo.

FIGURE 2
MEAN WEEKLY INCOME OF LANDFILL WASTE PICKERS IN THE KAROO TOWNS



Source: Research data

The graph indicates that the LWPs in Graaff-Reinet earned, in a good week, the best average income (R467), followed by Oudtshoorn (R360) and Calvinia (R333). In a bad week in Carnarvon, LWPs earned an average income of as little as R17 per week. On average, a good week in all of the Karoo towns studied brought in R266 and a bad week R97.

In the study by Schenck *at al*. (2019a), the LWPs on nine landfills in South Africa earned on average R768 in a good week and R200 during a bad week, which is much higher than the averages in the Karoo towns. Lower availability of waste and higher distances from BBCs to recycling companies in the cities would likely be the main reasons for the lower incomes earned.

TABLE 6
INCOME STATISTICS OF STREET WASTE PICKERS IN THE KAROO TOWNS

Income	N	Mean	Std. Dev.	Min	Max	Median
Income for a good day's waste	22	39	42	7	200	30
Income for a good week's waste	01	80		80	80	80
Income for a bad day's waste	22	18	31	02	150	07
Income for a bad week's waste	1	20		20	20	20

Source: Research data

The mean income of SWPs is generally lower than that of LWPs due to smaller volumes of waste on the streets as compared to landfills (Schenck *et al*., 2016b). Most SWPs sell their recyclables on the day they collect it. This was also evident in the Karoo towns. The average income earned by the SWPs for a good day's waste is R39, compared to a bad day's income of R22. This income was also below the average income of R159 for a good day and R32 for a bad day reported in the study on SWPs in the major cities in South Africa (Viljoen, 2014). If the nominal incomes of previous studies were expressed in real terms,

the differences would have even been even starker, providing further evidence of the precarious situation of waste pickers in the Karoo.

Iwu *et al*. (2020) questioned SWPs in Cape Town as to whether collecting recyclable waste was providing sufficient income. They responded that it was not sufficient and that it only met their basic survival needs. This supported the findings by Viljoen *et al.* (2016). The respondents in this study shared that they also looked out for other informal day jobs such as gardening, painting and domestic work, although opportunities for such jobs in the Karoo are more limited than in more densely populated areas of South Africa. Viljoen (2014) further traced a direct link between the income of SWPs in the cities and the use of trolleys. In the Karoo towns, only 22.7% of SWPs were using trolleys to collect their waste. Upon further exploration, it became clear that they used bags (57.1%) or a wheelbarrow (21.4%) The rest of SWPs used boxes or any other containers.

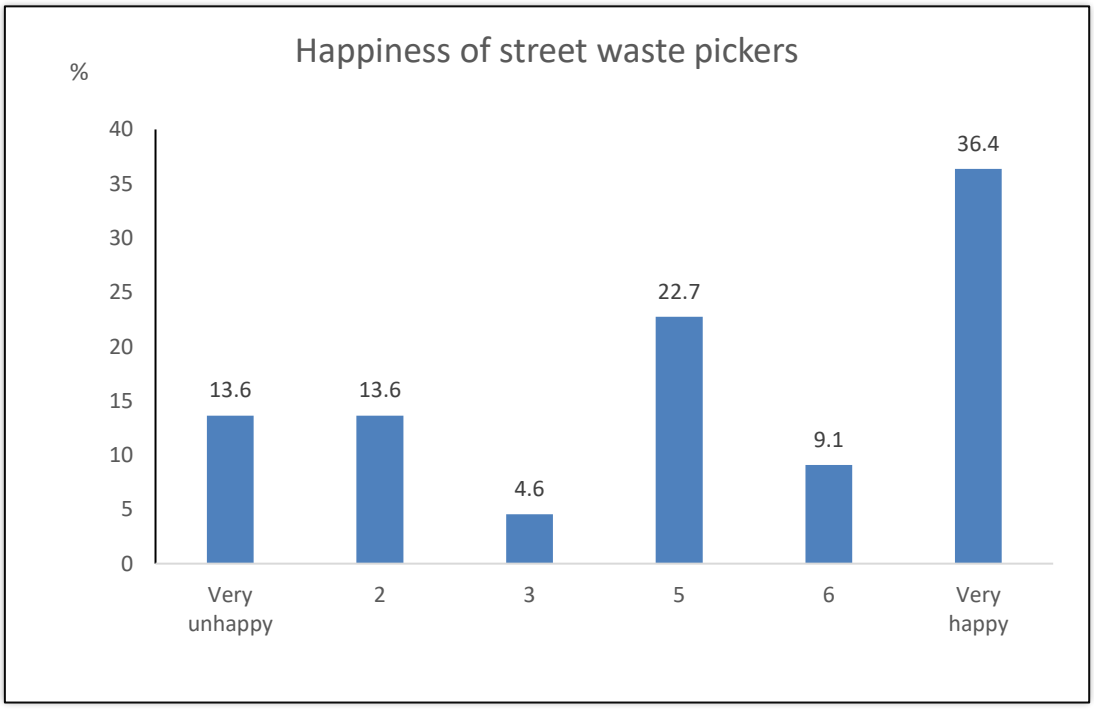
RELATIONSHIPS AND HAPPINESS

Conradie *et al*., (2019) emphasise that both Sen (1999) and Robeyns (2005) regard relational ontology as a critical component of the CA. This study highlighted the importance of a sense of community among waste pickers. In the LWP study done across South Africa (Schenck *et al*., 2019a), 68% of LWPs valued the support from other LWPs in the collecting and carrying of recyclables and the sharing of food and clothes. Even though most LWPs did not work collectively, some worked with partners.

According to Tuan (2001), space and place are basic components of the lived world. People attach meanings to spaces (often expressed in common sayings such as "no place like home"). An undifferentiated space becomes a place as one gets to know it better, where one is aware of aspects such as freedom, openness, threats and relationships.

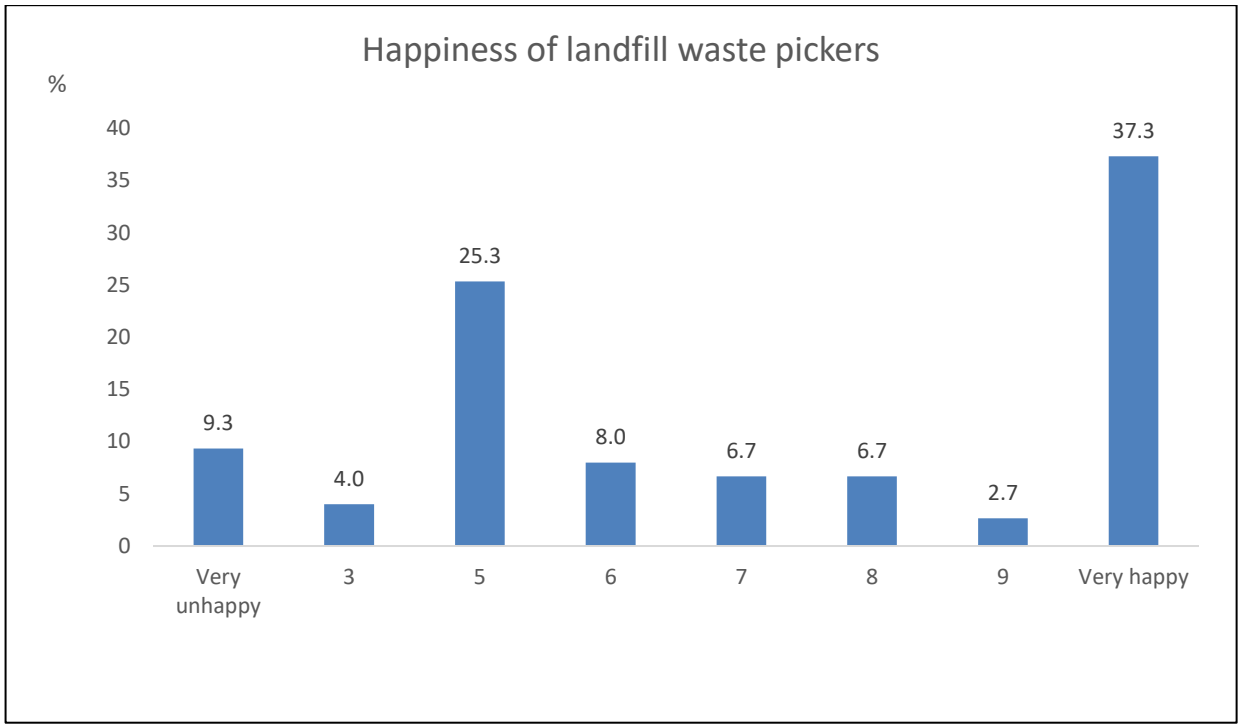
The following two tables illustrate the level of happiness of both the SWPs and LWPs on a scale of 1 to 10, where 10 represents being very happy and 1 extremely unhappy.

FIGURE 3
HAPPINESS OF STREET WASTE PICKERS IN THE KAROO



Source: Research data

FIGURES 4
HAPPINESS OF LANDFILL WASTE PICKERS IN THE KAROO



Source: Research data

A surprisingly high percentage of both LWPs (86.7%) and SWPs (68.2%) indicated a high level of happiness (above 5). In Schenck *et al*. (2019a), self-reported happiness above 5 on the landfills was reported by 52.9% of their sample. Those who were unhappy gave reasons linked to the lack of safety, lack of support, lack of dignity and low income. In the same study, happiness was linked to the fact that they earned a daily income, were self-employed, independent and felt a sense of responsibility and of friendship.

On the Free State landfills, the average happiness scale value was 8 (Blaauw *et al*., 2020). Landfills where gangsterism and racketeering took place negatively affected the happiness of LWPs.

In this study, the reasons provided by the participants for being happy were mainly linked to:

Access to work: "*To have a form of income*" (GR6).

Independence and agency: "*I am in control here*" (CAL3).

Relationships: "*Get lots of goods here and also have friends here*" (BW1); "*We are a lot together and crack jokes*" (BW9); "*There is a great sense of community on the site*" (BW14).

DISCUSSION AND CONCLUSION

The Karoo towns in this study currently offer very few income-generating opportunities, resulting in people looking for waste-picking opportunities on the streets and landfills. Waste pickers are also major diverters of waste from landfills as diversion efforts by the municipalities are to all intents and purposes non-existent. The results of this study indicated that the Karoo waste pickers' circumstances are in some respects more precarious and in other respects similar to or less precarious than those of the waste pickers in previous studies pertaining to waste picking in South Africa.

Being in small towns created a context for better and more supportive relationships, which seemed to be the basis for the relative self-reported happiness of many of the waste pickers in the study, despite their relatively low income and the challenging circumstances under which they work. The positive results from the study that stood out were the sense of community among the waste pickers and the agency they

displayed in working on the streets or landfills to earn an income and reuse discarded products. Factors such as higher food insecurity, lower levels of schooling and training, lower income and a lack of income opportunities showed a greater negative impact in this study than similar factors affecting waste pickers in the comparative studies cited in this paper.

The landfills in the Karoo are not as well managed as some landfills in other parts of South Africa, and open burning is more prevalent. One of the landfills in the study was well managed and facilities were available for the waste pickers to perform their work in a more dignified setup. The lack of political will and available finances could be some of the reasons for not attending to the proper management of landfills.

The theoretical framework (CA) devised by Sen (1999) guides us to look towards enabling factors which could enhance the collectors' freedoms, capabilities and opportunities for living a life they value, even if it necessitated "adaptive preferences" (Nussbaum, 1997:283).

Recommendations to be considered for enhancing the freedoms and capabilities of waste pickers in the Karoo would in principle not be much different from those identified by scholars for waste pickers elsewhere in South Africa and globally. Department of Environment, Forestry & Fisheries (DEFF) and Department of Science and Innovation (DST) (2020b), Gunsilius (2016), Samson (2019) and Schenck *et al*. (2016a) have been useful in identifying the following enablers.

- **Social acceptance and recognition:** Recognition and acceptance from the municipality and the community for the value waste pickers add to communities by diverting recyclables from landfills would be extremely valuable, as would appreciation of their agency to work, be independent and take care of their families. Respectful relationships with and acceptance from local communities would increase waste pickers' self-image and agency (Chen & Carré 2020; Lund, 2020; Samson, 2019; Schenck *et al*., 2016a). Appreciation of the waste pickers should be actively encouraged by the community, officials and the private sector.
- **Increased access to waste and increased availability of BBCs/SMEs:** Improved access to waste may would likely increase the income of the waste pickers. How this could be accomplished should be considered in collaboration with the waste pickers themselves, depending on the resources of the municipality, BBCs, the private sector and the buy-in of the community at large. Improvements would include better management of landfills and sorting-at-source programmes. Without somebody to buy or process recyclable waste, there can be no recycling and income for waste pickers. Enabling environments for ventures such as small and medium enterprises (SMEs) should therefore also be created (DEFF & DST, 2020b: Schenck *et al*., 2016a).
- **Rural solutions and income opportunities:** The possibility of recycling and the existence of BBCs are unfortunately not economically possible, viable and sustainable in all rural/Karoo towns, and therefore individual solutions to reuse and recycle and produce new products unique to each respective town or geographical region should be investigated.
- **Organisation and registration of waste pickers:** This is of importance in order to enable waste pickers to communicate and work collectively with other stakeholders. "We want the municipality to include us in projects," one participant in the study explained. This would also aid in improving relations with the community, who need to feel safe and secure, particularly in the South African context, where safety is generally a huge concern for residents.
- **Skills training:** Skills training is needed to improve the capability set of waste pickers, depending on what they regard as important. This could include improving business skills or developing additional skills to enable them to be more employable, should other opportunities arise. The process of enhancing skills needs more than just training (Godfrey *et al*., 2016) and could also include mentoring to help them understand the waste sector, business, prices, negotiation, recycling, bookkeeping, transport and other relevant processes.

- **Improved waste management and working conditions:** Working conditions of waste pickers throughout South Africa, and particularly in the Karoo, are deplorable. Karoo landfills are often open dumps where waste is burned and often uncovered. The waste pickers work in the sun, cold and rain without shade and facilities. Basic facilities could assist in dignifying working conditions and improving the self-image of waste pickers. SWPs seldom have protection or access to trolleys and facilities to sort and store their waste, or to basic amenities (Schenck *et al*., 2019a).
- **Improved healthcare:** Iwu et al. (2020) and Schenck *et al*. (2019b) emphasised improved access to protective gear and health facilities to enable waste pickers to take care of their health. In most Karoo towns facilities such as clinics were quite close in terms of access, but the importance of taking care of themselves needs to be emphasised and encouraged.
- **Improved social protection.** The precariousness of informal waste pickers' circumstances is aggravated by the fact that they generally do not have any type of safety net such as in the form of social security/protection or savings (Devereaux & Conradie, 2018).
- The guidelines for waste-picker integration in South Africa, drafted by the DEFF and DSI (2020b), propose the implementation of an approach based on respect and the facilitation of a participatory environment conducive to the enhancement of the capabilities of the waste pickers (Nel, Louw, Schenck & Skhosana, 2021). The Karoo towns could benefit from adopting this approach as part of a broader initiative to provide dignity not only to waste pickers but the Karoo community at large.

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