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The Forgotten: Environmental Knowledge And The Future Of Environmental Sustainability

Baginda Parsaulian[1*] **Aidil Alfin**[1*]
[1 2 *]Faculty of Economics and Business, Universitas Islam Negeri (UIN) Sjech M. Djamil Djambek Bukittinggi, West Sumatra, Indonesia.

ABSTRACT
It is important to consider the impact of inadequate waste management on human health. In addition, it is important to consider the impact of poor waste management on the quality of the environment.The aim of this research is to formulate strategies to conserve and protect natural resources and control pollution, in the face of the environmental challenges facing all organisations. The creation of a database was an integral component of the production process for this paper, with the objective of comprehensively encompassing the multifaceted impact of environmental knowledge. The database has three parts. The first part is called "systems knowledge". The second part is called "action knowledge". The third part is called "effectiveness knowledge".It is evident that the database has been compiled from a variety of sources around the globe. The study demonstrates that effective waste management is inseparable from the management of both good waste management and community lifestyles. However, the challenges posed by waste management issues have proven to be substantial. Key constraints include the need for public awareness initiatives to minimise waste production at the individual, family and environmental levels.
KEYWORDS: *Management of Waste, Waste Management, Environmental Sustainability*

INTRODUCTION

These days, environmental sustainability is a big deal. This is something we really need to worry about. This is due to human activities having exerted a substantial impact on the state of the planet and the well-being of future generations. Researchers have identified contamination and pollution to be the foremost ecological issues (Oyedotun & Ally, 2021). The environmental challenges facing all organisations require society to formulate strategies to conserve and protect natural resources and control pollutionWe need and deserve to live long and healthy lives, so we need to have air we don't have to breathe in, and water to drink that isn't contaminated. We also need to live in places that aren't toxic.

The quality of life of a population is inextricably linked to the availability and quality of water. In recent decades, population growth and the associated increase in industrial activity have contributed to the aggravation of environmental problems, particularly those related to the preservation of ground and surface water (Blume et al., 2010), It is imperative to be cognizant of the various elements and pesticides present in surface water, as they serve as vital indicators of surface water contamination and contribute to the mitigation of potential hazardous effects on public health. The quality of water found in headwater streams is a matter of significant concern, given its high susceptibility to influence from both upland flow paths and incoming surface and groundwater. Furthermore, headwaters serve as the primary defence against potential contaminants, such as excess fine sediment or nutrients, and are also the initial recipient of organic matter(Chen et al., 2021; Ferreira Marmontel et al., 2018; Islam et al., 2017, 2020).

Another key issue is the undeniable environmental impact of human presence. Most studies have looked at the impact of microplastics on animals and plants in particular places and for particular species. The term 'microplastics' was introduced as an emerging pollutant in 2004. Since then, researchers have discovered the presence of microplastics in rivers, lakes, oceans and other water bodies around the world. The issue of microplastics has dominated the news in recent years, the prevailing assumption that the environmental fate of microplastics is relatively uncomplicated is demonstrably false. This means that the impacts of microplastics on the environment might be more widespread and varied than we currently understand (Gerolin et al., 2020). In view of the comprehensive research

undertaken to date, it has been determined that microplastics, which are constituted of polyethylene (PE), fibre-shaped microplastics, and polypropylene (PP), are the most prevalent types in air, soil, and water environments. This phenomenon can be attributed to the extensive use of plastic materials and their ability to move through fluids such as air and water (Gerolin et al., 2020; Li et al., 2025), Coordinated waste management policies and strategies urgently needed (Amesho et al., 2023a, 2023b; Chellasamy et al., 2023; Lee et al., 2024).

Researchers are also looking at how the amount of water in the air is expected to increase, and how this will affect the water cycle on Earth. These phenomena are expected to include the intensification of precipitation extremes (O'Gorman & Schneider, 2009). Climate change is when the weather is getting more extreme because the Earth is getting hotter or colder than normal. These shifts can have significant consequences for various aspects of the environment, including ecosystems and human infrastructure, potentially impacting the stability of livelihoods for individuals and communities (Babapoorkamani & Ricci, 2025). It is thought that temperatures around the world will continue to rise because of climate change. This means that hot periods will get hotter, happen more often, and last longer. Some diseases are caused by things like mosquitoes and malaria, while others are caused by contaminated food or water. All of these diseases can be affected by changes in temperature and other weather conditions. This could lead to more people being affected by the disease and higher healthcare costs, especially in areas where people have less money (Anikeeva et al., 2024).

Waste is defined as an item or object that has exhausted its useful value. The predominant proportion of waste is attributable to household waste, which is generated by individuals in their residential dwellings. This household waste encompasses organic, inorganic, and residual materials. The United Nations has identified a reduction in food waste as a key component of its sustainable development goals (SDG'S). By 2030, the aim is to cut global food waste and loss by half. Right now, waste is got rid of in a number of ways, like burning it, putting it in the rubbish or putting it in the ground. But something important is happening with waste that's been fermented, especially when it's put in the ground without air, to make biogas and energy. The composition of a household is typically characterised by a range of 3 to 6 family members. Assuming a mean daily waste production of 2.5 litres per person, or 0.5 kilograms per person, the resultant daily waste output from a household is 7.5-15 litres, or 1.5-3 kilograms. This waste comprises inorganic, organic, and residual waste, which is disposed of directly at designated collection points, Consequently, landfills are experiencing increasing levels of overcrowding due to these waste piles (Teigiserova et al., 2019).

Using up natural resources quickly leads to more waste being created. This is a big problem in many parts of the world (Awasthi et al., 2021). Every country in the world is working on strategies to conserve and protect natural resources and control pollution. In May 2019, China will start building "zero waste cities" in 16 cities. The goal of this project is to always reduce, reuse and recycle as much as possible. This should help to cut down on how much rubbish we send to landfill sites, which will be better for the environment. (Jin et al., 2021). The zero waste principle is all about recycling. The management of waste is achieved through the implementation of systematic processes involving the sorting, composting, and collection of saleable goods. It is very important to reuse, minimise and recycle as much as possible to reduce the amount of waste that goes to landfill sites, as this has a negative effect on the environment.

Waste management in Indonesia is a multifaceted issue, exhibiting significant variations across different regions. In urban areas, there is a presence of formally organised recycling programmes, indicating a degree of municipal oversight and management. Conversely, rural regions often face a lack of formal waste disposal options, with alternative practices including waste burning or river dumping (Voronkova et al., 2025), Plastic waste in Indonesia is a big problem for the environment right now. This is because it takes a long time to break down naturally and it is hard to recycle. Until this point, a satisfactory method for the management of this particular type of waste material has not been identified. The present study employs the Multi-Aspect Sustainability Analysis (MSA) framework to assess the environmental implications of managing multilayer plastic waste in Indonesia. The study encompasses a range of factors, including the environment, the economy, society, law and infrastructure (Anwar et al., 2025), Research conducted in Balikpapan, Indonesia, has revealed that

the optimal scenario is one in which 100% of waste is collected. A recent study has shown that 60% of waste is collected by the informal waste sector, whilst 40% is collected by the formal sector (Harfadli et al., 2025).

The management of waste in major Indonesian cities has historically been the responsibility of the Department of Cleanliness and Parks. However, the department has encountered significant challenges in addressing the prevailing waste management issues. The challenges confronting the department include the necessity of enhancing public awareness with a view to minimising waste production, a process which must be initiated by the individual, the family unit and the environment. Plastic has its place. Its uses include packaging food, transport and storage, and making medical equipment safe. It is generally accepted that most plastics are intended for single use. In 2018, the amount of plastic made around the world was 360 million tonnes. We estimate that around 400 million tons of plastic are made each year. Experts think that by 2050, the world will have made around 1.1 billion tonnes of plastic. The Environmental Protection Agency says that only 7% of all the plastic that is thrown away each year gets recycled. Records show that only 8% of plastic is burned, and the rest is put in landfills (An et al., 2024).

We can reduce the amount of waste that goes to landfill by stopping waste being made in the first place. The fundamental objective of zero waste is to achieve a state where no further waste is generated, given the inherent reality that no human activity is entirely devoid of waste production. But the most important thing about the zero-waste idea is to reduce the amount of rubbish that goes to landfill. The current waste management strategy, which is based on the end-of-pipe concept, is a major threat to public health and safety, and also costs society a lot of money indirectly. It is clear that many industries have made significant contributions to environmental sustainability. These contributions encompass a variety of initiatives, such as converting water and energy, reducing waste, managing food waste, and disseminating knowledge about environmental concerns to individuals and customers (Arshad et al., 2022; Munawar et al., 2022; Ogbeibu et al., 2020; Papademetriou et al., 2023; Pata et al., 2023). A lot of studies show how important it is to manage knowledge in a way that is good for the environment. This helps to develop technologies that are good for the environment and improve how well a company performs in terms of the environment (Cincera & Krajhanzl, 2013; S. Kumar et al., 2025), People who work in environmental studies and people who work in the environment are both interested in how environmental knowledge management and environmental sustainability practices interact. The present study explores the multifaceted impact of environmental knowledge, which is comprised of three dimensions: systems knowledge, action knowledge, and effectiveness knowledge (Hossain et al., 2025; Otto & Pensini, 2017), The community's understanding of appropriate waste management strategies is inadequate. It is very important to have good ways of talking to people, especially students, to show how important it is to deal with waste properly to create a healthy environment. This initiative is crucial to empower individuals to anticipate the emergence of diseases associated with inadequate waste management. Effective communication channels are paramount for disseminating information and messages that promote environmental stewardship, the objective of this study is to investigate the role of environmental knowledge in environmental sustainability practices (Paço & Lavrador, 2017; Saha et al., 2021; Tseng et al., 2013; Wang et al., 2021).

RESEARCH METHODS

While working on this paper, a database was created to include all the different impacts of environmental knowledge. The database we're looking at includes information about the environment, systems, action and effectiveness. The information has been collected from many different international sources. The database was built using around 100 different sources.

The material was sourced from academic articles, as well as media outlets and reports. While academic literature constitutes the primary source of information, other materials were also consulted. In instances where reliance was placed on media reports, a multi-source approach was adopted to enhance reliability. The material was then subjected to coding in order to identify categories. These categories were based on geographical location, problem formulation, resistance, objectives and outcomes.

RESULTS AND DISCUSSION

The discussion has focused on a variety of topics related to the exploration of the many different impacts of environmental knowledge. This knowledge is made up of three types: systems knowledge, action knowledge and effectiveness knowledge.

Systems Knowledge

The Zero Waste Management Principle

Most people still think of waste as something useless. It looks at different industries, where they are in the world and how their leaders are doing. Most importantly, it shows the different types of waste that these industries produce. Researchers have been looking into how useful the most common types of waste could be, and how to sort waste based on how much energy it could produce (Vambol et al., 2024). Solid waste is defined as any waste that has been produced naturally through human activities. The different types of waste include general waste, industrial waste, lignocellulosic biomass, and hazardous waste. It is clear that the waste produced by many industries is comparable to various hazardous waste. This is harmful and helps to develop sustainable human life. The waste from various industries is categorised as dangerous waste. This will cause problems and make it difficult for us to live sustainably. (Sai Bharadwaj et al., 2025).

Natural resources are without a doubt the most abundant source of renewable energy. This present study looks at what waste is, what its role is, and how much of a contribution it could make in the future. The main difference between bioenergy and other fossil fuels like oil, coal and natural gas is that bioenergy is a non-renewable energy source. Even though it is used in many places and most of the time, it cannot be relied on in all countries and at all times. This meant that we needed to find new ways to produce energy. Researchers are interested in developing technologies that use waste and rubbish to make energy. This idea started in Switzerland and has worked well in many other countries. What's more, Arab countries have already developed and improved lots of very advanced techniques and ways of doing things. The process creates a lot of waste, which is then used to make clean, non-polluting electricity. Subsequently, the waste is disposed of in a manner that is considered to be environmentally friendly (Elmnifi et al., 2024).

Local people are still using old ways to get rid of rubbish. They collect it, take it to a storage area, and then take it to the place where it is finally got rid of. This shows that there are still many residents who do not care about waste, and they still continue to dispose of garbage carelessly waste, as well as conducting waste burning activities that which can cause environmental pollution environment or they are willing to to pay the waste retribution as long as the waste they produce is quickly out of sight. The issue of waste in urban areas is twofold, encompassing both the saturation of landfill sites and the pervasive practice of littering. Disposal of waste is frequently conducted into water bodies, such as rivers, which can lead to siltation and subsequent flooding. Moreover, the practice of burning waste, particularly plastic, poses a significant environmental concern. The traditional approach to waste management, where waste is thrown away in landfills, is something children see their parents and other adults doing. This can encourage children to do the same, which means they throw away all the waste they produce. People often get rid of their domestic waste in a way that is not very organised, and a lot of it is burned. People continue to behave in this way until they are adults. Then they start to behave in the same way themselves (Kothari et al., 2010).

We need to find new ways to deal with waste and make clean energy. This is how we can help society move towards a sustainable and circular economy. This work looks at the idea of turning waste into hydrogen (H2) as a way to deal with these problems. A significant research has been dedicated to the discussion of how diverse technological methodologies can be employed to transform a variety of waste materials into renewable hydrogen. This includes plastics, tyres, biomass, general waste, and wastewater. The text also looks at the good and bad points of using waste to make hydrogen. As well as looking at how H2 technology can make energy systems more sustainable, the study looks at the problems with using H2 technology in waste, such as the types of materials used, how well the process works, how it can be made bigger, and how it can help the economy to grow (Ayoub et al., 2024; Lange & Kaltschmitt, 2023; Le et al., 2025).

In Indonesia, the most effective method of waste management in Central Java is the incineration of plastic waste and oil in a combined process. This process results in the production of a greater quantity of fuel and the acquisition of properties analogous to those of diesel. Furthermore, the presence of fewer metal impurities is indicative of enhanced purity. Research on plastic waste pyrolysis has shown that it has a smaller impact on the environment than burning or dumping it. A study looking at the techno-economic aspects of the process found that it is possible to produce more than 100 kg per hour. However, the high costs of running the process at high temperatures are a major challenge (Kusmiyati & Fudholi, 2025).

Renewable energy is an exciting new solution that offers so much. It can help us to keep the lights on, reduce the impact of environmental pollution and climate change, and be more efficient than traditional energies. The execution of the project was conducted across numerous centres, with a variety of raw materials being utilised. These raw materials included all kinds of waste, like organic waste like household waste, sewage water, and kitchen waste like onion peels, carrots, potatoes, horse manure, beetroots, and so on. We also used livestock poo, especially cow, sheep and poultry, in the process. Using residues as substrates is becoming more common. This organic waste has been turned into biogas through anaerobic digestion, which is a great alternative to landfill disposal, incineration or composting. Furthermore, the programme is regarded as a means of managing contaminated and unwholesome waste, in addition to the generation of energy at a reduced cost (Daily et al., 2000; Dantas et al., 2021; Ebrahimian & Karimi, 2020; Fatimah et al., 2020; Garg et al., 2024; Huzir et al., 2018; Wanner et al., 2022).

The zero waste principle is all about recycling, so it's basically a way of managing waste. The management of waste is achieved through the implementation of systematic processes involving the sorting, composting, and collection of saleable goods. It is very important to find the right balance between reuse, minimisation, and recycling. This is because sending waste to landfill sites is bad for the environment. We can start a zero waste programme at the place where waste is made. The idea is to make it so that less waste is sent to landfill sites. The concept of zero waste can be defined as a management strategy aimed at the elimination of all waste through the implementation of various methodologies. It is important to note that this objective is inherently linked to human activity, as no human activity can be considered as waste-free. Indeed, it is the fundamental assertion of zero waste management that no human activity is without the production of waste. The main aim of this idea is to reduce the amount of rubbish that gets thrown away and ends up in landfills. The problem of waste is a big worry in poor countries, where waste pickers work near dumps and landfills. These individuals are exposed to significant levels of contamination and consequently face considerable health hazards. The present paper looks at the risks waste pickers face when collecting and separating recyclables. These issues are based on a review of literature on waste and environmental health and on findings from research with waste pickers in Brazil. The present study looks at how social and environmental justice can be achieved. It aims to highlight the risks of household waste for workers, their communities, watersheds and the environment (Binion & Gutberlet, 2012; Gutberlet & Uddin, 2017).

The modern world has seen a big increase in industrial and social activities. This has led to a lot more resources being used (for example, food, oil, construction materials, electricity and gas). These resources help to keep the global economy going. As a result of the points mentioned, waste materials, wastewater and so on are produced. It is therefore recommended that managers of government and non-government organisations give due consideration to the creation of an effective Waste Management System (WMS). Contrary to preceding years, recent years have witnessed a shift in the prevailing paradigm among researchers and managers. This shift can be attributed to the proliferation of technology, mounting social and environmental concerns, and the escalating prevalence of unanticipated disruptions. Consequently, these individuals have endeavoured to adopt a multifaceted approach to the WM problem, encompassing elements such as sustainability, digitalisation, and resilience. This endeavour has culminated in the publication of numerous scholarly papers in this domain (Nayeri et al., 2025). The Zero Waste approach is a valuable frame of reference, and it would be great if we could all put in a little more effort on a regular basis (R. Kumar et al., 2025).

Studies have shown that there are a number of ways to manage waste. To get greenhouse horticulture businesses to use more sustainable waste management methods, these suggestions are made. We can encourage waste managers and cooperatives to work together by using incentives and regulations. Government policies can encourage cooperatives and waste managers to work together. They can do this by offering incentives such as tax breaks, subsidies, or grants. Regulations may be implemented to mandate the provision of technical assistance by waste managers to cooperatives, with the objective of enhancing their waste management practices. It is recommended that capacity-building and technical assistance initiatives be implemented to support cooperatives in the management of their own waste. It is possible that governmental and non-governmental organisations may be in a position to provide cooperatives with technical assistance and capacity building to improve their waste management practices. This could potentially include training in recycling and reuse, waste segregation, and composting. Furthermore, it would be very helpful to consider ways in which a culture of sustainability might be encouraged among cooperatives and their members, through education and awareness. It has been suggested that education and awareness programmes may be effective in promoting sustainable waste management practices among cooperatives and their members. These initiatives may include workshops, training sessions and awareness campaigns. It is hoped that these will help to underline the significance of effective waste management for the promotion of sustainability (Sayadi-Gmada et al., 2025).

A separate investigation has found that the way we deal with agricultural and food waste (AFW) is also a growing concern because the global population is growing quickly. Poor management of AFWs, which includes leftovers from crops, livestock and factories, is a big problem for the environment and public health. However, if we use AFWs effectively, we can see that they have a lot of potential as useful resources. What's more, the positive impact of sustainable management AFWs on the environment, economic growth and food security has been emphasised by the promotion of circular economy principles. The review says that it is very important to have a good plan, get the government's support, and keep doing research if we want to get the benefits of AFW valorisation (Munir et al., 2025).

Action Knowledge

Pro-environmental behaviours (PEB) are actions that are carried out with the intention of having a positive effect on the environment. Some of the ways in which people are helping the environment include recycling, reducing waste, and donating their time or money to environmental causes (Kjaer et al., 2025). In order to enhance recycling behaviour, a number of interventions have been proposed by scientists specialising in human behaviour. As a tool to transform and embed the paradigm. For this reason, it is necessary to formulate a series of strategies, also in the communication disciplines, in the concept of communication, in the hope that this programme can be sustainable and strong in the midst of the various challenges that exist for the achievement of the main objectives of this programme. The communication process is expected to be effective in achieving its objectives, namely the delivery of messages, ideas, and values that are intended to effect a change in the mindset and attitudes of the programme's target adopters. It is hoped that changes in the mindset of the target group will result in a shift in their attitude towards waste and the environment.

Research conducted in Yogyakarta has indicated that the city is currently experiencing a state of waste emergency. Managing waste is a big problem in cities. We need to find new ways to deal with it that don't harm the environment. This article explores the adoption of a community-based waste management (CBWM) approach in Yogyakarta City, Indonesia, and the valuable lessons learned from this experience. It is possible that the experience of Yogyakarta City could serve as a useful case study for understanding the effectiveness of involving local communities in waste management efforts. It is understood that participatory programmes have been implemented with the aim of empowering residents to contribute to waste reduction, recycling, and proper disposal practices (Mulasari et al., 2024). The findings from a separate investigation into the conduct of traders indicate that the influence of waste disposal facilities on waste management is a significant consideration.The responsibility for the management of the company is as follows: It is recommended for the manager of the market office to provide direction to the traders to ensure effective waste management, as well as to improve the waste disposal facilities in the market (A'yunin et al., 2022).

The community's comprehension and cognisance of appropriate waste management strategies remains deficient. It is vital to implement effective communication strategies, especially among students, to raise awareness of the importance of proper waste management in creating a healthy environment. This initiative is crucial to empower individuals to anticipate the emergence of diseases that are associated with inadequate waste management. The provision of effective communication channels is, therefore, paramount in disseminating information and messages that promote environmental stewardship.

It is evident that the endeavours undertaken will not be met with success if they are solely attributed to the actions of the government or specific environmental organisations. The self-awareness of individuals who are inextricably linked to waste management is a pivotal factor in achieving long-term environmental sustainability. Consequently, the existence of appropriate programmes and effective communication is anticipated to facilitate the mitigation of the prevailing waste issues. In order to enhance recycling behaviour, a number of interventions have been proposed by behavioural scientists. The following question is posed: how can recycling behaviour be enhanced? In addressing this question, the field of behavioural science has proposed a range of interventions. It is suggested that these include the provision of prompts and information regarding recycling behaviours, the provision of personalised feedback on recycling behaviour, the incentivisation of "green" behaviour, the encouragement of individuals to commit to recycling, the facilitation of recycling through environmental alterations, and the recruitment of individuals from one's community to act as social models.A meta-analysis of the literature on the subject was conducted, and the results indicated that the most successful interventions involved environmental alterations and the use of social models (Ahmed, 2020; Gupta & Zhang, 2020; Matta et al., 2015; Saxena et al., 2003; Sheng et al., 2005). In addition, the ecological civilisation policy. It might be a good idea to think about how the green economy policy could be shared more widely around the world. It's possible that other countries could use this as a model to create a more sustainable future (Birkin et al., 2021), It is worth considering the potential of AI-integrated waste management, taking into account the challenges, opportunities and applications (Farghali & Osman, 2024).

Effectiveness Knowledge

The United Nations (UN) has asserted that recycling plays a pivotal role in achieving numerous Sustainable Development Goals (SDGs). After the United Nations created its Sustainable Development Goals (SDGs) in 2015, lots of governments and companies have started using them. The overarching objective of this adoption is to enhance sustainability. The SDGs have 17 goals and 169 targets, which are measured against 247 different indicators (Walker, 2021). These include SDG 3 on "Good health and well-being," SDG 6 on "Clean water and sanitation," SDG 11 on "Sustainable cities and communities," SDG 12 on "Sustainable consumption and production," and SDG 13 on "Climate action" (UN, 2015). Recycling is very important in reducing the effects of climate change. It does this by saving the natural world and, as a result, helping the economy to grow by creating jobs and bringing in more tax (EPA, 2023).

In recent years, policymakers worldwide have increasingly recognised the pressing issues posed by plastic. There are now lots of new rules to try and reduce the use of plastic. These include bans, taxes, and the requirement to provide information about the negative environmental impact of plastic. Local initiatives have been implemented with a focus on larger plastics, particularly plastic bags. Local initiatives have concentrated on larger plastics, with a particular emphasis on plastic bags. A notable example of this phenomenon is the initiative implemented in the city of Buenos Aires, Argentina, which introduced a policy allowing supermarkets to charge customers for plastic bags. It is thought that this project has led to people using plastic bags around 50% less (da Costa et al., 2020). Buenos Aires, Argentina is a clear example of this. The city introduced a policy allowing supermarkets to charge customers for plastic bags. Estimates show that this led to a 50% drop in plastic bag use (Nielsen et al., 2019).

This assertion is supported by research findings in one city in Indonesia, which indicate that a viable waste management strategy would be to initiate the process at the household level. Waste material from the kitchen that is characterised by a high moisture content can be utilised as a component in the

production of compost, or alternatively, employed as a biopori hole. If some of the fruit and veg is not organic and cannot be sold, it can be given to the bank or thrown away. This is because it has no value. One of the ideas is to separate landfill space. The second option is to build a compost house in the village of KarangJoang, which would be run by a special village team that looks after rubbish. There are a number of ways to solve this problem. But there are some rules you have to follow. The government must start a banking programme to continue. The government has suggested that information about composting using the takakura method should be shared with the public. The aim of this project is to help the public understand and carry out this process. One of the most important things we can do is encourage governments and communities to start home composting. The compost house is designed to provide accommodation for all residents and to facilitate the processing of organic waste within the domestic environment. The government has also initiated a programme entitled 'One Product One Village', with the objective of developing the economy of KarangJoang village. The programme is utilised for the following purpose, the cultivation of ornamental horticulture for commercial purposes, whether for the purpose of sale or the maintenance of domestic gardens, is a practice that merits consideration. It is evident that in order to successfully execute this programme, it is necessary to provide adequate counselling and educational resources that will facilitate the acquisition of the necessary skills for the effective planting of flowers.The responsibility for the operation of this programme lies with the society (Matsumoto, 2017).

Another study has shown that Waste Bank is one of several ideas in the area of waste management models. The idea of a waste bank as a waste management model is based on the 3-R approach to waste management (Reduce, Reuse, Recycle). The system that has been implemented is one that is designed to manage waste, accommodate it, sort it and distribute it to other waste treatment facilities or to those who require it. For instance, a company may utilise recycled materials in the production of its products. The management of waste is the sole responsibility of It is anticipated that the general public will not be expected to It is imperative that the individual concerned makes a contribution. However, it is clear that public participation is important for managing waste effectively. It is important to think about how well management is working (Mulasari et al., 2024). Research conducted in Malaysia found that more than half (52.6%) of the people asked strongly agreed that the facilities on campus were good enough to deal with waste properly and prevent it building up. However, most respondents thought that the university management was responsible for solving the waste problems on campus. The people who replied also strongly agreed that there needed to be discipline to effectively put programmes and plans into action to deal with the university's waste. This research could be used as a guide for when the plan is put into action in Indonesia (Desa et al., 2011).

Another study, based on real-life research in Switzerland and Germany, has shown big differences between what people say they think about the environment and how they act. The idea is to break down the complex idea of 'environmental behaviour' and look at it from the point of view of people who behave in a logical way. This should help us understand these inconsistencies better. When we look at these two perspectives, we can see three ways that people try to make their attitudes and behaviours towards the environment fit together. There are three types of strategy: 'attention-shifting', 'low-cost' and 'subjective-rationality' (Daniel et al., 2012; Diekmann & Preisendörfer, 1998; Koyun et al., 2022).

Research in India shows that the best way to deal with the problem of waste management in Delhi is to not mix different types of waste when people are throwing them out. The source of this information is as follows: This phenomenon can be attributed to the limited awareness among the majority of residents regarding the distinction between biodegradable and non-biodegradable materials. The term 'non-biodegradable waste' is used to describe waste that does not break down naturally and is therefore not absorbed by the environment. At the household level, it is incumbent upon each household to segregate its waste. The waste material is to be divided into two distinct bins, the first of which is to be designated for dry/non-biodegradable waste, and the second for wet waste/biodegradable material (Mukherji et al., 2016). Research conducted in India has determined that the implementation body must possess the necessary available capacity and capability to successfully execute the policies in question. These policies are known to necessitate the establishment of a collaborative team

environment, the presence of effective leadership, the effective utilisation of resources, a holistic approach to problem-solving, and the implementation of sustainable processes. This paper proposes a holistic approach. The following elements will be included consultative leadership and equal coordination management. There are two reasons why these elements are needed. First, they will bring together related skills and experience from within the community. Second, they will encourage more people to get involved (Mir et al., 2021).

A review of what is already written on the subject shows that the best way to deal with this issue is to focus on three things: systems knowledge, action knowledge and effectiveness knowledge. This is particularly important as the population grows and cultural practices change. This is very important when we talk about the environment.

CONCLUSIONS

The article proves the community's role in dealing with urban waste is pivotal. This is because the community contributes to the amount of municipal waste generated each year. Segregating waste at the household level is a key strategy to manage this issue effectively, especially in the face of a growing population and changing cultural habits. The activity was carried out with socialisation to encourage better behaviour regarding rubbish disposal.

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