

**EXPLORING FOOD WASTE NARRATIVES AND PERCEPTIONS IN  
PRINT MEDIA AND IN THE URBAN COMMUNITY OF  
MAKHANDA, IN THE EASTERN CAPE, SOUTH AFRICA**

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## **ABSTRACT**

Food waste (FW) is a global issue that has gained increasing attention in recent decades. There has been more research to identify the multi-layered causes and effects of this issue. A vast number of studies focus on the quantification of FW, its drivers, and causes. While quantifying the amount of FW being generated is important in revealing the scope of the problem, there are many aspects of FW that are still not as widely covered i.e., the socio-cultural component of FW. This is because first and foremost what is considered food, and what is considered FW is influenced by the socio-cultural context in which it is obtained, prepared, and consumed. The socio-cultural context of a society cannot be studied properly without looking at the way the people that practice those specific societal norms and cultural practices think and perceive things. Perceptions are important because sociocultural behaviours and practices tend to be reproduced in correlation to how they are perceived. Thus, if the socio-cultural dimension of FW is to be dissected, one needs to look at the socialisation agents that affect the cultural context. A socialisation agent that has been cited as growing in influence and enjoying unprecedented access in human society is the media. Despite the proven influence of the media on perceptions and behavioural patterns, the sheer volume of studies that look at the linkages between media and topics such as FW is limited. In the context of the Global South, particularly in South Africa. In response to this research gap, I set out to examine the types of narratives and perceptions that print media and media consumers within an urban community have about FW.

Since the study is centred around print media perceptions and narratives and those of the community, the study used a mixed-method approach that comprised of a media analysis, one-on-one, semi structured interviews, key informant discussions as well as food focus groups. Thirty six respondents were interviewed with semi-structured one on one interviews, a further six respondents were key informants, they too were interviewed with one on one semi-structured interviews. Lastly, 16 were participants in the focus sessions, and each session comprised of 8 randomly selected participants. To procure the FW perceptions and narratives of print media and the people of Makhanda, the study was divided into three phases. Phase one comprised of a print media analysis through an archival media platform of SABINET. Phase two comprised of two food focus group sessions; phase three of the study comprised of the semi-structured interviews with 36 interviewees representing the general public and six with key informants. To make sense of the results obtained from the print media analysis, the study used the agenda setting framework and found that that the representation of FW content in print media was limited. Through the use of thematic analysis, 14

FW perceptions and narratives were identified in print media (and perceptions and narratives are used interchangeably, therefore 14 themes equals 14 FW perceptions and narratives). Of these 14 themes there were some that were more frequently presented than others. The most frequently presented perceptions and narratives in print media were the FW and food insecurity/hunger, FW and morality and FW and the economy. The study also found that a bulk of the FW content disseminated by print media belonged to a relatively few publications namely: Cape Argus, The Star, the Mail and Gurdian and the Daily Dispatch. These findings reinforced that FW perceptions and narratives in print media were not only disproportionately represented but were also disseminated by a limited pool of media content creators.

The study found that Makhanda respondents used and preferred other media forms outside of print media i.e., radio and television. Respondents maintained that the media form they were the least exposed to and least preferred was print media (newspapers). From the 58 respondents, only seven respondents indicated that they listened to and preferred radio more than any other media form, and only two respondents noted that they read newspapers. In contrast, 24 respondents noted that they preferred and were more exposed to television than any other media form. In addition, respondents noted that they saw and heard a limited amount of FW content on the media that they were most exposed to. Instead, they noted that they were more exposed to content that encouraged them to procure and consume food, such as food advertisements. On average, individuals that were exposed to and preferred radio reported to hearing more FW content as opposed to individuals that preferred television. For instance, from the seven respondents that preferred and were most exposed to radio, four of them noted that they had heard a lot of FW content. While 17 of the 24 respondents that preferred and were most exposed to television, maintained that they did not recall seeing any FW content.

The study also found that Makhanda respondents had a number of perceptions and narratives about FW, that were converted into themes using content and thematic analysis. The study found that Makhanda respondents had a total of 15 FW perceptions and narratives. Just like in the media analysis there were some perceptions and narratives that were emphasised and more frequently mentioned than others. The three most dominant themes were: affluence, FW and hunger, and FW and morality. Furthermore, the research also found that the perceptions and narratives of respondents were influenced by a variety of external and internal factors such as socio-economic status/affluence, gender, age, race, and media preference. These factors interacted with each other and varied in their significance from one respondent to the other. By far, the aspect shown to be the most influential in shaping respondents FW perceptions and narratives was affluence. Twenty-eight respondents spoke about the economic drawbacks of FW and cited as reason for not engaging

in FW. In addition to this, there were some respondents that maintained that FW did not occur amongst people who belonged to the lower socio-economic class and that rather, the phenomena were limited to those who were more affluent. In speaking about affluence, respondents e linked FW with other aspects such as race, gender, age, and media preference. For instance, in addition to claiming that FW was only limited to affluent households, other respondents felt that wasting food was a luxury the only white people participated in. Such claims highlight the idea that the sociocultural historical context of South Africa is one that has some influence in the FW perceptions and narratives of Makhanda respondents.

The study found that there was little overlap in the types of perceptions and narratives that print media and the Makhanda respondents have about FW. From the 14 and 15 perceptions and narratives found between each realm there were only three thematic overlaps namely: the theme of affluence, morality and FW and food insecurity. This limited overlap of perceptions and narratives suggest that there is a disconnection present between the perceptions and narratives of print media and those that are exhibited by Makhanda respondents.

**Keywords:** agenda setting theory, food waste, narratives, newspapers, perceptions, print media, radio, television.

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## **DECLARATION**

I, Zinhle Dlamini, declare that this thesis titled “Food waste narratives and perceptions in print media and the urban community of Makhanda, in the Eastern Cape, South Africa” is my own work. This work has not been submitted at any other university. Content that has been sourced from other materials and other writers has been acknowledged and referenced. This thesis is being submitted in fulfilment for a Master of Science degree at Rhodes University.

Signed: Zinhle Dlamini

Date: 17 January 2024

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# CHAPTER 1

## GENERAL INTRODUCTION



# 1. INTRODUCTION

The current times are an especially precarious period for planet earth and her inhabitants. As the human population and rate of urbanisation increased, the planet finds itself having to accommodate the dietary shifts being experienced in some parts of the world. These shifts often translate into more demand for food, water, land, and energy, ultimately affecting the social and ecological component of the earth's system (Bagherzadeh *et al.*, 2014). These ecological drawbacks stem from current food systems that are not only resource intensive but are also marked with a big carbon footprint (Ochola, 2018). Ronald *et al.* (2014) calculated that world food production would have to increase by 30% by 2050 to keep up with the increasing demands of urbanisation, population growth and dietary transitions. Thus, the food insecurity and inaccessibility that is being experienced in the world cannot only be solved by increasing the amount of food being produced. To solve these problems other avenues and approaches are required. Understanding and reducing FW can contribute to solving the above-mentioned issues (Ochola, 2018).

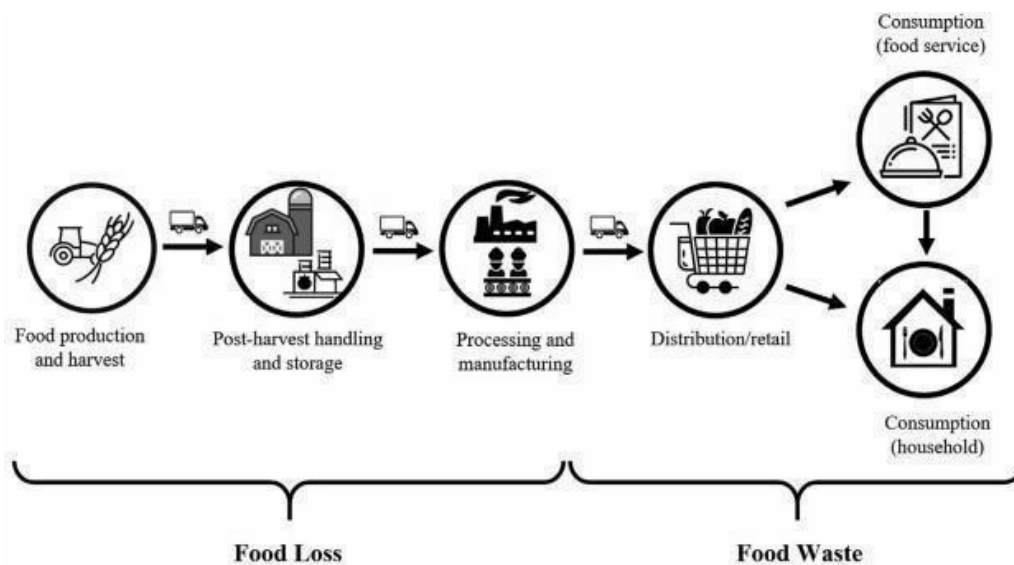
The problem of FW permeates the social, economic, and ecological dimensions of the planet. The Food and Agriculture Organisation (2012) claims that approximately 868 million people around the world are undernourished. Despite this, it is believed that 33% of food that is produced for human consumption is either lost or wasted along the food chain (Lundqvist *et al.*, 2008). These figures are equivalent to roughly 1.3 billion tonnes of edible food being wasted annually (Chakona and Shackleton, 2017). FW also has financial drawbacks, for instance, Thompson and Haigh (2013) have estimated that FW costs Australia around AU\$ 5 billion dollars annually. The effects of FW also manifest in significant resource loss, as all the resource required to grow and transport food such as water, fertilisers, land, and energy are also then wasted (Gustavsson *et al.*, 2011). The above-mentioned statistics showcase the severity and multi-layered effects that the issue has. However, one cannot dissect the nuances of an issue without first defining what it is.

## 1.1. FOOD WASTE DEFINITION CHOSEN FOR THIS RESEARCH

There are a number of definitions of FW that exist in academia. Broadly speaking, the term can be classified into two categories namely: avoidable waste and unavoidable waste (Bagherzadeh *et al.*, 2014). Unavoidable waste is the waste that arises from food preparation that is not edible under normal circumstances, i.e., bones, eggshells, and pineapple skin

(Bagherzadeh *et al.*, 2014). Avoidable waste refers to food that prior to being disposed was edible, i.e., apples, meat, and slices of bread. The terms ‘avoidable’ and ‘unavoidable waste’ are subject to various interpretations, as the types of food that are consumed and considered waste varies between cultures and countries (Bagherzadeh *et al.*, 2014). The Food and Agriculture Organisation (FAO) (1981) defined FW as edible food intended for human consumption, which ends up as waste or being consumed by pests. As time progressed the definition has changed, Parfitt *et al.* (2010:3066) defined FW as: “edible crops left in field, ploughed into soil, eaten by birds, rodents”. Lazell (2016:430) emphasised the dimension of human consumption in noting that FW is “food that can no longer be consumed by humans”. As recent as 2021, Conrade and Blackstone (2021:302) defined FW as: “the edible portions of food that are discarded by consumers for any reason, including spillage, spoilage, preference for non-blemished food, distaste for leftover food, lack of knowledge about food selection strategies”.

From the above definitions, it is evident that there is no single way to define FW. This is because people around the world do not see FW in the same way as the types of cultures, perspectives, and narratives that people may have in relation to FW are different. Since there are varying definitions of FW that exist, this research has chosen a definition provided by Bagherzadeh *et al.* (2014). It is this definition that will be taken forward in the entire research, the definition noted that: “*food waste refers to food that completes the food supply chain up to a final product, of good quality and fit for consumption, but still does not get consumed because it is discarded, whether or not after it is left to spoil. FW typically (but not exclusively) takes place at retail and consumption stages in the food supply chain.*” (Bagherzadeh *et al.*, 2014:7) (Figure 1).



**Figure 1:** An overview of the food supply chain and the stages at which FW occurs (Adapted from Withange *et al.*, 2021).

## 1.2. FOOD WASTE IN SOUTH AFRICA AND THE REST OF THE WORLD

Both developing and developed countries waste food albeit the core causes are not the same (Gille, 2013; Oelofse and Nahman, 2013). Gille (2012) noted that FW still occurs in food insecure countries such as Ethiopia. This observation highlights the complex nature of FW, and its pervasiveness across the globe (Gille, 2012). FW also occurs in developed countries, however in these countries a vast amount of food is wasted in the consumer and retail levels while in developing countries food is wasted mostly in the supply chain. Gustavsson *et al.* (2011) noted that the total per capita food losses that occur in North America and Europe amount to 230 – 300 kg/per capita. In contrast, the figures from Sub-Saharan Africa and South Asia are lower as they range between 120 – 170 kg/per capita (Gustavsson *et al.*, 2011). In 2015, the United Nations reported that 1.3 billion tonnes of food is wasted globally per year. Developed countries accounted for 670 million tonnes of FW and developing countries accounted for 640 million tonnes of FW (Dung Thi *et al.*, 2015).

The drivers of FW in low-income countries can be attributed to technological, managerial, and financial limitations (Oelofse and Nahman, 2013). Other factors include limitations in cooling, storage and harvesting techniques (Nahman *et al.*, 2012; Chakona and Shackleton, 2017). In medium to high income countries, FW is linked to a lack of coordination between different supply chain actors (Gustavsson *et al.*, 2011). Some of these countries generate higher amounts

of FW compared to others (Jereme *et al.*, 2016). In their study, Jarred Ball and Associates (2001) found that putrescible waste varied in relation to household income and site. From that study, the general waste from low-income households contained a higher proportion of FW by weight (12-26%) as compared to households with higher income levels (7-8%) (Martins, 2007). These findings can be explained by considering the fact that poorer households spend more of their budget on food as compared to higher earning households (Martins, 2007). However, Ogola *et al.* (2011) found that high income level households in the Limpopo province in the rural areas had higher FW proportions by weight as compared to lower income households. These contradictory results show that FW in South Africa is influenced by several contextual factors and not just household income level.

Globally, developing nations are experiencing dietary transitions (Oelofse and Nahman, 2013). For example, 57% of the FW generated in South Africa is mostly composed of roots, fruits, and vegetables. Meat only accounts for 6% of the FW generated (Oelofse and Nahman, 2013). While South Africa is considered a developing country, it is interesting to study, in that it possesses characteristics of both a developed and developing country. The preliminary average estimate for FW in South Africa is 9.04 million tonnes per annum (Oelofse and Nahman, 2013), representing 31.4% of the annual agricultural production (Oelofse and Nahman, 2013). Using statistics from 2007, Oelofse and Nahman (2013) calculated that South Africa's population at the time which stood at 48.26 million people, produced around 8.52 million tonnes of FW equivalent to 177 kg per capita compared with other African countries, these figures are not surprising because South Africa is a middle-income country with one of the highest gross domestic products in Africa (Oelofse and Nahman, 2013; World Bank, 2017). South Africa also has an informal economy that contributes to FW generation, but due to its informal nature, the exact amounts and value of the FW generated from this economy cannot be accurately measured (Oelofse and Nahman, 2013).

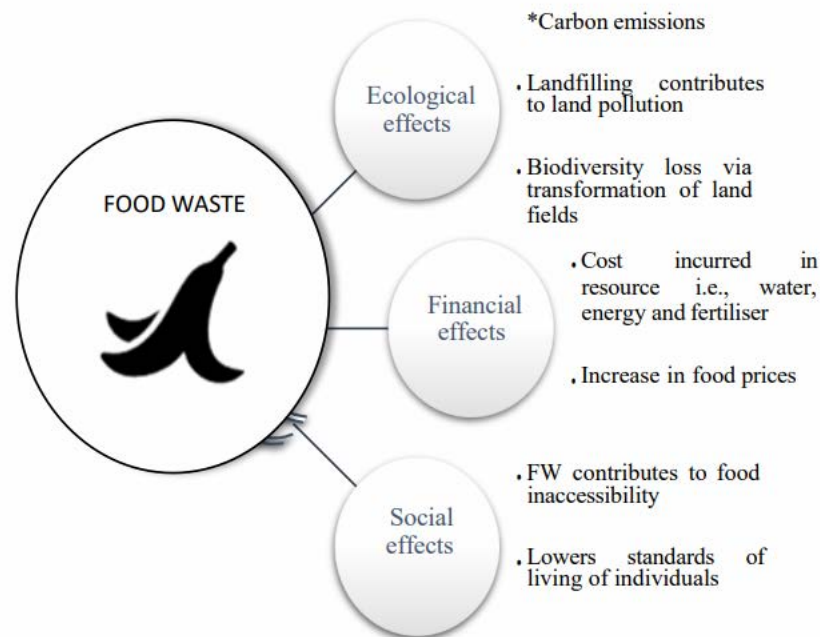
South Africa has more similarities in regard to FW patterns with high-income countries (Oelofse *et al.*, 2020). This may be attributed to a few factors. The first being that within Sub-Saharan Africa, there is generally an assumption that food is mainly produced by small farmers to only feed themselves and their families (Gustavsson *et al.*, 2011). Since these farmers are small-scale farmers, it is assumed that they have insufficient storage facilities as well as insufficient processing and distribution systems (Gustavsson *et al.*, 2011). This is in contrast to South Africa, where most of the food is produced by commercial farmers and then distributed by food corporations (Hall and Cousins, 2015). These corporations are deeply investing in the commercial farming and agribusiness within South Africa (Hall and Cousins, 2015).

### 1.3. THE EFFECTS OF FOOD WASTE

Even though developing and developed countries are marked with different FW generation figures, both contexts still incur similar effects from FW which are both tangible and intangible. FW effects are multi-layered and have ecological, social, and economic ramifications (figure 2) (Withange *et al.*, 2021). One of the more tangible drawbacks of FW is the number of resources that are expended in growing food. Producing food requires a significant amount of water, fertiliser, and energy (FAO, 2013). Thus, when FW happens it means that the resources that are used in creating and transporting food is also wasted (Mekonnen and Hoekstra, 2011). In highlighting the ecological effects of FW, Oelofse (2014) reported that 22% of the total water footprint of agricultural production can be traced back to FW. In South Africa, farming consumes more than half of the fresh water used in the country, these figures are of concern because South Africa is one of the driest countries in the world (Muller *et al.*, 2009). Additionally, FW results in gas emissions, this is because FW is typically discarded via landfilling where it generates gases such as carbon dioxide and methane (Melikoglu *et al.*, 2013). Both gases are harmful and contribute to climate change and global warming. It is estimated that landfills accounted for 8% of the world's anthropogenic methane gas emissions (Melikoglu *et al.*, 2013). In South Africa alone, 4.3% of greenhouse gas (GHG) emissions stem from organic waste (DEA, 2009; DEA, 2010).

In addition to environmental drawbacks, FW is associated with financial drawbacks (Gille, 2012; Melikoglu *et al.*, 2013). It was estimated that the United States alone losses at least 77 billion tonnes of food – worth over 28 billion dollars annually (Melikoglu *et al.*, 2013). American households throw away 14% of the food that they purchase into the bin, costing the average American family nearly US\$ 600 per year. In the year 2007, the United Kingdom generated around 8.3 million tonnes of FW annually, which was valued at £ 12 billion at the time (Melikoglu *et al.*, 2013). While not at developed country level, South Africa is also experiencing high financial FW losses. For example, Oelofse *et al.* (2020) estimates that the cost of FW generated by South Africa households is valued to be around R21.7 billion (approximately US\$ 2.7 billion).

FW is also characterised with a number of social ramifications. For example, Graham-Rowe *et al.* (2014) claimed that FW contributes to rising food prices, which in turn restricts food accessibility for the global poor. This restriction is having detrimental effects for the livelihood of individuals (Munesue *et al.*, 2015; Withange *et al.*, 2021).



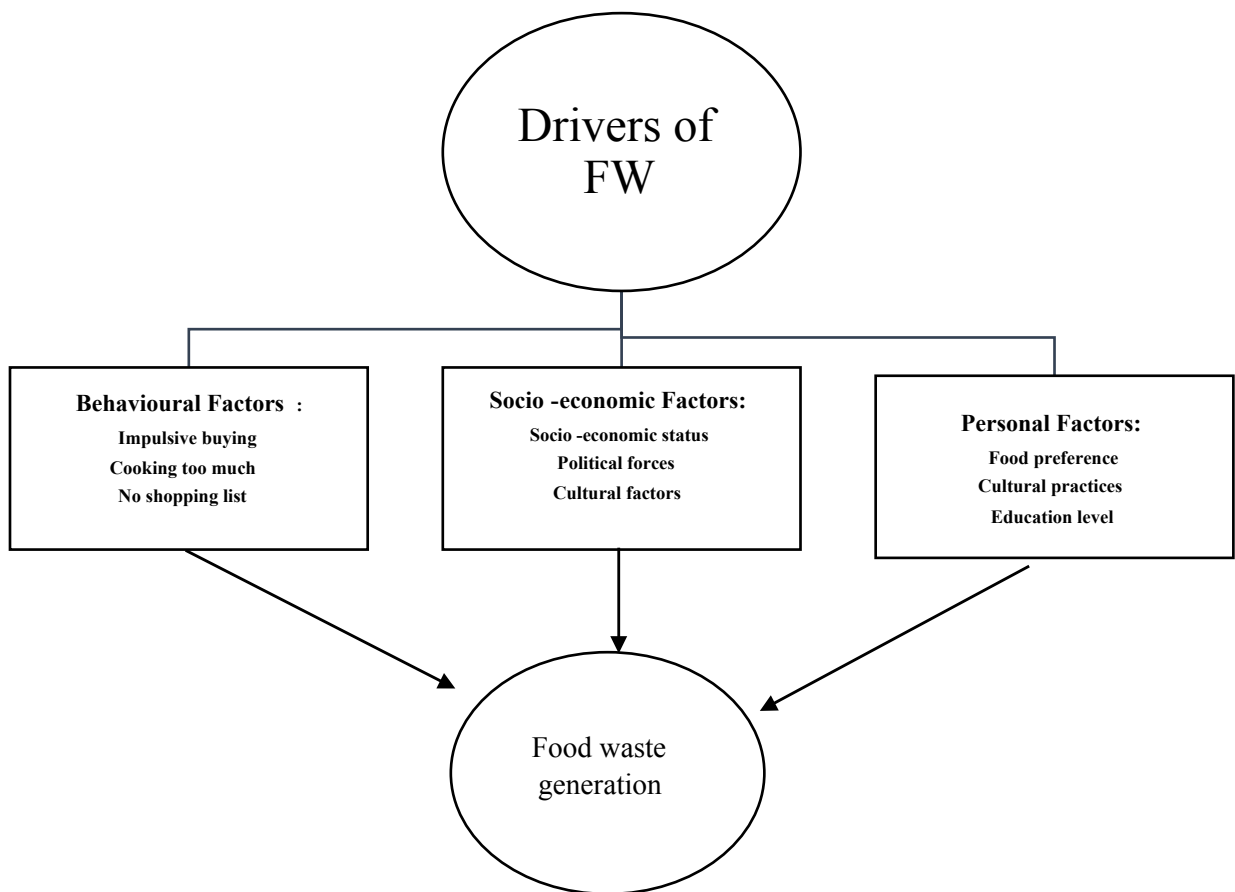
**Figure 2:** Self-conceptualised diagram showing the effects of food waste (Content adapted from Graham-Rowe *et al.* (2014).

## 1.4. FOOD WASTE DRIVERS

Just as there are varying effects of FW, there are also varying drivers that contribute to the phenomenon. Thyberg and Tonjes (2016) and Oelofse *et al.* (2020) claimed that FW drivers are socio-economic, cultural, political, and behavioural in nature (Figure 3). The most common reason for FW includes consumers not eating all the food that they prepared and consumers buying more food than they need (Oelofse, 2014; Chakona and Shackleton, 2017). Ioniță (2017) noted that consumers that cooked more food than they required, tend to be the same as the consumers that impulsively buy food items that they do not necessarily need. The author also maintains consumers that over-buy tends to waste more food.

Often, buying more than one needs is attributed to the presence of special offer (Marx-Pienaar and Erasmus, 2014). For instance, shops and supermarkets have ‘two for one’ specials that encourage the consumer to buy food in bulk. These specials often incentivise consumers to buy large amounts of food at low prices, thus making the consumer feel as though they are getting value for money. However, over-buying can also be caused by the consumer’s internal motivation to buy food that is visually appealing and superior (Marx-Pienaar and Erasmus, 2014). There is often a link that is made by consumers that associates visually appealing food, to food that is fresh and superior. This link leads to some consumers wishing to buy as much healthy and ‘superior’ food as possible. (Bryant and Goodman, 2004).

Brown (2008) and Himmelheber (2013) noted that globalisation and modernity have resulted in the permeation of western culture into non-western contexts. This results in the adoption or mimicry of western economic systems and lifestyle patterns (Himmelheber, 2013). This includes the adoption of a hyper-consumption culture. This means that certain non-western spaces are practicing similar wasteful methods and patterns to western countries. South Africa is no exception to this, this is primarily because South Africa is currently experiencing a rise in income levels amongst consumers as well as a change in dietary preference (Painter *et al.*, 2016; Oelofse *et al.*, 2020). The wasteful behaviour of South Africa has been illuminated by authors such as Cronje *et al.* (2018) who found that in Kimberly over 52% participants indicated that they bought more food than they needed. This over-purchasing was attributed to factors such as: (i) incomplete shopping lists, (ii) impulsive purchasing, and (iii) influence of fellow co-shoppers. Marx-Pienaar and Erasmus (2014) also noted that most consumers that purchase more food than they required tend to be unaware of the detrimental effects that FW has on the environment, and due to this lack of awareness individuals may not think twice about buying large amounts of food and later discarding that food when they do not want it.



**Figure 3:** Drivers of FW (Content adapted from Thyberg and Tonjes (2016)).

Household size also affects the amount of FW generated (Chakona and Shackleton, 2017). Lyndhurst (2007) found that households comprised of one-person waste less compared to larger households. This is because larger households have more people in them and thus a higher demand for food. This means that there are more people present to generate FW as compared to single headed households. Kumar and Singh (2013) noted that the levels of education, literacy and income possessed by consumers also play a role in the management of FW. People who are more educated are less likely to generate more FW than those that are less educated (Kumar and Singh, 2013). This is because more educated people generally have more understanding of effects that FW has. It is also important to note that the types of foods that are purchased by consumers contribute to FW. Some foods are highly perishable i.e., fruits and vegetables, these foods are generally the most wasted in households because they are highly perishable and generally a lot cheaper than other types of foods (Oelofse and Nahman, 2013). Another factor that contributes to the occurrence of FW is lack of storage facilities (Chakona and Shackleton, 2017). Not having storage facilities means that the food that is bought by consumers cannot be preserved for extended periods of time, this results in some food becoming wasted or spoiled.

FW is also linked to the attitudes and perspectives that consumers have towards certain foods. Kneafsey *et al.* (2009) and Dowler *et al.* (2010) noted that many consumers have become disconnected from food. This disconnection results from current global food system depending on large scale machinery to produce food as opposed to growing the food themselves. In current times, consumers in Europe can buy coffee grown in Kenya without seeing the number of resources and effort that was required to make it. Similarly, individuals in non-western spaces such as Africa can consume products from the west. It is this same disconnection that is associated with a loss of traditional knowledge about food and food practices (Pretty, 2002). Currently, the food that the vast majority of urban consumers eat is not personally grown (Blichfeldt *et al.*, 2015). This is truer for the Global North than the Global South. Nevertheless, there are some parts of the Global South that have assimilated to western culture and are no longer actively involved in food production (Blichfeldt *et al.*, 2015). Instead, these societies access food via shops or supermarkets. Consequently, this leads the consumer to ascribe a low value to the food that they consume (Ioniță, 2017). This is because consumers are generally not really aware of the amount of water, energy, land, fertiliser, and transportation required to produce food. For individuals who do not ascribe high value to food, it becomes easier for

them to dispose and waste food. Himmelheber (2013) noted that attitudes and perspectives that consumers have towards food may be influenced by local cultural norms and values. To illustrate this, Himmelheber (2013) noted that countries that do not have a strong relationship with food typically generate a lot of FW, the United States of America is cited as an example (Himmelheber, 2013).

The local cultures that shape attitudes, perceptions and narratives do not exist in isolation, they are also influenced by other factors such as social media and traditional media. The cultural beliefs and practices of consumers are also drivers of FW generation, because these beliefs and practices also influence shopping habits (Thyberg and Tonjes, 2016). Furthermore, the wasteful shopping habits that are practiced by many consumers are not only a product of the local cultural beliefs and practices of the consumers but are also influenced by social norms reflected in popular dialogue. Media and its messaging have been shown to affect and influence the behavioural buying patterns of consumers (Dumbili and Henderson, 2017; Saikia, 2018). Media, like human society is dynamic and reflects the current trends of the world. Saiki (2018) and Bryant and Goodman (2004) have both noted that in recent decades there has been an increased emphasis on the practice of hyper consumerism. This consumerism includes an emphasis on buying and consuming food. This emphasis is fueled by the consumption and internalisation of images and messages from the media (Teoh *et al.*, 2021).

## **1.5. PRINT MEDIA**

“Media, like the education system, is one of society’s key sets of institutions, industries, and cultural practices” (Masterman, 2001:16). The term media covers several different medias such as radio, music, television, film, and print (Stack and Kelly, 2006). “The most central types of media are our radio, television, and print, and it is these medias that affect the way that people imagine themselves to be connected to the social world” (Couldry, 2005:7). In addition to these claims Couldry (2005), also noted that media can be categorised into new media and old media. New media refers to the forms of media that came into being after the presence of television, radio, and newspapers, such as social media, unlike new media, old media is comprised of radio, television, and newspapers. Thus, newspapers are a facet of traditional media (Stack and Kelly, 2006). To better understand the characteristics of print media one needs to ensure that they understand the other facets of traditional media that exist because the presence of these other media forms shapes the way in which consumers interact with and access print media.

Despite the increasing digitisation of media, traditional media is still the primary source of news and political information for a significant number of people around the world. This is

especially true for developing countries (Mathiyazhangan *et al.*, 2015). Matamoras and Pnafiell-Siez (2019) and Mathiyazhangan *et al.* (2015) reported that traditional media is a source that is not only used to transmit messages by political authorities and administrators, but also that it is a great tool for spreading awareness to consumers. Traditional media not only allows for the transmission of information to large audiences across time and space, but it has also been shown to have an influence on what people consider to be most important. Traditional media is defined as media that attempts to communicate a message to a particular group of target audiences in a given time. Mathiyazhangan *et al.* (2015) noted that traditional media is marked by a number of key features. Firstly, traditional media has a tremendous impact on the media audience that use it (Mathiyazhangan *et al.*, 2015). This is because some facets of traditional media generally require a different type of processing, newspapers are a great example of this claim. Secondly, traditional media operates with the core dogma of minimum input and maximum output bringing about changes in the behaviour of the target audience. As a facet of traditional media, print media is characterised by the above features. More importantly, traditional media still provides the bulk source for digital media (Peterson, 2021). This research hinges on dissecting the content that different forms of traditional media have regarding FW namely: radio, television and newspapers. It is worth noting that when it comes to newspapers, this research is limiting its scope to physical newspapers and not digital or online newspapers. Therefore, the definition of newspapers given above is not inclusive of online newspapers in any form. Consequently, this means that when the term newspapers are used in this research it should be taken to mean physical newspapers.

### ***1.5.1. Advertisements in television, radio, and newspapers***

Despite the above characteristics, traditional media and new media bear some similarities in that both are affected by cultural shifts. One of the more prominent shifts that have changed both the traditional and new media landscape are the global advertisements fostered by business and multi-national corporations (Assadourian, 2010). Advertising is a widely used system of communication between the buyers and the sellers (Ahakwa *et al.*, 2018). Richardson and Curran (2002) noted that advertising is intended to influence the recipient to make decisions. Mogaji (2018) regarded advertising as a mass marketing tool that is used to bring consumer knowledge, generate perceptions, and capture consumer interests thus affecting the buying decisions and behaviours of the consumer. Marketers and corporations have become more mindful in choosing media mediums that are the most efficient in communicating with consumers (Ahakwa *et al.*, 2018). Coen (2008) stated that in the year 2007, global advertising was valued at 2007, US\$ 643 billion dollars, in the USA alone. In the

USA, the average consumer sees hundreds of advertisements every day and soon associates them with positive imagery (Robinson, 2001).

Saikia (2018) noted that the representation of topics in media that are related to food, tend to encourage the obtainment and consumption of food products. There is significant emphasis placed on preparing and consuming food, but there is very rarely any representation of FW. Saikia (2018) also noted that television is a key medium that affects the choices and perceptions that many people have towards certain foods, showing that in 2005 roughly 34% of television advertisements were related to food products. People who watch television prefer to choose the foods that they see the most often on television (Saikia, 2018). Though Lee *et al.* (2017) argued that television viewers are declining, they claimed that television is the best tool that marketers can use to target a large audience.

In the context of this research television is a device used for receiving and displaying broadcast signals containing visual and audio content. Television allows individuals to access a range of different channels by *broadcasting* specific frequencies (McMurria, 2017). Different signals that are broadcasted allow television users to access different channels, programs and visual content. Generally, broadcasters are divided into three categories: state broadcasters, public broadcasters and a commercial/private broadcaster (Bevan, 2008). A State broadcaster is defined as: ‘‘the ‘state the official, state-controlled broadcaster, appointed and regulated by the government’’ (Bevan, 2008:18). A public broadcaster is defined as the broadcaster that ‘‘ receives a government charter or license to broadcast, but is otherwise autonomous’’ (Bevan, 2008:18). Lastly, a commercial/private broadcaster is a broadcaster: ‘‘which is totally autonomous and receives revenue solely from advertising. A South African example of a commercial broadcaster is e.tv.’’ (Bevan, 2008:18). Therefore, television can access all these different broadcasts. In the context of this research when the term television is used it encapsulates (i) state broadcasting, (ii) public broadcasting and (iii) commercial broadcasting.

Like television, radio is still considered a tool that is used by retailers to promote products (Rajagopal, 2010). Though television and newspapers take up a large revenue for commercials and advertisements, radio is still regarded as an important medium in marketing (Rajagopal, 2010). In Latin America, 20% of urban commuters listened to the radio and the commercials that play in it (Lankford, 2018). Radio broadcasting is important to consumers because it informs the buyer about the state of the commercial environment and thereby helps the buyer to identify shopping opportunities that they liked participating in (Lankford, 2018). This is because radio advertisements like television and newspaper advertisements can be localised, this localisation of advertisements allows radio to reach target audiences of a

specific age, gender and even ethnicity (Mustafa and Al-Abdallah, 2020). Where advertisements on television rely on a visual element, radio advertisement rely on a different type of creativity i.e., use of music, keywords, and voice (Rajagopal, 2010). Mortimer and Grierson (2016) noted that radio advertisements are short in duration and typically they use more emotional appeals for products. Backstrom (2006) claimed that radio advertisements attract consumers by driving their arousal or appetite for products. Arousal during the listening of radio commercials is fanned through music, conversation anchor roles and celebrity statements (Backstrom, 2006). Radio commercials may influence the impulsive buying behaviours of consumers as well as their perceptions of certain products (Rajagopal, 2010; Russo *et al.*, 2016). Though radio advertisements use a range of methods to cause arousal to the consumer the effectiveness of this arousal is affected by a number of factors. For instance, urban commuters who reside in cities enjoy a higher quality of commercial broadcasting compared to individuals who do not reside in urban areas (Halcossis and Lewenberg, 2003).

While Saikia (2018) has highlighted the effect of television on food consumption choices, Tao (2020) noted that newspaper advertisements also have some influence on the perceptions and choices of consumers. They maintained that newspaper advertisements hold the greatest volume of information and are considered as highly informative. There has been some literature i.e., Ingvale (2013), Mogaji *et al.* (2018) and Mustafa and Al-Abdallah (2020) that showed that newspaper advertisements were correlated with the buying decisions of consumers. Looking at newspapers and the ways that they represent topics is important because newspapers are a medium that some people use as a means to connect to the social world, but also to catch up and inform themselves about topical issues (Khalid and Ahmed, 2014). Newspapers record the life of the community and its 'traditional voice' (Khalid and Ahmed, 2014). The function of newspapers is to publicise issues and provide facts and analysis of events to citizens (Khalid and Ahmed, 2014). The provision of this content should ideally allow informed citizens to make effective and responsible decisions in a complex, information saturated society (Khalid and Ahmed, 2014). Thus, press serves a multiplicity of purposes, particularly within developing countries (Khalid and Ahmed, 2014). Additionally, press serves as a multiplier in communication processes, as it rapidly and widely spreads information about local, national and world events. However, globalisation and the technology revolution have led to a paradigm shift in the nature and the content of the news. As a consequence of these changes, coverage of certain political, economic, and social topics has deteriorated in favour of other types of content (Khalid and Ahmed, 2014).

While newspapers have a number of unique roles within society, they are still marked with a

steady decline in circulation and readership within the last decade (Manson, 2017). Newspapers have been chosen as a part of the research, because like any extension of human society, they reflect the changes and ‘priorities’ of different societies (Khalid and Ahmed, 2014). In South Africa specifically, research on the portrayal of FW in print media is limited. Rather, in the context of the South African literature there is a larger portion of literature that looks at food content via food advertisements on television (Temple *et al.*, 2008; Mchiza *et al.*, 2013; Abrahams *et al.*, 2017). Research that considers the media’s depiction of FW is particularly important because media has been cited by literature to have an influence on people’s perceptions. Additionally, it is also important to see *how* and *why* systems such as print media interact with and shape the experiences and narratives of consumers in relation to topics such as FW. As uncovering how these systems affect people, can allow future efforts to use these very same systems to endorse sustainable behaviours.

## **1.6. AGENDA SETTING THEORITICAL FRAMEWORK**

To dissect the world of print media in this research, the theory of agenda setting shall be used. The theory of agenda setting presents the notion that what is frequently presented in the media sets the agenda for what the public considers the most important (Yusuf and Marufu, 2012). The more a topic or issue is frequently presented the more it is considered to be more salient than other topics (Coleman, 2009). This is because the attention and interest are concentrated on the one topic that is being pushed by the mass media. This in turn allows consumers to have a fuller understanding of the topic that is being promoted and little to no knowledge on the other topics that are not presented (Yusuf and Marufu, 2012). This explanation is captured perfectly in Coleman’s (2009) quote where he claimed that: “the more coverage a topic receives the more important it is to the people” (Coleman, 2009:147). The implication of these claims means that topics and issues that are not frequently presented are not only deemed as less important in the media consumer’s eye but it also means that the level of information that consumers will have about that specific issue or problem will be limited.

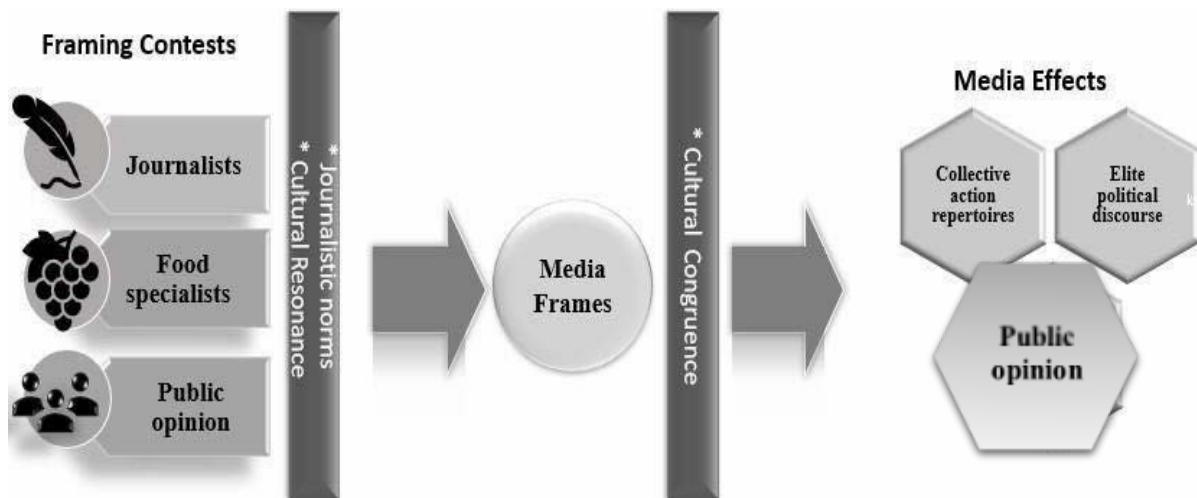
This limited information on certain topics is also a consequence of the changes that have occurred in relation to media content production over the last 26 years (Stack and Kelly, 2006). Over the last two to three decades there has been an increase in content that offers a generalist opinion as opposed to content that offers more extensive information on topics (Stack and Kelly, 2006). Weaver *et al.* (1997), Weaver *et al.* (2004), and Kiousis *et al.* (2013) have shown that the frequency at which a topic is presented along with how it is framed affects how certain media consumers construct narratives, and perceptions in regard to some issues and topics. This means that media consumers can develop and internalise perceptions and narratives that

are incomplete if the information provided by the media that they internalise is also limited (Holt and Barkemeyer, 2012; Yusuf and Marufu 2012). While agenda setting may influence and shape the agenda of the public, the types of influences that are integrated into the public agenda are not homogenous. This is because different media prioritise different topical issues (Yusuf and Marufu, 2012). This means that the types of perceptions and narratives that individuals will have in relation to certain topics may be different. These differences will also, to some extent, be affected by other factors such as geographical location, gender, and socioeconomic status. Since the ideas and priorities of media institutions are not homogenous it means that the world of media is not a direct translation of reality. As a consequence of this there may be a dissonance between the sentiments and messages that are shared by the world of media and the actual perceptions, opinions, and narratives of media consumers.

While the theoretical framework of agenda setting has been explained, it is also important to understand how media influences the choices, perceptions, and behaviours of media consumers. Entman (2003) noted that agenda setting of a particular topic is effective when the topic is *framed* in a specific way. Framing is a process whereby journalists select patches of actions from the shifting terrain of reality and imbue them with meaning (Entman, 2003). In framing journalists' 'bracket' off or accentuate specific elements about an event or a topic (Boykoff and Carrington, 2020). This selection makes some ideas appear more prominent and more important than others. Boykoff and Laschever (2011) offer another definition of media framing as a process in which journalists or media content creators organise the chaotic pool of empirical reality into packages of information that are consumable for media consumers. In the world of media, it is typically the journalists that are responsible for placing the figurative picture frames around the ever-moving target of events, thus focusing the attention of the public to these topics (Boykoff and Laschever, 2011). Media framing is important because it shapes and regulates the type of information that is accessible to people, and this regulation of information affects the perceptions of people which then affects the types of narratives that people have. Nelson *et al* (1997) suggests that media framing affects attitudes of tolerance.

The choices and preference of journalists in covering certain topics is influenced by social norms and values (Boykoff and Laschever, 2011). This means that the narratives and perceptions that are shared by the media are also, to some degree, influenced by and co-created by the media consumers themselves. In many ways, there is an interdependence between the media and its consumers. There have been a number of researchers i.e., Entman (1993), Boykoff and Carrington (2020) that have attempted to understand the process of framing, its

structure, and its effects. This research adapts an explanation of the framing process described by Boykoff and Laschever (2011) but removes and adds a number of aspects to cater to the discussion of FW narratives and perceptions (Figure 4).



**Figure 4:** The agenda setting process (Adopted from Boykoff and Laschever, 2011).

In their depiction of the framing process Boykoff and Laschever (2011) highlight three ways of consulting the concept of framing. This depiction emphasises political actors and social movements at its centre. Boykoff and Laschever (2011) note that the claims that are made by the actors must pass through two filters in order to be considered news. These two ‘filters’ are journalistic norms and cultural resonance. If an individual or a group’s claim resonates with the established norms and ideas of the cultural landscape, then they are more likely to not only be converted into a media frame, but they are also more likely to be considered to be more valid and more salient. Additionally, if the claims also align with those of the journalistic norms, they are also more likely to be converted into a media frame (Boykoff and Laschever, 2011: Entman, 2004).

These media frames that are formed then have what we call *framing effects*. The framing effects are a result of the claims made by the actors interacting not only with an additional filter of ‘cultural congruence’ (Boykoff and Laschever, 2011). In line with the cultural congruent filter Entman (2004:14) noted that the more congruent a media frame is with the pre-existing schemas that are prominent within a socio-political and cultural space, the more success it will enjoy. Entman (2004) further note that the most intrinsically potent frames are those that are fully congruent with the schemas that are habitually used by society members. The framing effects is essentially the final outcome of the claims after they interact with the filter of cultural congruence. This outcome is comprised of public opinion shifts, collective action repertoire adjustments and altered policy discourse. The media framing process is also marked by an additional filter on the effects section.

The depiction of the framing process highlighted by Boykoff and Laschever (2011) incorporated social movements as the main actors that made the claims. This was because the research was centred around the perception of the Tea political party (a political party within the USA). Since, this research is centred around food waste (FW). The depiction of the framing process will be altered. Instead, of social movements being the actor that make the claims it will be the ‘food specialist’ who will be incorporated in the framing contest stage. In the context of this research food specialists, refers to ‘experts’ that are knowledgeable about FW and its effects, causes and other implications. This can include scientific experts i.e., Oelofse and Nahman (2013), and or food company workers and other individuals that work with food in some capacity i.e., restaurants owners, chefs, waiters and even fast-food owners and workers as well as food disposal workers. The expertise in this regard are not limited to individuals that possess scientific information only. This inclusion also ensures that individuals that have obtained information and knowledge about food waste i.e., via other systems of knowledge or via the consumption of the media are also accounted for.

## **1.7. PERCEPTIONS AND NARRATIVES**

Since, there are different ways that topics can be framed, the way in which topics are consumed and perceived will also vary. This is because perceptions and narratives are influenced by other forces outside of the media (McLead *et al.*, 2017). Consequently, the perceptions and narratives created by media consumers are an amalgamation of the media and the social and cultural experiences of media consumers. Therefore, the world of media is influenced by the socio-cultural experiences of media consumers and vice versa. This means that when there are societal socio-cultural shifts these shifts are also manifested in the media realm and in turn affect alter the perceptions and narratives that people have about certain issues. (Marinescu *et al.*, 2021). The relationship between media, socio-cultural shifts, perceptions, and narratives is not linear, but rather each component interacts with the other in different ways.

### ***1.7.1. Perceptions***

McLead *et al.* (2017) maintained that understanding media consumer’s perceptions is integral to understanding the inner working and characteristics of both the media and its consumers. Perceptions can be affected by a multitude of factors including past experiences, past predispositions, stereotypes, biases, and level of knowledge. Often when people are articulating their perceptions about issues, they tend to make generalisations that gloss over a

lot of nuances (McLead *et al.*, 2017). Such generalisations are partly shaped by the media consumer's socio-economic status, gender, profession, political ideology, and media use. In explaining how people's perceptions may lead them to make broad generalisations about topics, Smith *et al.* (2006) used the social judgement theory. This theory asserted that the perceptions of people are created in the context of attitudinal predispositions. Moreover, the theory also claimed that individuals make judgements on certain topics in relation to what type of perception that they have about it. For instance, if an issue or topic falls under a range of acceptable ideas (latitude of acceptance) the individual is more likely to understand the topic. However, if the content falls under a range of unacceptable ideas (latitude of rejection) the consumer is more likely to reject these perceptions (McLead *et al.*, 2017). Lastly, there are certain perceptions that are neither acceptable nor unacceptable (latitude of non-commitment); it is these perceptions that have the potential to re-enforce pre-existing perceptions of the media consumer or deconstruct them. Depending on which zone the media content falls in the content may allow the consumer to either over emphasis their own perception or undermine another perception (McLead *et al.*, 2017). The characteristics of the media affect the types of perceptions that media consumers have, which then affect the types of narratives that media consumers have.

### ***1.7.2. Narratives***

Hinyard and Kroutter (2007:778) provided a definition of narratives noting that: "narratives are defined as any cohesive and coherent story with an identifiable beginning, middle, and end that provides information about characters and conflict, raises unanswered questions or unresolved conflict, and provides resolution". Porten-Chee *et al.* (2021) noted that narratives and how they are constructed influence people's behaviours. Due to this, the media uses narratives as a tool to not only influence individuals to engage with it but to also endorse the messages of entities that align with it. Narrative construction is effective because narratives can immerse the media consumer in a myriad of similar experiences thereby ensuring that media consumers are invested in the type of content that the media disseminates. Quayam *et al.* (2010) noted that in order to capture the attention of the consumer the media uses a number of tactics. For instance, the media uses visuals when it wants to communicate a message within a short window of time (Porten-Chee *et al.*, 2021). Additionally, how a narrative is presented also affects how much attention is paid to it (Porten-Chee *et al.*, 2021), because how narratives are presented affects how they are processed (Porten-Chee *et al.*, 2021). For instance, text-based narratives and perceptions presented may require a more thorough type of processing. This is because content that is presented via text-based communication requires a more thorough type of processing as opposed to visual-based communication (Porten-Chee *et al.*,

2021). This is partly due to the amount of time required to process each communication method. Consequently, individuals who prefer text-based communication i.e., print media may formulate narratives about specific issues that are more holistic as opposed to individuals that prefer visual based media i.e., television.

Just as perceptions can be interpreted through different theories such as the social judgement theory, scholars have also proposed a number of theories to interpret narratives and how they are constructed. One such theory is the narrative persuasion theory. This theory maintained that in order to understand how narratives are constructed and how people relate to them one needs to understand the aspect of transportation (Green and Broek, 2000). Transportation reduces the defensive reactions of narrative spectators because the spectators are transported into the story. This allows the viewer to engage with the narrative through the eyes of the characters (Green and Broek, 2000; Hinyard and Krouter, 2007). In essence transportation is an integrative melding of feelings, imagery, and attention (Green and Broek, 2000). While transportation is important in its ability to transport the consumer to a different world, its effectiveness is dependent on the type of media that is used. For instance, Quayyum *et al.* (2010) found that individuals who use print media are generally more well-informed than those that use electronic media.

In addition to media use affecting narrative construction, Quayyum *et al.* (2010) argued that the amount of information that an individual has about a specific topic is also a factor in narrative construction. To illustrate, Edgeley *et al.* (2020) found that there were ‘‘generational gaps’’ between older people and young people’s media usage. The same study also found that there was a huge information gap between young people and older people. Several studies have attempted to explain why there’s such a huge information gap between young people and older people. For instance, Soudan (2008) attributes the more knowledgeable characteristics of older people to the fact that within their study older people generally preferred using newspapers as a means of knowledge gathering as opposed to younger people who generally preferred electronic media. Boczkowski *et al.* (2018) attributes the ‘information gap’ as resulting from the aversion that younger people have towards watching the news

### ***1.7.3. The construction of narratives by food corporations***

Narratives that are provided by individuals can be interpreted and dissected in different ways. In showing how narratives can be constructed and used by food corporations Bryant and Goodman (2004) explored the narratives present in the alternative consumption market in the USA. They noted that consumption of food products and other products have become a new form of activism. The political aspect of ‘‘alternative consumption’’, particularly in the

West has received increased engagement from consumers, as a consequence of the type of narratives that are crafted by commodity cultures as well as multi-national companies (Bryant and Goodman, 2004). Crewe (2001) noted that the increased engagement in alternative consumption is a result of the act of consumption itself being ingrained with certain political connotations. Now, consuming certain types of foods can be used to reflect the political, social, and moral standing of the consumer (Bryant and Goodman, 2004). To ensure that the typical western consumer is 'ethical' and moral in their consumption, consumers go out of their way to purchase food products that are 'organic' and 'sustainably' harvested that also empower the disempowered from the South (Crewe, 2001; Bryant and Goodman, 2004). However, what many consumers do not realise is that the type of narratives and beliefs that they have in relation to certain food products are carefully curated by food product companies through sets of strategic images, and texts. Typically, food products that speak to consumers in specific ways are performed by using very specific political ecology narratives (Bryant and Goodman, 2004).

## **1.8. RESEARCH PROBLEM AND OBJECTIVES**

In response to the complex causes and effects of FW the United Nations created a number of sustainable development goals that aim to tackle the issue and its effects. Sustainable development goal 12.3 seeks to halve FW at the consumer and retail levels by 2030 (Hengi and House, 2021). To try and mitigate FW, a majority of studies have focused on the quantification of FW globally. However, there has been a push to look at the socio-cultural dimensions of FW as there is a link between the cultural context of societies and individuals and the amount of FW they generate. Literature suggested that in medium to high income countries FW mainly occurs in the consumer and retail levels (FAO, 2015). One of the reasons often cited by researchers for the high FW found in medium to high income countries is the low value that consumers ascribe to food due to certain cultural practices such as emphasising the aesthetic presentation of food and discarding food that falls outside of it (Marx-Pienaar and Erasmus, 2014). While not as developed as say America, South Africa is still categorised as a medium income country, and due to this the country has significant volumes of FW produced at the consumer level.

The implementation of transformative and sustainability focused policies may help combat FW in the early stages of the supply chain. However, it is gauging and understanding the knowledge, perceptions, and narratives that people have towards FW that may allow the

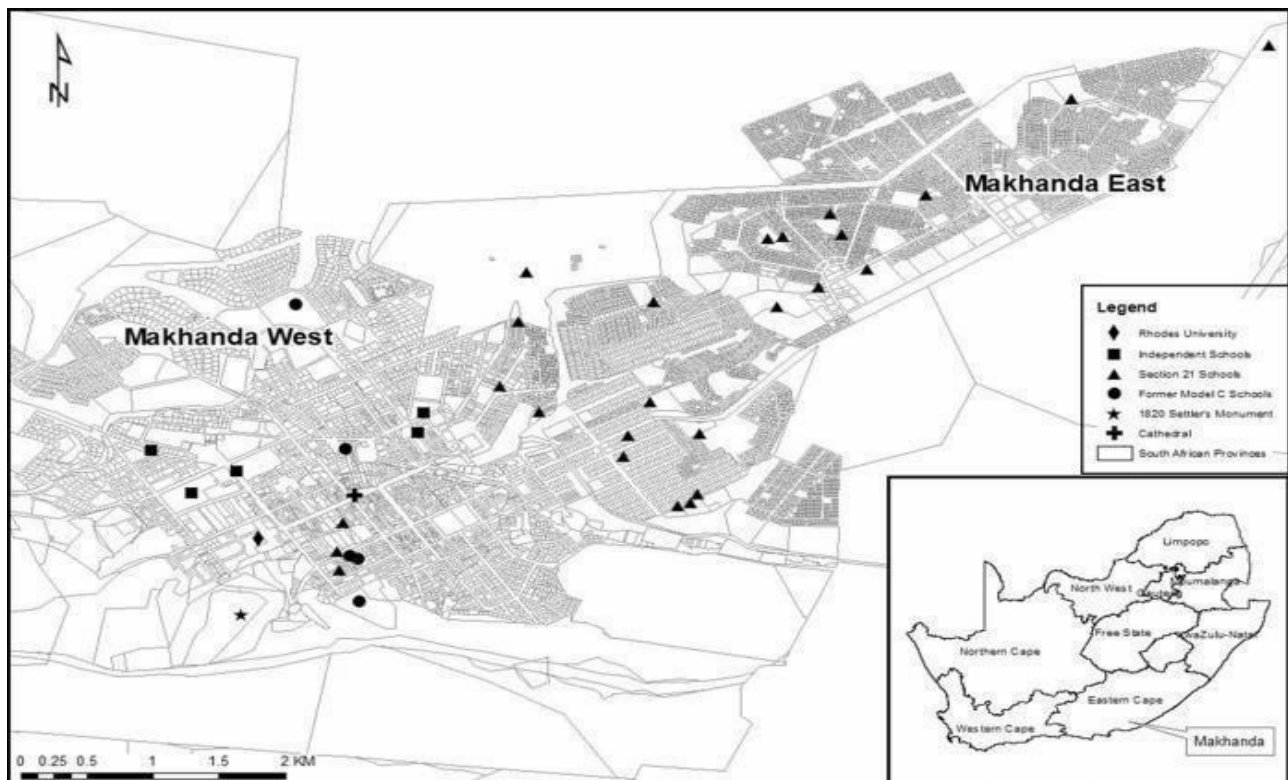
greatest change to occur at the consumer level. When it comes to spreading and representing scientific information to media consumers there are a number of institutions that one can use. Marinescu *et al.* (2021) maintained that for some, traditional and online media is the only source of environmental and scientific news that consumers can access. Understanding the types of FW perceptions and narratives that traditional media (more specifically print media) has and how these narratives and perceptions overlap or do not overlap with those of media consumers is integral because perceptions and narratives have been cited by researchers as affecting behaviour (Porten-Chee *et al.*, 2021). Lastly, there has been little attention paid to how FW has been presented in media (Thompson and Haigh, 2017).

Myers (2008), Mathiyazhangan *et al.* (2015) and Matamoras and Pnafiél-Siez, (2019) maintained that print media is still used in certain regions such as India and the Sub-Saharan African region. The authors went on to note that as a facet of traditional media, print media has been in existence for a long period of time, and while the media form has been affected by newer forms of media it is still a source that newer forms of media use to source (Peterson, 2021). Therefore, in many ways traditional media and by extension print media is still integral in the dissemination of information and knowledge in current times. The amount and types of information that is presented by the media can shape beliefs, attitudes, and perceptions which in turn can affect behaviour (Fishman and Casarett, 2006). One of the ways to understand how FW is presented and framed in print media is to not only look at the content that is presented about it in the media, but also the perceptions and narratives that media consumers have. This is often because both the world of media and media consumers interact and influence each other. Thus, this study aimed to look at the types of narratives and perceptions that exist about FW in print media and amongst citizens of the urban community of Makhanda. To fulfil this aim, the study created a number of objectives namely:

- (i) What type of narratives does print media present about FW?
- (ii) What types of narratives and perceptions do the people of Makhanda have about FW?
- (iii) Do the FW narratives and perceptions present in print media overlap with those of Makhanda population?
- (iv) Which narratives and perceptions are the most dominant?
- (v) Which of the actors advance particular narratives?
- (vi) Has the discourse about FW changed over time?

## 1.9. STUDY AREA

Originally established in the 1800's for military purposes, Makhanda (33° 18' 33.0" S and 26° 31' 36.0" E) is a town located in the Eastern Cape, South Africa (Mutumbi *et al.*, 2021). Like most South African towns, Makhanda is characterised by economic inequalities as well as a spatial segregation that was curated by past political dispensations (Pamela *et al.*, 2021). To this day the town is still marked with visible spatial segregation in relation to race. The town can be separated in two sections namely Makhanda East, which generally houses black people of lower socio-economic status and in Makhanda West, which generally houses the more affluent households, and is a predominantly white area (Mutumbi *et al.*, 2021) (Figure 5). The economic disparity, spatial segregation and racialised history of Makhanda makes it an interesting site to look at the diversity of perceptions and narratives citizens have about FW.



**Figure 5:** The east side and west side of the study area, Makhanda as extracted from Hoefnagel *et al.* (2018).

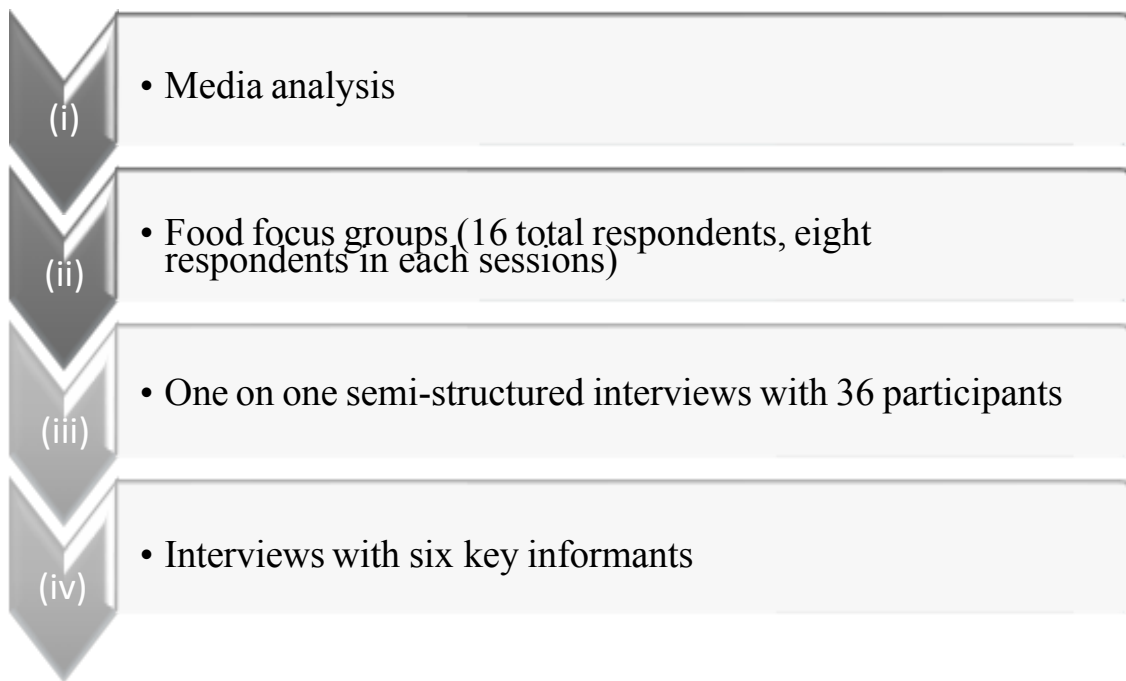
Mutumbi *et al.* (2021) maintained that the population of Makhanda comprises of about 70 000 people. The town is mainly dominated by Black African (78%) population, followed by a coloured/mixed race population (12%), Whites (10%) and Indians and Asians (<1%) (Jones, 2011). Makhanda is also marked with a high unemployment rate (34%) as well as a low general

education rate (Pamla *et al.*, 2021). For instance, only 15% of the population possesses a tertiary education. Consequently, the town has a high dependency on government grants with 41% of the Makhanda population depending on government grants (Mutumbi *et al.*, 2021). A quarter of households within the town live below the poverty line. The town boasts a number of educational institutions that have been cited to bring significant economic contributions to the Sarah Baatman district.

## **1.10. METHODOLOGY**

### **1.10.1. Research approach**

The study used a number of mixed-method qualitative approaches to collect data. This was because the core aims of the study was to look at the perceptions and narratives of print media and those of Makhanda residents. There are no universal perceptions and narratives that exist because these aspects are shaped by subjective experiences and a myriad of external and internal factors. Thus, the research incorporated qualitative methods that allowed respondents to freely express their subjective experiences without hinderance (Tate and Smallwood, 2021). The research performed the following methods in the following sequence: (i) media analysis, (ii) two focus group sessions, (iii) one-on-one semi-structured interviews and (iv) key informant semi-structured interviews. In total, the research had 58 respondents. The 58 respondents were allocated and placed into different the different data collection phases of the research for instance (i) 16 respondents were allocated to the food focus groups (each food focus group session had eight respondents each), (ii) 36 participants were distributed to the one on one semi-structured interviews and (iii), the remaining six were key informants, these were the food specialists alluded to in reworked agenda setting framework (Figure 4). These respondents worked closely with food i.e., chefs, waiters, cooks, etc. This last six was obtained though purposive sampling.



**Figure 6:** Data collection process.

### ***1.10.1. Media analysis***

The research used SABINET as a means to gain access to print media publications. SABINET is an online archival dataset that collects print publications from South African print publications. In using SABINET, the study was able to procure newspaper publications from the last 15 years (2007-2021) in order to do a comparative analysis via content analysis. The search engine of the platform was used to procure publications to ensure that publications that highlighted FW were captured. The research incorporated a number of key words in the search bar such as: kitchen waste, household waste, putrescible waste, and rotten food.

### ***1.10.2. Food focus groups***

After the media analysis was done, the study moved on to capture the FW perceptions and narratives of the general public of Makhanda. In total, there were two focus group sessions, each involved eight respondents that were randomly selected. Focus groups are defined as a method that is carefully planned and comprises of a series of discussions to procure perceptions on a defined area of interest in a nonthreatening environment (Gill *et al.* 2008; Krueger and Casey, 2014). The sessions lasted between 45 minutes to an hour. The discussions were guided by an outline of questions that the researcher used (Appendix A). The respondents were obtained by approaching individuals within the shopping center of Makhanda and asking

if they would like to participate in food focus group discussions about FW. If respondents agreed the information of the food focus session would be shared with the participant. Upon meeting in the focus sessions informed consent forms were read to participants and participants were asked to sign the form or give verbal consent. The food focus sessions were both done with the aid of a research assistant, questions were asked in English and where translation in IsiXhosa was needed the research assistant would translate both the questions and the answer of the participants. However, the researcher did not rigidly adhere to the outline. This is because discussions that de-emphasizes formality allow one to get more holistic information. Participants tend to provide a lot more information that is needed when they do not feel any type of pressure to speak formally about a specific topic (Bewley, 2002).

### ***1.10.3. One-on-one semi-structured interviews***

Gill *et al.* (2008) defined interviews as a method that can be used to unfold the meaning of people's experiences. Semi-structured interviews are unlike unstructured interviews in that they have an outline of topics and questions prepared by the researcher, although the researcher does not need to rigidly adhere to the questions and outline completely (Suckey, 2013). The semi-structured interviews were done after the focus sessions to gain more depth and nuance in the types of FW perceptions and narratives expressed by respondents and in total, 36 respondents were interviewed. These respondents were stratified according to gender, age, socio-economic status, and geographical location. The interviews lasted between 45 mins to an hour which was similar to how the focus sessions were completed. The interviews were performed with the aid of a guide in order to allow the researcher to guide the flow of the conversation (Appendix B). Questions were posed in English and IsiXhosa for maximum accessibility, all interviews with the 36 respondents were done with the presence and aid of a research assistant who is well adept in both English and IsiXhosa.

After the 36 respondents were interviewed, the study did another set of semi-structured interviews with key informants. Key informants were described as individuals that worked around food such as chefs. The key informants were identified and approached with the aid of a research assistant. The knowledge of the research assistant was instrumental in these sessions as this information was used to get key informants. Similarly, to the semi-structured one-on-one interviews with the 36 respondents, the key informants were done in English and some parts were also translated in IsiXhosa for maximum accessibility for some respondents to grasp the fullness of the questions. The six key informants were comprised of university chefs, restaurant waitresses and prison warden cooks. The interviews were similar to the

interviews with the 36 respondents lasted for 45 minutes to an hour. The questions asked to the key informants were the same questions asked to the 36 respondents (Appendix B).

#### ***1.10.4. Ethics***

Ethical clearance was obtained once the guides were reviewed by the Rhodes university Ethics committee, the approval number for the research project: 2022 5894 7208. Before the focus sessions and the one on one interviews were done, participants were given consent forms translated both in English and IsiXhosa. The contents of the form as well as the structure of the data collection process was outlined to respondents and participants before consent forms were signed. It was made clear to respondents that they could withdraw at any given time without any consequence. Both the focus sessions and the interviews were performed with the aid of a research assistant. The questions asked in all the data collection phases were given to respondents and translated in English and IsiXhosa.

Lastly, there was no overlap in respondents in all the data collection phase.

### **1.11. STRUCTURE OF THESIS**

This thesis is divided into four chapters. The first chapter presents the general introduction and speaks about FW (i.e., its definition, drivers, and effects as well as how it is characterised in developed and developing countries). After the effects and drivers of FW are discussed, the first chapter talked about the influence of traditional media and its effects on perceptions and behaviours. In speaking about the traditional media and print media more specifically, the first chapter also extends the discussion to how traditional media has linkages to narratives and perceptions. The chapter then explains perceptions and narratives and how they relate to FW and print media. Furthermore, the chapter also presents the methods used to collect data. This chapter also provides a breakdown of the theoretical framework that used throughout the thesis to analyse the findings of chapter 2 and 3. Lastly this chapter presents the problem statement as well as the research aims and objectives.

The second chapter considers at the type of FW perceptions and narratives that are presented in the print media by looking at the content that has been published in newspapers over the last 15 years. This chapter also uses the agenda setting theory framework as a means to dissect the implications of the results obtained. Lastly, the chapter closes with a discussion section that uses literature to interpret and explain the results.

The third chapter looks at the FW perceptions and narratives presented by the residents of Makhanda. This chapter discusses the results obtained from the focus sessions, one-on-one

semi-structured interviews with 36 respondents and six key informants. After presenting the results, chapter three uses the agenda setting theory to dissect the implications of the results and also uses literature to explore the meaning and implications of the results. Lastly, this chapter provides a brief summary of the results in the conclusion section.

The fourth and final chapter looks at the results that were presented in chapters 2 and 3 and determines where these results. This chapter also draws from literature to explore the potential reasons for the overlap or lack of overlap between the FW perceptions and narratives presented between print media and the respondents of Makhanda. The chapter further provides a summary of the main findings, highlights how the thesis contributes to knowledge and lastly provides recommendations for future studies.

## CHAPTER 2

### FOOD WASTE REPRESENTATION IN PRINT MEDIA



## 2. INTRODUCTION

The agenda setting theory is a theory that has maintained that what is consistently and frequently presented by the media sets the agenda for what is considered as important. Yioutas and Segvic (2003) explained that the more exposure and internalisation that media consumers have with a certain topic the more salient that topic will be considered. The theory further noted that the rate of exposure of a topic not only affects the perceived importance of the topic, but it also affects the level of information and awareness that individuals have about it. Entman (2003) noted that the level of knowledge that individuals have on certain topics can influence the feelings, perceptions, and narratives that individuals have about them. By looking at which topics or problems are frequently presented in print media one can establish which topics are more salient than others.

Marinescu *et al.* (2021) noted that the accessibility and use of media has intensified as a consequence of phenomena such as increasing literacy, globalisation, and modernisation. Marinescu *et al.* (2021) also noted that due to the increased accessibility and media use, media can be considered to be an anthropological force in its own right, in that media has been shown to have some effects and influences on human behaviours, perceptions, and attitudes. In discussing the increased use of media, Stack and Kelly (2006) noted that children and youth spent a significant and increasing amount of time with media. Television, radio, and newspaper use are not the only forms of media that individuals now have access to. Jung *et al.* (2012) noted that when the consumption of media content is considered it is also important to look at the influence and interaction that ‘newer forms of media’ have on consumers. There has been some contestation over the emergence of newer forms of media, as some authors have suggested that their introduction displaces the existing forms of media, while others argue that they complement each other (Jung *et al.*, 2012). For instance, the increased use of the internet has been shown to have effects on traditional media use (Jung *et al.*, 2012). There are some studies i.e., Dimmick *et al.* (2004), Kayan and Yelsma (2000), and Nie and Hillygus (2002) that have found that the use of new media forms (such as the internet) were linked with decreased use of older media. Such findings were also present decades before as in 1951 Schramm *et al.* (1961) examined the influence of television as an emerging medium in children’s use of older media such as radio, movies, and books in two Canadian towns in the year 1951. The research found that individuals who watched television spent less time listening to the radio. Almost half a century later, Newell (2007) revisited the towns where Schramm *et al.* (1961) conducted their research and found that radio use had not decreased between 1959 and 2000.

The increased accessibility and use of media are not limited to the Global North, other parts of the world have also experienced media booms. There are a number of countries that have been marked with increased access to new technologies and the internet. For example, Seoul has the world's highest broadband penetration with 95 % of all households having internet access (Jung *et al.*, 2012). Other countries in East Asia such as Singapore and Taiwan are ranked in the top five penetration rates. Unlike certain parts of Asia, the African region has a different relationship with media accessibility. Jung *et al.* (2012) noted that Sub-Saharan Africa has historically lagged behind in media and telecommunications use. However, the region has been experiencing significant growth in media accessibility, media use, and telecommunication use. In Sub-Saharan Africa, radio is a major source of information, closely followed by television. Approximately 5.2% of households in Sub-Saharan Africa have a television set (Jung *et al.*, 2012), and the region is still marked with a low number of radio receivers (Odi, 2013). Despite this, she noted that the number of radio receivers went from 9.3% in 1970 to 20.7% in 1995. This observed increase in media and telecommunication channels is also applicable to Southern Africa.

South Africa has also experienced some growth in media and telecommunication use. For instance, 82% of South African household's own television sets and 90% of the population owns a mobile handset (Udoakpan and Tangeh, 2020). While Africa has experienced a general increase in media and telecommunications, there are certain media sectors that are dwindling. Manson (2017) noted that newspapers have been experiencing a decline in readership because of cheap tabloids and online media. The decline in print media is attributed to the boom of the digital age, as well as the evolution and further development of telecommunications devices such as phones and laptops. Social scientists refer to the increasing reliance and use of media that human society has as *mediatisation*. The phenomenon of mediatisation is one that occurs over a long period of time. Often mediatisation cannot be distilled to the occurrence of a single event (Deacon and Stanyer, 2014).

Rather, it is usually a gradual phenomenon that requires a number of different events to crystallise. While most social scientists agree that mediatisation is a phenomenon that occurs over a long period, there is often a difference in how the term is defined. Hoskins (2009) argued that mediatisation has a number of definitions; he also noted that the term and how it has been used in academia has also evolved with time. Additionally, Hoskins (2009) noted one of the definitions for mediatisation is an institutionalist definition, this definition emphasises the forms of practices and experiences associated with the dominant media institutions of the broadcast era. In addition to the institutionalist definition Hoskins (2009) noted that there is

another definition of mediatisation that is rooted in the social constructivist perspective. This definition highlights the more immediate and extensive interpretation of new forms of media (Hoskins, 2009).

The term that this research is using is the one that describes the accrual of power that the media experiences that is fostered or created by the increased pervasiveness and autonomy of media institutions and technologies (Deacon and Stanyer, 2014). The concept of mediatisation thus places media analysis at the centre of all kinds of important developments. When mediatisation is discussed often the agents that are responsible for triggering the cultural and social change that occur are limited to a select few agents (Deacon and Stanyer, 2014). One of the drawbacks to this idea is that mediatisation tends to over-centralise the power and influence of the media without adding more nuance on other possible factors or agents that may be present. This results in the role and power of the media being overly emphasised, and the influence of other forces or agents being minimised (Deacon and Stanyer, 2014).

Like other African countries, South Africa has experienced a drastic change in how the public interacts with, consumes, and accesses media. In the recent past, South Africa's media was strictly regulated to produce messages and narratives that aligned with the white minority that held political power pre-1995 (Yusuf and Marufu, 2012). After 1995, government censorship and control over news coverage was restructured. The media landscape of South Africa was reimaged, and multiple, diverse voices were centred. The inclusivity of diverse voices fell in line with the newly democratic political ideologies of the country, and as a reflection of the country's politics the world of media was also privy to the freedom of expression that was afforded to the citizens of South Africa (Yusuf and Marufu, 2012). Thus, the mediatisation of this country is unique. Due to its newfound freedom, South African journalists have been able to cover topics that were not previously highlighted. The democratic nature of South Africa gave South African journalists the ability and freedom to explore and report on topics with more nuance. This sentiment applies to all manner of topics, and while the media landscape of South Africa is unique there are still some trends that are similar to other global media systems. For instance, a number of topics 'booms' have occurred. Marinescu *et al.* (2012) noted that attention to topics that speak to global sustainability has intensified over the years. This increased attention to global sustainability can be attributed to the increased awareness and participation of consumers and corporations in protecting and sustaining the environment (Marinescu *et al.*, 2012). The media plays an integral role in this increased awareness mainly because of "its ability to reach a wide audience and raise awareness of global challenges" (Marinescu *et al.*, 2012:2).

FW has gained global attention not only because it has complex, detrimental effects on the environment such as the release of carbon emissions into the atmosphere, but also because reducing the FW generated by households can contribute to the mitigation of food insecurity (Oelofse and Nahman, 2013). Okunade (2007) observed that the media plays an integral role in raising awareness and in providing background information and assimilation of interest in particular topics. Entman (2007) and Dumbili and Handerson (2017) claimed that the media has some degree of influence on the behavioural patterns of media consumers and thus it is important to determine what narratives and perceptions that the media has about FW. For example, Saiki (2018) indicated that there is a correlation between the type of media that people consume and the amount of food that they consume. Saiki (2018) noted that in 2005 about 34 % of all television advertisements within the USA were promoting food products to consumers. Saiki (2018) also hypothesised that the level of media exposure to content that highlights food products has some influence on the consumption patterns of consumers. Therefore, it can be inferred that the media and the degree to which a person is exposed to it has some influence on behavioural patterns.

Whereas Saiki (2018) examined the representation of food within the confines of adverts, Thompson and Haigh (2017) considered FW representation within the context of a reality kitchen television show called “Ramsay’s Kitchen Nightmares”. They found that in the show FW was value laden and constructed as occurring as a consequence of personal and moral incompetency. Additionally, FW was seen as a risk to both the restaurant that was a part of the show but also the wider public (Thompson and Haigh, 2017). However, while Saiki’s (2018) and Thompson and Haigh (2017) findings revolved around the representation of food within the medium of television specifically, both studies provided much needed insight about food and FW representation in the media. Research that considers both the representation of FW in the media and how this representation is in line or in conflict with media consumers has not been done as much. Thus, this chapter aims to capture the representations of FW by looking at the FW perceptions and narratives disseminated by South African print media.

To better understand the media narratives of FW displayed in print media, one needs to analyse how the content in articles is framed. Framing is an integral part of agenda setting because how a topic is framed affects the salience of a topic (Entman, 1993). Salience means making a piece of information more meaningful, noticeable, or memorable to the audience (Entman, 1993:53). Entman (1993:53) further noted that “to frame is to choose specific aspects of a perceived reality and make it more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation and or treatment

recommendation for the item described’’. Framing thus diagnoses, evaluates, and prescribes a recommendation/solution to the perceived problem.

Framing also constructs and enforces moral judgments. After this is done frames then tend to offer remedies by offering and justifying treatments for the problems and their likely effects. An example of framing is how the ‘Cold War’ frame dominated the United States during the 1980’s (Entman, 1993), or the Covid-19 frame that enveloped the world over the last few years. In the Cold War frame, the problems were highlighted, these problems were foreign events such as civil wars, and the sources of the problems were identified (these were the ‘communist rebels’). After the sources were identified moral judgment and solutions were prescribed (this was the USA’s support for its allies). Frames also determined what the benefits and the costs are. Usually, the costs and benefits are measured according to the common cultural values of that specific environment (Entman, 1993).

Not all functions of frames have to be present within a text for framing to occur. Additionally, frames have at least four locations namely: the text, the communicator, the receiver as well as the culture that the communicator and the receiver are situated and participated in (Entman, 1993). Texts contain frames that are created by the presence or absence of certain keywords, stereotyped images, and sources of information that thematically re-enforce clusters of judgment or facts. While frames can be created or re-enforced through the use of images and text, these two aspects are not the only forces that affect and shape media reporting. Media reporting is also influenced or affected by unequal power relationships that can be found within and outside the world of media reporting (Boykoff, 2011). These unequal power relationships often determine not only how a topic is presented but also how it is consumed. It is these relationships of unequal power that fashion the limits and constraints of what is considered important (Boykoff, and Laschever, 2011). Thus, what is reported by journalists to the public is not only determined by the social norms and values of the journalist. Rather, reporting is a constant negotiation that occurs between the media world, politicians, and the public (Boykoff, 2011). The world of journalism and media are governed by their own social norms and values that create a form of bias, and because of this, the journalists who wish to highlight other aspects of a topic or perceived problem may not be able to do so (Escobar-Tello, 2012).

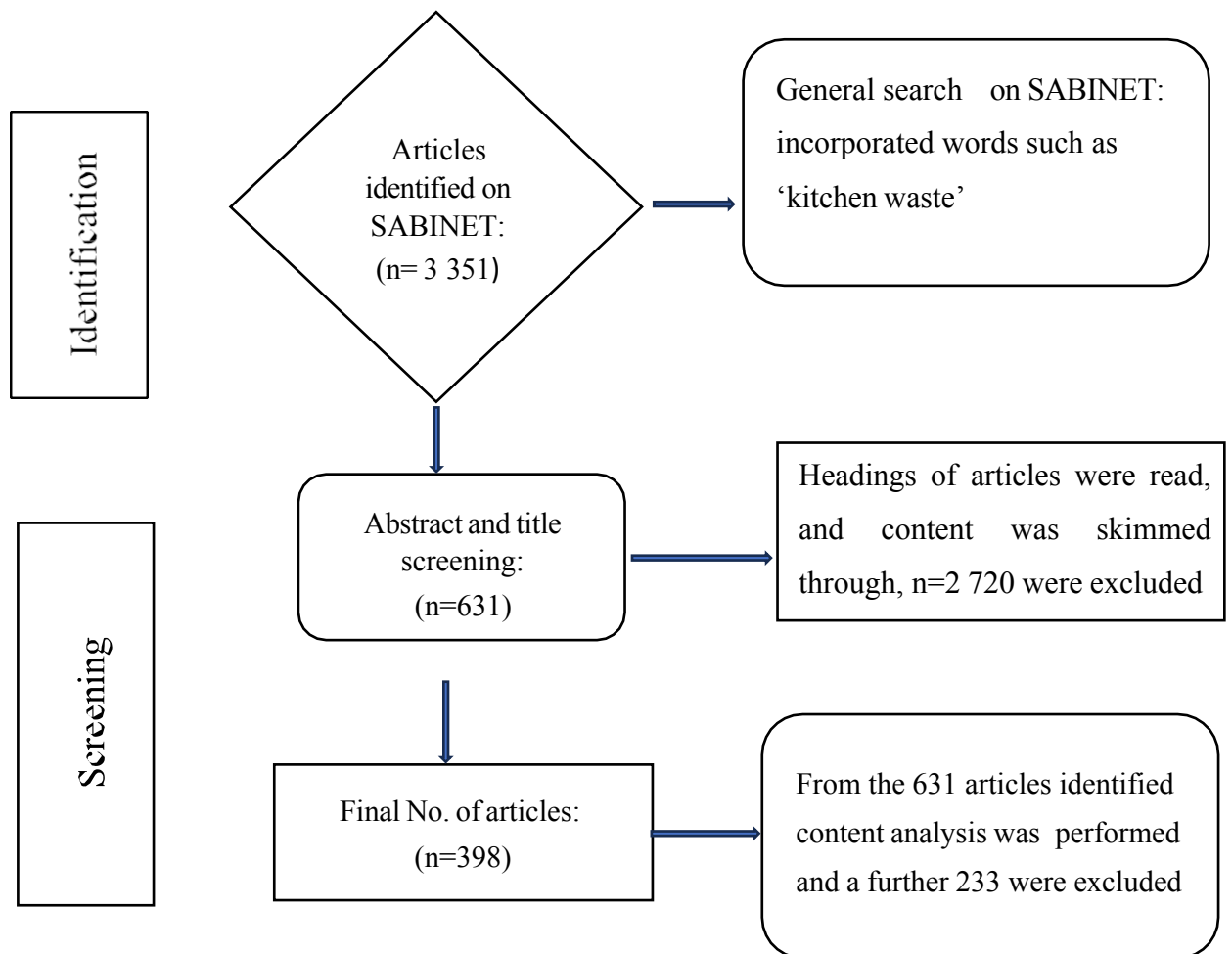
## **2.1. AIMS AND OBJECTIVES**

This chapter aimed to uncover the types of narratives and perceptions about FW that are expressed in South African print media. To reach this aim, four research questions were posed.

- (i) What types of narratives does print media present about FW?
- (ii) What FW narratives and perceptions are the most dominant and how did they become dominant?
- (iii) Which actors advance these FW narratives and perceptions?
- (iv) Has the discourse about FW changed over time?

## **2.2. METHODS**

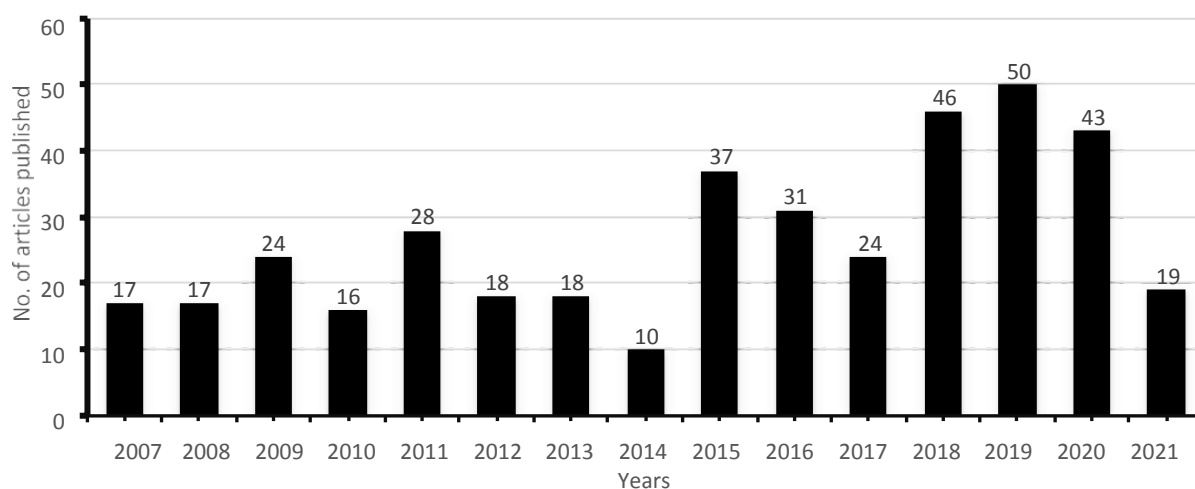
Holt and Barkemeyer (2012) and Leitch and Bohensky (2014) cite newspapers as agents that shape public opinion through how much information they provide to consumers, and how they present, and frame said information. Like other countries, South Africa currently has a large (188) number of newspapers in circulation. These newspapers are focused on different topical issues and range from the local newspaper to regional and even national newspaper. To access these newspapers, SABINET was used. SABINET is an online database that collects and contains South African publications and articles. The newspaper articles of the last fifteen years (2007-2021) were chosen to see if there were any trends in how FW was reported. To search on SABINET, the research incorporated a number of different words. In addition to FW, other terms such as ‘putrescible waste’, ‘discarded food’, ‘kitchen waste’, ‘household waste’, ‘organic waste’, and ‘rotting food’ were used, resulting in 3 351 articles (Figure 7). After the general results were obtained, the heading of the newspaper and the content of the newspaper was skimmed through. This reduced the articles from 3 351 to 631 articles. Duplicate articles were also identified and subtracted from the 631 articles. When the content of these articles was read, the number of relevant articles declined from 631 to 398 articles. Thematic analysis was then used to categorised the different articles into a number of themes. Thematic analysis is a method used to identify themes and patterns of meaning across a data set (Clarke *et al.*, 2013). After the content in the identified 398 newspapers was analysed, the content was categorised into ‘clusters’ and put under different themes, to ensure that the different narratives and perceptions that were provided by the media were captured.



**Figure 7:** Article identification process

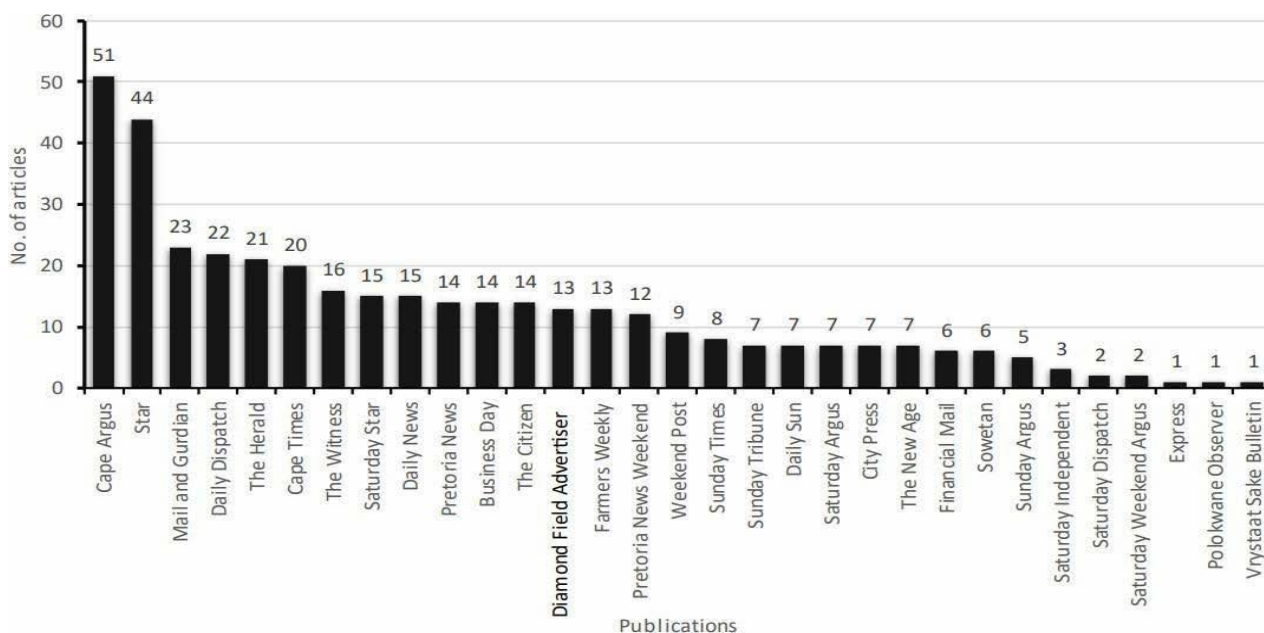
### 2.3. RESULTS

After the 398 newspaper articles were identified, they were individually allocated to the year that they were released. The number of newspapers articles released each year in the last fifteen years ranged between 10 to 50 articles per year (Figure 8). The mean was  $25 \pm 12$  per year. There was no trend in quantity observed per year over the 15-year period.



**Figure 8:** Number of FW articles released between 2007 and 2021 as extracted via SABINET.

The 398 articles were categorised into different publications. The publications with the highest number of articles were The Star, Cape Argus, The Mail and Guardian, and Daily Dispatch (Figure 9). These four publications accounted for 35% (n=140) of the 398 articles.



**Figure 9:** Number of print publications on FW released by individual publishers between 2007 and 2021.

### 2.3.1. Food waste themes

In total, 14 themes were identified. These different themes were given unique codes and direct quotations from the sources were used to help categorise the articles under the theme (Table

1). From these codes, there were some themes that had a larger number of articles compared to others (Table 1).

**Table 1:** Number of thematic codes identified.

<b>Themes identified</b>	<b>Thematic codes</b>	<b>No. of total articles per theme</b>
Food waste in the bigger picture	<b>FWBP</b>	<b>147</b>
Food waste and food insecurity/hunger	<b>FWFS</b>	<b>54</b>
Food waste and other forms of waste	<b>FWOFW</b>	<b>51</b>
Food waste how to stop it and why we should stop it	<b>FWHSW</b>	<b>40</b>
Food loss in the supply chain	<b>FLSC</b>	<b>16</b>
Food waste and the economy	<b>FWE</b>	<b>15</b>
Food waste and disease	<b>FWD</b>	<b>10</b>
Food waste and morality	<b>FWM</b>	<b>7</b>
Food waste and agriculture	<b>FWA</b>	<b>6</b>
Food waste and its effects	<b>FWIE</b>	<b>4</b>
Food waste in restaurants	<b>FWR</b>	<b>4</b>
Food waste and expiration dates	<b>FWED</b>	<b>4</b>
Food waste and Mukbang videos	<b>FWMV</b>	<b>2</b>
<b>Total</b>		<b>398</b>

After the articles were categorised into separate themes. The study went further and broke down the amount of article that were released in each individual year for the last 15 years and put them under different themes identified (Table 2). As observed in Table 2, there was a variation in the number of articles released under an identified theme.

**Table 2:** Number of articles released each year between 2007 and 2021

	YEARS														
Themes identified	007	008	009	010	011	012	013	014	015	016	017	018	019	020	021
Food waste in the bigger picture	14	13	9	6	14	8	9	12	16	11	13	6	7	5	4
Food waste and food insecurity and hunger	2	2	-	4	2	3	5	1	3	2	3	9	7	7	4
Food waste and other forms of waste	5	4	6	3	4	3	6	3	-	5	2	4	3	2	1
Food waste how to stop it and why we should stop it	2	2	3	0	1	2	1	3	3	2	3	3	12	1	2
Food loss and the supply chain	-	1	1	1	2	-	1	-	-	-	1	1	1	6	1
Food waste and the economy	1	-	1	1	1	2	-	-	1	-	1	-	2	3	2
Food waste and disease	-	-	-	-	-	2	-	-	-	-	-	4	1	1	2
Food waste and morality	-	-	-	-	-	-	1	-	-	1	-	2	1	1	1
Food waste and agriculture	-	1	1	-	2	-	-	-	-	-	-	1	1	-	-
Food waste and its effects	-	-	-	-	1	-	1	-	-	-	-	-	1	-	-
Food waste and expiration dates	-	-	-	-	1	1	1	-	-	-	-	2	-	-	-
Food waste in restaurants	-	-	1	-	1	-	-	-	-	2	-	-	-	-	-

### **2.3.1.1. Food waste in the bigger picture (FWBP)**

Articles in this theme spoke about FW but in a very limited capacity. Rather, the focus was placed on other topics namely: (i) global sustainability and (ii) service delivery or the lack of it. Of the 398 articles identified, 147 fell under this theme. In these articles, FW is framed in two ways. The first framing is the global sustainability frame, in these articles the role that FW plays in achieving global sustainability is highlighted. Most of the articles when speaking about FW speak about how reducing FW is a necessary step in achieving global sustainability. The second frame is the service delivery frame, within this frame the focus is not placed on FW again. Rather, the focus is placed on discussing service delivery and how a failure of service delivery i.e., waste collection and electricity can result in FW. In essence, this means that over a quarter of the articles that have been published between the year 2007 and 2021 were articles that did not fully engage with FW as a topic in a thorough manner.

Of the 147 articles under this theme, 80 of them mainly focus on a lack of service delivery. The consequence of a lack of service delivery (waste collection to be specific) is that the food that is disposed of becomes even more rotten. For example, an article in the Cape Argus (2021) noted that: *“The city spent approximately R 350 million last year specifically due to misuse of the system. Tyres, old clothes, shoes, building rubble, rags, newspapers, nappies, feminine products, condoms, wet wipes, animal carcasses, food waste, among the items that were illegally dumped”* (Cape Argus, 2021:3). Another article in the Daily Dispatch (2007:3) reported: *“The smell comes from people urinating against the walls and litter dumped by food and liquid vendors”*. The discussion of FW in this theme was not limited to the service delivery of waste removal. There were other articles that also spoke about FW in relation to a lack of electricity supply (a term in South Africa referred to as load-shedding). These articles discussed the side-effects of load-shedding, and the generation of FW was the most common side effect. An article reported: *“They said it was unrealistic to expect homes to have generators as most could not afford them. Every hour the lights are off we wait for a response to see if they will be back again while food goes to waste”* (The Witness, 2021:2). Another article from The Mail and Guardian (2008:10) highlighted the experiences of a family when their electricity was permanently cut. In the article, it is noted that: *“It takes Rensca about 45 minutes to walk to the nearest shop every day.*

*She needs to go often otherwise their food goes to waste.... Sometimes I leave the meat with family and friends”.*

The food waste in a bigger theme was also not only limited to speaking about service delivery. Rather there were also some articles from 147 articles that spoke about how FW was a necessary step in the right direction to reach global sustainability. The food waste in the bigger picture theme framed global sustainability at the centre and then framed FW as but one of the many steps that the world needs to ensure that the world reaches global sustainability. For instance, the Sunday Argus (2016:1) noted that: *“We must slash food loss and food waste, major source of emissions and a travesty for people who lack food”*.

A similar sentiment is aired by The Sunday Tribune (2016:1) article that stated: *“In addition to the climatic reality training session covered, water shortages as well as food wastage experienced in urban communities were also covered”*. The linkage and framing of FW as a necessary step in reaching sustainability is also echoed by articles across the years, City Press (2009:36) noted that: *“I’ve never understood people who do not eat leftover food. By cooking a little extra and making tomorrows lunch at the same time you are halving the cost of meals and energy”*. The Herald (2018:6) noted that: *“The best and fairest way to cap global warming is to empower indigenous forest peoples, reduce food waste and slash meat consumption”*. In keeping in line with the idea of sustainability the Daily Dispatch (2012:8) noted that: *“I believe that the tourists are exposed to the capabilities of an establishment in terms of using greener technologies...All our vegetable and fruit waste gets collected and turned into compost.”*

### **2.3.1.2. Food waste and, food insecurity /hunger (FWFS/H)**

Articles under this theme emphasised the severity of FW by contextualising it against the number of people that are food insecure or suffer from hunger. Out of the 398 articles 54 of them fell under this theme. Most framing in these articles used a combination of statistical figures, and consultation with scientific experts to add validity and weight to their claims and reports. Additionally, most of the articles often used contrasting devices to highlight the absurdity of FW within the context of South Africa. Figures that highlighted the number individuals that food insecure or suffered from hunger were cited in conjunction with the statistical figures and scientific responses from field experts. For instance, the Farmers Weekly (2012:1) noted that:

*“In total about 2.8 million households comprising of 11 million people are deemed food insecure. Despite this over 9 million tonnes of food is wasted in South Africa.”*

In the same year, another article from Farmers Weekly (2012) noted that: *“According to him, no less than 20% of South African households have inadequate or severely inadequate access to food. In total, about 2.8 million households, comprising about 11 million people, are deemed food insecure. Despite this over 9 million tonnes of food are wasted every year-in South Africa alone (Farmers Weekly, 2012:32).* These sentiments are echoed in the Business Day (2013:1) as they noted that: *“South Africa produces an estimated 9.04 million tonnes of food per year... reducing food waste is imperative in South Africa as millions of people exist on one meal per day.”* Three years later a similar message is voiced in the Cape Argus (2016:1): *“If about 25 percent of the food lost or wasted could be saved, it would be enough to feed about 870 million people. According to the UN’s Food and Agriculture Organisation (FAO), 33 percent of food products produced for consumption is either lost or wasted”.* The New Age (2017:1) validated the above claims noting that: *“A staggering 1.3 billion tons of fresh food is lost or wasted worldwide every year a third of all food produced for human consumption according to UN statistics”.* In 2019 The Saturday Star (2019:8) noted that: *“Farmers dump tons of good food. Yet malnutrition is an underlying cause of death in 64 % of all child deaths.”*

Articles under this theme did not only use statistics as a means to frame the severity of FW but the journalists also consulted with science experts. The usage of statistical figures combined with the consultation of scientific experts insulates the content reported by the journalists thereby making it more rigorous and valid. For instance, The Sowetan (2015:1) noted that: *“Suzan Oelofse a researcher at the Council for Scientific and Industrial Research, said this week that her organisation’s latest estimates were that total food waste was 10 million tons a year, costing South Africa R 61.5 billion or 2.1% of the GDP”.* The same framing device is used even six years later as a publication released by The Mail and Guardian (2021:16) reflected: *“Oelofse, a principal researcher at the Council for Scientific and Industrial Research (CSIR), was doing research for a study she led, which shows how in South Africa an estimated 10.3 million tonnes a year of edible food does not reach people’s stomachs”.*

In the above quotations, there is a constant comparison that is present between the number of people who are food insecure and the amount of FW that occurs. The dichotomous nature of food insecurity and FW can be considered to be a narrative,

painting a picture of the experiences of individuals who can otherwise benefit from the food that is being wasted.

### ***2.3.1.3. Food waste and other forms of waste (FWOFW)***

Fifty-one articles fell under this theme. Most of the articles that are under this theme spoke about FW but also touched on other forms of waste such as plastic waste and municipal solid waste. Furthermore, most of the articles also referred to FW in other ways such as putrescible waste, organic waste, household waste, and kitchen waste. An article in *The Citizen* (2008) captured the essence of this claim concisely: *“Putrescible waste means organic waste generated by hotels, restaurants, food shops, hospitals, and canteens that must be collected on a daily basis to prevent the waste from decomposing both a nuisance and a health risk”* (*The Citizen*, 2008:3).

An article by the *Daily Dispatch* (2018:1) noted that: *“Organic waste and disposable nappies top the list of what BCM coastal residents throw into their waste bins every year.”* In an article titled ‘Sorting out your recyclable waste’ *The Star* (2021:5) stated the following: *“The city of Ekurhuleni is also refining its waste collection process. The level of consumption of food and drink and any other perishable has increased”*. The above quotes highlight the idea that even though FW was discussed, it was still framed or integrated under the general umbrella of waste.

### ***2.1.3.4. Food waste how it occurs and why we should stop it (FWHWS)***

The core element was the ways that food waste could be minimised or stopped or the strategies that are being employed by some people or companies to lower FW. There were 40 articles under this theme. Some articles provide more concise and shorter strategies such as the *Pretoria News Weekend* (2019:4) article commented that FW can be reduced by: *“Adopting less meat intensive diets”*. The message of how FW can be limited or how it is being tackled by individuals is also shared by the *Pretoria News* (2021:3): *“Petunia Ndou and her teammates designed a bin that had a grinder that shredded all kinds of food waste into small pieces”*. In the same vein, the *Cape Argus* (2011:4) stipulated the idea that: *“The biogas digester launched last week, is a container in which food waste rots producing the gas”*. These sentiments are shared by *The Sunday Independent* (2012:8): *“A group of engaging students have launched a project where cooking fuel is generated from food waste...The students introduced an aerobic digester. It uses organic waste (food and plant matter) to generate gas”*. The

quotations from the Cape Argus (2011:4), The Sunday Independent (2012:8), and the Pretoria News (2021:3) are very similar, despite the articles originating in different years.

Additionally, the articles were also quick to highlight what the benefits of minimising FW were. In the context of this theme, FW was framed as something that one should avoid because not avoiding it causes more resources than necessary to be expended by the consumer. However, there were other benefits that were highlighted in implementing FW reduction strategies. For example, an article by The Herald (2019:3) commented that: *“Freezing is perhaps the most natural way of preserving food because you don’t need additives. The other advantage is that frozen meals are precisely proportioned, so that means over-proportioning that usually happens in the kitchen when it’s a rush can be reduced”*. While some articles highlight the potential benefits of FW reduction other articles generally offer highlight ways that FW can be reduced by looking at the reasons that FW occurs. The Mail and Guardian (2021:16) pointed out that: *“Then you also sit with the consumer buying food without using a shopping list or sticking to it and falling for the specials, like the buy four for R 100”*. Furthermore, The Star (2017:1) stated that: *“Some people are not conscious about food waste. We aim to change this. Many people are socially, but with busy schedules and modern life their behaviour and purchasing patterns lead to waste”*. Another article from The Star (2018:2) noted that: *“It is evident from the study that initiatives focusing on urban household food waste reduction and diversion from landfills have the potential to divert a significant amount of food waste from the landfill”*. Two years later another message shared by The Star (2020:9) noted that: *“The firms will make an annual report about the food loss and food waste and will be encouraged to share information on the food waste atlas”*. A year later an article from Cape Argus (2021:9) noted: *“The city is appealing to the public to take part in its organic food waste project aimed at diverting food waste from landfills. The city continues to investigate various methods for residents to divert their own food waste”*.

### **2.1.3.5. Food waste and the economy (FWE)**

Fifteen articles fell under this theme. These articles covered the economic ramifications of FW. Most of the articles used a lot of statistical figures to emphasise the concern about FW. All the articles used monetary figures to estimate the level of food wastage that was occurring within South Africa. For instance, The Mail and Guardian (2018:46) noted that: *“In 2013 R71.4 billion was lost in inedible food waste”*.

The Pretoria News (2020:2) supported the above sentiment noting that: *“In South Africa this figure (of food waste) stands at 10 million tonnes... this has an estimated value of R61.5 billion”*.

Additionally, most of them contextualise the economic consequences of FW by highlighting the economic experiences of South Africans and even the economy of the country overall. This is done by emphasising the lack of economic ability of many South Africans and yet FW still occurs. An article by The Sunday Independent (2021:1) commented that: *“The R 350 is very little. There’s a lot of food that goes to waste we struggle because the food is expensive”*. Furthermore, another article by The Saturday Independent (2021:1) validates the above claim noting that: *“More than 2 million people added to those living below the poverty line when the economy contracted by more than 7 % during the Covid-19 pandemic”*. These accounts are not unique as years prior a similar message was published by the Cape Argus (2011:1): *“A group of desperate informal settlements residents are eating meat beyond its expiry date and other food being dumped. There is no other income. We are poor and have no choice but to live off food from the dump”*. The above quotations show that the FWE themes consider the nuances of FW and its economic ramifications and contextualises this action in the lived experiences of South Africans.

#### **2.1.3.6. Food waste and disease (FWD)**

Most of the 10 articles under this theme spoke about how the consumption of disposed or wasted food could lead to the transmission of diseases, particularly listeriosis. FW was mostly discussed in the context of disposing it in a safe and regulated manner. An article by the Pretoria News (2021:1) warned: *“Simply discarding the food in the waste bin will not solve the problem as waste pickers could go through the bags and the bins... waste pickers are also at risks (of contracting listeriosis)”*

Also covering the transmission of listeriosis The Citizen (2018:1) supports the above noting: *“Waste management experts are positive over Tiger Brands ability to follow strict guidelines in ensuring that enterprise food productions are safely disposed of”*. The Herald (2018:1) adds to the above noting: *“A hazardous waste site in the Buffalo city municipality has been identified by the Nelson Mandela Bay municipal officials for the disposal of meat products recalled due suspected listeria contamination”*. However, listeriosis is not the only disease that is discussed other articles discuss diseases such as swine fever: *“The disease is transmitted to pigs by contact with infected wild or domestic pigs. About 5 % of pigs died. This infection also occurs in*

*the contaminated FW that they eat*” (The Citizen, 2021:7). Interestingly, most of the articles under this theme were concentrated between the years of 2018 and 2019.

### **2.1.3.7. Food waste and morality (FWM)**

There were some articles that commented on the moral angle of FW. Articles under this theme framed the immorality of the FW that was occurring by juxtaposing the levels of FW to the number of individuals that were hungry. This theme argued that FW is immoral specifically because there are individuals who do not have access to the food that is being disposed. The above claim is crystallised by the Pretoria News (2018:5) article: *“In a week of hammer blows to consumers with a hail of reports of inexorable price increases, comes perhaps the cruelest of all was the amount of food waste generated according to the Food Waste Disposal study this week. We are supposed to be the El Dorado of Africa, the breadbasket of the continent”*.

### **2.1.3.8. Food loss in the supply chain (FLSC)**

The six articles on this theme were more focused on food loss and not FW. Bagherzadeh *et al.* (2014:7) define food loss as: *“food that during its process in the food supply chain gets spilled, spoiled, or otherwise lost, or incurs reduction of quality and value before it reaches its final product stage. Food loss typically takes place at production, postharvest, processing, and distribution stages in the food supply chain”*.

An article by City Press (2008:5) noted: *“If you grow tomatoes and you don’t have a ride to the market, it means all your efforts will go to waste and your tomatoes will get rotten on the way to the market”*. Since the articles under this theme are rooted in the context of the supply chain, most of the articles are framed around the experiences of farmers. For example, Diamond Field Advertiser (2011:7): claimed that: *“Municipal spokesperson Sello Matsie, said yesterday that the upsurge in the amount of perishable goods for disposal could be attributed to the surplus supply from local farmers, particularly potatoes and watermelon”*. The Mail and Guardian (2013:16) remarked that: *“Research by Susan Oelofse at the Council for Scientific and Industrial Research last year found that more than half of the fruits and vegetables grown in the country is wasted...ninety percent of losses occur before fruits and vegetables find their way to consumer’s fridges, consumers are unaware of how much waste goes on behind the scenes before they even see a banana on the shelf”*.

### **2.1.3.9. Food waste and agriculture (FWA)**

This theme has some overlaps with the Food waste and supply chain theme as both themes discuss FW within the context of the phases that occur before the consumer stage. However, the main difference between them is that this theme offers more of a bird's eye view. Articles here spoke about agricultural production in general, the agricultural markets, their behaviours, and even food systems as a whole, whereby the FW and the supply chain theme looks at FW in the supply chain specifically. Only six articles were identified for this theme. One of the articles noted that: *'Another factor in improving food security is reducing food waste and improving the distribution of food within food systems... food waste is not a problem confined to the developing world however, cheap food in the developed world has led to a culture of waste that means billions of tonnes of perfectly edible products are thrown away each year'* (The Mail and Guardian, 2011:3). Another article from The Saturday Star (2019:1): *"Food system emissions are surging globally because of an increasing population, income. At the same time a third of the global food is lost or wasted...avoiding food waste during consumption can contribute to providing a healthy diet"*.

### **2.1.3.10. Food waste and its effects (FWIE)**

The four articles on this theme spoke about the environmental and social impacts of FW. However, two only spoke about the effects of FW superficially; the details of how FW harms the environmental, social, and political realm were not discussed. For instance, The Sunday Independent (2020:3) noted that: *"From 10 million to more than 12 million tons of food in South Africa is lost or goes to waste- with a range of adverse implications on the country and its people"*.

### **2.1.3.11. Food waste in restaurants (FWR)**

Similar to the Food waste and its effects theme, this theme had four articles, Articles under this theme spoke specifically about the FW that is generated by restaurants. An article in the Daily Dispatch (2016:1) commented: *"She said that angel fish- which is served on the main menu and in platters- was purchased whole leaving about 50 % waste per fish...it might have happened that they don't want to throw away that off cut for food waste"*. Another article by The Herald (2016:1) noted that: *"She said the angelfish served on the main menu and in platters was purchased whole and filleted by the franchise leaving about 50 % waste per fish"* Both of these articles share similar content, suggesting they may be written by the same individuals.

### **2.1.3.12. Food waste and the expiration date (FWED)**

Four articles dwelled on or mentioned the topic of expiration dates. Three of them spoke about how in some cases FW happens because consumers misunderstand the expiration labels and expiration dates on food products. The Sowetan (2018:7) noted: *“The blanket term expiry date is grossly misleading. Perishable foods such as meats and dairy products do pose a safety risk after their use by dates. Perfectly safe food is often discarded because the perception is created that the food is no longer safe”*. Another article spoke about the ramifications of consuming expired FW. The article from the Cape Argus (2011:1) commented that: *“But the food that was left was not a gift it had expired between 2007 and 2009, and in eating it, it left 151 people suffering from food poisoning”*.

### **2.1.3.13. Food waste and Mukbang videos (FWMV)**

This was the theme that had the least number of articles (two). These articles were centred around Chinese Mukbang videos and how they lead to FW. The Citizen (2021) noted that: *“Mukbang videos originated in South Korea and are increasingly popular in China...they not only damage the physical health of the present is also cause food waste”*. In support of the above sentiments The Saturday Citizen (2020:6) noted that: *“China’s biggest short video and social media platforms said that they will punish users seen to be broadcasting their food waste in their broadcasts”*.

## **2.4. DISCUSSION**

Entman (2003) noted that the importance and popularity of a topic within the media consumer’s eye is dependent on how frequently the topic is presented to them. The limited number of articles that are being published also means that the types of information that the public can derive from the media is limited as the topic is not frequently published or presented to the public. When a topic is frequently presented to the public it usually indicates that a specific topic is considered more of a priority than other topics (Yusuf and Marufu, 2012). However, the frequent presence of a topic also means that the public is more likely to gain a ‘fuller’ and more ‘nuanced’ understanding and perspective on that topic (Yusuf and Marufu, 2012). Thus, if we apply the agenda setting theoretical framework to the thematic codes, we can determine which themes are the most salient and which ones are the least salient.

The themes that had the largest number of articles were (1) Food waste in a bigger picture, (2) Food waste and food insecurity/hunger, (3) Food waste and other forms of waste and (4) the Food waste how it occurs and why we should stop it. This means that these topics are the ones that are frequently published and presented to media consumers, representing the most dominant narratives and perceptions about FW. While there were some themes that had more articles than others, the theme that has the largest number of articles do not really mention or discuss FW content thoroughly. Rather, FW is mentioned in passing in these articles. This means that the bulk of the information that is published about FW is not holistic as nearly a quarter of this content is not focused on FW. Even if the Food waste in a bigger theme is discarded, it still can be maintained that the media content on FW disseminated by print media is lopsided. The implications of this is that media consumers are only privy to a limited amount of FW narratives and perceptions. This of course is only applicable if consumers primarily use print media as a means of obtaining information. Of course, this may not be the case, if media consumers are diversifying their media sources, they may receive more varied information on the same topic (Qayyum *et al.*, 2010). Additionally, the volume and type of content that individuals have about a topic is not only shaped by the type of media access that they have but also by the occurrence of certain phenomena or events within the real world.

Entman (1993) noted that the intensity of reporting on certain topics can be a result of certain phenomenon occurring in the real world. For example, there were certain themes that were concentrated in specific years. The Food waste and disease theme is a great example of this. As nearly all the articles on this theme were released in 2018. To provide context, in 2018 South Africa was in the grip of a listeriosis outbreak. Entman (1993) noted that specific events can make the general public more sensitive or aware of certain topics or problems. For instance, Matsaganis and Payne (2005) noted that when the 9/11 event occurred in the USA, American citizens generally were more attuned to and invested in articles relating to terrorism content. This was in part, due to the terrorist attack that they experienced but also because of the intensity of reporting of terrorist events by the USA media (Entman, 1993). While the 9/11 attack and the listeriosis event in South Africa are two different events, the salience of both events was exacerbated by the hyper-awareness of the public as a consequence of the real events that were occurring at the time. This sensitivity that occurs in response to a certain event may then explain the fixation on the link made between listeriosis and FW.

The salience of a theme or narrative and perception is also dependent on how it is framed and presented to the public. Using certain techniques can add more ‘validity’ to the message being spread. For instance, in the Food waste and food insecurity/hunger and the Food waste and the economy themes, the journalists use statistical figures and scientific terms when speaking about FW. Indisputable facts play an important role in shaping the words and images that flow into the audience’s consciousness (Entman, 2007:166). The use of statistical figures and science experts also insulates the content that is being produced in ‘scientific rigour’. In this case, the use of statistics and the consultation of research experts is a part of a framing device that is meant to show how rampant FW is and, by using these techniques journalists are painting a picture in the audience’s mind of the level of FW and its ramifications.

The agenda setting theory is not only about the salience or lack thereof, nor is it only about the type of frames and content that is published to media consumers. It is also about providing solutions to that perceived problem (McComb and Ghanem, 2001). As in agenda setting, after the problem is identified, moral judgments are encouraged after this is done, potential solutions or recommendations are provided. The solutions include adopting less meat-intensive diets, cooking food and controlling one’s proportions, and freezing some food to make sure that it lasts longer. While there are different themes that have been identified there is a commonality that is persistent in all the articles, namely, that FW consistently is framed as a phenomenon that is bad. This consistency highlights the idea that even within the world of journalism there are some social norms that are followed.

Boykoff (2011) noted that the world of media is a world affected by unequal power dynamics, and individuals that possess the most social, political, and economic power are able to advance particular narratives because they have the resources and accessibility to amplifying platforms. In the context of the media, the individuals who have this type of power are the journalists who pen the stories that are published, and the publishers who give the journalists the platforms to amplify their messages to media consumers (Boykoff, 2011). However, while journalists and publishers are responsible for advancing particular narratives about FW, the message and narratives that are being pushed by media are not only shaped by journalists and publishers, but rather are an amalgamation of different ideologies and interests, some of which come from the general public (Boykoff and Laschever, 2011).

Boykoff’s (2011) sentiments on unequal power dynamics can certainly be applied to FW. The bulk of the media content is produced by a limited number of publications,

mainly: Cape Argus, The Star, the Mail and Gurdian, Daily Dispatch and The Herald. The concentration of articles to these publications may limit the level of diversity in the type of content that is disseminated about FW. This may certainly be the case because some of the articles that are published are written by the same authors but are distributed among different publications. This lack of diversity in media content may in turn affect the types of FW perceptions and narratives that media consumers have. Entman (2003) also established that the level of information as well as its diversity influences the way in which individuals not only perceive a topic but also the type of frame that they look at it with. The unequal power dynamics highlighted by Boykoff (2011) may also be a consequence of: brand recognition and resource accessibility. Bigger brands generally enjoy a form of brand recognition or familiarity that smaller brands do not. This recognition may influence who the media consumers choose to read or listen to. Additionally, bigger brands or in this case publications have a larger pool of resources that they can access to disseminate their information i.e., the number of journalists publications have access to, and even the number of sources that journalists have access to (McCluskey *et al.*, 2016). This resource accessibility in turn affects the amount of content that can be published. In essence recognition and resource accessibility can influence the size of the platform that publications have access to. These factors may explain why there is such a huge gap in the number of articles that are published under each publication.

Perhaps the disproportional distribution of articles under certain themes may also be explained by media bias. McCluskey *et al.* (2016) and Chiang and Knight (2011) claimed that media bias is a phenomenon that is present in most medias because in certain cases media can be incentivised to report on specific topics. This is particularly because media is run by corporations that ultimately want to foster engagement with media consumers to procure profit. Therefore, it is common that in some instances publications slant the information that they have access towards a specific direction. This slanting is often done at the expense of providing extensive media coverage (Chiang and Knight, 2011; McCluskey *et al.*, 2016). Another layer that McCluskey *et al.* (2016) considered is that at times media tends to use sensationalism as a marketing ploy. This claim stems from the idea that media consumers generally gravitate towards negative news, and so for the media consumer to be attracted journalists and publications may artfully use exaggeration, sensationalism, and other methods to 'hook' the consumer.

## 2.5. CONCLUSION

This chapter aimed to uncover FW narratives and perceptions in South African media in the last 15 years. To fulfil this aim, the study addressed four main objectives:

- (i) What are the narratives and perceptions that print media has about food waste?
- (ii) What narratives are the most dominant and how did they become dominant?
- (iii) Which actors advance particular narratives?
- (iv) Has the discourse about FW changed over time and if so, why?

Objectives one and two were focused on determining the types of FW narratives and perceptions possessed by print media. Through content analysis the study found that print media had a range of FW perceptions and narratives. In total, the study found 14 FW perceptions and narratives through the use of thematic analysis. Of these 14, the study found that the narratives and perceptions that were the most dominant (that had the highest number of articles released) were the: FW in a bigger picture, Food waste and food insecurity/hunger, Food waste and other forms of waste and Food waste how it occurs and why we should stop it.

Objective three and four of the study looked at the actors that are responsible in disseminating the identified FW narratives and perceptions, and if the discourse about FW has changed. Through the use of literature, it was determined that the actors that disseminate or advance FW narratives and perceptions in print media are the journalists, and writers that are responsible for penning articles and or stories. As well as the publications that not only give these content creators resources but also gives them a platform to reach the masses. Through the results obtained the chapter established that there was some change in FW discourse over the last 15 years as the number of FW articles released between 2007 and 2021 varied. Additionally, the chapter also found that there was *some* change in FW discourse in the last fifteen years as there were some aspects that were discussed that were previously not discussed i.e., the discussion of how FW interacts with listeriosis. However, overall, the discourse about FW has been very uniform, journalists and writers still use similar writing techniques and tools such as the use of statistical figures to frame the pervasiveness of FW as they did in 2007, 2008 and 2009.

## CHAPTER 3

### THE LOCAL FW NARRATIVES AND PERCEPTIONS OF THE PEOPLE OF MAKHANDA



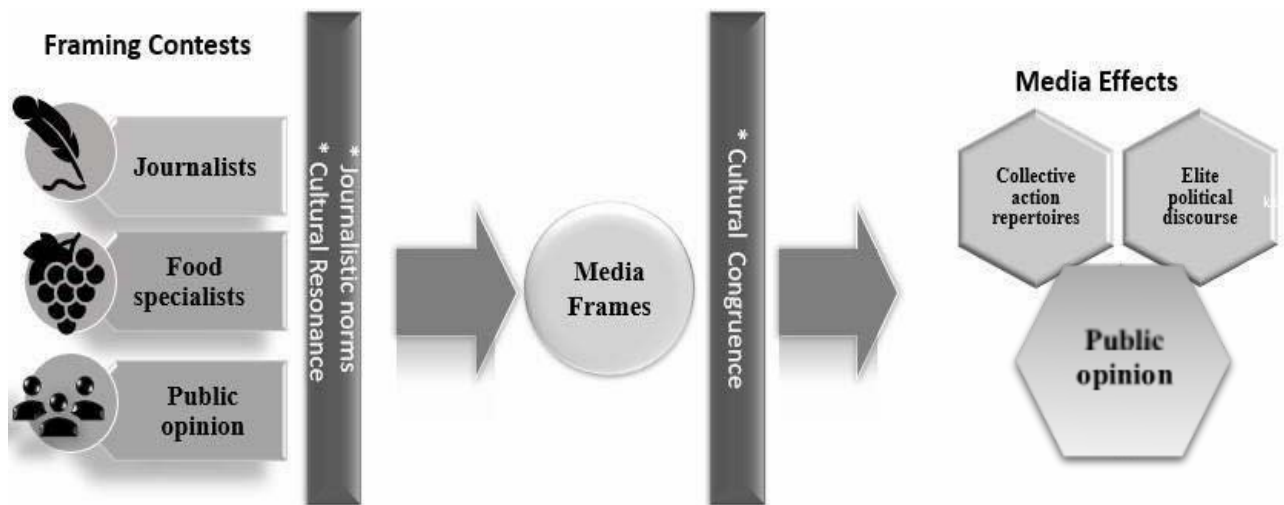
### 3.1. INTRODUCTION

McCluskey *et al.* (2016) maintained that the media plays an integral role in translating scientific information to the general public. Consumers are often inundated with information about food via a multitude of media forms. However, while this is the case Lusk (2017) noted that there is still a huge disconnection between the general public and the science community when it comes to the understanding and internalisation of scientific knowledge. This disconnection can be attributed to a number of reasons, McCluskey *et al.* (2016) cited the commercialisation of media as one of these reasons. The authors go on further to note that the commercialisation of the media has also resulted in a general ‘dumbing down’ of media content. This dumbing down of content has led to decreased quality and quantity in the coverage of complex issues. Additionally, McCluskey *et al.* (2016) noted that different forms of media experience a disconnection that is specifically unique to them. This is because different media forms possess unique characteristics. For instance, newspapers are characterised with declining readerships (Peterson, 2021). It can be noted that the decreased readership/disconnection of newspapers is a result of the digitisation boom and a shift and preference to newer media forms such as social media. The disconnection of newspapers can be attributed to the fact that newspapers require a form of processing and engagement that is different to other media forms therefore, when individuals are exposed to other media forms such as television or social media the transmission of knowledge that is done by newspapers dwindles. This claim is supported by Ahakwa *et al.* (2018) who noted that when consumers engage with multiple media forms at once i.e., television and newspapers, the amount of information they process is limited because the media forms require different types of processing. However, there is still some overlap because digital media frequently draws from and reframes topics and information from the print media (Peterson, 2021).

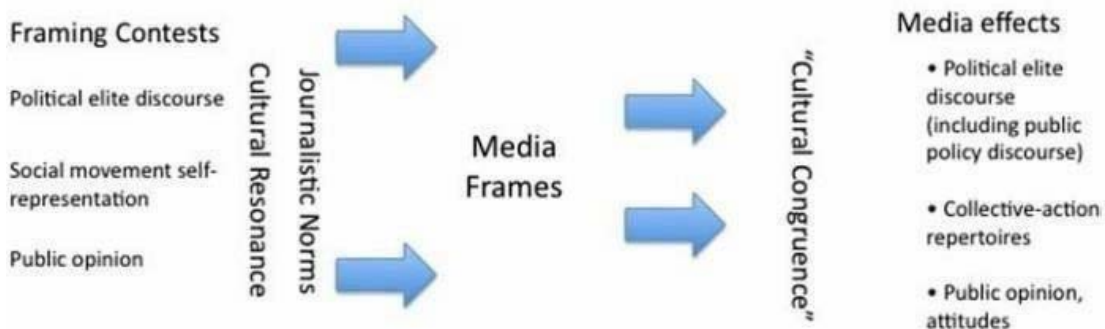
While South Africa has experienced a general boom in media accessibility and exposure, the country like the rest of the world is experiencing a shift in how it interacts with and accesses. If one wants to understand the forces that affect the overlap or lack thereof of sentiments between the media and its consumers. One needs to ensure that they dissect what Boykoff and Laschever (2011) refer to as cultural congruence and cultural resonance (Figure 10). Cultural congruence is defined as the norms, values, practices, and opinions that people hold (Boykoff and Laschever, 2011). The forces that affect or shape one’s cultural congruence are internal and external in nature i.e.,

gender, socio-economic status, age, etc. Boykoff and Laschever (2011) noted that the cultural congruence of media consumers can influence the way in which they perceive and understand issues and topics. This means that if the content disseminated by the media is in line with the beliefs and opinions of media consumers it is likely to be internalised more easily. However, if the content is in opposition with the cultural congruence of media consumers, then that topic or issue may not be as easily internalised irrespective of whether or not that topic is frequently presented. For example, Ioniță (2017) found that older respondents in Romania had more information about FW minimisation strategies than younger respondents, because the environment the older respondents had previously grown up in had scarce food availability.

Consequently, older respondents reacted by ensuring that their practices emphasised FW minimisation. The study also found that the ways in which older respondents perceived FW was different from younger respondents. This difference in FW perception can be attributed to the different type of cultural congruence experienced and held by both respondents. As a consequence of the difference cultural congruence between generations the younger respondents were not only found to be more wasteful but were also found to have less knowledge on the effects of FW (Ioniță, 2017). The wasteful behaviours of the younger respondents were partly caused by the working schedule and eating out lifestyle that they embraced. Lastly, the study also uncovered that because of their experiences older respondents considered FW as immoral. Furthermore, the agenda setting framework that is used in this study has been drawn from Boykoff and Laschever (2011), however, the original framework by Boykoff and Laschever (2011) was not applicable for this research and thus certain elements were altered to fit this study (as explained in section 1.6 in chapter 1).



**Figure 10:** Agenda setting process altered for this study.



**Figure 11:** Agenda setting theoretical framework from Boykoff and Laschever (2011) adopted for this study.

Additionally, Ioniță (2017) and Nikolaus *et al.* (2018) claimed that factors such as gender and socioeconomic class affect the way in which people perceive things and construct narratives on topics such as FW. Since some narratives and perceptions require a form of connection to be effective, the media needs to ensure that it employs a number of strategies to make the media consumer invested in the topic.

To do this the chapter answer a series of research questions namely:

- (i) What narratives and perceptions of food waste does the general population have?

- (ii) Which narratives and perceptions are dominant and how did they become so?
- (iii) Which actors advances particular narratives?

These questions were examined by means of two food focus group discussions, one-on-one interviews with 36 respondents (stratified by age, gender, and affluence) and key informants with six respondents (refer to section 1.11 in Chapter 1).

### 3.1. RESULTS

To answer these objectives the chapter categorised the results into three main themes namely: Personal, Information and depiction and Perspective. These core themes are made up of smaller sub-themes, some of which overlapped with each other. Sub-themes that fell under the Personal theme are defined as generally affecting the subjective experiences of respondents i.e., age, gender, race, and socio-economic status. Sub-themes under the Information and depiction theme were linked with how print media presents FW and what the implication of this presentation is for media consumers. Lastly, the Perspective theme was all about exploring the aspects that have changed or affected the perspectives that respondents have about FW (Figure 12).

Information and depiction	Perspective	Personal
<ul style="list-style-type: none"> <li>• Media forms and content</li> <li>• Tv adverts</li> <li>• Pamphlets</li> <li>• Definition of FW</li> </ul>	<ul style="list-style-type: none"> <li>• Apprehension about FW generation</li> <li>• Food insecurity/hunger</li> <li>• Risk of giving away food</li> <li>• Passage of time</li> <li>• Loadshedding</li> <li>• Conversations with friends and family</li> <li>• Monotony</li> </ul>	<ul style="list-style-type: none"> <li>• Affluence</li> <li>• Race</li> <li>• Gender</li> <li>• Culture requires it</li> </ul>

**Figure 12:** Themes identified from focus groups sessions and semi-structured one-on-one interviews.

## **3.2. PERSONAL THEMES**

### ***3.2.1. Affluence***

The economic cost that is incurred when FW happens was a big discussion point amongst respondents. The main issue highlighted by interviewees was that food was very expensive, and since it was very expensive the generation of FW itself was a very costly practice. Of the 36, 28 of them noted that they felt ‘bad’ or ‘pained’ when FW occurred because of the financial cost that was incurred when the food was bought and then wasted. Of these 28, 17 were female and 11 were male ( $\chi^2 = 5.76$ ;  $p = 0.016$ ). Even respondents who belonged to more affluent socio-economic classes still cited the expense of food when discussing FW. It seems that the cost of FW is a general issue that is present across different socioeconomic classes. Thus, FW did not only mean that food products that were spoiled or rotten were thrown away, but it also represented the money that the participants used to purchase the food that was being wasted. Despite speaking with participants of different ages, socio-economic statuses, and neighbourhoods all participants were quick to link FW with the broader economic state of Makhanda and even South Africa as a whole. Respondents maintained that the economic system that they were a part of was a dwindling one and because of this parlous state of the economy FW was ‘very concerning’: *“For me food waste is very concerning, especially living in this country and especially in this town where the unemployment rate is very high”* (R 5: M).

Another respondent claimed: *“I feel bad when I see FW occur. I think that they could just give the food to people that need it. Because here in South Africa most of us struggle to make ends meet. And more specifically Grahamstown’s has some very harsh conditions. The unemployment rate of this town is very high additionally we don’t have any employment here because there are not a lot of factories that are here. As a result, most of us here are domestic workers or work in restaurants, it is hard to live here, and because of that it pains me when I see waste because I know that there are people who do not have families who can’t make ends meet”* (R 16: F). A male respondent shared similar sentiments and noted that: *“I personally feel sad and disturbed, mainly because there are a lot of people who are struggling. The unemployment rate of this town is very high. If you do your own research, you will*

*soon see that almost 75 % of people in this location are not working. That fact makes me worry a lot because my people are starving, they are experiencing hunger''* (R 18: M).

Respondents noted that the economic state of Makhanda was deplorable, consequently individuals were not able to buy as much food as they would like. Others noted that FW was especially bad because when food was wasted, they could not afford to get more. However, while some respondents commented on the struggling economy of the town, others added more nuance in noting that even though the economy of Makhanda was bad the standard of living of certain individuals was disproportionately affected. These interviewees noted that since they did not have a lot of financial ability they did not or could not really afford to waste food because they had a limited amount of money to spend on getting food. Interviewees from poorer neighbourhoods and those who lived in areas far away from the center of town were adamant that FW did not occur within poor households. While there were some respondents that admitted that they wasted food, they were also quick to explain that the amount of FW that occurred within their communities was negligible when compared to the amount of FW that was generated by the more affluent areas. These interviewees noted that since they did not have a lot of money, they could not really afford the luxury of FW. In their accounts, most respondents mapped out the areas that they felt were the hotspots of FW generation with most poor respondents explicitly citing the 'other side' of town or 'shopping center' (of Makhanda) as the hotspots.

These sentiments were also strongly echoed by a significant portion of participants within the food focus sessions. Some respondents in both sessions stated firmly that FW did not occur in the house and neighbourhoods that they inhabited, but that it happened 'over there'. A female participant in the first focus group stated: *"In the location, there is no FW. If anything – if you buy food for the month, it never lasts till the end of that month. So, there is no waste"*. These sentiments were met with *mmhs* and *ahhs* that seemed to validate and support the statement. A male participant in the same focus group elaborated on the above account, noting: *"In my understanding, in the location, we don't waste food. From my understanding, FW comes from other levels. Where I grew up, we made sure that food waste did not occur. We had different ways to cook food and the leftovers that came from that food. If there was access to food, you could give this food to your neighbour. You could always give food to other people who were less fortunate than yourself. In black culture, we emphasise community, and because of this we can always give food to each other as a way of helping each other out"*.

A male interviewee reflected: *“I don’t think that I can define what FW is. There is no FW here in the location if you are looking for FW then you can find it in town. We do not have waste here in the location because there are people here that don’t even have food and children also that do not have any food. Some children here do not have food and because of that they end up offering their bodies in exchange for food”* (R 36: M). Additionally, respondents also noted that while they believe that FW is bad, they still associate it with affluence. Some participants were of the opinion that FW was akin to an indicator of wealth. Individuals who wasted food were thought to be financially stable as it was those who had money to buy large amounts of food that would waste it: *“I think that FW is more prevalent in people who are in the middle class in my opinion. These people can afford to say: “I have lots of food in the fridge but today I feel like eating takeaways or Spur”- but someone who is less fortunate cannot really do that”* (R 5: M). Interestingly, respondents that belonged to the lower socio-economic class, commented that they had witnessed fellow neighbours who were of the same economic class or even lower purposefully waste food in the public eye, all in an effort to project an image of opulence.

### **3.2.2. Race**

There were some respondents who felt that a consumer’s race also contributed to the amount of FW they generated. Interviewees from the focus groups stated that they felt that race played a role in determining how much FW one creates. Generally, it was the older respondents who offered more detailed experiences or accounts of how they felt that their experiences with aspects such as money, food, and FW were greatly affected by race. When asked why interviewees felt like this, some of them noted that their race affected the number of job opportunities that they had access to, and this then affected the type of food that they could access, buy, and ultimately waste the amount of food that they wasted. For instance, in one of the interviews, a male respondent stated: *“We are Xhosa people, or should I say that we are black people. I think that we preach and practice ubuntu a lot and because of that when someone comes to visit your place, you always make sure that the visitor leaves having eaten something. So, you make sure that you give people food and because of that it is a bit difficult to throw away food because you mostly use that food to cater for other people”* (R 10: M).

In the second focus group, two male respondents reflected on how their racial experiences affected their view of FW:

Respondent 3: *You see this concept of food waste is....to us black people, especially to those of us who were raised by parents who worked in white kitchens, we used to eat food that was left by our parents' white bosses. You see. So, the environment that we grew up in really had no food waste because there was hardly any food there. If FW occurs, it occurs unconsciously-*

All the interviewees who had a strong correlation between their own racial experience and the way they viewed FW were older than 30 years. While some interviewees expressed that they thought that FW was strongly linked with race, they went on further to note that they thought that areas that are predominantly inhabited by white people would have a higher amount of FW generated as compared to say predominantly black areas such as townships or locations (refer to Affluent theme above). There were few to no younger participants i.e., 18 years to 29 years, that emphasised their racial experiences as a strong aspect that coloured their view and perspectives on FW. Rather, the younger interviewees emphasised one's financial class as the primary indicator in determining which individuals generated the most FW. This sentiment seemed to include people of colour that lived in these same areas. Despite this, there was a small number who noted that they felt that FW occurred in every area, to people across different races and socio-economic classes.

### **3.2.3. Gender**

Generally, male respondents were apprehensive about being interviewed about FW, as most felt that the topic of FW was one that women were more well-versed in. Male respondents also explained that typically, within their households, females i.e., their wives or female relatives, were responsible for buying and preparing the food. Gender norms and roles were expressed by most male interviewees in their descriptions and reflections on FW. A respondent in a direct interview passionately stated: *“That topic (the topic of FW) is for women, not me”*. Both males and females generally agreed that gender affected how they saw FW. Most female interviewees noted that they were generally more in tune with the FW that was happening in their households because they were the ones responsible for cooking food. In support of the above claims an interviewee claimed that: *“I think that we women view FW differently from the men, especially us who are responsible for cooking food for our families because you make the food you see which food gets wasted and why?”* (R 24: F). A male respondent agreed noting: *“I think also with us men we are not really like some of our wives we can't really compare and contrast different food prices we just tend to buy food from seeing it once or twice in adverts”* (R 35:M). Lastly, a respondent maintained: *“I think*

*that we view FW differently because generally, we are the ones who are responsible for cooking” (R 31: F).*

While the topic of gender roles and gender norms was present in the interviews, 13 respondents of the 36 respondents indicated that they felt that gender affected their view on FW. However, this emphasis on gender was less prominent in both the focus group sessions as well as the key informant sessions as it was agreed between both genders that female respondents were the ones who ‘knew’ more about FW compared to men due to their proximity and constant exposure to food because of gender roles. In the key informant sessions, there was only one respondent who touched on the dimension of gender, and who happened to be the only male respondent among the six key informants. They explained: *“I am a Xhosa man, and that means that I am the head of the house. So, I tend to eat a lot more food than say, my wife and my children. I would say that I do waste some food because I get a very large plate of food that I sometimes cannot finish”* (Male participant: key informant).

#### **3.2.4. Culture requires it**

The results also showed that the cultural beliefs of some respondents played a role in how they perceived FW. Eight respondents noted that in some instances, FW would be generated in their households indirectly as a consequence of their cultural beliefs or way of life. For instance, often when they cook, they always make sure to cook a bit more food than required. To ensure that when visitors came to visit, they would have some food available for them to eat. In some cases, the respondents would cook this extra food, and no one would visit them, this would then lead to FW. When asked to explain this practice further, respondents noted that they cooked extra food for potential visitors because being hospitable to visitors and relatives is a cultural ethos. Thus, FW generated in these cases occurred to stem from a cultural obligation. It was primarily the older (35-60 years) female respondents who held these sentiments. Though these participants varied in so far as socio-economic status and neighbourhood location seven out of eight of them were women: *“But we are a type of people that were raised in a very culturally distinct way. So, when we cook, we don’t only cook for the people that are in the house. Rather, we also make sure that we cook a little extra because there might be visitors that might come and visit and when they visit then we can be hospitable and give them some food. That is how we were taught”* (R 17: F).

Two male respondents were from the focus group sessions, expressed a similar opinion noting that: *“When I grew up you would make sure that when you cook you also cook a little extra food in case a visitor comes to visit your place, but in the current times we have told our children to not do things the same way that we did things because we now want to save as much food as possible”* (Male Respondent).

The cultural expectations discussed by respondents in relation to cooking food for visitors also evolved into discussions about the inevitability of FW in cultural ceremonies. Some participants maintained that in black cultural ceremonies, providing food and drinks to invitees and neighbours is an integral part of having a successful cultural ceremony or ritual. Moreover, some of the participants also noted that in cultural ceremonies one cannot really limit or control the amount of food that individuals eat because being hospitable is a prerequisite to hosting a cultural ceremony, and so one’s level of hospitality is gauged by how much food and drinks they give to the attendees. It then goes without saying that if one gives people a lot of different food and drinks it means that the chances of FW being generated is high. Some of the respondents in the focus group session maintained that because of wanting to be hospitable to fellow guests they made peace with the fact that FW was going to occur. The FW that occurred in these ceremonies was seen as a sad but necessary by-product. However, there were also other participants who maintained that FW was bad in any context even within the context of cultural ceremonies. Participants in the focus sessions had some spirited conversations on the inevitability of FW during ceremonies:

Respondent 1: *I think that you can't really do anything about FW in cultural ceremonies, because you can't dictate to people what food they should eat and how much they should eat during a cultural ceremony or an important ritual. Giving your guests food and offering them, food like umqushu, and even umqombothi is integral for the success of certain ceremonies. Some of our ceremonies as black people require people to be there- so you can then invite people and then not give them.*

Respondents 2: *No, I respectfully disagree FW is wrong no matter the context. So, because it is a cultural ceremony you cannot maybe speak to your guests and tell them maybe to be mindful of the amount of food that they waste?*

Respondents 5: *What are your suggestions then because some people will think that you are being disrespectful?*

Respondent 2: *You can always limit the amount of food that is there. Maybe you can just ask your family and friends to only cook umqushu and not say umqushu and rice-*

Respondent 1: *So, what if there are people that do not eat umqushu? What if there are people who eat rice or what if there are people who want to eat nothing.*

### **3.3. INFORMATION AND DEPICTION THEMES**

#### ***3.3.1. Media forms and FW content***

All 36 respondents used multiple media forms in their day-to-day lives, but there were certain media forms that they preferred to use and consequently were more exposed to. For example, 24 participants out of the 36 preferred television over radio and thus were more exposed to it. Of these 24, 13 were female, and 11 were males. In addition to this finding, most respondents (34) did not engage or were not exposed to newspapers. Respondents noted that the only form of print media that they accessed were pamphlets (these are considered a subcategory of newspapers in this research and will be discussed below). These behavioural trends were also prominent in the key informant sessions. From this pool, four respondents noted that they preferred watching television over listening to the radio whilst one respondent noted that they engaged with both media forms equally. From the key informant pool, one noted that they were not exposed to and preferred neither television nor radio. All six key informants noted that they did not engage with newspapers in any way. Overall, it can be said that there is a strong preference for television over any other form of media within both the 36 direct interviews and the key informant interviews.

In contrast to the high proportion who prefer television as their primary media, only seven of the 36 respondents admitted to preferring radio over any other media form. When looking at these results more closely, a further five respondents from this identified seven belong to the 35+ year age group. Of these five, three of the respondents were men and two were women. Thus, in this context, it can be said that generally younger respondents prefer to use television as their primary form of media. Two young respondents noted that: *“I use everything but I prefer television because television is a visual medium so I can see what is happening and what is being talked about. I am a visual person, so I like television.”* (R 2: F). Another respondent stated: *“We do not really have a radio; we watch television lot”* (R 7: F).

The above accounts were also mirrored in the focus groups as well as the key informants' discussions. A respondent from the focus group sessions noted that: *“We mostly watch television in my house”* (R 6: M). A female key informant also claimed

the same thing noting: *“I love watching television”*. While television was the most preferred media type, respondents claimed that they had seen little to no content about FW on their screens. For instance, of the respondents who preferred watching television, 17 of them reported seeing little or no FW content on television. A key informant noted that: *“I prefer watching television and listening to the radio. I have not really seen or heard any content about FW because I only come back from work late and when I am back from work, I only watch sopies like Generations. Even though I have not seen any content about FW I have seen a lot of adverts that speak about buying food adverts like Checkers and the like. We also get a lot of pamphlets”* (R 6: F).

A respondent in one of the direct interviews noted: *“No, I don’t remember seeing anything that speaks about FW in any of the media that I have been exposed to. I can say that there’s no distinct message that I get from the media that speaks about FW”* (R 7: F). Similar sentiments were aired by male respondents who noted: *“In the media am I exposed to I hardly hear anything about FW. Radio and television are limited. I do not think that there is a lot of awareness about FW. We usually speak more about hunger or electricity”* (R 6: M). Another respondent claimed *“ No, I have not seen anything that speaks about FW on television; the only thing that I have seen are people that cook and make meals in some of the cooking channels”* (R 19: M).

While there were respondents who did not see any FW there were also some respondents to saw content that they felt spoke about FW. Of the 36 respondents from the direct interviews 10 of them reported seeing some content that encouraged people to reduce FW in some ways. *“On the television, I mostly like watching cooking channels that show how to prepare meals. The programs that I watch some of the themes do speak about FW but not directly, these shows do share some tips about making sure that your food does not get rotten too quickly”* (R 16: F). Similarly, another female respondent reflected: *“I have seen some things on the television there’s a show where they show you how you can change your food and some leftovers into other meals like this other time, I saw this show...it essentially shows you how you can leftovers...once the show showed how you can use some of the leftovers to make a pie”* (R 17: F).

This trend of being exposed to FW content seemed to continue amongst respondents who preferred listening to the radio. Though there were fewer respondents that preferred radio over television (seven), a higher proportion of these respondents reported to being exposed to FW content than their television-viewing counterparts.

For instance, of the seven respondents, four of them noted that they had heard some new content about FW. There was a male interviewee who cited the same radio program that was mentioned by another respondent in the second phase of the data collection process. This radio program plays on *Umhlobo Wenene* FM, which is a South African radio station that broadcasts from Gqeberha. In talking about this program, a male respondent noted: *“There is a program on Umhlobo Wenene – this program speaks about ways that you can reuse bits and pieces of food that you have. This helps reduce FW. But this program is focused specifically on how you can use the leftover foods to make other meals. It does not really speak about FW in other ways”*. Other respondents claimed: *“I have heard some content from the radio that teaches how to transform leftovers into other meals and maximise the number of meals that you can get from the bits and pieces of food that get left when you cook. Outside of speaking of FW, I do not think that there’s any content on FW outside of the radio”* (R 13: F). *“I have heard and seen some programs, but these programs are not speaking about FW specifically”* (R 18: M).

The sentiments continued with respondents noting *“Though I do not like to watch television I have heard some discussions about FW from the radio. There’s a program called Umhlobo Wenene that encourages listeners to reduce their FW”* (R 29: M). The overwhelming majority of the respondents noted that they did not really see or hear any FW content in the media that they used. Furthermore, participants in both focus groups indicated that they used different media forms, i.e., social media., despite using these different forms of media respondents claimed that they did not recall seeing any FW media content within the last week. An interesting finding that was unique to focus groups was the discussion of how social media specifically influenced one's generation of FW. A female participant in the first focus group pondered: *“When we speak about media consumption. I immediately think about social media and how I use it. There are people that you follow who post a lot of food content. So sometimes you feel the pressure from seeing what people online post -you want to post the same thing then you end up wasting your own food”*.

### **3.3.2. TV adverts**

Respondents that prefer to watch television over the radio have emphasised that they have seen a lot of television adverts that speak about buying and procuring food in general as opposed to FW content. Fourteen of the 36 participants interviewed in direct interviews noted that they saw a lot of food adverts for food products. Respondents noted *“I do see some adverts on the television, and I hear on the radio I*

*think these adverts influence me to buy some of the food because they allow you to save” (R 33: F). Another respondent added: “I do recall seeing a lot of food adverts on television. I would say that those adverts appear a lot almost every commercial break you would see an advert that advertises some food product. You kind of feel forced to buy that food because you always see that specific food advertised. I think also with us men we are not really like some of our wives can’t really compare and contrast different food prices we just tend to buy food from seeing it once or twice on adverts” (R 35: M).*

Similar accounts were also shared by the key informants, as four out of the six respondents noted that they saw a lot of television adverts that encouraged them to not only buy food but to buy a lot of it. In fact, respondents who preferred watching television over listening to the radio noted that they saw more content that encouraged them to buy certain food products than they saw content that spoke about reducing FW in general. A female respondent pondered: *“I think that I have seen a lot more adverts that advertise different food options you can buy there’s a lot of these adverts that I see on television, and they intensify a lot, especially towards the end of the month or when people are supposed to get their grants. Those adverts help us save they are very helpful” (R 24: F). Another respondent highlighted the pervasiveness of food adverts and their effect on their buying patterns admitting that: “You kind of feel forced to buy that food because you always see that specific food advertised” (R 35: M).*

However, it seems as though the medium of radio offers more content or discussions about FW as opposed to the medium of television as even individuals who watch television more than they listen to the radio admitted that they heard a bit more content about FW on the radio than they saw on television: *“I’m sorry my child I don’t remember anything that speaks about FW from the television. I will say that there are a lot of adverts from supermarkets and the like. There are a lot of adverts that come from stores like Hungry Lion and KFC but there is rarely any mention of FW in those adverts. When I see those specials, I want to go and buy the food. I think that if there were more programs and content that spoke about FW on television, we would generate less FW” (R 21: F).*

### **3.3.3. Pamphlets**

Twenty of the 36 interviewees noted that they were exposed to pamphlets that came from food corporate retailers such as Checkers, Shoprite, etc. According to the participants, most of these pamphlets were found either in their yards or in stores when

they went to buy food. Respondents noted that most of the pamphlets displayed a lot of specials such as a 'buy one get one free' or buy '2 for the price of 1' specials. Interviewees also noted that they were frequently exposed to them because these pamphlets could be found in every food shop or supermarket that they went to. Similarly, interviewees also claimed that the food specials that they saw from these pamphlets contributed in some ways to buying a lot of food: *"When you see the pamphlets and the specials that they have- I go to a shop wanting to buy specific food but then when I get to the shop I forget because I see that there are a lot of specials on the pamphlet. So, I end up buying that stuff that I see on the pamphlets instead"* (R 34: M).

The 'attractiveness' or lure of these pamphlets is that they have specials that in turn allow respondents to either save or buy more food for less money. Most interviewees across the different categories noted that the pamphlets in conjunction with the television adverts that they see on television influence them into buying more food than they initially set out to buy. The lure and attractiveness of the specials shown in pamphlets were perhaps encapsulated perfectly by a participant in the focus groups who noted: *"I am responsible for around three households. So, buying a lot of food is almost a necessity, and this thing of specials really helps a lot because I can get a lot of food"* (Male Respondent).

Some interviewees claimed: *"I have not really seen any content that speaks about FW on television, but I have seen some content that advertises food and specials on the pamphlets that you get from supermarkets and shops. These pamphlets have specials and combos on them and some of those papers attract you to buy some of the stuff that you see. The only thing that we see on the television is a continuous increase in food prices"* (R 25: F). While such accounts were raised in both focus groups, they were not frequent nor was the attractiveness of pamphlets discussed in as much detail as in both the key informants' interviews.

### **3.3.4. Definition of FW**

While respondents articulated various definitions of FW, a core facet was that it was food that was fit for human consumption but was instead thrown away or not eaten due to a number of reasons. All 36 interviewees in the direct interviews emphasised that they felt that FW was linked to throwing away or wasting food that is edible and is thus fit for human consumption. However, for some, their definition of FW

emphasised heavily the economic or financial aspect. A male respondent noted that: “*For me, I consider it FW when this happens: when you are the breadwinner of your household and you buy food to last for a certain amount of time, and then at home your partner tells you that the food that you just bought is now finished that is FW for me because now you have to take out more money to buy food- so it’s a waste because the food did not last for the duration that I wanted it to last for*” (R 23: M).

Interestingly, respondents who were the breadwinners emphasised the financial dimension greatly. Both male and female respondents emphasised the economic dimension of FW in some ways. These sentiments were also found amongst poorer female respondents as female participants in the key informant interviews noted that: “*I think that children view FW differently because they are not the ones who are paying for the food. So, because they don’t know how expensive the food is they can just waste it easily. But for us adults it’s different especially if you are buying the food. FW hurts you personally when it happens because you do so much to get the food and earn money so you can buy food. For instance, even if you have trouble at work and you fight with people at work you do not quit because you know that the job is what is allowing you to live, and so you experience a lot of hardship and then at the end of the month you get the money to buy the food and then your children just waste it*”(Female participant: key informant).

## **3.4. PERSPECTIVE THEMES**

### ***3.4.1. Apprehension about FW generation***

Almost without fail when the purpose and aims of the research were explained, respondents were very quick to assert that they did not waste food, or that even if they did waste some, the amount of FW that they generated was negligible. It was an almost knee-jerk reaction or sentiment that was shared by almost all the respondents across the one-on-one interviews, focus groups, and key informant interviews. Most of the respondents maintained that they did not waste a lot of food at all: “*I think that you came to the wrong house because we do not waste food. I don’t think that throwing away food is a good thing*” (R 7: F). Consequently, most interviewees and respondents were not eager to engage in conversation because they expressed that there was no conversation to be had. For instance, some respondents confidently declared that: “*We don’t really throw away food in this house*” (R 3: F).

While respondents claimed that they did not waste food when asked if they knew of family, friends, or neighbours who wasted food, many respondents were quick to note that yes, they did indeed know of people who wasted food. Half of the interviewee respondents (18) admitted to knowing people such as family and friends who wasted food. Of these 18 respondents, 12 were female and the remaining six were males. Indeed, we see that these sentiments were not only limited to the one-on-one interviews as respondents and interviewees in both the key informants and food focus group sessions aired similar claims. In their reflections, respondents reflected: *“We don’t really throw away food in this house. We usually give our dog the food. We don’t waste a lot of food.”* (R 3: F). In the key informant sessions, an interviewee noted that: *“So, you end up throwing away that food, and it is a pity because someone would probably consider the food that you are throwing away as edible. Someone could benefit from your food that you are choosing to throw away”* (R 2: F).

While respondents were adamant that they personally did not waste food, they were more than happy to point out actors or FW generators who were more wasteful than themselves. Respondents hypothesised that the biggest generators of FW were the large companies. That due to their sheer size, would produce exorbitant amounts FW that was much more than the FW produced by respondents. When asked to give examples respondents offered a few suggestions such as Rhodes University (the most commonly cited), KFC, Shoprite, etc. A respondent from the focus group reflected: *“I am just curious as to who is responsible for implementing policies in Rhodes University...because I have seen so much food carried in large metal containers being thrown away. This is confusing to me. I always ask myself why Rhodes University does not have a designated place where they take the food that was not eaten from the kitchens and give it to people who do not have it in Makhanda”*. Still in line with discussing FW generated by large institutions and corporations, a respondent reflected on the FW produced in restaurants: *“I think it becomes a problem when FW is generated by restaurants and corporations like Shoprite and Checkers. For instance, these restaurants and corporations throw away a lot of food. That’s why I wish that there would be more food donation drives because if restaurants can see that they can’t sell some food they could just give it to people and not throw it away”* (R 5: M).

### **3.4.2. Food insecurity and hunger**

When reflecting on FW, respondents always linked it with the topic of food insecurity and hunger. Additionally, respondents went further to note that they considered FW as

a bad practice because they personally knew that there were some people who could use it. For instance, 24 interviewees mentioned individuals who did not have food when they were explaining why they think FW is bad. From the 36 interviewees, 30 of them in their definition or reflection of what FW was included the dimension of food insecurity and hunger in some capacity. *“I think that FW is a bad thing, I do not think that food edible food should be thrown away. Rather than throwing away edible food, I would rather that you give to someone else who may want to eat it. I tend to give food to people who need it. I think that there are other people who need food”* (R 15: F). Similar sentiments were shared by a male respondent who explained: *“I think that FW is the food that you throw away to the dogs and the food that you throw away in the bin. Other people do not have anything to eat and because of that they go to bed hungry, but then we as a community decide that when you cook and throw extra food you throw that food in the streets without thinking about those people. When I look at this, I do think that some of us are very selfish as a people”* (R 18: M). Another male respondent elaborated: *“For me, FW is when you cook and prepare food at the house and then no one eats the food that you have prepared that’s food waste. If you cook the food and you burn it by mistake that is also waste because it is not edible anymore. For instance, if there is some extra food in your house and someone who needs food comes into your house and asks for food, and then you say that you do not have any even though you do it, that is not right”* (R 19: M).

When respondents spoke about FW, most of them also mentioned or reflected on the disparity in food accessibility and food insecurity that existed in the world. When speaking about FW and hunger, respondents tended to frame FW as a morally wrong act. The sentiment from most respondents was that FW was not good because there were people in the world who could otherwise use or benefit from the food that was being wasted. A male key informant noted that: *“So, you end up throwing away that food, and it is a pity because someone would probably consider the food that you are throwing away as edible. Someone could benefit from the food that you are choosing to throw away”*. Consequently, respondents in all phases reiterated over and over again that FW was bad because there were people who suffered from hunger or food insecurity.

Three of the six key informants linked FW to hunger or food insecurity in some way. In a focus group session, a female participant shared: *“Even when I cook food and don’t feel like eating it then I remember that there are people out in the world who are going to sleep on empty stomachs. These people don’t even have a roof over their*

*heads... and so I tell myself to reduce the amount of food that I waste” (Female participant).*

### **3.4.3. Risk of giving away food**

Despite emphasising food insecurity and hunger in their reflections about FW, some respondents noted that they would still not give away FW to people who might need it. Interviewees across socio-economic classes, ages, and even neighbourhoods noted that it was very difficult to give people food that they had not eaten. Respondents noted that they would rather give edible food to the dogs or willingly throw the food away in the bin. When asked why this was the case, interviewees noted that they were weary of the potential consequences or backlash that they would receive if they gave someone food and the recipient fell ill. Eleven of the 36 participants noted that they would rather throw away food, because they were scared of being accused of wanting to harm or poison fellow community members. Additionally, some respondents also had reasons that spoke to the cultural context and belief systems that they were a part of. For instance, participants noted that when they tried giving food to fellow neighbours, they were accused of wanting to bewitch them by putting *muthi* in the food. A respondent pondered the following in an interview: *“When we think about FW. – I know that some of us are scared of giving people food, you might give someone food and that person may get sick and then they will say that you bewitched them, or you poisoned them”* (R 18: M). Another respondent agreed noting that: *“Some people find it suspicious when you give them food. Other people think that you are trying to poison them. For instance, if you give someone food and that person gets even so much as a headache the same day, they will say that you are trying to poison them or bewitch them”* (R 19: F).

These sentiments were also strongly aired in both focus groups as well. Within the focus group sessions, male respondents noted the following: *“I remember that there was one time when I and my wife had cooked too much food., and rather than waste it I decided to give it to my neighbour’s child. I knew that they were struggling to make ends meet. However, later that day in the evening around 10:00 o’clock the mother of the child came to me and told me that her child was very ill he had a stomachache. So, what will you say then? She said that her child got sick after she ate my food ...She said that I should take her child to the hospital as it was my food that got her child sick... I was only trying to help her. She had mentioned that she didn’t have any food no onions, no sugar, no...nothing. So, what do you do then?”*

Seeming to agree with the above sentiments, as a female respondent in the same focus group stated that: *“In my house not even a single piece of meat is given to anyone outside because I don’t want to be involved in peoples’ stories that will paint me in a negative light”*. These sentiments and experiences were not limited to a specific age group or socio-economic class. For instance, in the focus group sessions, a young female participant noted that: *“On the note of sharing your food with other people. My father is a person who lives alone. He loves meat. I remember some time ago I would visit his place and come and clean for him, and when I was there, I would see that he would have some meat in the fridge that he was not eating. I asked him why he just doesn’t give the meat to someone who needs it if he is done with it and he said that in the past he had given his neighbour some meat and then apparently the neighbour fell sick, and it looked like the meat that he gave the neighbour was what made him sick. So, you see its very tricky to give your food to other people because if you get sick, they might think that you are bewitching them”* (Female Respondent).

While the one on one interview with the 36 ‘general’ respondents and focus groups had a lot of overlaps in their accounts the accounts of the key informants were sparse in speaking about any potential risk of giving away food to neighbours. None of the six key informants brought up any experience or accounts of being scared to give away food or being blamed when an individual fell sick. However, there was another type of risk that was mentioned, namely. they were scared to give away food to people who were in need, mainly because it may be viewed as condescending or belittling to the people who were receiving the food. A respondent explained: *“I cannot give another person outside the household food because if I give the food to that person that person will think that I think that I am better than them. For instance, you can see that we as people have different socio-economic statuses. If you cook and give someone that food. The person may not see you giving them food as a benevolent they may think that you have ulterior motives”* (R 8: F).

#### **3.4.4. Passage of time**

When some of the older respondents were asked to speak on and reflect on FW, they noted that the way that FW was occurring was very different from how it occurred in the past. Generally, these older respondents noted that when they were much younger, FW did not occur as often because they were able to give it to people who were less fortunate than themselves instead of throwing it away: *“When I was a child, my*

*parents really hammered in the idea that we do not waste food. Instead, what we did was that if we had extra food available, we would pack that food and go and give it to individuals that we knew were struggling to make ends meet. So that is how we grew up”* (R 7: F). Additionally, when older interviewees spoke about FW they tended to reminisce and contrast their current experiences at their age with the experiences that they had when they were much younger. This pattern was observed in almost all the older interviewees during the first data collection phase. There was little difference in accounts within this context within different socio-economic classes and spatial locations. Seven of the 36 interviewees aired these sentiments when reflecting on FW, with four males and three females. All the seven respondents identified were older than 50 years. Two of the interviewees from this pool were from the more affluent economic household and the remaining five were from both the lower and working classes.

Interviewees went on further to note that because of this spirit of sharing or *ubuntu*, there wasn't really a lot of FW that occurred nor did any FW occur in large quantities, because that food would be shared with people who were less fortunate and thus did not have any food. A male respondent reflected that: *“I do not think so I think that we are teaching our kids in an environment that is not the same as the one that we grew up in. The current times are different from the old ones. I give my children pocket money but even though they have pocket money when they come back home, they still eat. In our days if you have eaten in the morning, you will only eat later. I always say to my kids that they must thank God that they have a father like me because with my father you would get beaten if you wasted food”* (R 14: M). Similar accounts were shared by older interviewees in focus groups. A male participant in a focus group session claimed that: *“I think I don't Like FW because of how I grew up, Because of my background I make sure that food is not wasted. When people in my home don't finish the food, I have dogs to make sure that it does not come to waste”* (Male Respondent).

Older respondents also commented that when they were much younger FW was almost taboo. Then, when the older participants spoke about FW, they commented that they felt as though FW in current times occurred more frequently and in larger quantities as compared to the past. Thus, the progression of time from the past to the present is linked with a change in lifestyle. When respondents were asked what made the past different from the current times in regard to the amount, frequency, and type of FW that was being generated, most of the respondents felt that in the current time, there

were certain actions that they participated in the past that are difficult to perform in the present. This was because of the expectations and ways that people perceive things in the present is different than in the past. For instance, a participant noted that while giving away food in the past was easier and encouraged by the broader community, giving food away in the present was more difficult as people have grown to be generally suspicious and less receptive to being assisted. In addition, some of the older participants expressed that they felt that younger generations were generally more wasteful. They noted that: *“Yes, I have. My friends and family are older so the people who cook for them are the grandkids and so we speak about how the grandkids are wasteful when they cook. These younger people do not control the portions of the amount of food that they cook. Sometimes we would have to do it ourselves because the younger ones do not pay attention”* (R 3: F).

The above quotations highlight the idea that life experiences and age seem to influence the types of narratives and perspectives that participants have about FW. In contrast, none of the key informants touched on FW as it relates to their past experiences, despite five of the six being between the 40 – 60 age range.

### ***3.4.5. Conversations with family and friends***

*“I do speak about FW with friends and family, but we do not really speak about it every day”* (R 21: F). These were the sentiments that were aired by a majority of respondents. As two-thirds (24) of respondents in the one-on-one interviews expressed sentiments similar to the above quote. Respondents noted that they did indeed speak about FW, however usually irregularly. Seventeen noted that they spoke about FW when they saw household members ‘wasting’ food. Most of these conversations seemed to only take place when food was being wasted. The respondents explained that the conversations that they had around FW were mostly centered around reducing the amount of FW (since food was very expensive). Only two of the 22 respondents claimed that when they spoke about FW, they spoke about other dimensions such as the effects that it has on the environment and how it contributes to global warming: *“I think that FW is very concerning because it contributes to global warming”* (R 6:M).

The rest of the 20 respondents noted speaking about FW generally and most noted that they spoke about FW only once in a while. While others noted that they spoke about FW ‘often’. Respondents reflected: *“Yes, because I do make a habit of speaking with my friends and family about FW. Most of our conversations are around the fact that it is difficult to give other people food”* (R 8: F). Another respondent added: *“Yes, I do*

*especially at work because I work at a university, and I a part of the team that is responsible for cooking- we do speak about FW a lot there. We always talk about FW, and we say that FW is not right” (R 12: F). Another female respondent noted that: “Yes, I do speak about FW, but I only speak about FW with my family and not my friends. But even in families, it is a bit hard to raise these issues, so you end up not bringing it up” (R 33: F).*

Engagement in such conversations was more common amongst females (14) than males (eight) ( $\chi^2 = 2.86$ ;  $p = 0.091$ ). Respondents claimed that they spoke about FW with family and friends from across the board. These claims were also found in both the food focus group sessions as well as with the key informants. As in the focus groups, all 16 participants maintained that they spoke about FW with either family or friends. In addition, all six key informants affirmed that spoke about FW with family and friends. In fact, of the respondents interviewed four of them asserted that they spoke about FW to either their family or friends. Despite having a large number of respondents who spoke to family and friends about FW, albeit irregularly, there was a number of respondents (12) who noted that they did not really speak about FW at all with either their family or their friends. There were also interviewees who noted that they once had a conversation about FW with friends and family but then stopped. When asked why they did not engage with their family and friends about FW, respondents noted that the topic of food and FW was a sensitive topic, and then on occasions when they had tried to speak about it, the family and friends interpreted the conversations as some form of criticism or attack. Therefore, to avoid friction respondents simply abounded speaking about the topic altogether: *“No, we have not really spoken to our friends about FW. I don’t think there has been a need to speak about FW because I have not seen my friends and family waste a lot of food” (R 19: M). Another respondent maintained that: “We do not really speak about FW at all. We tend to talk about more important topics like what is happening in the political landscape of the country” (R 25:M).*

### **3.4.6. Monotony**

All interviewees in the first focus group noted that most of the FW stems from them sometimes getting tired or bored of eating the same type of meal and food day after day. Consequently, that led to either throwing the food out because they were tired of eating it or buying different types of food and meals that were more exciting. Respondents noted that when they bought new ingredients for the more exciting meals,

they often did not use the old ingredients anymore, and these ingredients were then wasted as a result.

### **3.4.7. Load-shedding**

Some respondents noted that they felt that load-shedding contributed to the FW that they generated. Load-shedding is defined by Steenkamp (2016:70) as “a last-resort measure which is implemented by a power supply utility whereby the strain placed on an electricity grid is reduced by means of temporarily halting the supply of electricity – purposely limiting electricity supply to users as a result of an over-demand thereof”. Respondents noted that the efficiency of the appliance that they used to preserve food such as fridges and deep freezers was affected by the sporadic load shedding schedule. As electricity would live and return periodically, this ended up damaging fridges and freezers and resulting in the food that was placed in the fridges and freezers getting rotten. Thirteen of the 36 respondents noted that load-shedding contributed to their FW generation in some ways. Of the 13, seven respondents were female and six were male. Respondent reflected that: *“Electricity is also a big issue when it comes to FW because of load shedding you cannot preserve or save food by putting it in the fridge”* (R 1: F).

In support of the above reflection another female older respondent noted that: *“Our fridge broke down because of load shedding and sometimes the food gets wasted because it rots”* (R 3: F). These sentiments were also shared by older, male respondents who were affluent. For instance, a male respondent noted: *“I would say that Eskom is one of the bigger reasons that contribute to my FW because it forces us to cook and eat food in a limited amount of time. If you don’t eat the food in that short time, it becomes inedible”* (R 4: M). Another male respondent also aired similar sentiments with respondents one and three noting that: *“I think that the problem of load shedding is a contribution to my FW because if you do not switch off your fridge when the electricity leaves it (the electricity) comes back and it damages your fridge and now your fridge does not work anymore”* (R 19: M).

In addition to the above accounts, some respondents also noted that the constant occurrence of load- shedding within their areas damaged their appliances such as fridges and stoves and it was this damage that prevented interviewees from either preparing the food or preserving it. All interviewees who spoke about load-shedding linked it to their storage facilities (fridge). Participants across the different

socioeconomic classes, neighbourhoods and ages all noted that they felt that load-shedding was a big contributor in there.

## **3.5. DISCUSSION**

From the different themes that have been discussed, a number of objectives can be answered. Primarily objective (ii) and (iii). First, 15 themes identified with some themes being more prominent/salient than others. The study uncovered some idiosyncratic findings but also found some results that are similar to studies done in the West, i.e., Zepeda and Balaine (2017), Ioniță (2017) and Ahmed *et al.* (2021). Literature has suggested that generally, aspects of race, gender, socio-economic status, and age affect the types of perceptions and narratives that people about FW. Broadly, speaking these aspects were also found to influence narratives and perceptions within the context of this research. However, the degree to which each aspect influenced or affected the FW perceptions and narratives of individuals varied. Just as the results section was separated into three main themes, the discussion section of this chapter is categorised into three main themes as well namely: Personal themes, Factors that affect the local context and World of media.

### **3.5.1. PERSONAL THEMES**

#### ***3.5.1.1. Affluence***

The findings of this study highlight that perceptions and narratives of FW are affected by a number of internal and external factors. By far one of the most intriguing findings is that the level of affluence of an individual affected the perceptions and narratives that people have about FW. For instance, poorer respondents noted that they did not really generate any FW because they ‘could not afford to’ and that the ‘real’ FW was generated by more affluent individuals. While expressed genuinely, this sentiment is likely an underestimation of the respondent’s own FW generation, especially because respondents admitted to wasting food, e.g. during conversations with friends and family theme. Such claims suggest that in creating narratives about FW, people may internalise other perceptions and narratives that may traffic in stereotypes and broad generalisations. Thus, the narratives and perceptions that people reproduce may in turn have some of these ‘half-truths’. Literature has shown that FW generation occurs in every socio-economic level (Oelofse and Nahman, 2013). Yet there is often a dissonance between the amount of FW that respondents claim they generate and the

amount of FW they actually generate. For instance, Quested *et al.* (2013), Ahmed *et al.* (2018) and Nikolaus *et al.* (2018) all found that the respondents in their studies grossly underestimated the amount of FW they generated. In Quested *et al.*'s. (2013) case, respondents claimed that they generated no FW but actually wasted around 90 kg of food annually. It is difficult to corroborate the claims of respondents within this study because the focus here was on the types of FW perceptions and narratives and how these are shaped by and interact with the media. No quantification of FW was done. Nevertheless, we can infer that there is a possibility that respondents may be underestimating their FW generation because there is a precedent for such a claim.

Aside from affluence affecting FW perceptions and narratives, the study also found that the economic drawbacks of FW were cited as motivation for not wanting to waste food. These sentiments are also aired by Graham-Rowe *et al.* (2014) who found that the main motivation respondents cited in wanting to reduce FW was an economic one. Additionally, the study also found that the economic drawbacks of FW were especially emphasised because (i) the food was pricey and (ii) the economic state of the town was bad. Respondents often alluded to the poor economic state of the town by emphasising the number of people unemployed. The unemployment rate of the town has been increasing from 25 % in 2010 to 38.8% in 2020. Similarly, the Index of Buying Power, defined by Hoefnagel *et al.* (2022) as the ability of a local population to buy products relative to national purchasing power, has decreased in recent years.

With these statistics in mind, it is no wonder that a significant pool of respondents emphasised the financial drawback of FW as reason for feeling FW is bad. While the findings are in line with the majority of literature, there are still some studies that have contradicting evidence. For instance, Ahmed *et al.* (2021) found that 47% of respondents disagreed that FW costs them money. Additionally, Nikolaus *et al.* (2018) found that university students who lived in the residence system displayed less financial concern for FW as opposed to students that lived off campus. Both of these studies were done in America, a developed country that has a strong economic system and robust access to food. Unlike these studies, this study was performed in a developing country that is marked with some economic hardships. The difference in economic robustness and accessibility to food between the two countries may explain the different ascription of value on FW. The study also found the economic drawbacks of FW were not only cited by respondents as a motivator for reducing FW generation, but it was also given as the reason as to why FW was 'bad'. Most respondents in

explaining why they felt that FW was bad cited the amount of money that they paid in procuring food. However, the financial drawback of FW was not the only reason that made respondents perceive FW as a bad practice. The second reason was morality.

### **3.5.1.2. Morality**

The research found that FW was also framed as bad because it occurred despite the fact that there were people who were food insecure, that FW occurred in spite of food insecurity respondents deemed it as an immoral act. Due to this fact a majority of respondents maintained that they felt that FW was bad. Consequently, respondents were very apprehensive to admit that they themselves generated FW. If respondents did admit this, they claimed that they produced only a little FW. Cronje *et al.* (2018) noted that FW is associated with a lot of emotional and moral judgment, and because of this, respondents may underestimate the amount of FW that they produce. Linking FW with morality and denying one's participation echoes Evans (2012), Marais *et al.* (2019), Graham-Rowe *et al.* (2014) and Misiak *et al.* (2020).

In line with these result Marais *et al.* (2019) found that 67.1% of respondents regarded FW as 'inhumane, unacceptable, unnecessary and unjust'. Evans (2012:46) and Misiak *et al.* (2020) add validity to the claim of FW and its link with immorality as they found that most respondents described themselves as 'worrying' or 'feeling bad' about wasting food. Misiak *et al.* (2020) found that 78 % of respondents considered FW as an immoral practice. However, while these four studies are similar there are also some differences. For example, Marais *et al.*'s. (2019) respondent pool solely comprised of students. In contrast to Marias *et al.* (2019), this research included respondents across varying ages and professions and still found that a number of respondents linked FW with immorality. This suggests that the ascription of FW with immorality is not dependent on age, socioeconomic status, and gender.

While Evans (2012), Marais *et al.* (2019), Graham-Rowe *et al.* (2014) and Misiak *et al.* (2020) findings are similar to this study, there is also the drawback that most of the research that looks at the link between morality and FW is limited to industrialised countries such as Britain (Misiak *et al.*, 2020). Nevertheless, Misiak *et al.* (2020) stated that moral norms are different within different communities. The authors note that the moral norms towards FW in pastoralist communities may be harsher because food acquisition may be harder than in these societies than in industrialised societies. Misiak *et al.* (2020) also stated that it is still poorly understood why FW is regarded as

immoral in industrial populations because food acquisition is generally easier in these spaces. Though the urban community that was assessed in this research is not more industrialised than say a community in an industrialised country in the West, there are some overlaps that can be found between these spaces, and that overlap is that FW is generally ascribed with negative connotations. Therefore, the study contributes to the idea that irrespective of culture FW is still somewhat universally recognised as not good. Like the general ascription of FW as bad, there are other elements of culture that are characterised by expectations that are shared globally. The cultural expectations and values that are ascribed to women is an illustration of the above claim.

### **3.5.1.3. Gender**

The research found that gender affected the type of narratives and perceptions that respondents had about FW. For instance, both men and women admitted that they felt their gender coloured the way in which they viewed FW. This study shows the salience of gender as women significantly judged FW as bad more frequently than men. This visible gender difference can be attributed to a number of factors. For instance, Koivupuro *et al.* (2012) hypothesises the more stringent beliefs of women towards FW can be attributed to the social and cultural norms, that generally make women responsible for grocery shopping and food preparation in their households (Lyndhurst, 2007; Evans 2012; Britzi and Biriglia, 2021). As a consequence of these responsibilities, they generally have a higher awareness of the extra costs of FW and may feel more frequent feelings of guilt as compared to men. This research contributes to cementing Koivupuro *et al's.* (2012) hypothesis, particularly because it is not the only study to suggest that gender plays a role in influencing FW perceptions and narrative constructions. To illustrate, Evans (2012) and Misiak *et al's.* (2020) study were marked with a gender difference in FW perception. For example, 80 % of female respondents in Misiak *et al.* (2020) considered FW immoral compared to 72% of men. Cantaragiu (2019) found that at any age, women tended to express higher concerns about the detrimental effects of food as compared to men. Thus, the findings of this study are in line with a majority of the literature that suggests that gender is still an aspect that not only is ascribed with specific roles but that it is also influential in perception and narrative construction.

### **3.5.1.4. Age**

The study also found that age played a role in shaping FW perceptions and narratives. This is because aging affects how individuals participate in social processes (Pilcher, 1994:485). This study uncovered that older respondents did indeed perceive FW differently than their younger counterparts, and in reflecting about FW the respondents always used their previous experiences as a reference point to reflect on FW. Generally, older respondents are able to compare and contrast different societal trends as they have lived through periods of socioeconomic, and even political change (Ioniță, 2017). The findings of this research mirror Ioniță's (2017) study, where they found that older respondents cited experiencing different time periods as a reason for perceiving FW differently than younger respondents. The respondents in this research experienced a distinct time period between 1977 and 1989 where political instability and food shortages were the norm. Respondents also noted that, because of these past experiences they were not only more attuned to how much FW they produced even years after the events, but that they were also more aware of strategies that they could use to mitigate it (Ioniță, 2017).

Ioniță (2017) also found that older respondents were less prone to impulsive buying, generally displayed more restraint, and knew more about the environmental effects of FW compared to their younger counterparts (Ioniță, 2017). These findings are also exhibited by Banadonna *et al.* (2019) who found that older farmers were more attuned to the environmental effects of FW as compared to younger respondents. Though there is some literature that suggests that older respondents are generally more knowledgeable about the environmental effects of FW on the environment, this research found otherwise. For instance, from the two respondents that spoke about FW both of them were younger than 35 years. These respondents were generally more educated than the older respondents as both respondents had a college and university qualification respectively. This study then suggests that age is not the only key factor that informs level of awareness in regard to FW.

While this study is similar to Ioniță's (2017), it is also different in that the study found that past political implementations and systems i.e., Apartheid greatly shape FW perceptions and narratives. Where this study found that political implementations such as Apartheid affected FW perceptions and narratives, Ioniță (2017) found that the past communist political system of Romania affected the perceptions and narratives that people had about FW. Both these studies suggest that

political periods that are characterised by a strife and scarce resource availability affect the way in which people perceive and interact with food.

### **3.6. FACTORS THAT AFFECT THE LOCAL CONTEXT**

#### ***3.6.1. Influence of socio-economic and political systems on FW***

While affluence emerged as a strong factor that affected FW perceptions and narratives, it was often linked with race and spatial location. This specific linkage suggests that race, spatial location, and socioeconomic status greatly affected the perceptions and narratives of FW. The study also found that there was a form of ‘separation’ or segregation that individuals applied between themselves. For instance, poorer respondents limited the occurrence of FW not only to more affluent areas but to historically white, affluent areas that happened to be designated further away from the respondent's own home or space. In some respondent's reflections, race was cited as a determinant for FW generation.

Often, respondents would associate FW as an activity that was only associated with white individuals. These experiences and sentiments suggest that past political laws such as Apartheid still have complex, long-lasting effects not only in the physical spaces of them but also in the types of perceptions and narratives that these people of colour hold in relation to topics such as FW. In order to better understand the linkage made in this study between race, affluence, and location one needs to pull from the literature that covers the country's history.

The country's most notorious political implementation Apartheid, demarcated spaces, resources, incentives, and even service delivery in correlation to race. Often people of colour were placed in spaces/environments that were further from the center of towns or cities. Other laws implemented include the Group Areas Act of 1953, the Natives Land Act of 1913, and even the Separate Amenities Act (Modise and Mtshiselwa, 2013). All these laws ensured that the physical, financial, and social mobility of black people was restricted. As a town in South Africa, Makhanda was subject to these political implementations and still suffers from the remnants of them in current times. The town still has pronounced racial separation and disproportional inequality between races as the West side of Makhanda is still more financially affluent and has more access to services and resources compared to the East side (a predominantly black area) (Hoefnagel *et al.*, 2022). It is no wonder that the study found that respondents not only

linked FW with race but also with spatial location, as often the geographical areas that white people historically stayed were the ones that were considered to be FW hotspots by respondents.

### ***3.6.2. FW in the context of Makhanda***

In addition, the study found that the claims of respondents when it came to the identification of FW hotspots carried some validity to them. For instance, the west side of Makhanda was repeatedly perceived to be more wasteful in comparison to the poorer areas (east side) because that is where individuals who are generally more affluent stay. The ‘center’ of Makhanda is marked by restaurants, cafes, and educational institutions such as Saint Andrews and Rhodes University, an institution that has more than 8 000 students currently registered and has been found to be wasteful in some regards by Painter *et al.* (2016). Painter *et al.* (2016) found that across the dining halls that were sampled in Rhodes, roughly 1.9 tonnes of FW is generated per day, equating to 450 tonnes of FW is generated by Rhodes University alone (Painter *et al.*, 2016).

These figures are alarming but a look into literature about universities and their FW generation shows us that such findings are not unique. For instance, Silvennoinen *et al.* (2015) found that in a Finland university, 25.3% of food that was discarded by students and workers was edible. In Ireland, Browne and Murphy (2013) found that 2 500 kg FW was generated weekly in the university of College Cork and in Canada Rajan *et al.* (2018) found that 648 kg of FW was being generated in Northern British Columbia university per week. From these statistics it is clear that FW is a problem in educational institutions. What is more alarming is that the ‘center’ of Makhanda has other educational institutions that house a large number of students such as Saint Andrews, and Kingswood as well as restaurants and cafes. Studies that look at the FW generated within these spaces in Makhanda is sparse. Thus, it is not difficult to understand why some respondents attribute the center of Makhanda as a FW hotspot. Therefore, it can be said that this research adds more evidence to other studies that suggested that affluence is a big contributor to the amount of FW generated. Ultimately, it seems that the perceptions and narratives that respondents have on the west side of Makhanda are not completely unfounded.

### 3.6.3. Culture

The study also found that the cultural practices, norms, and values of respondents affected the way in which they perceived and constructed narratives about FW. Beardsworth and Keil (1997) note that the narratives and perspectives that individuals have about FW are influenced by a form of cultural internalisation as a consequence of socialisation that occurs mostly during childhood. Culture is an especially powerful force that manifests itself in everyday practices (Pollan, 2007:1). Generally, the culture of black South Africans is centered around caring for one another; this social philosophy is also known as *Ubuntu*. Gbadomis (2019) states that *Ubuntu* is a way of being and a code of ethics that is embedded in every sphere of an individual's life. It is no wonder then that in the study respondents spoke at length about the moral conundrum they experience during cultural ceremonies in trying to strike a balance between being hospitable and trying to reduce FW (Pasha *et al.*, 2020). One of the most important aspects of a cultural ceremony is the amount of food that is prepared for attendees. Therefore, restricting the amount of food that attendees can have in a ceremony is considered to be disrespectful not only to the attendees but also to the ancestors who the ceremony is for (Pasha *et al.*, 2020). The cultural belief or value of *Ubuntu* permeates into the ways that respondents perceive and create narratives about FW. In instances where respondents needed to choose between fulfilling a cultural obligation and preventing FW, most respondents opted for the former. This finding suggests that the occurrence of FW can be excused or if it is insulated in core cultural practices.

The study also found that there were a lot of contradictory sentiments shared by respondents about FW. For instance, while respondents spoke about the guilt they felt when FW occurred and the immorality of FW despite people suffering from food insecurity, and the necessity of *Ubuntu* in the same breath respondents spoke about being weary of giving away food to those in need and stated that they would rather discard the food. Respondents elaborated that the reason that they would rather throw away food than give it to people was because they were avoiding being potentially blamed if the recipients of the food fell ill. The ability to weigh trade-offs between generating FW and preserving one's wellbeing has been documented in the literature. For example, Evans (2011) and Watson and Meah (2014), found that customers tend to make trade-offs between different goals. Customers often face anxiety about the safety of certain food products. This anxiety may often be caused by a misunderstanding of use-by dates and expiration dates. Therefore, rather than risk

one's health by ingesting potentially unusable food consumers opt to throw away the food, irrespective of whether or not the food is edible. Within this instance, the trade-off is the consumer trading off FW to ensure that their health is not compromised.

However, the study did not only uncover that the local cultural practices and belief systems of respondents affect their perceptions and narratives towards FW. It was also revealed that respondents were affected by another type of culture, a culture of consumerism. As discussed previously, respondents repeatedly noted that they were constantly bombarded with food adverts on the media of their choice. This constant pressure from corporations is explained by literature as a consequence of a shift towards a culture of consumerism. In defining consumerism Assadourian (2010:187) borrowed heavily from British economist Paul Ekins noting that consumerism is “the possessions and use of an increasing number and variety of goods and services are the principle cultural aspirations and surest perceived route to personal happiness, social status, and national success”. Literature suggests i.e., Bryant and Goodman (2004), Assadourian (2010) and Gbadomis (2014) that there is an increasing pattern across cultures around the world to find meaning and contentment through what we consume. The culture of consumerism has permeated into non-western spaces such as Africa, which have through imperialism, colonisation, globalisation, and modernisation internalised westernised ideologies, cultural practices, and socio-economic systems i.e., capitalism (Brown, 2008). The culture of consumerism has managed to co-opt many cultural elements and has through tactics such as advertisements normalised certain behaviours. For instance, Assadourian (2010) claimed that highly processed foods and sugary drinks are regularly advertised as tastier and because of this constant emphasis, they have been normalised. This study found that respondents testified to seeing more food adverts than FW content.

Respondents went on further to note that their buying behaviours were influenced or affected by these food advertisements that they saw and heard. Often, respondents noted that the food advertisements they saw or heard influenced them to buy more food than they initially sought out to buy. This emphasis on buying more inevitably leads to respondents wasting food even if they did not intend to. Again, this study suggests that there are some cultural practices and norms that interact with each other that affect the perceptions and narratives of FW. This study is not the first to link perceptions, narratives, behaviour, and food waste generation together there are other studies that have done this i.e., Richer (2017), Zepeda and Belaine (2017), Von

Kameke and Fischer (2018), Falasconi *et al.* (2019), Block *et al.* (2022) and Hengi and House (2022). While these studies have spoken extensively about FW narratives and perceptions, none of them have spoken extensively about the types of interactions that African culture has had with Western culture as it pertains to FW perceptions and narratives. Additionally, none of these studies have used the agenda-setting theory as a framework for dissecting results.

## **3.7. WORLD OF MEDIA**

### ***3.7.1. FW content depiction in radio, newspapers, and television***

It was uncovered that individuals use a range of different media forms simultaneously. However, there are certain media forms that are preferred over others. For instance, newspapers were the least engaged media out of the three traditional media forms. Generally, there was a strong preference for television, which can be attributed to the fact that television provides curated content for the media consumer. This curation may result in the media consumer only being exposed to the type of content that they are personally invested in. Another key finding in this study is that the bulk of media content that was seen by respondents did not speak directly to FW. Rather, it seems that media in the context of this research tackles FW indirectly i.e., shows such as ‘Plate it up’. This finding suggests that FW content is not prioritised and that its coverage is limited. This finding is supported by Thompson and Haigh (2017) who found that cooking shows such as ‘Ramsay’s Kitchen Nightmares’ framed FW in a very limited way. They also found that the mention of FW becomes less frequent as the seasons of this show progress. Instead, there is more literature that looks at how media contributes to FW behaviours. For instance, there has been a boom in studies that have looked at the influence that social media has on FW generation. For instance, Tariq *et al.* (2023) found that the increased use of social media in combination with new marketing tactics from food manufacturers may result in more impulsive buying behaviour from social media users. Additionally, Lahath *et al.* (2021) also found that social media, impulsive buying, and neuroticism were positively correlated to FW. Such findings highlight the idea that media use is not the only factor that contributes to FW.

### ***3.7.2. Food advertisements in television, radio, and newspapers***

The study also found that respondents have seen more food adverts i.e., ‘buy one get one free!’, ‘two for the price of one!’ plastered across televisions, radios and even in pamphlets more so than FW content.

Respondents cited corporations such as Checkers, Makro and Game as the source of these adverts. Such findings highlight the proliferation and excessive advertising that comes from food corporations. Since food corporations are businesses, they are driven by profit making (Bryant and Goodman, 2004). Thus, to ensure that profit is made food corporations employ a set of techniques to encourage consumer engagement such as the ‘buy one get one free!’ tactic (Weerathung and Pathmini, 2015). Literature suggests that food advertisements make up a significant number of advertisements globally. For instance, Story and French (2003) claimed that in two-thirds of all countries, food advertisements accounted for more than 40 % of all advertisements. Story and French’s (2003) findings seemed to be contradicted by other studies. To illustrate, in 2016 Smithers *et al.* (2018) found that only 11% of advertisements were food advertisements in Australia. While there may be contestation about the above food advertisements figures, a fact that cannot be contested is that research that looks at food content on media is especially lacking in the context of this continent and this country (Abrahams *et al.*, 2017).

While there is little research about food and FW content in the continent and more specifically South Africa there are pertinent studies. For instance, Mchiza *et al.* (2013) found that 44% of adverts were related to food. Another study by Abrahams *et al.* (2017) set in South Africa assessed food advertisements in print media and found that from the 959 advertisements analysed 80% were related to food and beverages. The above findings lend further credence to Story and French’s (2003) claims and also highlighted that food advertisements in South Africa are extremely pervasive. Mchiza *et al.* (2013) and Abrahams *et al.* (2017) claims supported the findings of this research as 14 out of 36 respondents in the one-on-one interviews noted that they saw more food advertisement content as opposed to FW content. Recognising the frequency of food advertisements and how often they appear as compared to FW content is important because food advertising has been found to have direct causal effects on consumption patterns (Epstein *et al.*, 2008; Harris *et al.*, 2009). However, the growing literature on food advertisements in South Africa suggests that there is a strong presence of food advertisements on the screens of South Africans. While there are studies that suggest

that there is a strong presence of food advertisements on South African television, there is some literature that suggests that the presence of food advertisements is somewhat limited. For example, Temple *et al.* (2008) found that from 37.5 hours of programs recorded only 16 % of advertisements were for food. This low percentage may be attributed to the study being limited to recording children's programs between 09H00 and 11H00.

Irrespective of the different findings on food advertisement coverage on television and other medias. Researchers generally agree that food advertisements do indeed affect or influence the buying behaviours of consumers (Weerathunga and Pathmini, 2015). Nagadeepa *et al.* (2015) noted that sales promotion techniques such as advertisements may instigate unplanned buying from consumers. The attraction of these adverts lies in the ability to allow the consumer to pay less money for more food (Nagadeepa *et al.*, 2015; Weerathunga and Pathmini, 2015). This claim is applicable to this study particularly because we have heard and seen respondents reflect on the economic hardship that they are experiencing. Therefore, the presence of food advertisements in conjunction with these economic hardships may make the food advertisement promotions more appetising to respondents, as respondents may be looking to save as much money as possible.

The limited narrative construction of FW, found in this study may also be affected by the low number of respondents that prefer newspapers. Literature states that newspapers are a credible source that not only informs individuals about world problems but offers information that is more holistic. For example, Kious (2001) found that newspapers were deemed to be more credible by respondents than television. Additionally, Raeymaeckers (2004) found that of 1 200 students, 48 % of them felt that newspapers offered more complete information as opposed to television. These findings are also in line with Quayam *et al.* (2010) who found that individuals who use print media were generally more well informed than users who use electronic media. This is because text-based communication requires a more thorough type of processing as opposed to visual based communication (Porten Chee *et al.*, 2021). Thus, the low preference for newspapers from respondents may mean that the information that respondents have access to is limited as it does not require intensive processing from the media consumer.

Interestingly, while the study found that radio was more engaged with than newspapers the number of respondents that used radio compared to television was very small. Out

of the 36 respondents from the direct interviews, only seven of them preferred using radio over other traditional media forms. This disproportional distribution of respondents between media forms suggests that respondents are receiving information mainly from one source. This finding is somewhat surprising as many social scientists have suggested that radio is extensively used within the African continent and is a main source of education for a large pool of individuals (Myers, 2008; Tetty *et al.* 2011; Da Costa, 2012; Hudson *et al.* 2017). Myers (2008) also reported that South Africa ranks fourth in African countries that have the highest radio possessions at 25%. Additionally, in 2006, in South Africa, it was reported that radio was marked reached around 90% of listeners per week (Myers, 2008). The findings of this research suggest otherwise as we see that there is a low number of people who listen to the radio frequently. Radio has been cited as a media form that adds diversity of information and opinions to the types of conversations and concerns that people have (Abreu Lopes and Srinivasan, 2014). Thus, the low use of not only radio but also newspapers calls into question the level of diversity that respondents have about FW. Like newspapers, radio may be experiencing a decrease within the context of South Africa because of the boom of the digital age as well as the cultural shift that is fostered by the presence of social media.

The implication of the low newspaper and radio engagement is that it may affect the level of depth of information that media consumers have, thereby affecting the perception and narrative construction of consumers. We can use the agenda setting theory to further explore the meaning of these findings. The agenda-setting theory notes that the salience of a topic is mainly dependent on how frequently the topic is presented or framed (Marufu and Yusuf, 2012). This means that respondents may perceive specific types of content as more salient because their exposure to other types of content is limited. The media consumers' exposure to knowledge and information along with media preference affects the degree to which they are informed about world problems (Kohl, 2008). This in turn affects how certain media consumers are able to construct narratives and perceptions about topics. If the information that media consumers have about FW is limited, then so too will the types of narratives that are constructed about it. This sentiment manifested itself within this study as a significant number of respondents only spoke about FW in a limited context of hunger, economic responsibility, and morality. Perhaps these limited perceptions and narratives can be attributed to the lack of diverse content about FW that was presented on television. The findings of this study contradict Zepeda and Balaine (2017) who found that their

respondents generally had somewhat balanced narratives and perceptions of FW. For instance, in this study, only two respondents spoke about the environmental impact of FW.

In contrast, studies such as Ahmed *et al.* (2018) and Zepeda and Balaine's (2017) both found that respondents had a rather high awareness of the many implications of FW. For instance, in Zepeda and Balaine's (2017) study 79% of respondents noted that they believe FW has detrimental environmental impacts. The more balanced narratives and perceptions that are found in Zepeda and Blaine's (2017) study may also be attributed to the fact that Zepeda and Balaine's (2017) study was done in a university setting and thus was limited to students. Unlike Zepeda and Belaine (2017) this study is different in that it has respondents and participants across different ages and professions. Additionally, this study incorporates the influence of traditional media the studies above do not. While there is literature that suggests that respondents generally have a high awareness of FW there is also literature that opposes this claim. Nikolaus *et al.* (2018) found that the majority of young adults in Illinois (USA) demonstrated a limited and low awareness of FW knowledge. Similar to this study, the limited narratives illustrated in this study are a cause for concern because low and limited awareness has been linked to behaviours to avoid excess waste (Principato *et al.*, 2015).

### **3.8. CONCLUSION**

This chapter aimed to determine FW the types of FW narratives and perceptions that the population of Makhanda have. To reach the aim, the three are considered:

- (i) What narratives of food waste does the general population have?
- (ii) Which narratives and perceptions are dominant and how did they become so?
- (iii) Which actors advance particular narratives?

The first objective revolved around determining what types of narratives and perceptions did the people of Makhanda have about FW. Similar to chapter 2, the study found that Makhanda respondents exhibited a number of different FW perceptions and narratives. Using thematic analysis, the study found that Makhanda respondents had 15 FW perceptions and narratives. These were namely: Apprehension about FW generation, Affluence, Race, Loadshedding, TV adverts, Media forms and FW

content, Definition of FW, Pamphlets, Conversation with friends and family, Gender, Culture requires it, Passage of time, Risk of giving away food, and Monotony.

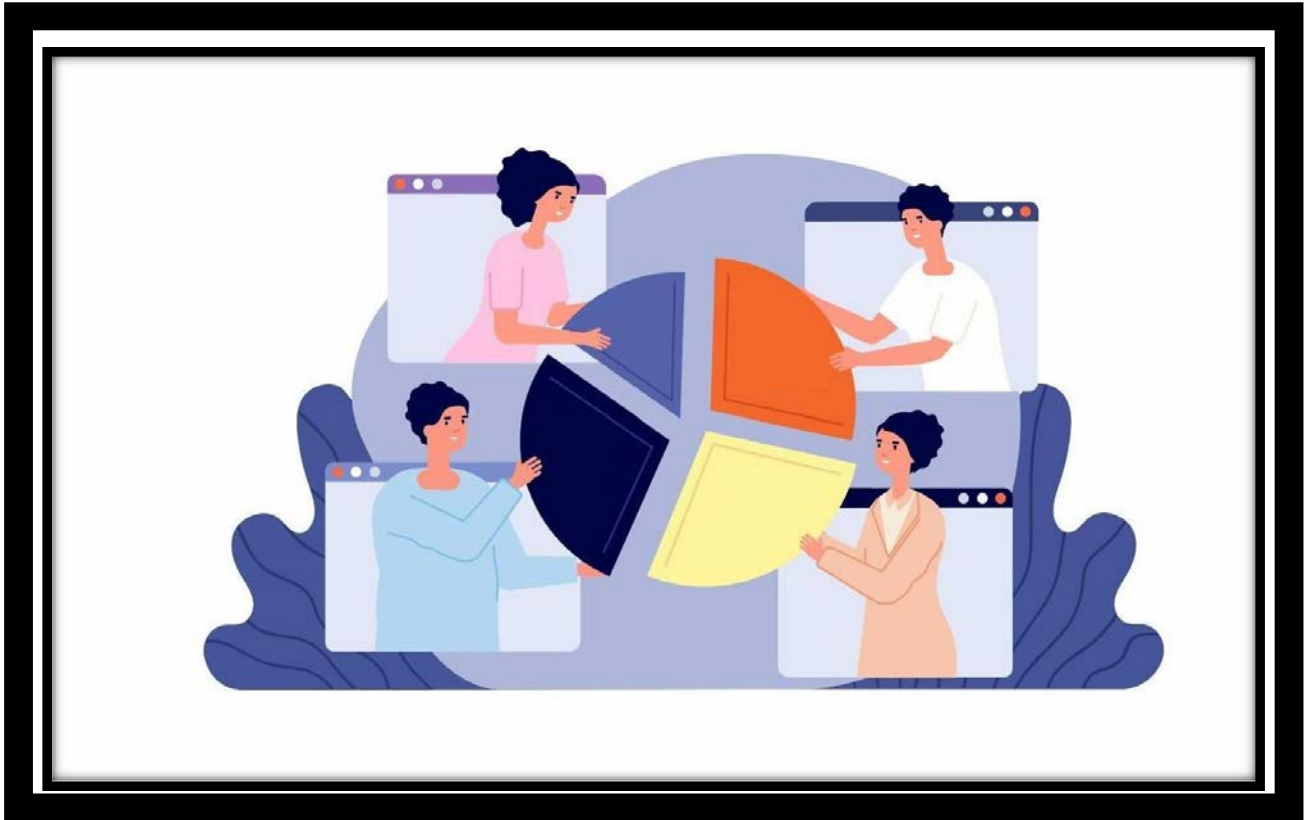
For objective (ii) the themes that were mentioned by the most respondents were taken and grouped, the most dominant themes according to this grouping strategy are *food insecurity and hunger, affluence, media forms and FW content, pamphlets, and conversations with family and friends.*

Lastly, objective three of this chapter is answered by the conversations with family (CFF) and Media forms and FW content theme. The objective asked what actors advance the perceptions and narratives possessed by respondents. The sentiments of the respondents have provided clear answers, the actors that advance perceptions and narratives about FW are the respondents themselves as well as the media forms that the respondent used. As alluded to in the agenda setting diagram (Figure 10), both respondents (media consumers) and the media influence and interact with each other in complex multi-linear ways, and in the end, it is both agents that co-create the types of perceptions and narratives that people have about FW.

Ultimately the factors that influence the types of narratives and perceptions that respondents have about FW can be boiled down to (i) media forms, (ii) life experience, and (iii) the characteristics of one's surrounding environment. We have also seen from themes such as affluence, passage of time, race and even gender, how aspects such as gender, race, age, and even socio-economic status affect one's life experience which in turn affects the ways that people view and perceive FW.

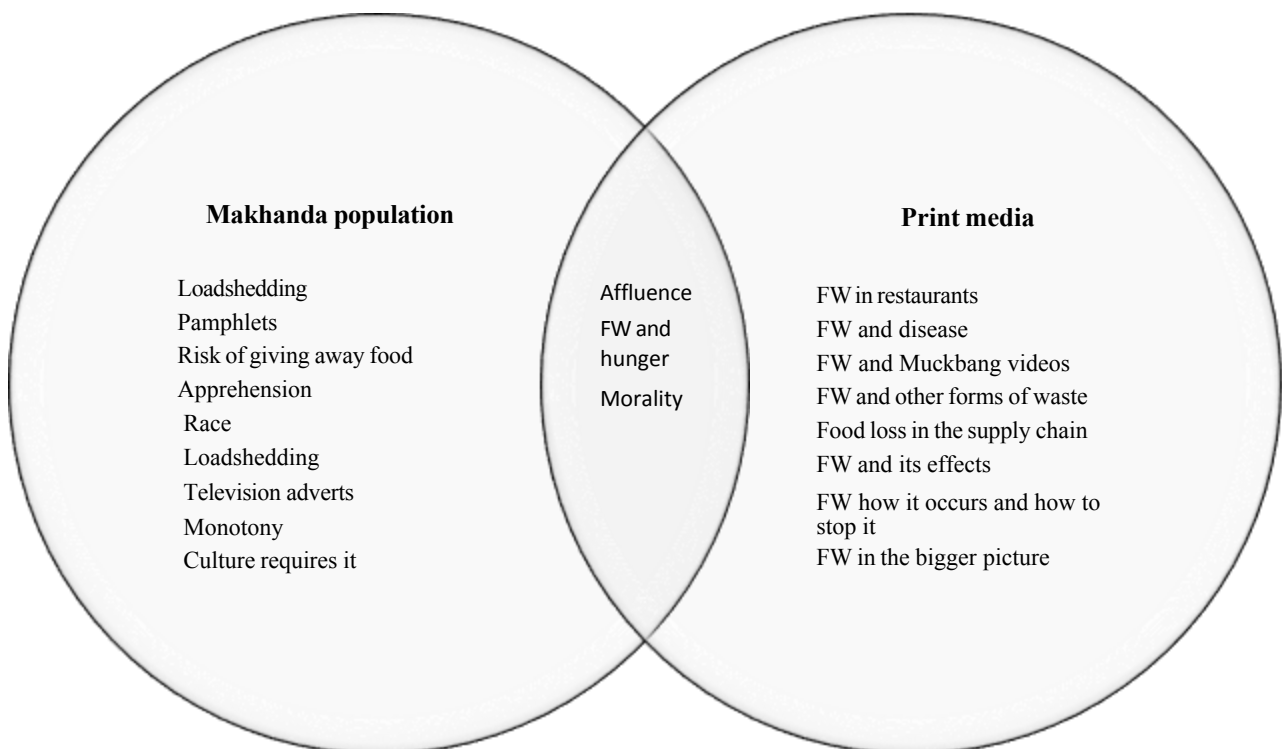
In conclusion, it can be said that the topic of FW and how people perceive it, as well as the type of narratives that they have in regard to it, is complex and multi-layered. Additionally, it can also be said that despite the different types of perceptions and narratives that people have about FW, there are some commonalities present in the sentiments that respondents aired about FW. Lastly, the forces and actors that influence the respondents' views, narratives, and perspectives on FW are multi-layered and interact with each other in complex ways. Factors such as age, gender, race, socio-economic status, surrounding environment, and even preference of media forms have been shown to influence and in certain cases affect the types of narratives that participants have about FW.

## CHAPTER 4 SYNTHESIS



## 4.1. INTRODUCTION

This research aimed to examine FW perceptions and narratives present between print media and the population of Makhanda. Chapters two and three covered the perceptions and narratives that were presented in the newspapers as well as the perceptions and narratives that individuals personally held about FW. This last chapter aims to bring together the results obtained from Chapter two and three to determine if there is an overlap between the FW perceptions and narratives of the Makhanda population and print media. Additionally, this chapter aims to synthesise the findings from Chapters 2 and 3 and briefly discuss the implications of these results. Determining the extent to which the FW perceptions and narratives between the Makhanda population and print media overlap will answer the last objective, namely: To what extent do media narratives and perceptions overlap with or conflict with those of the general population?. Chapter two and three found that there were not only a diverse set of FW perceptions and narratives exhibited by both the media and the people of Makhanda but also that these perceptions and narratives overlapped to some extent. There were 14 perceptions and narratives identified in Chapter 2 and 15 identified in Chapter three. Of these narratives and perception only three were shared. These three perceptions and narratives were FW and (i) economy/affluence, (ii) food insecurity/hunger and (iii) morality and (Figure 13).



**Figure 13:** Food waste perceptions between print media and Makhanda residents.

Clearly, there were some perceptions and narratives about FW that were shared between print media and the population of Makhanda, but these perceptions and narratives were limited. This suggests that there is a huge disconnect present between what the media disseminates about FW and what the Makhanda population thinks about it. The shared perceptions and narratives about FW highlight two ideas. The first is that while individuals are exposed to different types of traditional media, the information, narratives, and perceptions that are disseminated by media are not being internalised by media consumers. The second idea is one that was alluded to previously in Chapters two and three, i.e., the media that may be offering a more diverse set of perceptions and narratives about FW may not be actively accessed or sought out by Makhanda residents. The disconnect between print media and the Makhanda population lends credence to social scientists' warnings about not over emphasising the salience and or importance of media over other aspects (Deacon and Stanyer, 2014).

In using the agenda setting theory as a framework to look at the potential reasons for why there may be a connection or disconnection between media and media consumers Boykoff and Laschever (2011) introduced the concept of cultural congruence and cultural resonance. Cultural congruence and cultural resonance maintain that the content that is released by the media becomes more easily internalised by media consumers if it is content that resonate with and is in line with the cultural and social values and beliefs of the media consumer. Therefore, if content does not possess these two characteristics it becomes difficult for the media consumer to not only internalise it but to also be aware of it. In the case of the Makhanda population, we see that there are a lot of idiosyncratic perceptions and narratives present about FW i.e., risk of giving away food and culture requires it theme. The disconnection exhibited in this study may be because respondents may not necessarily agree with some of the content that is presented in the world of media.

However, these reasons are not the only reasons that potentially explain the disconnection between print media and the Makhanda population. Another is that FW content is represented in a very limited capacity by media content creators and disseminators. This limited representation may be due to the restrictions and limits that are faced by individuals who are responsible for disseminating FW content on the different traditional media platforms. As indicated by Boykoff (2011) journalists and other content creators may face a range of problems in trying to disseminate content such as low resource availability. Moreover, journalists and content creators may face decreased interest if they

attempt to offer ‘new’ or fresh perceptions and narratives in the form of less engagement. Thus, they may be incentivised to limit the way they represent certain topics so to not alienate the current media consumers that they have (McCleskey *et al*, 2016). The incentive that journalists and content creators experience are not limited to media consumer engagement, there are also financial incentives that media forms receive when they advancing certain narratives and perceptions about a particular topic.

Additionally, the limited overlap of FW perceptions and narratives between print media and the Makhanda population may be attributed to the limited engagement that respondents exhibited with other media forms. Other traditional media forms have been cited by respondents and by academia as not only offering more holistic information but also being more trustworthy (Quayam *et al.*, 2010). Only seven respondents listened to radio and two engaged with newspapers outside of pamphlets. Thus, the research suggests that the limited perception and narratives on FW from media consumers is partly caused by the limited engagement that media consumers have with newspapers and radio. However, this limited engagement cannot only be laid at the hands of media consumers. Rather, one also needs to look at the larger forces at work that trickle down to the actions of the media consumers, such as globalisation and modernity.

## **4.2. SUMMARY OF MAIN FINDINGS**

The essence of this study is captured perfectly by Sutinen and Närvänen (2022:225) who noted that: “the complicated problem of food waste involves several organisations as well as individual consumers”. The research has also established that the different factors mentioned above interact with each other and do not operate in a vacuum. Since perceptions and narratives are dependent on the social experience of an individual to some extent it means that they will be shaped by aspects that colour an individual’s social experience (McLead *et al.* 2017). In the case of Makhanda, a town with a checkered past of racial discrimination, economic disparity, and diverse cultural practices, we see that socio-economic status, gender and cultural practice are heavily emphasised by media consumers and that these factors manifest in the other narratives and perceptions that were shared by respondents. In considering factors that shape FW perceptions and narratives, the study uncovered that while there is some overlap between print media and the sentiments of the Makhanda population, the overlap is very limited (Figure 12). For instance, the only perceptions and FW narratives that were found in common with both realms are perceptions and narratives around: Affluence, FW and morality and FW and food insecurity.

#### ***4.2.1. The amalgamation of FW narratives and perceptions***

Despite these few overlaps, the research also uncovered that the people of Makhanda have a diverse set of narratives and perceptions that are an amalgamation of the media they use, personal experience societal norms and the norms and practices of fellow friends and family. To put it simply, FW perceptions and narratives, at least within this study, are affected by internal and external/environmental factors. Respondents used the information and knowledge or lack thereof from the media to re-enforce or rebuke existing FW perceptions and narratives. The core element required in the creation of a perception and narrative is the subjective experience of the individual. This is because narratives and perceptions are usually internalised in relation to how an individual relates to them (Earthy and Cronin, 2008). Consequently, the FW perceptions and narratives of the population will follow suit. Ultimately, FW perceptions and narratives cannot be woven in a vacuum. They require a set of different ‘yarns’ so to speak such as cultural practice and beliefs, socio-economic status, gender, race and even age.

#### ***4.2.2. The cultural shift to consumerism in a developing country***

Bond *et al.* (2013) claimed that the consumption of food, food loss and FW that occurs in a country is affected to a degree by the economic state of the country. For instance, they noted that transitioning countries which are countries that are experiencing an economic shift towards high income status and are changing from central planning to free markets-are countries that are typically marked with a burgeoning population, increased rate of urbanisation, rising incomes and dietary shift (Bond *et al.*, 2013). The authors further maintained that that transition of such countries is also characterised with larger food loss and FW figures. As discussed in Chapter 1, South Africa is for all intents and purposes a transitioning country that is marked with one of the highest if not the highest FW generation within the continent. In fact, Oelofse and Nahman (2013) claimed that despite being a developing country South Africa boasts FW figures that are synonymous with developed regions. The dietary, demographic, and socio-economic changes of transitioning countries also lead to a change in perceptions, narratives and behaviours of the people inhabiting these transitioning countries. Particularly because socio-economic and cultural shifts can influence the way in which people perceive certain topics such as FW (Ioniță, 2017). Thus, a transitioning of a developing country such as South Africa is not only limited to the context of demographic and economic change but also a shift in the way in which individuals perceive, consume and discard food.

Gbadamosi (2019) noted that the consumption behaviours of individuals are influenced by a multitude of factors namely: personal factors, marketing stimuli and socio-cultural factors. Cultural values have been cited by Gbadamosi (2019) as affecting patterns of consumption. One of the characteristics of culture is that it can be learned. When it comes to developing countries, some cultural practices that are performed are mimicked from developed nations (Bond *et al.*, 2013; Gbadamosi, 2019). This is referred to as acculturation. Gbadamosi (2019) has indicated that developing countries are learning the consumption patterns and behaviours of developed countries because of phenomena such as globalisation and modernisation. Globalisation has allowed for the transportation and exchange of distinct cultural practices and general behaviours across different regions (Brown, 2008; McCullough *et al.*, 2008; Gbadamosi, 2019). This exchange and exposure to different cultural practices is possible because of the increased connectivity that the world has experienced due to the formation of telecommunication networks as well as use of media (Brown, 2008). In showing how developing countries are mimicking behaviours from the West Gbadomisi (2019), similar to Assadourian (2010) cited how the consumption of western products such as Coco Cola as well as McDonalds are rife in developing countries.

The changes that developing countries experience as a result of globalisation are not limited to economic and demographic changes. The food systems of developing countries are increasingly becoming more industrialised as a consequence of embracing technological advancement (McCullough *et al.*, 2008). Typically, industrialised food systems are characterised by an oversupply of food. In speaking about the current food system, Spencer (2018) noted that it is marked by two main characteristics (i) unlike past food systems the current system is not fragmented, rather it is a well-connected system that is threaded together by the common interests of a few global corporations and (ii) those that hold the power in the current food system are few, thus the power in the current food system is centralised. Spencer (2018) maintains that the overproduction that the current food system is marked with is a consequence of a narrative that is spun by food corporative giants to ensure that they procure profit, this narrative is called the *production narrative* (Spencer, 2018). Aal *et al.* (2009: 1) elaborates on the stance of this narrative noting that the production narrative rests on the: “the 20<sup>th</sup> century– long argument that increased yields is what can feed the hungry, a point that seems self-evident” (Aal *et al.*, 2009: 1). This narrative continues and states that oversupplying the market not only ensures that there is a lot of food to go around but also that the food is somewhat affordable, this in turn allows the poor to have more access to food. However, this argument is flawed. Primarily because the production narrative is spun by a select few and

thus, does not incorporate the experiences of individuals, groups, and entities outside the agricultural industry. This narrative is cited by Spencer (2018) as a ruse from the real inner workings of a capitalist agricultural system. Thus, to ensure that profit is continuously made corporations use a number of means to engage and lure consumers through methods such as advertising, fostering the culture or spirit of hyper-consumerism. This hyper-consumerism as previously discussed emphasises conspicuous consumption and generally results in exorbitant amounts of waste, including FW.

### **4.3. CONTRIBUTION TO KNOWLEDGE**

This study contributes to existing literature on FW perceptions and narratives by presenting, discussing, and dissecting the experiences of South African citizens and South African print media and how it presents the topic of FW to South African society within the last 15 years. The study is also significant in that it highlights and lends credence to previous studies that have suggested that there is a shift in how the world consumes media content and how it interacts with media. By providing the experiences, perceptions, and narratives of South African citizens across socio-economic classes, ages and professions, more diversity on the types of forces and perceptions that are at play when it comes to FW narratives and perceptions are displayed. Additionally, the study is adding a South African perspective within literature that is predominantly marked with studies focused on the Global North and thus contributes to an attempt to make academic literature more nuanced and reflective of the world that it comes from. The research's use of the agenda setting theory in dissecting FW perceptions and narratives between print media and the urban community media consumers has rarely been done. In using the agenda setting theory, this study added a different perspective in how FW perceptions and narratives of print media and of media consumers can be interpreted and dissected. The study also re-enforces the idea that aspects such as gender, race, socio-economic status, and ethnicity are aspects that should continue to be incorporated and recognised as these aspects play a significant role in shaping the experiences of individuals. In addition, the results of this study showed that print advertisements have an impact on the purchase decision of consumers. This finding is consistent with previous studies (Ingvale, 2013; Mustafa and Al-Abdallah, 2020; Ahakwa *et al.*, 2021).

This research also builds on Ioniță's (2017) research in that it does not only look at FW perceptions and narratives that individuals have, but also incorporated a media analysis, on a system that has been cited by social scientists as being a powerful anthropological force. This research complemented Evans (2011) and Pasha *et al.* (2020) who have both

highlighted the different aspects that influences consumers perceptions and views of FW. Possible avenues that could be explored in future research include the comparison of FW perceptions and narratives between new media, and media consumers within areas outside of Makhanda.

While this research is characterised with a number of contributions, it is not without its limits. It is true that the study contributes to existing literature in highlighting the different types of perceptions and narratives that print media has about FW in the context of an African country. Initially the study assumed that there would be significant interest and engagement with print media. Particularly because print media has been cited by a number of studies as still been an integral information source for individuals (Mathiyazhangan *et al*, 2015; Peterson; 2021). In fact, Peterson (2021) maintains that while print media has been seeing a decrease in use it is still a media form that other media forms draw from (Refer to Chapter 1). As discussed, prior newspapers have been cited by Boykoff (2011) as mediums that individuals use to relate to the world around them but also to learn about world problems. Mathiyazhangan *et al*. (2015) claimed that print media is a major source of information in developing regions such as India. It was such sentiments that propelled us to look at what print media had to say about FW. Despite these sentiments, the study uncovered that the use of print media has been extremely limited at least in the context of this research. We argue that this finding of decreased print media access and interest in and of itself is still a significant finding as it highlights the ever-evolving relationship between media and media consumers.

#### **4.4. RECOMMENDATIONS**

This study recommended that other facets of media i.e., new media, television and radio be considered and dissected with respect to FW perceptions and narratives. This study has also found that the aspects i.e., socio-economic status, gender etc., that influence the people of Makhanda vary in significance from one respondent to the other. It is also believed that this study has shown that media use and media preference are factors that influence the behaviours, perceptions, and narratives of individuals in regard to FW whether consciously or subconsciously. More importantly, this study has shown that aspects that affect FW perceptions and narratives do not operate in a vacuum and instead interact with each other in complex ways. More research that considers the subjective experiences of individuals and aspects that affect these experiences is required in other areas to ensure that the diverse perceptions and narratives of FW in South Africa are holistically represented. Such endeavours may allow for the formation of more context specific/tailored solutions in the

fight against FW. Additionally, such research may also aid in formulating new narratives and perceptions about the Global South, thereby pushing against more outdated perceptions and narratives about the region overall. This research has shown that the factors that affect FW perception and narratives in South Africa are idiosyncratic and that in order for these perceptions and narratives to be better understood one needs to ensure that they not only understand and incorporate the larger global forces such as globalisation and modernisation, but also that they incorporate the forces that have shaped the countries past. As it is by understanding the past, that allows us to understand the present and map out the future. Further studies can focus on perceptions and narratives of FW that are presented in social media platforms, such efforts would paint a more holistic picture of the different types of forces that are at play that shape the FW perceptions and narratives of people.

Since the research was centred around analysing the type of content that was presented by print media, the study used a framework that has been extensively used by social scientists to understand the implications of content within media (Entman, 1993; Entman, 2007; Boykoff and Laschever, 2011; Marufu and Yusuf, 2012). While this framework or theory is centered around understanding how perceptions and narratives are generally constructed by people, incorporating a number of different frameworks and theories would have allowed for more nuance in understanding the perceptions and narratives that were presented by Makhanda residents. For instance, in trying to understand the perceptions and narratives of FW it is recommend that other theories such as the cultural theory be used to dissect the cultural forces at play. Looking at the different perception and narratives of FW and the aspects that can affect these factors, the research included a pool of key informants who worked closely with food. This was done to see if proximity and exposure to food i.e., its preparation, transportation, etc., had any impact on the perceptions and narrative of individuals. These key informants were separate from the rest of the respondents that the study labelled the 'general population'. While key informants were included in this study their number was low. To ensure that the perceptions and narratives obtained from participants are not only more balanced but they are also more diverse. It is advised that future studies look into increasing the number of key informants that work closely in the food industry in their research.

## **4.5. CONCLUSION**

It is concluded that FW perceptions and narratives are influenced and shaped by a multitude of forces/aspects such as gender, socio-economic status, cultural practices, and beliefs as

well as exposure and use of media. The influence of media especially in shaping FW perceptions and narratives has been shown to be significant in this study. These findings should be taken as further validation to previous studies that have drawn a correlation between the types of perceptions that people have about FW, media use and people's buying behaviours. The evidence obtained in this research can be used in conjunction with other research i.e., research that looks at the drivers or causes of FW to formulate localised anti-FW strategies. Incorporating anti-FW content more consciously in the different medias may contribute to mitigating FW by providing more nuanced and holistic information about FW thus making the topic more salient than it currently is.

## REFERENCE LIST

- Abrahams, Z., Temple, N. J., Mchiza, Z. J., and Steyn, N. P., (2017). A study of food advertising in magazines in South Africa. *Journal of Hunger and Environmental Nutrition*, 12(3), pp. 429 – 441.
- Abreu Lopes, C. and Srinivasan, S., (2014). Africa's voices: Using mobile phones and radio to foster mediated public discussion and to gather public opinions in Africa. Centre of Governance and Human Rights: University of Cambridge.
- Ahakwa, I., Yang, J., Tackie, E. A. and Bankole, K., (2021). Exploring the impact of traditional communication channels on customer purchase decision: A case study of University Students in Ghana. *Business Review*, 1(1), pp. 31 – 44.
- Ahmed, S., Stewart, A., Smith, E., Warne, T. and Byker Shanks, C., (2021). Consumer perceptions, behaviors, and knowledge of food waste in a rural American state. *Frontiers in Sustainable Food Systems*, 5, pp. 734 – 785.
- Aal, W., Jarosz, L., and Carol Thompson. (2009). “Open Letter to Paul Collier, Professor of Economics and Director of the Center for the Study of African Economies, Oxford University, UK, in Response to ‘Politics of Hunger’”. Foreign Affairs (USA).
- Assadourian, E., (2010). Transforming cultures: From consumerism to sustainability. *Journal of Macromarketing*, 30(2), pp. 186 – 191.
- Athman, B., (2021). Northdale residents' plagued by electricity outages. *The Witness*, March, p. 2
- Bacchi, A., (2017). Hotel chains to cut down on food waste. *Pretoria News Weekend*, March, p. 1.
- Backstrom, K., (2006). Understanding recreational shopping, *International Review of Retail, Distribution and Consumer Research*, 16(2), pp. 143 – 158.
- Bagherzadeh, M., Inamura, M., and Jeong, H., (2014). Food waste along the food chain. *Food, Agriculture, and Fisheries Papers*, 71, pp. 1 – 28.
- Bega, S., (2021). SA wastes 10m tons of food a year. *Mail and Gaurdian*, August, p. 16.
- Bevan, C., (2009). *Putting up screens: A history of television in South Africa, 1929-1976*. Doctoral dissertation, University of Pretoria.
- Bewley, T., (2002). Interviews as a valid empirical tool in economics. *Journal of Socioeconomics*, 31(4), pp. 343 – 353.
- Blichfeldt, B. S., Mikkelsen, M., and Gram, M., (2015). When it stops being food. *Food, Culture, and Society*, 18(1), pp. 89 – 105.

- Block, L., Vallen, B. and Austin, M. P., (2022). Food waste (mis) takes: The role of (mis) perception and (mis) estimation. *Current Opinion in Psychology*, 46, pp. 1 – 7.
- Bonadonna, A., Matozzo, A., Giachino, C., and Peira, G., (2019). Farmer behavior and perception regarding food waste and unsold food. *British Food Journal*, 121(1), pp.89 – 103.
- Boczkowski, P., Mitchelstein, E., and Matassi, M. (2018). “News comes across when I’m in a moment of leisure”: Understanding the practices of incidental news consumption on social media. *New Media and Society*, 20(10), pp. 3523–3539.
- Bond, M., Meacham, T., Bhunnoo, R. and Benton, T., (2013). Food waste within global food systems. Swindon, UK: Global Food Security.
- Booyesen., J., (2016). 33% of food that's produced is wasted. *Cape Argus*, June, p. 1.
- Boykoff, M. T., (2011). Who speaks for the climate? making sense of media reporting on climate change. New York: Cambridge University Press.
- Boykoff, J., and Carrington, B., (2020). Sporting dissent: Colin Kaepernick, NFL activism, and media framing contests. *International Review for the Sociology of Sport*, 55(7), pp.829 – 849.
- Boykoff, J., and Laschever, E., (2011). The tea party movement, framing, and the US media. *Social Movement Studies*, 10(4), pp. 341 – 366.
- Brizi, A. and Biraglia, A., (2021). “Do I have enough food?” how need for cognitive closure and gender impact stockpiling and food waste during the COVID-19 pandemic: A crossnational study in India and the United States of America. *Personality and Individual Differences*, 168, pp. 1 – 6.
- Brown, G. W., (2008). Globalization is what we make of it: contemporary globalization theory and the future construction of global interconnection. *Political Studies Review*, 6(1), pp. 42 – 53.
- Browne, J. D., and Murphy, J. D., (2013). Assessment of the resource associated with biomethane from food waste. *Applied Energy*, 104, pp. 170 – 177.
- Bryant, R. L., and Goodman, M. K., (2004). Consuming narratives: the political ecology of “alternative” consumption. *Transactions of the Institute of British Geographers*, 29(3), pp. 344 – 366.
- Cantaragiu, R., (2019). The impact of gender on food waste at the consumer level. *Studia Universitatis Vasile Goldiș, Arad-Seria Științe Economice*, 29(4), pp. 41 – 57.
- Chakona, G., and Shackleton, C. M., (2017). Local setting influences the quantity of household food waste in mid-sized South African towns. *Plos One*, 12(12), pp. 1 – 20.

- Chiang C. F, Knight B., (2011). Media bias and influence: Evidence from newspaper endorsements. *Rev. Econ. Stud.* 78(3), pp. 795 – 820.
- Clarke, V., Braun, V., and Hayfield, N., (2015). Thematic analysis. *Qualitative Psychology: Practical Guide to Research Methods*, 3, pp. 222 – 248.
- Coen, R., (2008). Insider's report: Advertising expenditures. Paper presented by Universal McCann, December, p.179.
- Conrad, Z., and Blackstone, N. T., (2021). Identifying the links between consumer food waste, nutrition, and environmental sustainability: A narrative review. *Nutrition Reviews*, 79(3), pp.301 – 314.
- Coleman, R., McCombs, M., Shaw, D., and Weaver, D., (2009). Agenda setting. *The handbook of journalism studies*. New York: Routledge.
- Couldry, N., (2005). *Media rituals: A critical approach* (1<sup>st</sup> ed). London: Routledge.
- Crewe, L., (2001). The besieged body: Geographies of retailing and consumption. *Progress in Human Geography*, 25(4), pp. 629 – 640.
- Cronjé, N., Van der Merwe, I., and Müller, I. M., (2018). Household food waste: A case study in Kimberley, South Africa. *Journal of Consumer Sciences*, 46, pp. 1 – 9.
- Cox, A., (2013). Anger over deaths of 4 in building maze. *Star*, August, p. 2
- Da Costa, P., (2012). The growing pains of community radio in Africa. *Nordicom Review*, 33, pp. 135 – 147.
- Data.org*. (2023). Available at :<https://data.org/guides/getting-started-with-data-visualization>.
- DEA (Department of Environmental Affairs). (2009). Greenhouse as inventory South Africa 1990 to 2000: National inventory report. Compilation under the United Nations framework convention of climate change. Pretoria: Department of Environmental Affairs.
- DEA (Department of Environmental Affairs). (2010). National waste management strategy – first draft for public comments. Pretoria: Department of Environmental Affairs.
- Deacon, D., and Staney, J., (2014). Mediatization: Key concept or conceptual bandwagon?. *Media, Culture, and Society*, 36(7), pp. 1032 – 1044.
- Dimmick, J., Chen, Y., and Li, Z., (2004). Competition between the Internet and traditional news media: The gratification-opportunities niche dimension. *The Journal of Media Economics*, 17(1), pp. 19 – 33.
- Dowler, E., Kneafsey, M., Cox, R., and Holloway, L., (2009). Doing food differently: reconnecting biological and social relationships through care for food. *The Sociological Review*, 57(2), pp. 200 – 221.

- Dumbili, E. W., and Henderson, L., (2017). Mediating alcohol use in Eastern Nigeria: A qualitative study exploring the role of popular media in young people's recreational drinking. *Health Education Research*, 32(3), pp. 279 – 291.
- Dung Thi, N. B. D., Kumar, G., and Lin, C. Y., (2015). An overview of food waste management in developing countries: Current status and future perspective. *Journal of Environmental Management*, 157, pp. 220 – 229.
- Earthy, S., and Cronin, A., (2008). Narrative analysis. researching social life. London: University of Surrey.
- Eggerly, S., Vraga, E. K., Bode, L., Thorson, K., and Thorson, E., (2018). New media, new relationship to participation? A closer look at youth news repertoires and political participation. *Journalism and Mass Communication Quarterly*, 95(1), pp. 192–212.
- Entman, R. M., (1993). Framing: toward clarification of a fractured paradigm. *Journal of Communication*, 43(4), pp. 51 – 58.
- Entman, R. M., (2003). Projections of power: Framing news, public opinion, and US foreign policy. Chicago and London: University of Chicago Press.
- Entman, R. M., (2004). Doing news framing analysis: Empirical and theoretical perspectives. New York and London: Routledge.
- Entman, R. M., (2007). Framing bias: Media in the distribution of power. *Journal of Communication*, 57(1), pp. 163 – 173.
- Epstein, L. H., Paluch, R. A., Beecher, M. D., and Roemmich, J. N., (2008). Increasing healthy eating vs. reducing high energy dense foods to treat pediatric obesity. *Obesity*, 16(2), pp. 318 –326.
- Escobar-Tello, M. P., (2012). Book Review, " Who speaks for the climate? Making sense of media reporting on climate change": By MT Boykoff. *Environment and Planning A*, 44(11), pp. 2785 – 2786.
- Evans, D., (2011). Blaming the consumer—once again: The social and material contexts of everyday food waste practices in some English households. *Critical Public Health*, 21(4), pp. 429 – 440.
- Evans, D., (2012). Beyond the throwaway society: Ordinary domestic practice and a sociological approach to household food waste. *Sociology*, 46(1), pp. 46 – 56.
- Falasconi, L., Cicatiello, C., Franco, S., Segrè, A., Setti, M. and Vittuari, M., (2019). Such a shame!. A study on self-perception of household food waste. *Sustainability*, 11(1), pp. 1 – 13.

- Fishman, J. M., and Casarett, D., (2006). Mass media and medicine: When the most trusted media mislead. *Mayo Clinic Proceedings*, 81, pp. 291 – 293.
- Food and Agriculture Organization (FAO)., (1981). Food loss prevention in perishable crops. Rome: Unpublished report, agricultural service bulletin.
- Food and Agriculture Organization (FAO)., (2013). Food wastage footprint: Impact on natural resources. Summary report. Food and Agriculture Organization, p. 249. Available at: <http://www.fao.org/3/ar429e/ar429e.pdf> .
- Foundation, T., (2019). UN sounds dire pollution alert. *Pretoria News Weekend*, March, p. 4.
- Gbadamosi, A., (2014). Family consumption systems in Africa: The Routledge companion to business in Africa. New York: Routledge.
- Gbadamosi, A., (2019). Exploring the dynamics of consumerism in developing nations. London: University of East London.
- Gill, P., Stewart, K., Treasure, E., and Chadwick, B., (2008). Methods of data collection in qualitative research: Interviews and focus groups. *British Dental Journal*, 204(6), pp. 291 – 295.
- Gille, Z., (2012). From risk to waste: global food waste regimes. *The Sociological Review*, 60(2), pp. 27 – 46.
- Githahu, M., (2021). City told to atop pollution of Milnerton lagoon. *Cape Argus*, Febraury, p. 3.
- Gosling, W., (2009). Doubts raised about wether Western Cape will continue as major food producer. *Cape Times*, June, p. 4.
- Goodman, M. K., Littler, J., Brockington, D., and Boykoff, M., (2016). Spectacular environmentalisms: Media, knowledge, and the framing of ecological politics. *Environmental Communication*, 10(6), pp. 677 – 688.
- Graham, J., Nosek, B., Haidt, J., Iyler, R., Koleva, S., and Ditto, P. H., (2011). Mapping the moral domain. *Journal of Personality and Social Psychology*, 101(2), pp. 366 – 385.
- Graham- Rowe, E., Jessop, D. C., and Sparks, P., (2014). Identifying motivations and barriers to minimising household food waste. *Resources, Conservation and Recycling*, 84, pp. 15 – 23.
- Green, M. C., and Brock, T. C., (2000). The role of transportation in the persuasiveness of public narratives. *Journal of Personality and Social Psychology*, 79(5), pp. 701 – 721.

- Gustavsson, J., Cederberg, C., Sonesson, U., van Otterdijk, R., and Meybeck, A., (2011) Global food losses and food waste: Extent, causes and prevention. Study conducted for the international congress SAVE FOOD. At Interpack 2011, Düsseldorf, Germany. Rome: Food and Agriculture Organization of the United Nations.
- Halcoussis, D., and Lewenberg, A., (2003). The quantity and quality of radio broadcasting: Are small markets underprovided?. *International Journal of the Economics of Business*, 10 (3), pp. 347 – 357.
- Halford, J. C., Cooper, G. D., and Dovey, T. M., (2004). The pharmacology of human appetite expression. *Current Drug Targets*, 5(3), pp. 221 – 240.
- Hall, R., and Cousins, B., (2015). Commercial farming and agribusiness in South Africa and their changing roles in Africa's agro-food system. Cape Town: University of the Western Cape
- Halloran, A., Clement, J., Kornum, N., Bucatariu, C., and Magid, J., (2014). Addressing food waste reduction in Denmark. *Food Policy*, 49, pp. 294 – 301.
- Harris, J. L., Bargh, J. A., and Brownell, K. D., (2009). Priming effects of television food advertising on eating behavior. *Health Psychology*, 28(4), pp. 404 – 413.
- Havard. T. H. Chan. (2023). The nutrition source. Available: <https://www.hsph.harvard.edu/nutritionsource/sustainability/food-waste/>.
- Hengi, Y., and House, L., (2022). Consumers' perceptions and behaviour toward food waste across countries. *International Food and Agribusiness Management Review*, 25(2), pp. 197 – 209.
- Himmelheber, S., (2013). American wasteland: How America throws away nearly half of its food (and what we can do about It). *Journal of Progressive Human Services*, 24(2), pp. 165 – 177.
- Hoefnagels, N., Irvine, P. M., and Memela, S., (2022). Makhanda: Exploring the mise-en-scène of a city under threat. *Urban Forum*, 34, pp. 1 – 21.
- Holt, D., and Barkemeyer, R., (2012). Media coverage of sustainable development issues - attention cycles or punctuated equilibrium?. *Sustainable Development*, 20(1), pp. 1 – 17.
- Hoskins, A., (2009). Flashbulb memories, psychology, and media studies: Fertile ground for interdisciplinarity?. *Memory Studies*, 2(2), pp. 147 – 150.
- Hudson, H. E., Leclair, M., Pelletier, B. and Sullivan, B., (2017). Using radio and interactive ICTs to improve food security among smallholder farmers in Sub-Saharan Africa. *Telecommunications Policy*, 41(7-8), pp. 670 – 684.
- Ingavale, D., (2013). An impact of advertisements on purchase decision of youth with reference to consumer goods. *Advances in Management*, 3(1), pp. 18 – 22.

- Ioniță, I., (2017). No crumb shall be left behind. Perceptions of food waste across generations. *Journal of Comparative Research in Anthropology and Sociology*, 8(2), pp. 17 – 42.
- IStock.gettyimages*. (2023). Available at: <https://www.istockphoto.com/photos/newspapers-u>.
- Jarrold Ball and Associates (2001) Current waste management in the city of Johannesburg: a waste stream analysis of the general waste stream. DANCED environmental capacity building project, Johannesburg. Mini-project WM4 on metro-wide waste management planning – phase 1. Report no 1A. Johannesburg, South Africa: City of Johannesburg. Jamela, B., (2007). Battle of the smell. *The Daily Dispatch*, July, p. 4.
- Jereme, I. A., Siwar, C., Begum, R. A. and Talib, B. A., (2016). Addressing the problems of food waste generation in Malaysia. *International Journal of Advanced and Applied Sciences*, 3(8), pp. 68 – 77.
- Jones, C., (2011). “If I take my pills, I go hungry”: The choice between economic security and HIV /AIDS treatment in Grahamstown, South Africa. *Annals of Anthropological Practice*, 35(1), pp.67 – 80.
- Jung, J. Y., Lin, W. Y., and Kim, Y. C., (2012). The dynamic relationship between East Asian adolescents’ use of the internet and their use of other media. *New Media and Society*, 14(6), pp. 969 – 986.
- Kahn, T., (2010). Waste not, want not is a lesson stil to be learnt. *Business Day*, Septemember, p. 4.
- Kayan, J. M., and Yelsma, P., (2000) Displacement effects of online media in the sociotechnical context of households. *Journal of Broadcasting and Electronic Media*, 44(2), pp. 215 – 229.
- Kelly, B., Halford, J. C., Boyland, E. J., Chapman, K., Bautista-Castaño, I., Berg, C., Caroli, M., Cook, B., Coutinho, J. G., Effertz, T., and Grammatikaki, E., (2010). Television food advertising to children: A global perspective. *American Journal of Public Health*, 100(9), pp. 1730 – 1736.
- Khalid, M. Z., and Ahmed, A., (2014). A snapshot of role of newspapers in the contemporary newspeak. *Journal of Humanities and Social Science*, 19(5), pp. 6 – 11.
- Kiouis, S., Kim, J. Y., Ragas, M., Wheat, G., Kochhar, S., Svensson, E., and Miles, M., (2015). Exploring new frontiers of agenda building during the 2012 US presidential election preconvention period: examining linkages across three levels. *Journalism Studies*, 16(3), pp. 363 – 382.
- Kneafsey, M., Cox, R., Holloway, L., Dowler, E., Venn, L. and Tuomainen, H., (2009). Reconnecting consumers, producers, and food. exploring alternatives. Oxford and New York: Berg.

- Knowler, W., (2016). Expired food far from rotten. *The Herald*, December, p. 1.
- Koivupuro, H. K., Hartikainen, H., Silvennoinen, K., Katajajuuri, J. M., Heikintalo, N., Reinikainen, A. and Jalkanen, L., (2012). Influence of socio-demographical, behavioural and attitudinal factors on the amount of avoidable food waste generated in Finnish households. *International Journal of Consumer Studies*, 36(2), pp. 183 – 191.
- Kohl, J., (2008). Beyond the printed page: As newspapers move deeper into the mobile and online space, strategy checked in with Canada's national newspaper warriors to find out what's working. *Strategy*, pp. 27 – 29.
- Krueger, R. A., and Casey, M. A., (2014). Focus groups: A practical guide for applied research. California: Sage publications.
- Kumar, A., and Singh, S., (2013). Domestic solid waste generation – a case study of semi urban area of Kathua district. *International Journal of Scientific Research Publications*, 3(5), pp. 2250 – 3153.
- Lahath, A., Omar, N. A., Ali, M. H., Tseng, M. L., and Yazid, Z., (2021). Exploring food waste during the COVID-19 pandemic among Malaysian consumers: The effect of social media, neuroticism, and impulse buying on food waste. *Sustainable Production and Consumption*, 28, pp. 519 – 531.
- Lankford, A., (2018). Do the media unintentionally make mass killers into celebrities? An assessment of free advertising and earned media value. *Celebrity Studies*, 9 (3), pp. 340 – 354.
- Lazell, J., (2016). Consumer food waste behaviour in universities: Sharing as a means of prevention. *Journal of Consumer Behaviour*, 15(5), pp. 430 – 439.
- Lee, E. B., Lee, S. G., and Yang, C. G., (2017). The influences of advertisement attitude and brand attitude on purchase intention of smartphone advertising. *Industrial Management and Data Systems*, 117(6), pp. 1011 – 1036.
- Leitch, A. M., and Bohensky, E. L., (2014). Return to 'a new normal': Discourses of resilience to natural disasters in Australian newspapers 2006–2010. *Global Environmental Change*, 26, pp. 14 – 26.
- Luhanga, P. B., (2007). Living next door to a waste dump. *Saturday Weekend Argus*, August, p. 13.
- Lundqvist, J., De Fraiture, C., and Molden, D., (2008). Saving water: from field to fork – Curbing Losses and Wastage in the Food Chain. SIWI Policy Brief. SIWI.
- Lusk, J. L., (2017). Consumer research with big data: applications from the food demand survey. *American Journal of Agricultural Economics*, 99(2), pp. 303 – 320.

- Lyndhurst, B., (2007). Food behaviour consumer research: Quantitative Phase. United Kingdom: Waste and Resources Programme (WRAP).
- Malonde, Z., (2019). New ready meal service aims to cut food waste. *The Herald*, September, p. 3.
- Marais, M. L., Smit, Y., Koen, N., and Lötze, E., (2017). Are the attitudes and practices of foodservice managers, catering personnel and students contributing to excessive food wastage at Stellenbosch University?. *South African Journal of Clinical Nutrition*, 30(3), pp. 1 – 8.
- Martins, J., (2007). The South African consumer market. *Global Journal of Business Research* 1(1), pp. 168 – 183.
- Masterman, L., (2001). A rationale for media education, in Kubey, information age: Current perspectives. Information and behaviour, 6. New Brunswick, NJ: Transaction publishers
- Marinescu, V., Fox, B., Cristea, D., Roventa-Frumusani, D., Marinache, R., and Branea, S., (2021). Talking about sustainability: how the media construct the public's understanding of sustainable food in Romania. *Sustainability*, 13(9), pp. 1 – 28.
- Matsaganis, M. D., and Payne, J. G., (2005). Agenda setting in a culture of fear: The lasting effects of September 11 on American politics and journalism. *American Behavioural Scientist*, 49(3), pp. 379 – 392.
- Mathiyazhagan, T., Kaur, J., Ravindhar, M. and Devrani, G. P., (2015). Traditional media of communication. *International journal of social science*, 4(1), pp. 159 – 169.
- Matamoros, D., and Peñafiel-Saiz, C., (2019). The use of traditional media for public communication about medicines: A systematic review of characteristics and outcomes. *Health Communication*, 34(4), pp. 415 – 423.
- Manson, H., (2017). The biggest-circulating newspapers in SA. Available: <http://www.marklives.com/2017/02/abc-analysis-q4-2016-the-biggestcirculating-newspapers-in-sa>.
- Marx-Pienaar, N. J. M. M., and Erasmus, A. C., (2014). Status consciousness and knowledge as potential impediments of households' sustainable consumption practices of fresh produce amidst times of climate change. *International Journal of Consumer Studies*, 38(4), pp. 419 – 426.
- Mashala, P., (2012). Mountains of food and empty plates. *Farmers Weekly*, October, p. 32.
- McCluskey, J. J., Kalaitzandonakes, N., and Swinnen, J., (2016). Media coverage, public perceptions, and consumer behavior: Insights from new food technologies. *Annual Review of Resource Economics*, 8, pp. 467 – 486.

- McCullough, E. B., Pingali, P. L., and Stamoulis, K. G., (2008). The transformation of agrifood systems: globalization, supply chains and smallholder farmers. London: Food and Agriculture Organisation.
- McLead, D. M., Wise, D., and Perryman, M., (2017). Thinking about the media: A review of theory and research on media perceptions, media effects perceptions, and their consequences. *Review of Communication Research*, 5, pp. 35 – 83.
- Mchiza, Z., Temple, N., Steyn, N., Abrahams, Z., and Clayford, M., (2013). Content analysis of television food advertisements aimed at adults and children in South Africa. *Public Health Nutrition*, 16(12), pp. 2213 – 2220.
- Mekonnen, M. M., and Hoekstra, A., (2011). National water footprint accounts: the green, blue and grey water footprint of production and consumption Volume 1: Main report. Enschede and Delft: The United Nations Educational, Scientific and Cultural Organization (UNESCO)- Institute for Water Education.
- Melikoglu, M., Lin, C. S. K., and Webb, C., (2013). Analysing global food waste problem: pinpointing the facts and estimating the energy content. *Central European Journal of Engineering*, 3(2), pp. 153 – 164.
- Misiak, M., Kruger, D., Kruger, J. S. and Sorokowski, P., (2020). Moral judgments of food wasting predict food wasting behavior. *British Food Journal*, 122(11), pp. 3547 – 3565.
- Modise, L., and Mtshiselwa, N., (2013). The Natives Land Act of 1913 engineered the poverty of black South Africans: A historico-ecclesiastical perspective. *Studia Historiae Ecclesiasticae*, 39(2), pp. 359 – 378.
- Mogaji, E., Czarnecka, B., and Danbury, A., (2018). Emotional appeals in UK business-to-business financial services advertisements. *International Journal of Bank Marketing*, 36(1), pp. 208 – 227.
- Mortimer, K., and Grierson, S., (2010). The relationship between culture and advertising appeals for services, *Journal of Marketing Communications*, 16(3), pp. 149 – 162.
- McMurria, J., (2017). *Republic on the Wire: Cable Television, Pluralism, and the Politics of New Technologies, 1948-1984*. Rutgers University Press.
- Mustafa, S., and Al-Abdallah, G., (2020). The evaluation of traditional communication channels and its impact on purchase decision. *Management Science Letters*, 10(7), pp. 1521 – 1532.

- Mutumbi, U., Thondhlana, G., and Ruwanza, S., (2021). Reported behavioural patterns of electricity use among low-income households in Makhanda, South Africa. *Sustainability (Switzerland)*, 13(13), pp. 1 – 17.
- Muller, M., Schreiner, B., Smith, L., van Koppen, B., Sally, H., Aliber, M., Cousins, B., Tapela, B., Van der Merwe-Botha, M., Karar, E. and Pietersen, K., (2009). Water security in South Africa. Development planning division. *Working Paper Series*, 12, pp. 1 – 41.
- Myburgh, J., (2011). SA's daily newspapers in decline. *Politics Web*
- Myers, M., (2008). Radio and development in Africa. A concept paper prepared for the International Development Research Centre (IDRC) of Canada. Wardour, Wiltshire: International Development Research Center (IDRC).
- Nagadeepa, C., Selvi, J. T., and Pushpa, A., (2015). Impact of sales promotion techniques on consumers' impulse buying behavior towards apparels at Bangalore. *Asian Journal of Management Sciences and Education*, 4(1), pp. 116 – 123.
- Nahman, A., de Lange, W., Oelofse, S., and Godfrey, L., (2012). The costs of household food waste in South Africa. *Waste Management*, 32(11), pp. 2147 – 2159.
- Nelson, T. E., Clawson, R. A., and Oxley, Z.M., (1997). Media framing of a civil liberties conflict and its effect on tolerance. *American Political Science Review*, 91(3), pp. 567 – 583.
- Newell, J., (2007). Revisiting Schramm's radio town: Media displacement and saturation. *Journal of Radio Studies*, 14(1), pp. 3 – 19.
- Nie, N. H., and Hillygus, D. S., (2002). The impact of internet use on sociability: Time-diary findings. *IT and Society* 1(1): pp. 1 – 20.
- Nikolaus, C. J., Nickols-Richardson, S. M., and Ellison, B., (2018). Wasted food: A qualitative study of US young adults' perceptions, beliefs, and behaviours. *Appetite*, 130, pp. 70 – 78.
- Nini, A. (2023). *HeraldLive*. Available at: <https://www.heraldlive.co.za/news/2016-05-19grahamstown-set-to-be-renamed-makhanda,>.
- Ochola, G. O., (2018). Natural resource use dilemma: A review of effects of population growth on natural resources in Kenya. *International Journal of Environmental Sciences and Natural Resources*, 13(4), pp. 1 – 4.
- Odine, M., (2013). Use of radio to promote culture in South Africa. *Journal of Radio and Audio Media*, 20(1), pp. 181 – 196.

- Oelofse, S. H., (2014). Food waste in South Africa: Understanding the magnitude, water footprint and cost. The Council for Scientific and Industrial Research: Natural Resources and the Environment.
- Oelofse, S. H., and Nahman, A., (2013). Estimating the magnitude of food waste generated in South Africa. *Waste Management and Research*, 31(1), pp. 80 – 86.
- Oelofse, S., Nahman, A., Baig, M. B., Saleemdeeb, R., Nizami, A. S., and Reynolds, C., (2020). Food waste within South Africa and Saudi Arabia. Handbook of food waste. London: Routledge.
- Ogola, J. S., Chimuka, L. and Tshivhase, S., (2011). Management of municipal solid wastes: A case study in Limpopo Province, South Africa. *Integrated Waste Management*, 1, pp. 1 – 16.
- Okunade, E. O., (2007). Effectiveness of extension teaching methods in acquiring knowledge, skill and attitude by women farmers in Osun State. *Journal of Applied Sciences Research*, 3(4), pp. 282 – 286.
- Painter, K., Thondhlana, G., and Kua, H. W., (2016). Food waste generation and potential interventions at Rhodes University, South Africa. *Waste Management*, 56. pp. 491 – 497.
- Pamla, A., Thondhlana, G., and Ruwanza, S., (2021). Persistent droughts and water scarcity: households' perceptions and practices in Makhanda, South Africa. *Land*, 10(6). pp. 1 – 13.
- Parfitt, J., Barthel, M., and MacNaughton, S., (2010). Food waste within food supply chains: Quantification and potential for change to 2050. *Philosophical transactions of the royal society. Biological sciences*, 365(1554). pp. 3065 – 3081.
- Parker, F., (2009). A waste of energy. *The Mail and Guardian*, April, p. 32
- Peterson, E., (2021). Not dead yet: Political learning from newspapers in a changing media landscape. *Political Behavior*, 43, pp. 339 – 361.
- Phasha, L., Molelekwa, G. F., Mokgobu, M. I., Morodi, T. J., Mokoena, M. M., and Mudau, L. S., (2020). Influence of cultural practices on food waste in South Africa—a review. *Journal of Ethnic Foods*, 7(1), pp. 1 – 13.
- Pilcher, J., (1994). Mannheim's sociology of generations: An undervalued legacy. *British Journal of Sociology*, pp. 481 – 495.

- Porten-Chee, P., Kunst, M., Vromen, A., and Vaughan, M., (2023). The effects of narratives and popularity cues on signing online petitions in two advanced democracies. *Information, Communication and Society*, 26(4), pp. 826 – 846.
- Pollan, M., (2007). *Unhappy Meals*. The New York Times Magazine, January, pp. 1 – 19. Pretty, J., (2002). *Agri-culture: Reconnecting people, land, and nature*. London: Earthscan.
- Principato, L., Secondi, L., and Pratesi, C. A., (2015). Reducing food waste: An investigation on the behaviour of Italian youths. *British Food Journal*, 117(2), pp. 731 – 748.
- Qayyum, M. A., Williamson, K., Liu, Y. H., and Hider, P., (2010). Investigating the news seeking behavior of young adults. *Australian Academic and Research libraries*, 41(3), pp. 178 – 191.
- Quested, T. E., Marsh, E., Stunell, D., and Parry, A. D., (2013). Spaghetti soup: The complex world of food waste behaviours. *Resources, Conservation and Recycling*, 79, pp. 43 – 51
- Rabothatha, A., (2017). Intelligent way to save. *The New Age*, February, p. 1.
- Raeymaeckers, K., (2004). Newspaper editors in search of young readers: Content and layout strategies to win new readers. *Journalism Studies*, 5(2), pp. 221 – 232.
- Rajan, J., Fredeen, A. L., Booth, A. L., and Watson, M., (2018). Measuring food waste and creating diversion opportunities at Canada's Green University TM. *Journal of Hunger and Environmental Nutrition*, 13(4), pp. 573 – 586.
- Rajagopal, A., (2011). Impact of radio advertisements on buying behaviour of urban commuters. *International Journal of Retail and Distribution Management*, 39(7), pp. 480 – 503.
- Richards, J. I., and Curran, C. M., (2002). Oracles on" advertising": Searching for a definition. *Journal of Advertising*, pp. 63 – 77.
- Robinson, T. N., Saphir, M. N., Kraemer, H. C., Varady, A., and Haydel, K. F., (2001). Effects of reducing television viewing on children's requests for toys: A randomized controlled trial. *Journal of Developmental and Behavioral Pediatrics*, 22(3), pp. 179 – 184.
- Russo, V., Valesi, R., Gallo, A., Laureanti, R., and Zito, M., (2020). The theatre of the mind: The effect of radio exposure on tv advertising. *Social Sciences*, 9(7), pp. 1 – 23.
- Saikia, P. K., (2018). Representation of food in popular culture. *American International Journal of Research in Humanities, Arts, and Social Sciences*, 22(1), pp. 18 – 21.
- Saleh, H., (2017). Implementation Of The Green Advertising Media (Gam) To Increase Product Sales Volume (Psv) In Malaysia Product Market. *Economic and Social Development: Book of Proceedings*. Malacca: Technical University of Malaysia Melaka.
- Schramm, W., Lyle, J., and Parker, E. B., (1961). *Television in the lives of our children*.

Stanford, CA: Stanford University Press.

- Shaikh, N. I., Hada, M., and Shrestha, N., (2019). Allocating spending on digital-video advertising: A longitudinal analysis across digital and television. *Journal of Advertising Research*, 59(1), pp. 14 – 26.
- Silvennoinen, K., Heikkilä, L., Katajajuuri, J. M., and Reinikainen, A., (2015). Food waste volume and origin: Case studies in the Finnish food service sector. *Waste Management*, 46, pp. 140 – 145.
- Smith, S. W., Atkin, C. K., Martell, D., Allen, R., and Hembroff, L., (2006). A social judgment theory approach to conducting formative research in a social norms campaign. *Communication Theory*, 16(1), pp. 141 – 152.
- Smithers, L. G., Haag, D. G., Agnew, B., Lynch, J., and Sorell, M., (2018). Food advertising on Australian television: Frequency, duration and monthly pattern of advertising from a commercial network (four channels) for the entire 2016. *Journal of Paediatrics and Child Health*, 54(9), pp. 962 – 967.
- Snowball, C., (2008). Teenagers talking about reading and libraries. *Australian Academic and Research Libraries*, 39(2), pp. 106 – 118.
- Spencer, A., (2018). Want amid plenty: The capitalist paradox of hunger and food waste. Doctoral dissertation. Oregon: Marylhurst University.
- Stack, M., and Kelly, D. M., (2006). Popular media, education, and resistance. *Canadian Journal of Education*, 29(1), pp. 5 – 26.
- Stewart, K., Gill, P., Chadwick, B., and Treasure, E., (2008). Qualitative research in dentistry. *British Dental Journal*, 204(5), pp. 235 – 239.
- Steenkamp, H., (2016). The influence of load shedding on the productivity of hotel staff in Cape Town, South Africa. *Expert Journal of Business and Management*, 4(2), pp. 69 – 77.
- Story, M., and French, S., (2004). Food advertising and marketing directed at children and adolescents in the US. *International Journal of Behavioural Nutrition and Physical Activity*, 1, pp. 1 – 17.
- Stuckey, H. L., (2013). Three types of interviews: Qualitative research methods in social health. *Journal of Social Health and Diabetes*, 1(2), pp. 56 – 59.
- Sutinen, U. M., and Närvänen, E., (2022). Constructing the food waste issue on social media: A discursive social marketing approach. *Journal of Marketing Management*, 38(3-4), pp. 219 – 247.

- Tao, J., (2020). The Influence of message and audio modalities in augmented reality mobile advertisements on consumers' purchase intention. Doctoral dissertation. California: San Jose State University.
- Tariq, S., Tariq, A., Raweem, A., Tahira, H., Amjad, J., and Nauman, K., (2023). Impact of social media advertisement on customer purchase intention: A sequential mediation analysis. *Abasyn University Journal of Social Sciences*, 16(1), pp. 1 – 11.
- Tate, A., and Smallwood, C., (2021). Comparing the efficiency of paper-based and electronic data capture during face-to-face interviews. *Plos One*, 16(3), pp. 1 – 13.
- Temple, N. J., Steyn, N. P., and Nadomane, Z., (2008). Food advertisements on children's programs on TV in South Africa. *Nutrition*, 24(7-8), pp. 781.
- Tettey, W. J., Mano, W., Bosch, T., Davis, S. R., Wolters, S., Lekgoathi, S. P., Straus, S., Chibita, M. B., Moorman, M. J., Schulz, D. E., and Coplan, D., (2011). Radio in Africa: Publics, cultures, communities. Johannesburg: Wits University Press.
- Teoh, C. W., Koay, K. Y., and Chai, P. S., (2021). The role of social media in food waste prevention behaviour. *British Food Journal*, pp. 1 – 17.
- Thompson, K., and Haigh, L., (2017). Representations of food waste, in reality, food television: An exploratory analysis of Ramsay's kitchen nightmares. *Sustainability (Switzerland)*, 9(7), pp. 1 – 10.
- Thyberg, K. L., and Tonjes, D. J., (2016). Drivers of food waste and their implications for sustainable policy development. *Resources, Conservation and Recycling*, 106, pp. 110 – 123.
- Udoakpan, N., and Tengeh, R. K., (2020). The impact of over-the-top television services on pay-television subscription services in South Africa. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(4), pp. 1 – 28.
- Von Kameke, C., and Fischer, D., (2018). Preventing household food waste via nudging: An exploration of consumer perceptions. *Journal of Cleaner Production*, 184, pp. 32 – 40.
- Watson, M., and Meah, A., (2013). Food waste and safety: Negotiating conflicting social anxieties into the practices of domestic provisioning. *Sociol Rev*, 60, pp. 102 – 120.
- Weerathunga, A. K., and Pathmini, M. G. S., (2015). Impact of sales promotion on consumer's impulse buying behaviour (IBB): Study in supermarkets in Anuradhapura City. Mihintale: Rajarata University of Sri Lanka.

- Weaver, D., McCombs, M., Shaw, D. L., (2004). Agenda-setting research: Issues, attributes, and influences. *Handbook of political communication research*. London: Routledge Communication Series.
- Weaver, D. H., (1977). Political issues and voter need for orientation. The emergence of American political issues: The agenda-setting function of the press. New York: Routledge.
- Withanage, S. V., Dias, G. M., and Habib, K., (2021). Review of household food waste quantification methods: Focus on composition analysis. *Journal of Cleaner Production*, 279(2021), pp. 1 – 13.
- World Bank. (2017). World development indicators database: 2017. *The World Bank group*.
- Yioutas, J., and Segvic, I., (2003). Revisiting the Clinton/Lewinsky scandal: The convergence of agenda setting and framing. *Journalism and Mass Communication Quarterly*, 80(3), pp. 567 – 582.
- Yusuf, S. F. G., Krul, K., and Marufu, G., (2016). Representation of agricultural issues in South African newspapers: A content analysis. *Journal of Communication*, 7(2), pp. 287 – 295.
- Zepeda, L., and Balaine, L., (2017). Consumers' perceptions of food waste: A pilot study of US students. *International Journal of Consumer Studies*, 41(6), pp. 627 – 637.

## Appendix A: Food focus group discussion guide

Number of participants in session: \_\_\_\_\_ Session no: \_\_\_\_\_

1. What do you regard as food waste? How would you define it?

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2. In your opinion what are the causes of FW?

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3. What do your family and friends think about food waste?

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4. Do you agree with what they are saying, or do you agree?

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5. How does wasting food make you feel?

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6. Have you seen anything or heard anything that speaks about food waste on radio, television, or newspapers, if you have what was this content about?

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7. Do you think that food waste is good or bad or do you not have any specific feelings toward it?

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8. Why do you think that food waste makes you feel this way?

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9. From what you have seen from the media, would you say that FW is important? Please elaborate.

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10. Do you think that it's better to get content about FW via the TV, the radio, or newspapers?  
Why?

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11. Out of television, radio, and newspapers which media do you use the most and which do you prefer?

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## Appendix B: Semi-structured one-on-one interview guide

Participant no: \_\_\_\_\_ Age: \_\_\_\_\_ Gender: \_\_\_\_\_

1. What would you define as food waste?

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2. Do you think that food waste is a big problem? If so, why? If not, why?

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3. If you could estimate how much you see content about food waste on your preferred media?  
How often would you say you see it?

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4. Would your friends and family have the same answer as you? Why do you think that is?

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5. From your experience, how would you say the topic of food waste has been represented in print media?

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6. Do you think that the way in which food waste has been depicted in print media has changed in the last five years? How so?

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7. Would you say that you agree with the messages that are presented by print media about food waste? Why?

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8. Do you think that there is a difference in the way that you understand food waste and the way that the media represents it? Can you please give me an example?
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