

# TACKLING FOOD WASTE IN URBAN LANDSCAPES: A SYSTEMATIC REVIEW OF HOUSEHOLD FOOD WASTE IN ASIAN COUNTRIES

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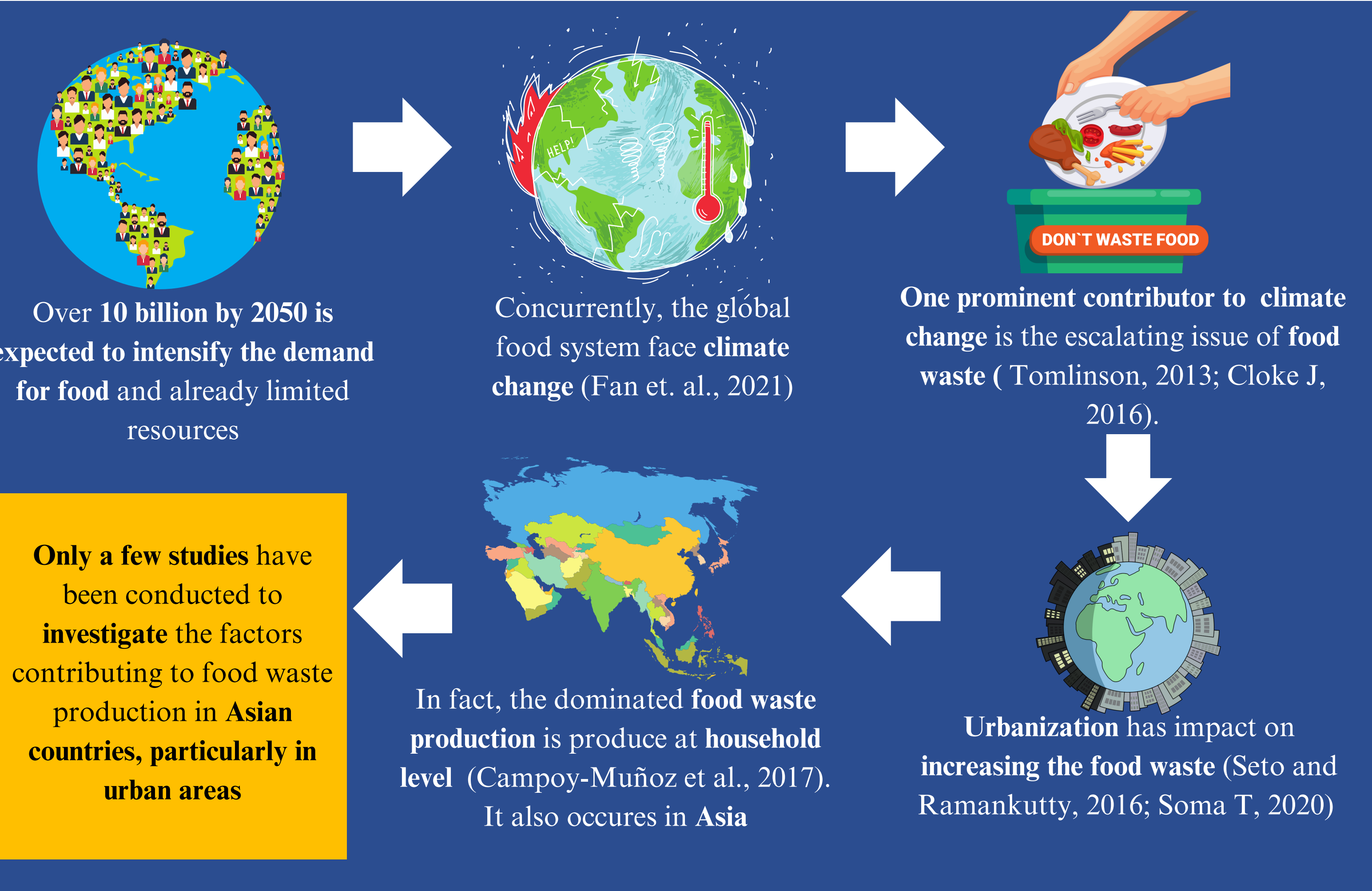
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## Abstract:

The projected global population of over 10 billion by 2050 is expected to intensify the demand for food and place additional pressure on already limited resources. Concurrently, the global food system faces numerous challenges, including climate change, economic conditions, and the depletion of natural resources. One prominent contributor to food insecurity and climate change is the escalating issue of food waste at the consumer level. The concern surrounding food waste is also influenced by societal factors. Previous research suggests that urbanization has a significant impact on the food system, leading to increased food waste. The aims of this research are to analyze the factors that influence food waste behavior in urban landscapes and to develop a solution to tackle food waste behavior among households in Asian countries. According to Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, 42 articles in review and 32 reports of included studies, the articles retrieved from the Scopus database and Web of Sciences database. The results indicated that there were five main groups of factors that play an essential role in tackling food waste: household attributes, psychological factors, behavioural factors, situational factors, and food attributes. This systematic review suggests that understanding consumer needs, family needs, food consumption patterns, and awareness of food waste impact are essential for reducing food waste.

## Introduction:



## Aims:

The aims of this research are to analyze the factors that influence food waste behavior in urban landscapes and to develop a solution to tackle food waste behavior among households in Asian countries.

## Methods:

**Information Sources and Search Strategy:** This study retrieves the data using two databases to search the article, namely Scopus and Web of Science. Range publication between 1st January 2018 until 30th June 2023.

**Eligible Criteria:** (1) journal and article (2) the article is written in English (3) the research area article is social sciences (4) the articles relate with the food waste at household level and urbanization or urban areas.

**Data Extraction and Synthesis :** This study followed The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 statement. There are 27 item checklists in PRISMA analysis.

## Results :

**Study Characteristics:** During the years 2018–2023, some countries in Asia did not appear in this study.

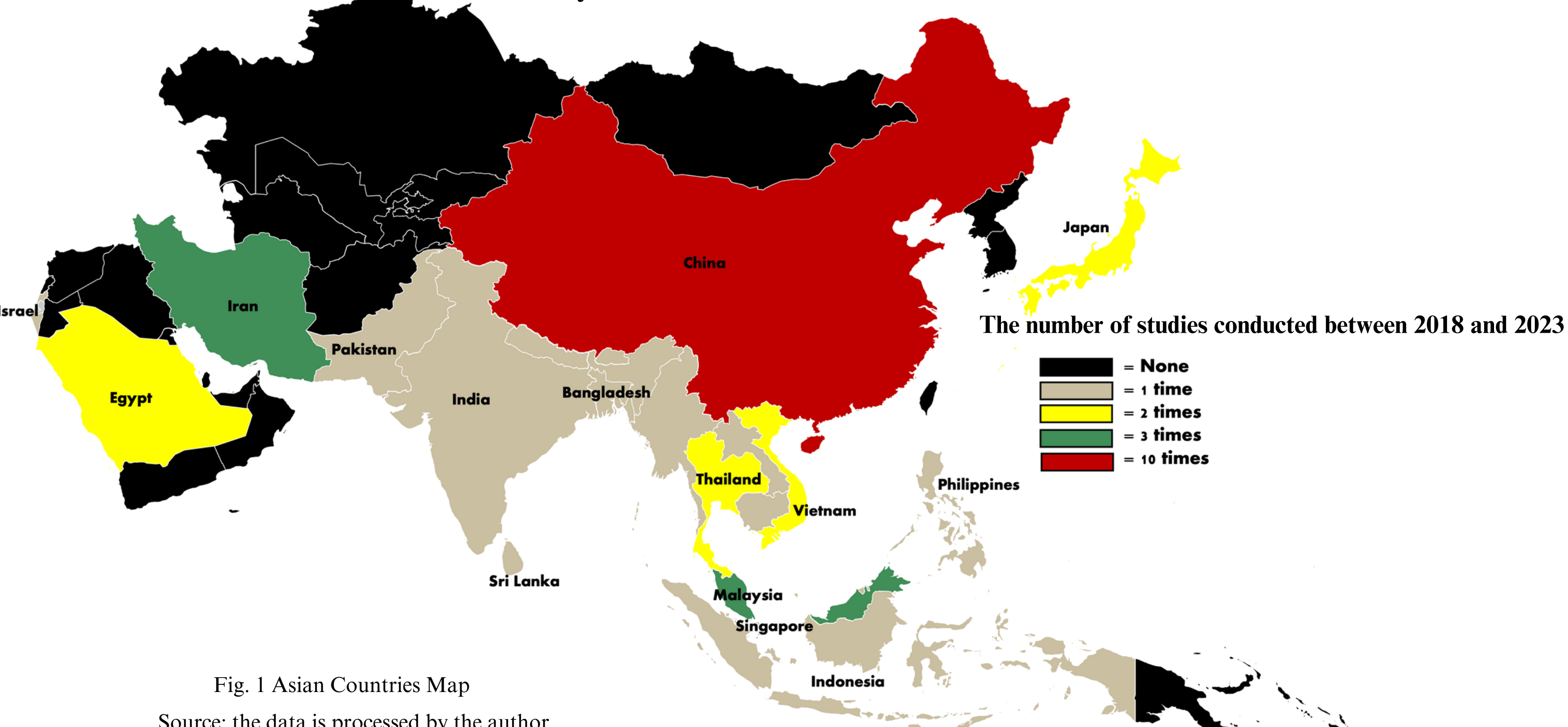


Fig. 1 Asian Countries Map

Source: the data is processed by the author

## Conclusions :

There are five domains that can be drawn from the systematic literature review about the antecedents of food waste in urban landscapes among households in Asian countries during 2018–2023. Namely, (1) household attributes; (2) psychological factors; (3) behavioral factors; (4) situational factors; and (5) food attributes. This factors can be used as the foundation for developing a strategy for tackling food waste in urban households.

## Results:

### Study Selections:

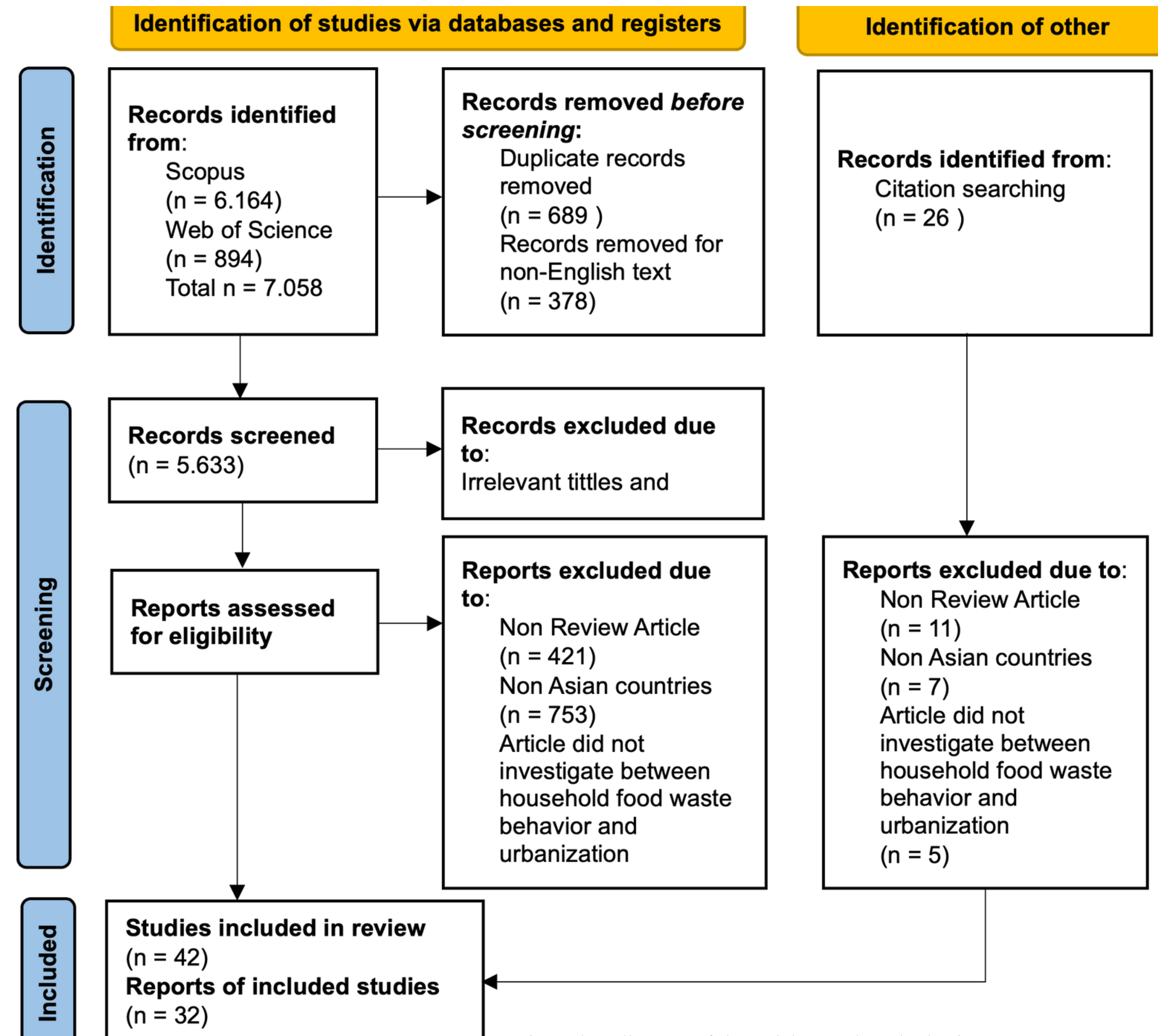


Fig.2 Flow diagram of the article search and selection process

### Results of Syntheses:

Antecedents of Food Waste Production at household level among urban dwellers divided into 5 domains

No	Domain	Antecedents
1	Household Attributes	education, age, household size, gender, presence of children, occupation, income, housing area, family commensality, health status, household dietary diversity, household material (food storage), having pets, space of land to compost, food expenditure
2	Psychological Factors	knowledge, attitude, perceived benefit, environmental awareness, subjective norm, safety awareness, convenience, dietary knowledge, motivation to reduce FW, social norm, sensory experience
3	Behavioural Factors	Checking the label of food, food management, food consumption, shopping planning, not impulsive buying, cooking skills, habit, checking the expired date, food shopping planning, purchasing, storing, cooking skill, eating habit, food sharing, use leftover, shopping frequency,
4	Situational Factors	food availability, food accessibility, COVID-19 pandemic, social network support, time, culture and religion, lifestyle, technology, hospitality
5	Food Attributes	food price, sustainable product, quality, food types

Source: the data is processed by the author

## Discussions:

1. Understanding what the consumer need is linked to the psychological aspects that shape behavior.
2. Understanding what the family need; it relates to household attributes and behavioral factors.
3. Understanding food consumption pattern; It is affected by behavioral and situational factors.
4. Raising awareness of the consequences of food waste; it pertains to situational factors and food attributes.

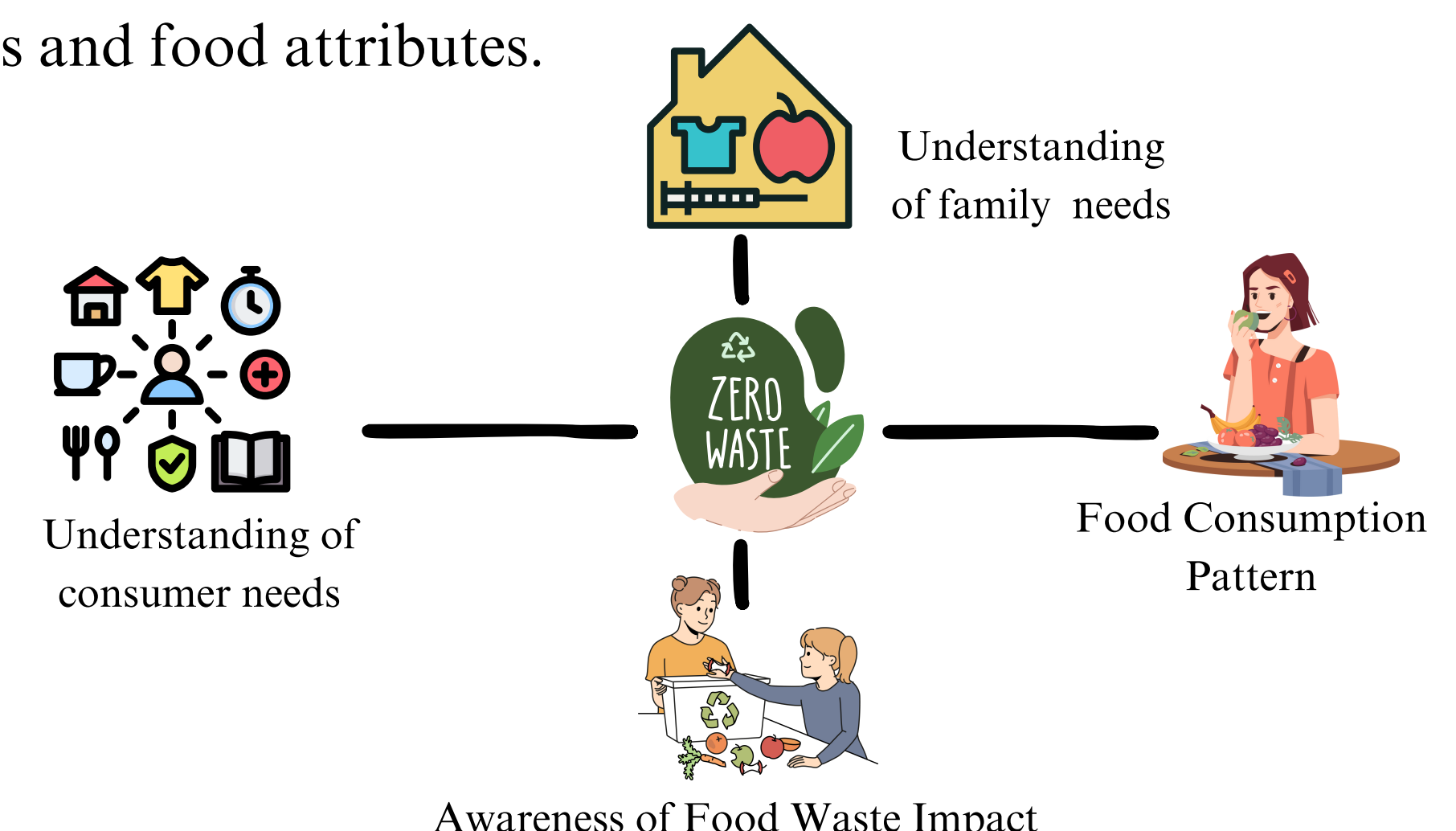


Fig.3 The summary of strategies to tackling the food waste