

“Influence of Urbanization and Fast Food Consumption on Human Health and Environmental Sustainability in and Around the Mangalore Region”

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Abstract: This thesis investigates the dual impact of rapid urbanization and increasing fast food consumption on public health and environmental sustainability in Mangalore. As the city grows due to migration and development, significant lifestyle and dietary changes are occurring, with more people turning to fast food driven by hectic schedules and changing cultural norms. This shift has led to a rise in lifestyle-related diseases such as obesity, diabetes, and cardiovascular problems. Simultaneously, the expansion of fast food outlets contributes to environmental challenges, including increased plastic waste, pollution, and the reduction of green spaces caused by urban sprawl and inadequate waste management. A survey of 300 Mangalore residents found that while fast food is favored for its convenience and taste, traditional home-cooked meals are still preferred by many. The respondents showed considerable awareness of the health and environmental risks associated with fast food and expressed a desire for healthier food options, improved waste disposal, and more sustainable food systems. The study emphasizes the need for a balanced urban development strategy that integrates health and environmental concerns, promoting traditional diets and raising public awareness about the dangers of fast food. It also advocates for eco-friendly business practices and calls for stronger government regulations to oversee the fast food industry and ensure responsible urban growth. These findings aim to guide policymakers, communities, and individuals toward creating a healthier, more sustainable future for Mangalore amid ongoing urban transformation.

Keywords: Urbanization, Fast Food consumption, Public health, environmental sustainability.

I. Introduction

Mangalore, a vibrant coastal city in Karnataka, has seen rapid urban development in recent years, attracting people from rural areas in search of better opportunities. As the population grows and infrastructure improves, the city has experienced significant lifestyle changes. One of the most notable shifts is the rise in fast food consumption, especially among younger residents. While urbanization has brought many benefits, it has also introduced public health concerns and environmental challenges that demand urgent attention.

The popularity of fast food is fueled by fast-paced urban lifestyles, long working hours, and the convenience of delivery services. However, these foods are often high in sugar, salt, and unhealthy fats, contributing to rising rates of obesity, diabetes, and heart disease. At the same time, the growing preference for fast food is displacing traditional, home-cooked meals that are typically more nutritious and culturally significant. This dietary shift, along with expanding urban infrastructure, is putting pressure on the environment through increased waste, especially plastic packaging, and the loss of green spaces.

This study highlights the strong connection between Mangalore's urban growth, changing food habits, and their impact on public health and the environment. It calls for a balanced approach that includes public education, the revival of traditional diets, improved waste management, and the protection of natural spaces. By adopting stronger policies and involving the community in sustainable development efforts, Mangalore can grow in a way that supports both its people and the environment. These insights can also guide similar efforts in other rapidly developing Indian cities.

Objectives of the study

The following are the objectives of coined for the present study:

- To examine the impact of urbanization on dietary habits, with a focus on the rise of fast-food consumption and its implications for human health.
- To investigate the environmental sustainability challenges posed by the fast-food industry, including resource consumption, waste generation, and greenhouse gas emissions.
- To explore the reciprocation between urbanization, fast-food consumption, and environmental sustainability
- To identifying potential strategies to mitigate health and environmental impacts.

Scope of the study

This study investigates how urbanization in Mangalore is shaping lifestyle changes, particularly in fast food consumption. It examines the connection between increased fast food intake and rising non-communicable diseases like obesity, diabetes, and heart conditions. The research also explores the environmental effects of fast food culture, including waste, packaging pollution, and carbon emissions. It considers how factors like age, gender, occupation, and income influence food choices and awareness. The goal is to offer local recommendations for healthier, more sustainable living and inform policies to address urbanization's health and environmental challenges.

Need of the study

This study is important due to Mangalore's rapid urbanization and increasing reliance on fast food, which is linked to rising health issues like obesity and diabetes, as well as environmental problems from waste and carbon emissions. Despite these growing concerns, there is limited local research on their impact. This study aims to fill that gap by informing policies related to public health, urban planning, and environmental sustainability. It also seeks to raise awareness about the hidden costs of fast food and promote healthier, more sustainable choices.

II. Literature review

- ❖ **K. Dutta, Sanghamitra Ghosal, Moumita Das (2025):** In their study “**A concise review on fast food consumption and its health implications**” they explain how fast food is becoming more popular, especially among young people. This is mainly because fast food is quick, cheap, and tasty. Advertising and peer pressure also make it more appealing to kids and teens. While not all fast food is bad, most of it is high in calories, fat, sugar, and processed ingredients, which can lead to health problems like obesity, diabetes, and other diseases especially in cities. Urbanization and globalization have changed how people eat, with many now choosing fast food and following Western eating habits. Although eating habits vary in different cultures, the trend of eating high-calorie food is happening worldwide. The study warns that fast food is a major health risk for young people and calls for better food education, healthier options, and more public awareness. It says that a strong food and health policy is needed to reduce the long-term harm of unhealthy diets.
- ❖ **Noella James (2024):** In the study “**Urbanization and Its Impact on Environmental Sustainability**” it examined how urbanization impacts the environment using existing books, reports, and online data, making it a cost-effective approach. It found that urban growth causes issues like loss of natural habitats, resource overuse, pollution, and social inequality but also creates opportunities for improvement. The study recommends better urban planning, cleaner technologies, and nature conservation to promote sustainability. It suggests applying theories like Urban Ecology and the Environmental Kuznets Curve for future research. Key solutions include clean energy, improved water and waste management, equitable development, and increased environmental education. With these steps, cities can become greener and healthier for current and future generations.
- ❖ **Sandeep K. Tyagi, Vikas Kumar, Dharmendra Kumar (2023):** In the study “**Environmental health quality and the consequences of urbanization: a review**” This study explores how urbanization affects the environment and public health. As people move to cities for better opportunities, urban areas expand, increasing pollution, waste, and loss of natural spaces. These issues especially impact poorer residents, causing health problems like asthma and waterborne diseases. While urbanization can boost economic growth, it also poses serious risks. The study highlights the need for careful urban planning and strong policies. Proper management is crucial to balance development with environmental protection and public health.
- ❖ **Priyanka Athavale, Nehaa Khadka, Shampa Roy, Piyasree Mukherjee, Deepika Chandra Mohan, Bathsheba Turton, Karen Sokal-Gutierrez (2020):** In the study “**Early childhood junk food consumption, severe dental caries, and undernutrition: a mixed-methods study from Mumbai, India**”, it highlights how globalization has led to a dietary shift toward sugary, processed foods, increasing early childhood caries (ECC) and malnutrition. Conducted in low-income Mumbai areas, the study involved 959 children aged 6 months to 6 years. Findings showed that 80% lived near junk-food outlets, over 50% consumed sugary snacks daily, and 50% had ECC. Among them, 19% had severe decay, 27% experienced pain, and 56% were malnourished. Focus groups revealed contributing factors like junk-food accessibility, busy lifestyles, and poor dental care. The study emphasizes the need for policies to limit junk-food marketing, improve oral health services, and educate families to address ECC and undernutrition together.
- ❖ **Nitin Joseph, Maria Nelliyanil, Sharada Rai, Raghavendra Babu YP, Shashidhar M Kotian, Tanima Ghosh, Manisha Singh (2015):** In the study “**Fast food consumption pattern and its association with overweight among high school boys in Mangalore city of southern India**” it examined fast food habits, health risk awareness, and links to overweight among 300 boys aged around 13.5 years. It found that 97.3% consumed fast food, with 14.4% eating it daily. About 13.7% were overweight and 2.7% obese. Most students were introduced to fast food through TV ads, and over half chose it due to boredom with home-cooked meals. Despite 62% being aware of its health risks, high consumption persisted. Parental fast-food habits significantly influenced children's intake. Poor fruit and vegetable consumption was also noted. A strong link was found between frequent fast-food consumption and overweight ($p=0.003$). The study highlights the need for nutrition education in schools and healthier food practices at home to combat obesity in adolescents.

- ❖ **Vinita Tomer, Sonika Chaudhary (2023):** In the study “Fast food consumption impact on physical health of adolescent girls” highlights the harmful health effects of rising fast-food consumption among adolescents, particularly increased weight gain and insulin resistance. It found that frequent fast-food intake consistently led to these negative outcomes. Key factors include aggressive marketing targeting young people and peer pressure, which strongly influence adolescent eating habits. With rapid growth of the fast-food industry in India and increased exposure to unhealthy food ads, the problem has worsened. The study calls for urgent interventions, including stricter advertising regulations and improved health education, to protect adolescents from the long-term health risks of fast-food consumption.
- ❖ **Setha low (2022):** Highlights the global rise in fast food consumption, especially among young adults and more commonly among men. Key factors driving this trend include convenience, accessibility, lifestyle habits, cravings, and family or social influences. While fast food is affordable and time-saving, its long-term consumption is linked to serious health issues such as obesity, heart disease, diabetes, mental health disorders, and even early death. Short-term effects include digestive issues, inflammation, and reduced physical performance. Social issues like poverty and food insecurity also contribute to higher fast-food intake. Despite some benefits, the study stresses the need for future research into fast food’s nutritional content and calls for health interventions to reduce its negative impact on society.

Conceptual framework

Mangalore is growing rapidly as more people move there seeking better jobs, education, and healthcare. This population increase has improved infrastructure such as roads, hospitals, and schools. However, the city also faces challenges related to public health and the environment because of this fast urban growth.

Busy urban lifestyles have led to more fast food consumption, especially among young people and working professionals. Fast food is convenient and affordable, but eating it regularly is linked to serious health issues like obesity, diabetes, and heart disease. The rise of fast food outlets and food delivery services has made unhealthy eating habits more common.

Urbanization also causes environmental problems, including pollution, traffic congestion, and the loss of natural spaces. Fast food packaging adds to plastic waste, while construction for new buildings reduces green areas and harms ecosystems. These environmental problems affect both nature and the quality of life for Mangalore’s residents.

Education and awareness play an important role in improving health by encouraging better food choices. Government policies and programs, such as waste management initiatives and plastic use regulations, help reduce environmental damage. Efforts like the Swachh Bharat Mission aim to create cleaner and healthier urban spaces.

Overall, this study shows that rapid urban growth, changing diets, health issues, and environmental harm are closely linked in Mangalore. To build a sustainable future, it is important to promote balanced eating habits, protect natural resources, improve waste management, and involve the community. With cooperation between citizens, policymakers, and businesses, Mangalore can grow while safeguarding people’s health and the environment.

III. Research methodology

The study is an empirical one using both secondary and primary data. Analysis of secondary data involved a comprehensive literature review of published and semi-published sources. The study encompassed journals, magazines, and reports from diverse committees. The micro-level empirical elements of the research study are based on a field survey that was shared with people of rural as well as urban areas for their response. The study was carried out with a structured questionnaire shared with the public with special reference to the Mangalore region.

- ❖ Study area: The study has been undertaken only in and around Mangalore Taluk.
- ❖ Sample size: A sample size of 300 respondents has been taken for the study by applying convenient sampling techniques.
- ❖ Method of data collection: An online tool called Google Form Survey was used to gather the data.
- ❖ Timing of data collection: Data was gathered from 100 respondents using Google forms between December 29 and March 29.
- ❖ Tools used for data analysis: Data analysis is done through simple statistical methods. The relevant data are presented in appropriate tables in this paper. Some of the relevant and interesting data are presented in the form of tables and percentages.

Limitations of the study

This study has some limitations. It surveyed only 300 people from Mangalore Taluk, which may not represent the whole district or other regions with different cultures. Since it was done at one time, it can’t show changes over time or prove cause and effect. It focused on some environmental issues but missed others like biodiversity loss. Also, changes in awareness from media or campaigns might affect future relevance. These limits show the need for careful planning to make the findings reliable.

Analysis and interpretation

- ❖ According to study data, the survey had 300 participants, mostly females (183) and a large number under 18 years old (162), indicating that many were students. Most respondents were either students (150) or employed individuals (123), with no representation from retired or other professions. A majority lived in urban areas (171), while the rest were from rural (66) and semi-urban (63) regions. This shows that the survey mainly reflects the views of young, urban, and educated people. It highlights how modern city life is closely linked to changes in eating habits, health awareness, and environmental concerns in Mangalore.
- ❖ The data highlights that most people eat fast food only occasionally, indicating it's enjoyed once in a while rather than regularly. A significant portion consumes it a few times a week, showing a moderate habit. Only a few people rely on fast food daily, while some rarely or never eat it. Overall, fast food is popular but not a daily choice for most, reflecting sporadic and balanced consumption patterns.
- ❖ The statistics shows that urbanization has influenced eating habits, with most people balancing home-cooked meals and fast food. A large group still prefers mainly home-cooked food, indicating that traditional eating habits remain strong. Only a few people reported an increase in fast food consumption due to urban life. Overall, while urbanization has brought changes, the majority continue to prioritize home-cooked meals in their diets.
- ❖ The research reveals that most Mangaloreans believe urbanization has increased fast food consumption. A large majority agree that fast food has become more accessible and popular due to urban growth, reflecting lifestyle changes like busy schedules and more dining-out options. Only a small portion disagreed or were unsure about this impact. The rise in fast-food outlets, marketing, and changing work patterns have all contributed to this shift. Overall, urbanization is seen not just as physical development but as a major influence on daily habits and food choices.
- ❖ The data shows how Mangaloreans view the nutritional value of fast food. Most respondents rated it as fair or average, suggesting they see it as moderately nutritious but not highly beneficial. A notable portion rated it poorly, reflecting concerns about its health impact. Very few considered fast food to have excellent nutritional value. Overall, while many accept fast food as part of their diet, there is clear awareness of its nutritional limitations and potential health risks.
- ❖ According to the study data, taste is the main reason people choose fast food, followed by convenience and affordability. Many also prefer it due to lack of time for cooking, reflecting busy lifestyles. Social influence had the least impact on their decisions. Overall, fast food choices are driven more by flavour, ease, and cost than by peer pressure.
- ❖ The data reveals that most Mangaloreans believe fast food contributes to lifestyle illnesses like diabetes and heart disease. A large majority agreed or strongly agreed with this link, showing concern about fast food's health risks. Some respondents had no opinion, possibly due to lack of awareness or belief in other causes. Only a small number disagreed, indicating most recognize the negative health impact of regular fast food consumption.
- ❖ According to the study data, most Mangaloreans are aware of the health risks linked to fast food, with many concerned about poor nutrition and digestive issues. Many also recognize fast food's role in causing high cholesterol, obesity, and high blood pressure. However, fewer people associate fast food with mental health problems like stress and anxiety. Overall, physical health risks are well understood, but awareness of mental health effects is lower.
- ❖ According to the study data, most respondents believe the fast food industry contributes to pollution, with the majority saying "Yes" to its environmental impact. Many recognize issues like waste, plastic packaging, and emissions as causes. Some were unsure but open to the possibility, while only a small minority disagreed. Overall, most people are concerned about fast food's negative effects on the environment.
- ❖ According to the study data, maximum respondents identify paper and plastic packaging as the main fast food waste problem, followed by food waste. Many also notice fast food litter frequently in public areas, with nearly half seeing it daily. While some see it less often, fast food waste is generally recognized as a common and ongoing environmental issue affecting the community.
- ❖ According to the study data, many respondents strongly believe that fast food restaurants should be more responsible for environmental and health issues. A large majority support these establishments taking greater action to operate in eco-friendly and health-conscious ways. Some were indifferent, showing uncertainty or lack of strong opinion on the matter. Only a small number disagreed, indicating broad public support for stricter accountability in the fast food industry.
- ❖ According to the study data, most of the respondents believe living in urban areas makes it harder to maintain a healthy diet due to busy lifestyles and easy access to unhealthy fast food. A majority strongly or somewhat agree with this view, while some remain neutral, acknowledging both challenges and healthy options available in cities. A small minority disagrees, feeling urban living can support healthy habits through better resources. Overall, most see urban life as a barrier to balanced eating, though some recognize its mixed impact.
- ❖ According to the study data, most respondents believe social media strongly influences their fast food cravings, with over half saying platforms like Instagram and YouTube play a major role. These food-related posts and ads make fast food look trendy

and appealing, especially to younger people. Some say social media only sometimes affects their cravings, while a small group feels it has little impact. Overall, social media is a key driver of fast food desires for most people surveyed.

- ❖ According to the study data, most of the respondents believe eating fast food daily lowers their energy levels, likely due to its high fat, sugar, and processed ingredients. While a small group disagrees or is neutral, the majority link fast food with feeling tired or lethargic. Additionally, a strong majority support making fast food more socially and environmentally responsible, favouring eco-friendly packaging and ethical sourcing. Only a few oppose sustainability efforts, showing growing awareness of fast food's broader impact.
- ❖ The data reveals, maximum number of respondents strongly prefer traditional meals over fast food, valuing home-cooked and culturally significant dishes for their health and heritage benefits. While some support this view less strongly, the majority agree that traditional meals should take precedence. A smaller group is neutral, seeing both options as acceptable depending on lifestyle and convenience, and only a few favor fast food more. Overall, the data highlights a strong cultural and health-based preference for traditional dining despite fast food's growing presence.
- ❖ According to the study data, most of the Mangaloreans recognize the importance of making healthier and more eco-friendly fast food choices, with a strong majority understanding the impact on both health and the environment. Many are also committed to reducing their own food waste, showing growing awareness of its social and environmental consequences. While most actively take steps toward sustainability, a smaller portion remains neutral or less engaged, highlighting opportunities for further education to increase awareness and action. Overall, the data reflects a community increasingly conscious of sustainable and health-conscious food practices.
- ❖ According to the study data, maximum number of Mangaloreans believe fast food restaurants should take greater responsibility for waste management. Many support measures like recycling, reducing plastic, and using compostable packaging. While some respondents are neutral or less passionate, only a small portion disagree. None strongly oppose improved waste practices, showing widespread support. Overall, there is a clear demand for fast food establishments to adopt more sustainable and accountable waste management.
- ❖ According to the study data, most Mangaloreans favour urban planning that promotes fresh food markets over fast food outlets, viewing them as healthier alternatives. They believe fresh markets support local farmers and reduce environmental impact. While some accept fast food's convenience, the majority prefer more fresh food access. A smaller group is neutral, and few oppose the idea. Overall, there is strong support for healthier, sustainable food options in cities.
- ❖ A large majority of Mangaloreans support raising awareness about eco-friendly craving-control products, believing better information will promote sustainable consumer choices. Similarly, most respondents agree that fast food waste significantly harms the city's cleanliness, linking litter and pollution to increased fast food packaging and poor waste management. While some remain neutral or less concerned, few oppose these views. Overall, there is strong consensus on the need for greater public education and improved environmental practices to address these challenges. This reflects growing community interest in sustainability and urban cleanliness.
- ❖ According to the study data, maximum number of Mangaloreans believe that fast food consumption and urbanization will have major long-term impacts on health, environment, and culture. While some see these challenges as manageable through innovation, few disagree or are uncertain. There is broad concern about the future, emphasizing the need for healthier habits, sustainability, and better urban planning. This highlights the importance of proactive steps to protect coming generations.
- ❖ According to the study data, most Mangaloreans support government regulation of fast food to reduce environmental harm and improve public health. They favour stronger waste management laws, healthier menu standards, eco-friendly practices, and public education on nutrition. There is broad consensus on the need for action to promote sustainability and better eating habits. Overall, respondents want the fast food industry held accountable through government intervention.

Major findings of the study

Most people in Mangalore eat fast food occasionally, usually 2–3 times a week, but they still prefer home-cooked meals because of health and cultural reasons. Fast food is mainly chosen for its taste and convenience, with cost and lack of time also influencing choices. While fast food has become more accessible due to urban growth, many believe its nutritional value is average or low, and they recognize the health risks like diabetes, heart disease, and obesity linked to excessive consumption.

Environmental concerns around fast food focus on waste, especially from paper and plastic packaging, as well as food waste. Many people want fast food businesses to act more responsibly by offering healthier and eco-friendly options. There is strong support for traditional meals because of their health benefits and cultural significance, along with a desire for fast food to become more sustainable and better for both people and the environment.

Residents of Mangalore want more fresh food markets to improve health and protect the environment, rather than an increase in fast food outlets. They back awareness programs about eco-friendly products to help reduce unhealthy eating habits and call for better waste management to keep the city clean. Many also feel the government should do more to regulate the fast food industry to safeguard public health and the environment, considering the impact on future generations.

Suggestions

Based on the respondents' opinion, experience for changes to be made in order to improve sanitation infrastructure facilities for better future. Such suggestions are:

- ❖ Encourage people to eat more home-cooked and traditional meals for better health.
- ❖ Raise awareness about the health risks of eating fast food often, like obesity and diabetes.
- ❖ Teach people about the unhealthy ingredients in fast food, such as high fat, sugar, and salt.
- ❖ Support public campaigns through schools, media, and community groups to promote healthy eating habits.
- ❖ Ask fast food places to use eco-friendly packaging and manage food waste properly.
- ❖ Promote buying local ingredients and support small businesses that focus on healthy and sustainable food.
- ❖ Encourage combining healthy eating with exercise and reducing food waste by controlling portion sizes and donating leftovers.

To summarise, the respondents recommends promoting home-cooked meals, raising awareness about fast food's health risks, and encouraging healthier eating habits. It also suggests supporting local sustainable food businesses and enforcing eco-friendly packaging rules. Combining good nutrition with an active lifestyle and reducing food waste will help improve health and protect the environment.

IV. Conclusion

Mangalore is growing quickly as more people move in for better jobs, education, and living conditions. This has led to better roads, schools, and hospitals, but also new problems. One big change is how people eat. Many now choose fast food because it's quick and easy, especially young people and workers. But eating too much fast food, which is high in sugar, salt, and unhealthy fats, is causing more health problems like obesity, diabetes, and heart disease.

Traditional meals made with fresh, local ingredients are being replaced by fast food. This not only affects people's health but also harms the environment. Fast food creates a lot of plastic waste and pollution, filling up landfills and dirtying rivers and coastlines. More buildings and vehicles are also reducing green spaces and increasing pollution. These changes affect our air, water, and overall quality of life.

The study shows that many people in Mangalore still care about health, culture, and the environment. They prefer home-cooked food and want better waste management and eco-friendly food options. They believe both the government and businesses should help make things better. By raising awareness, supporting traditional food, planning the city better, and making healthy choices, Mangalore can grow in a way that protects both people and nature for the future.

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