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Received 18 May 2025; accepted 24 July 2025; published 30 September 2025

Abstract. This article aims to assess sustainability awareness among the Japanese and the commitment of governments and civil society. The study delves into Japan's historical and cultural background, exploring the interplay between these factors and the natural environment. Original research was conducted through a survey questionnaire administered to native Japanese people and residents of Japan. The key findings indicate a correlation between the historical and cultural origins of the Japanese and their relationship with nature, which influences the current specificity of environmental policies in Japan. An assessment of the implemented actions confirms these initiatives encompass all pillars of sustainability: environment, society, and economy. However, Japanese society's sustainability awareness and knowledge level fall below the global average. The data also reveal a gradual improvement over the years. The study concludes that Japan faces significant challenges and risks to sustainable development, particularly those arising from climate change, which are anticipated to become increasingly severe.

Keywords: sustainability; SDGs; Japan; Tokyo; Mottainai; Satoyama; local development

Reference to this paper should be made as follows: Miszczak, K., Krivins, A., Kaze, V. Maciag, A. 2025. Sustainability awareness: evidence from Japan. *Entrepreneurship and Sustainability Issues*, 13(1), 342-357. <http://doi.org/10.9770/r9773982972>

JEL Classifications: A13, Q01, Q56, O53, R11

1. Introduction

Sustainable development has been receiving increasing attention over the past years. It was recognised globally in the 1970s, which might seem like a long time ago, but on the other hand, it is a very short time considering all the aspects and frameworks behind this topic. It is crucial now, as climate change and global warming have made people realise that society must abandon the standard economic model based solely on economic growth and strive for more sustainable, environmentally friendly, and socially responsible growth and development. Therefore, raising awareness of these problems among citizens and determining the optimal involvement of stakeholders and decision-makers in activities to address these challenges is a critical issue today. Therefore, this study addresses the research subject of assessing sustainability awareness in the chosen society, specifically among the Japanese.

Japan is one of the world's most significant and most developed economies, and Tokyo is the world's largest and most populous city. Japan's approach to sustainability is comprehensive, addressing financial, industrial, agricultural, and social dimensions. The country's policies and initiatives are committed to balancing economic growth, environmental protection, and social well-being. Japan's global position in sustainable development is characterised by its commitment to health as a fundamental aspect of human security, its

translation of sustainable development into international cooperation, and its proactive role in global health and environmental sustainability. Based on the example of Japan (especially its capital, Tokyo), this study focuses on analysing the practical implementations of sustainable development. It explores the unique characteristics of the mentioned Asian area. Such an example enables the exploration of the transformation process of an economically prosperous country, which is also exotic in its location and cultural aspects compared to the Western world.

The study aims to examine Japan's cultural aspects related to sustainability and explore the relationship between these two issues. Moreover, this paper seeks to assess the governmental commitment to sustainability at both local and national levels and evaluate society's knowledge and involvement in achieving sustainable goals.

The primary focus of this research is Tokyo as a metropolitan area. The time frame analysed from the perspective of the implemented actions focuses on years after 2000. However, the theoretical background of sustainability and the cultural aspects of Japanese society include information dating back to the 8th century. In addition to the secondary research, this study incorporates the authors' research on sustainability awareness in Japanese society, which was conducted using a survey questionnaire (CAWI method). Additionally, benchmarking analysis evaluated Tokyo's sustainable performance based on specific indicators and its position among sustainable cities. Finally, the study described the most significant challenges that might hinder sustainable development in Japan and potential future scenarios.

2. Literature review

Sustainability and sustainable development have gained significant attention in environmental science, policy, and global governance. While closely related, these terms have distinct meanings, histories, and implications. This literature review limits itself to establishing the article-relevant framework for their definitions, historical evolution, conceptual frameworks, and key differences only in the light of this research.

Since the term "sustainability" was first used in 1713 (Wilderer, 2007), it was primarily referred to as the responsible use of natural resources for a considerable period. Since then, numerous definitions of sustainability have been proposed, and the term has evolved, sparking a debate about the concept's scope (Borusiak, 2021). Despite various definitions of sustainability widely covered in the literature (Chang et al., 2017), the typical elements of the concept include human adaptation, change, maintenance, resource scarcity, and environmental, economic, and social factors. The first three factors can be found in almost all of them, implying that humans should be able to adapt to the changes that occur while searching for a balance between using resources today and in the future. (Smith, 2015) The core assumption of sustainability is that "current decisions should not impair the prospects for maintaining or improving future living standards. This implies that our economic systems should be managed so that we can live off the dividends of our resources" (Rogers et al., 2008). This broader concept of sustainability roots back to the United Nations Conference on the Human Environment in 1972, which focused on human interactions with the environment and resulted in the Stockholm Declaration (United Nations, 1972), later from 2015 adapted into the United Nations 2030 Global Agenda (United Nations, 2022), and European Union agenda (European Union, 2020) which define the 17 sustainable development goals (SDGs). In scientific literature today (Mensah, 2019; Ruggerio, 2021; Sakalasooriya, 2021), sustainability is often referred to as a process rather than an end state, emphasising adaptability, resilience, and the maintenance of ecological and social systems for current and future generations.

The concept gets more complicated when we assess its relation to another term, "sustainable development", and differentiate the latter from sustainability. The reason is that many sources use these two terms interchangeably and similarly interpret them. (Dixon & Fallon, 1989; Borusiak, 2021; Mazza, 2021) The Brundtland Report defined the most common definition of sustainable development in 1987, which also refers to it as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Brundtland, 1987). It can be noticed that while those terms represent common pillars and share principal values, they differ in purpose (Table 1). Sustainability is the leading, long-

term goal. At the same time, sustainable development refers primarily to a growth strategy, representing the process by which sustainability is achieved.

Sustainability vs Sustainable Development	
Similarities	Differences
Importance of environmental, economic, and social factors	Sustainability's primary goal is to achieve and maintain balance (between the three factors)
Acting for future generations' needs	Sustainable development focuses on improving everyone's well-being and quality of life
Responsible resource management and nature maintenance	Sustainable development primarily aims to create growth vs Sustainability aims for self-sufficiency and maintenance

Table 1. Sustainability vs Sustainable Development Comparison Chart

Source: authors' elaboration based on Rogers et al., 2008; Christiansen, 2016; Mensah, 2019; Ruggerio, 2021; Sakalasooriya, 2021; Stefańska, 2021

This difference is a crucial consideration when interpreting the current research results, as respondents typically refer to sustainability from an ecological perspective, particularly in light of the local values that shape the societal context (Kaze et al., 2022). Consequently, this interpretation determines the economic development and priorities of the societies (Schwartz, 2004; Kaze et al., 2011), including the business environment (Sceulovs et al., 2011; Czupryna & Schaff, 2024) and behavioural choices (Kaze & Bolinskis, 2011). Values influence proenvironmental behaviour and are linked to cultural relevance (Primc et al., 2021), while cultural differences may affect the interpretation of the sustainability context. This might lead to a loop where customer demands, priorities and lifestyle are influenced by changes in the external environment arising from the transformation of the economic structure (Kaze et al., 2007), facilitating an awareness of new needs for the society in an ever-changing economic and social environment of modern societies. In this context, Japanese society has traditionally been more concerned about environmental preservation (Bichler, 2023), which may be reflected in consumer behaviour (Hiratsuka et al., 2018) and, consequently, sustainability issues.

Sustainable interactions between nature and people – Satoyama and Mottainai concepts

Japan's culture deeply values the concept of harmony between nature and humanity. One such concept is Satoyama, a rural area comprising different ecosystem types, including secondary forests, agricultural lands, irrigation ponds, grasslands and human settlements (Dublin & Tanaka, 2014). It is said that Satoyama agricultural land systems were created at least 3000 years ago, and their role was to benefit people in harmony with nature, supporting high biodiversity and ecosystem services (Takeuchi et al., 2008; Jiao et al., 2019). Satoyama serves as a model of sustainability, and its areas are currently estimated to cover between 18% and 67% of Japan's national land, depending on the definition (Berglund, 2014; Hiratsuka et al., 2020; Iwachido et al., 2020). Although most traditional Satoyama landscapes have been abandoned, monitoring studies have shown that the remaining Satoyama areas continue to contribute to the proper functioning of the ecosystem. For example, traditional woodland management in Satoyama, such as coppicing, can absorb significantly more carbon than modern forestry systems, which often involve intensive thinning activities. Additionally, high connectivity within forests, croplands, and water sources of conserved Satoyama provides a place for the nesting and foraging of birds and habitats for the entire lifecycle of insects (Kim et al., 2017). In brief, the Satoyama model offers solutions for nature conservation, disaster prevention, and even encourages innovation.

Another crucial aspect of the Japanese connection between nature and people is the concept of Mottainai. Its primary roots lie in the Shinto ("the way of the gods") tradition, a native religion in Japan (Olejarz, 2011; Lee, 2018), where it conveyed the meaning of gratitude and shame for receiving a more excellent favour than one deserved (Suzuki, 2017). Mottainai was also commonly used by Buddhists who regretted the waste or improper use of something sacred or highly respected, such as religious objects or teachings (Suzuki, 2017).

According to the modern dictionary, the meaning behind the word 'mottainai' is "wastefulness" or "a sense of regret concerning waste when the intrinsic value of an object or resource is not properly utilised" (Jisho, n.d.). It is commonly used in the Japanese language and refers not only to material goods but can also express time,

effort, feelings, and even human relationships. By saying "Mottainai!" (carrying a meaning of words like "What a waste!"), Japanese people denote their regret, for example, when something useful, such as food or time, is wasted (Sirola et al., 2019; Suzuki, 2017). "Mottainai" is used in environmental protection to refer to the improper use of resources or waste (Olejarz, 2011). The Mottainai mindset is commonly handed down to the next generations. One of the examples of actions aimed at the youngest ones is the "Mottainai Grandma" campaign stretching for a few decades already, which was initially coined back in 2005 (Shinju, 2005) in a picture book which funnily and easily conveys the meaning and importance of the word 'mottainai' to children, teaching them how to stop wasting resources such as food, water or paper and how to respect the environment.

Although many scientific studies focus on specific relevant topics, such as flora and fauna (Kuo et al., 2025; Kobayashi & Abe, 2023; Xu et al., 2024; Kovács et al., 2022), tourism (Tsuge et al., 2023), environmental perception and feeling (Wuyts, 2024; Sato, 2017; Xiang et al., 2022), ecosystem management policy (Hasegawa et al., 2024; Sato et al., 2023; Sirola et al., 2022; Uchiyama et al., 2022), these studies are fragmented and do not reflect the attitude of modern Japanese people to the problem of traditions in the context of environmental transformation, these studies do not answer the question of whether the perception of contemporary Japanese people coincides with global trends. The authors try to fill this gap in this article.

Sustainable initiatives in Japan

According to the online "Survey on SDGs" conducted by Rakuten Insight, Inc. in 2020, 50% of Japanese recognise the Sustainable Development Goals (SDG) (Matsuoka, 2021). Moreover, data from the Carter Japanese Sentiment Survey from March 2022 shows that only 10% of all respondents understand and can explain the goals (Carter, 2022). At first glance, these data resemble the global average; however, some unique characteristics distinguish Japanese society.

The primary sources of information on SDGs in Japan are TV, online sources and newspapers. (Carter, 2022; Dentsu, 2023). Those already aware of the SDGs and have some knowledge tend not to expand on them; instead, they gather additional information. Only around 30% of Japanese people consciously seek out more information about the SDGs. Regarding the importance of specific goals, women care more about climate change, whereas men prioritise clean and affordable energy. Moreover, people in their 60s were the ones for whom climate actions were the most important, while only 4% of young adults in their 20s chose it as the most crucial issue to address (Carter, 2022; United Nations, 2023a). In contrast, global trends are the opposite, with Climate Action (SDG 13) as the highest priority for young people up to 29 years old (Schlange, 2023). Overall, the most significant SDGs for Japanese people are good health and well-being (SDG3), climate action (SDG13), work and economic growth (SDG8) (Carter, 2022), but also sustainable cities and communities (SDG11) (United Nations, 2023b).

On the other hand, Japanese people are less aware of ethical consumption. According to a survey by ASMARQ (ASMARQ, 2023), nearly 55% of people in Japan are unaware of it. Among people aged 10-19, the recognition rate is 61%, whereas, in the Rakuten Insight survey referred to earlier, the recognition rate was only 24.5%. Japanese people's consumption decisions are based mainly on the price and quality of the product, with factors such as the place of production or environmental friendliness taking a lower priority. Other SDG-related actions that Japanese people are willing to take are mainly limited to avoiding throwing away items and giving them a second life, as well as buying quality products that last longer and can be sold when not needed anymore (Dentsu 2023).

Regarding sustainable initiatives on the national scale, Japan's overall strategy and instruments are mainly based on voluntary agreements and regulatory measures. They focus on setting limits on pollutant emissions, prohibiting specific actions, and introducing necessary permits to ensure compliance with environmental standards. In most cases, authorities first seek voluntary compliance by issuing administrative advice or non-binding requests for compliance. One of the reasons behind voluntary compliance practices is the lack of a legally binding national law, as seen in CO₂ emission regulations, where private enterprises cannot be compelled to reduce emissions from their operations.

Apart from obligations targeting enterprises, there are initiatives, including those for individual households, such as the Tax for Climate Change Mitigation, which addresses CO₂ emissions related to fossil fuels. Such initiatives include the Feed-in Tariff Scheme, targeted at investing (Kastratović et al, 2024) in renewable energy, to make investments more appealing, or Act of the Rational Use of Energy and the Act on the Improvement of Energy Consumption Performance of Buildings, which promote practical and rational use of energy, set energy reduction targets for enterprises, and even serve as the benchmark policy (Kanagawa et al., 2021).

An interesting example of a local initiative in Japan is the "Future Tokyo: Tokyo's Long-Term Strategy", formulated in 2021 by the Tokyo Metropolitan Government (TMG). The strategy aims to create a sustainable Tokyo by integrating three dimensions of sustainability (economic, social and environmental) and achieving a balance between maturity and ongoing growth (Tokyo Metropolitan Government, 2021). The core project, called the Tokyo Bay eSG Project, attempts to create a sustainable city in the Tokyo Bay area by utilising its potential and promoting urban development. This long-term plan (50 to 100 years into the future) is divided into more specific, short-term strategies designed to be achieved by exploiting digital technology and innovation, developing transportation networks, implementing green finance projects (Miszczak et al., 2024), reaching net zero and creating an entire city of green scenery and water, which also expresses the overall goal of the future Tokyo. This project is also said to target 7 Sustainable Development Goals, which are affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, sustainable cities and communities, climate action, life below water, and life on land.

Non-governmental institutions also support sustainable transformation, and while many NGOs address environmental protection in Japan, they are generally small-scale, poorly funded, and have limited influence (Kanagawa et al., 2021). One NGO concerned with the SDGs in Japan is the SDGs Civil Society Network (SDGs Japan), which offers a membership system that brings together other organisations, enabling them to collaborate in implementing effective SDGs. Its actions mainly take the form of policy proposals and advocacy activities for the realisation of SDGs from the perspective of civil society. Another example is the Japan Centre for a Sustainable Environment and Society (JACSES), which is dedicated to achieving sustainable development and social justice. The organisation engages the public and experts in research, policy advocacy, and awareness-raising by promoting environmental taxes and green tax reforms.

Worth mentioning is an example of the University of Tokyo, apparently the first university in the world to take initiatives for sustainability since 1994 (University of Tokyo, 2023). Since then, the university has implemented numerous projects, focusing on sustainability science, designing a sustainable campus, and promoting a healthy and resilient recovery with zero-carbon emissions. One of the most recent undertakings is its Green Transformation (GX) initiative, launched in 2022, which aims to transition to a sustainable and inclusive society. The initiative considers carbon neutrality, a circular economy, and living in harmony with nature as its core pillars.

The proof of the complexity of sustainable initiatives in Japan can be seen in the Tokyo Skytree, whose primary role is to transmit digital terrestrial broadcasting. Nevertheless, it also has another function, aiming to realise the Sustainable Development Goals through its business activities (Tokyo Skytree, 2023). It created three corporate philosophies of providing thrilling space for visitors, transmitting Japanese culture worldwide, and delivering security (Krivins et al., 2021; Raistenskis et al., 2023; Krivins et al., 2023; Vilks et al., 2024) and safety. Concerning the last ones, the Tokyo Skytree is expected to fulfil a role as a disaster-prevention centre. The duplicated power system can continue operating as a broadcasting tower even during a major disaster. This is especially relevant, considering Japan's vulnerability to natural hazards. It is even more critical now, as climate change, extreme weather, and natural disasters (e.g., heatwaves, droughts, fires, floods, or storms) are predicted to occur more often and be more severe.

3. Methodological approach

This study aims to investigate the subject of sustainability and its connections with Japanese culture, society, and economy, as well as the interdependency between these factors in the past and present. The primary

research question is: Is Tokyo on a sustainable development path, and can it continue to be so? Considering the main problem, this study also tries to answer more specific questions:

- What is sustainability, and how does it affect people's lives?
- What are the connections between sustainable assumptions and Japanese culture?
- To what extent is Japanese legislation targeting sustainability and sustainable development?
- What is the level of awareness of sustainable development in Japanese society?

The research mainly takes a bottom-up approach. The conclusions are drawn after specific observations and data analysis; therefore, the paper has an exploratory character, investigating the chosen topic. The study used the triangulation of research methods (quantitative and qualitative methods) and data (both primary and secondary data). Such an approach enabled gathering necessary information, expressed as measurable indicators and descriptive data background, such as cultural roots. This paper's sources of information are secondary data obtained from books, articles, journals, webpages, reports, policy documents, action plans, and statistical analysis and research conducted by organisations and statistical offices. The table and figures included in this work were personally analysed and created by the authors, based on their research conducted in a survey questionnaire.

The survey was conducted among native Japanese people and residents of Japan, which was crucial for acquiring reliable data needed to perform research analysis. It was quantitative research using computer-assisted web interviewing (CAWI), and the analysis results are provided in figures and tables, but also take a descriptive form. The survey questionnaire was conducted between February 22, 2023, and May 15, 2023, and was dedicated to Japanese people, including non-Japanese individuals living in Japan. The authors used private connections to reach the respondents and contacted them through email or social media. The respondents represent a diverse range of occupations and backgrounds. Among them are Japanese language teachers and Takasaki City University of Economics students. Additionally, the survey was anonymous, and no other personal data was collected beyond what was necessary for the survey.

4. Conducting research and results

After the survey, the questionnaire was completed by 90 people representing age groups ranging from 10 to 70 years old. Most respondents were men, comprising a total of 53 individuals. Women counted for 37 respondents. In the case of living arrangements, the situation is more balanced, with varied habitats - 42 people from urban areas and 48 from rural areas, respectively.

This questionnaire aimed to collect additional insights into common topics related to sustainability and questions previously explored in published survey research results (presented above). Moreover, the questions included topics crucial to Japan. They were chosen based on the outcomes of the literature reviews and data analysis, which were also conducted during the preparation of this study. An example of such a question is the subject of Japan's most urgent issues, and one of the indicators here is a low score on the SDGs. Finally, some questions cover global topics, such as the COVID-19 pandemic and how people perceive its impact on sustainable initiatives, as well as topics that the authors found interesting.

The questionnaire consisted of 14 questions. The first three questions concern the information about the respondents themselves (age, gender, habitat), and the remaining eleven questions ask about their awareness of the chosen sustainability topics, the sustainable practices they might or might not undertake, and their personal feelings about the sustainability movement and their opinions on such transformation in Japan. Most questions have closed-ended character types; however, participants could add their ideas when possible.

Based on the topic of the questions, they can be divided into three main groups. The first concerns overall awareness of sustainability topics and related terms. It also asks about sources of knowledge about the mentioned subjects. The second one asks what is most important for Japanese people and which problems are most significant. Then, questions include topics such as the SDGs' impact on people's lives, the government's role in this process, and the external impacts, such as the pandemic. Lastly, the questionnaire collected

information about local communities and their commitment to social activities related to sustainability and the sustainable activities people are willing to pursue.

When asked about specific sustainability and sustainable development terminology, phrases such as 'climate change' and the Sustainable Development Goals did not cause much trouble. They were well recognised among most respondents (Figure 1).

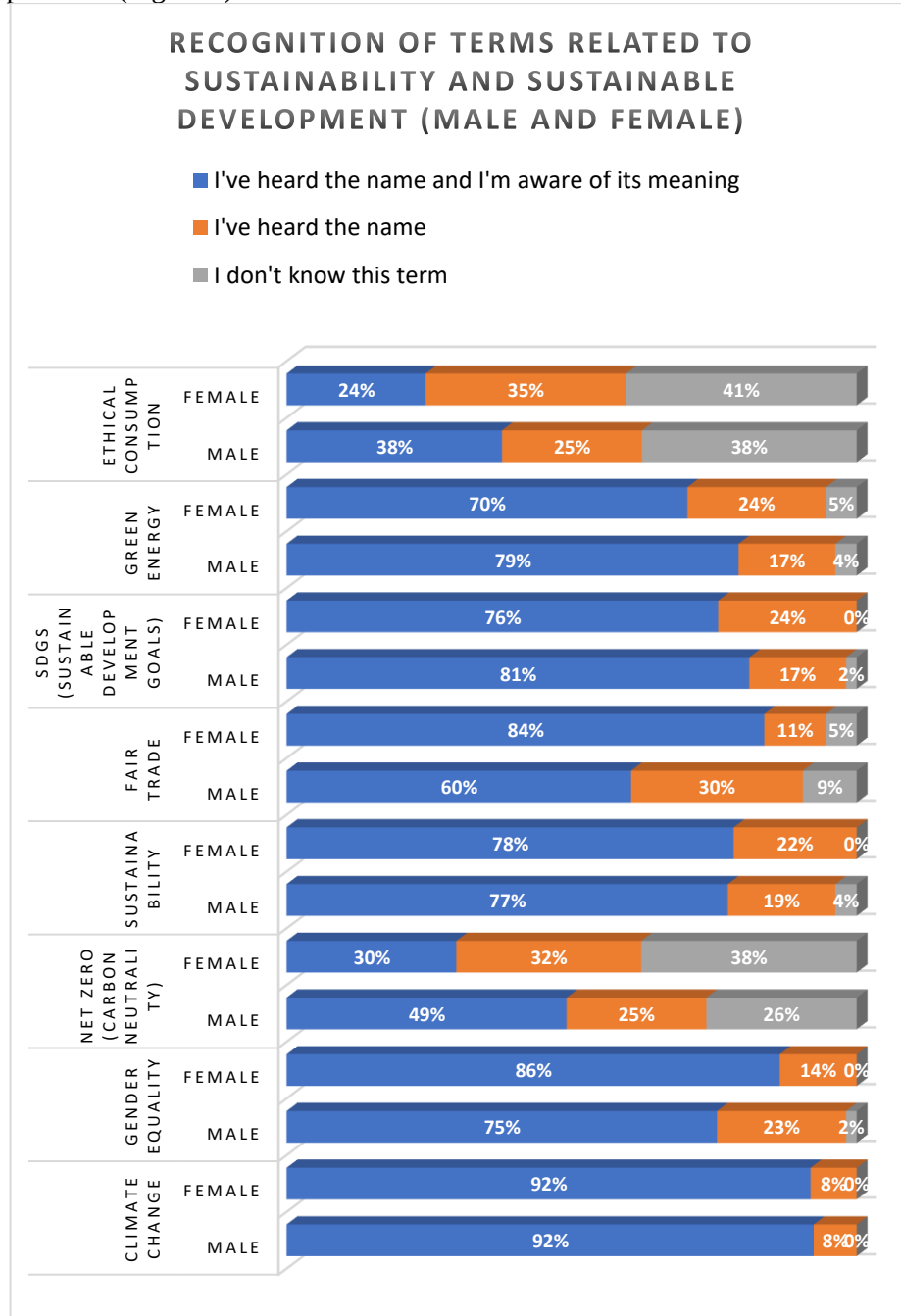


Figure 1. Recognition of terms related to sustainability and sustainable development

Source: authors created based on *their data*

Climate change was the most recognised, with 92% of respondents stating that they had heard the name and knew its meaning. Eighty per cent of the surveyed individuals recognised the term "gender equality," with 86% and 75% identifying it among women and men, respectively. The third most recognised were the Sustainable Development Goals (SDGs), with a total recognition rate of around 79%. The following position was Sustainability and Green energy, with 78% and 76% awareness, respectively. On the other hand, ethical

consumption was not well recognised, with only a 32% share of awareness of its meaning. Moreover, almost 38% have never heard about it. This term is also the least recognised by both men and women. A slightly better situation is in the case of Net Zero, also referred to as carbon neutrality. Its recognition and understanding of its meaning were claimed by 42%, with 31% stating that they had never heard about it.

Regarding gender-based recognition, the most significant difference in answers between men and women can be observed in their responses to fair trade terms. It was relatively well recognised by 70% of respondents; however, women took the lead, with 84% understanding the topic. 60% of men were aware of the fair-trade meaning.

Concerning the sources of knowledge about sustainability, the most significant share, 31%, declared that they obtained information from the Internet. The second most popular sources were TV or radio, which 23% of respondents chose. One-fifth learn about sustainability at work and school. The newspaper received 10% of all answers; meanwhile, the least popular sources received 5% each were social campaigns and official websites of international organisations. Moreover, only 5% of respondents reported gathering information about sustainability from friends or family. Furthermore, when asked whether students are taught about sustainable development and sustainability at school, 51% said they are. 36% of respondents answered that they did not know, and 13% responded negatively.

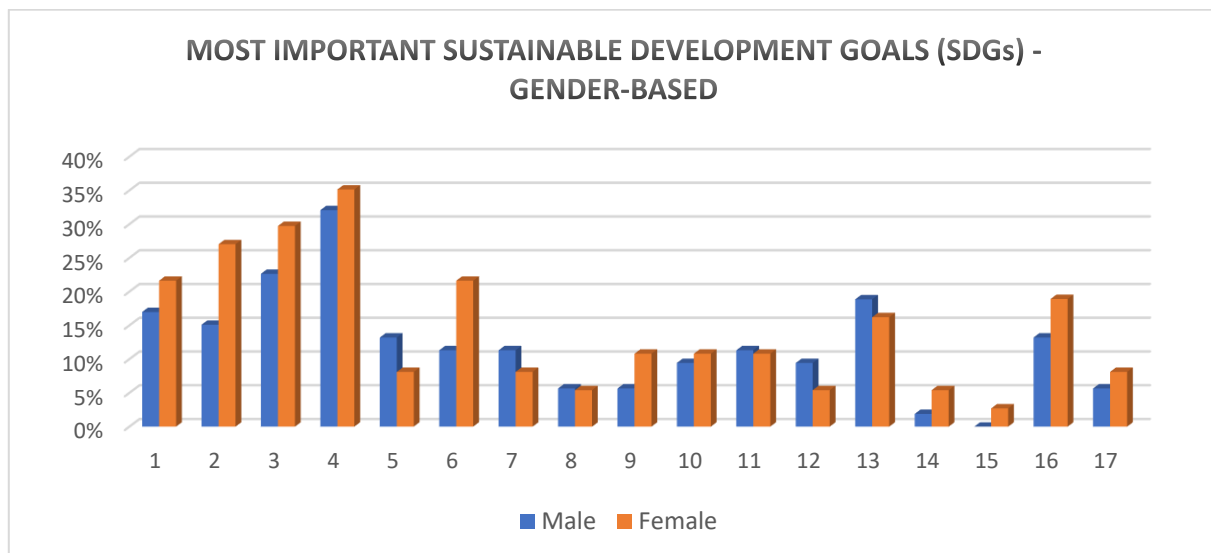


Figure 2. The most important Sustainable Development Goals (SDGs) – gender-based

Source: authors created based on their data

The respondents were asked about which SDGs are the most important to them. This question allowed them to check multiple answers; thus, it was not limited to only one SDG per person. Figure 2 above shows the answers based on gender. As can be noticed, the trends are pretty similar, and goals such as SDG4 (Quality Education) and SDG3 (Good Health and Well-being) are equally crucial for both men and women, also taking the highest positions in terms of importance, receiving average support of 33% and 26%, respectively. A similar level of support (in terms of similarities between genders) was received for goals SDG8 (Decent Work and Economic Growth), SDG10 (Reduced Inequality), and SDG11 (Sustainable Cities and Communities). However, those goals were chosen by between 6 to 11% of respondents. The most significant difference can be noticed in the goals SDG2 (Zero Hunger) and SDG6 (Clean Water and Sanitation), both of which are significantly more important for women than for men. The least number of votes received SDG15 (Life On Land) – 1,1%, and SDG14 (Life Below Water) – 3,3%.

The same question was analysed based on age. For this purpose, the age groups were divided into two bigger groups of people aged between 10 and 40 and 50 and 70 and older (Figure 3). That way, we obtained almost equal groups of 46 and 44 people.

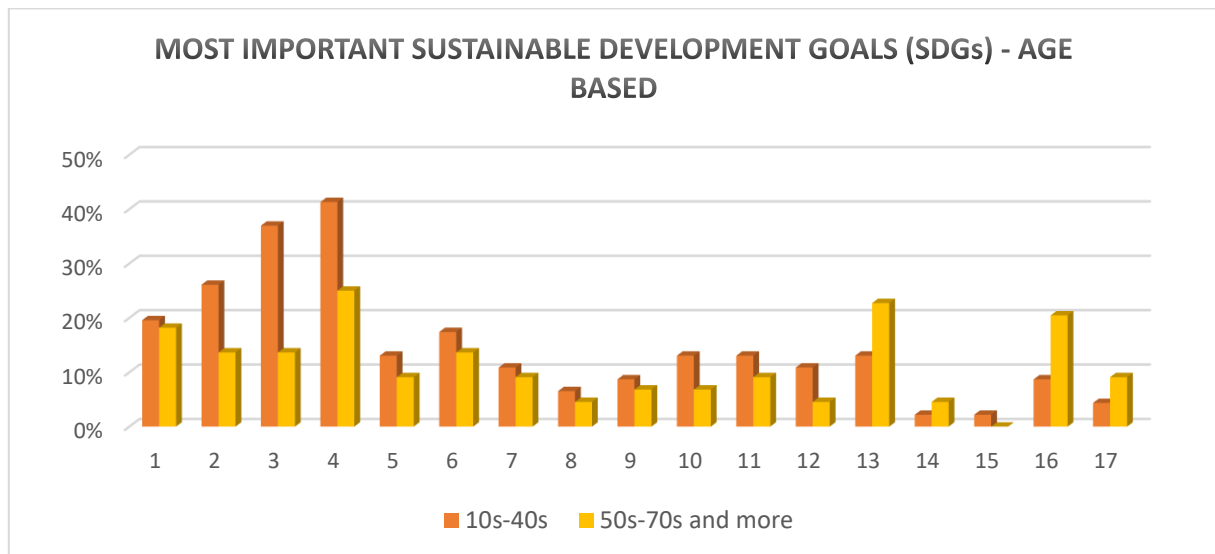


Figure 3. Most important Sustainable Development Goals (SDGs) – age-based

Source: authors created based on *their data*

The first thing that can be noticed is a significant difference in support for goals 2, 3, and 4 (Zero Hunger, Good Health and Well-being, and Quality Education), which are the most important for people aged 10 to 40. These were the most significant goals for this age group, and they received 26%, 37%, and 41% of votes, respectively. In contrast, the most considerable support among those aged 50s to 70s and older was for SDG13 (23% of votes) and SDG16 (20% of votes) (Climate Action, Peace, and Justice Strong Institutions), compared to the younger generation. The goals of SDG13 and SDG16 were also the most important in the mentioned age group, along with SDG4, which received 25% support. The least essential goals for both age groups were SDG14 and SDG15; however, in the case of the age group over 50s, SDG8 (Decent Work and Economic Growth) and SDG12 (Responsible Consumption and Production) were equally less important than the other goals. As presented in the data, climate change is more significant for older generations, opposite to the global trend. Furthermore, the graph appears more balanced from the perspective of people aged 50 and above; most goals receive similar support, with some fluctuations. For those aged 10 to 40, the situation is contrary, as in the case of SDG4, which was recognised as necessary by 41%, whereas six goals did not receive even 10% support.

When asked which problem (among the listed) needs the most urgent actions, 32,2% chose the waste management issue. The second most significant (28,9%) was air pollution, affecting most of Japan. Respondents chose gender inequality as the third option, with 20% of the answers; the last was poor urban planning, with 18,9%. Nevertheless, the answers seem evenly divided, with no considerable difference. A different situation becomes apparent when examining the answer by gender. As for male respondents, the situation looked balanced; women had very different opinions. The most interesting thing is that gender inequality received the fewest points among women – it is the least important to them. Considering that women struggle the most because of the barriers and unfairness in many spheres of life, such a result is unexpected. For women, the most crucial issues were air pollution (41%) and waste management (35%). Slightly more important than gender inequality was urban planning, with 14% of all answers. In the case of men, the most urgent issues were waste management (30%) and gender inequality (26%), which is another surprising result. Urban planning and air pollution received 23% and 21% of votes, respectively. Nevertheless, considering that answers are evenly split among male respondents, there is a possibility that there is no more significant meaning behind that.

The respondents were asked to rate how they would evaluate governmental actions to raise awareness of social and environmental problems. As shown in Figure 4 below, most answers rated the government's role from 1 to 3, and only one out of 90 rated governmental actions as 5. The most significant share of all answers,

at 42%, received a value of 2, which can be interpreted as somewhat insufficient actions. The second-highest answer was value 3, precisely in the middle, thus not expressing positive or negative opinions.

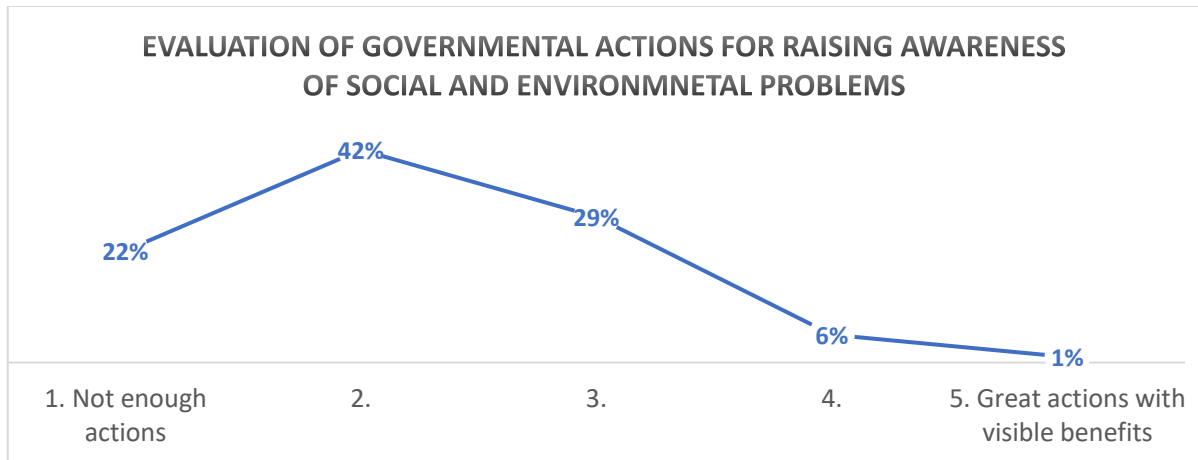


Figure 4. Evaluation of governmental actions for raising awareness of social and environmental problems

Source: authors created based on *their data*

Additionally, when asked whether Japan's climate actions are insufficient (Figure 5), at least 50% agreed. The form of the question was similar to the previous one, where respondents gave answers on a scale from 1 to 5. The most chosen answer was number 4 (28%), which can be translated into "I agree (but not strongly)". The second most significant value of 24% was located at number 3, in the middle; thus, it can be interpreted as "Neither agree nor disagree" or as a neutral answer. Additionally, 22% of respondents fully agree that Japan's climate policy is insufficient. Nonetheless, it can be concluded that the surveyed Japanese people do not think the government is doing enough, especially considering that only 6% strongly disagreed with the insufficiency of the actions undertaken.

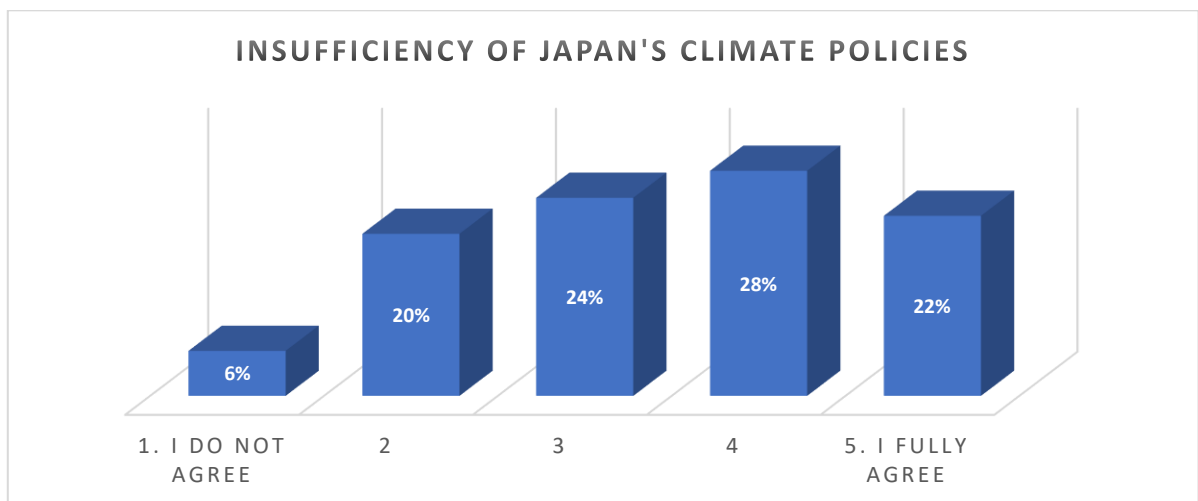


Figure 5. Insufficiency of Japan's climate policies

Source: authors created based on *their data*

Finally, the respondents were asked whether their local communities engage in any activities related to SDGs, such as awareness campaigns, donation programs or neighbourhood clean-up programs. 35% reported that such actions occur, 19% answered "No", and the remaining 46% do not know if such activities occur. The reason behind this might be the lack of proper promotion for such initiatives, but respondents may also not be interested in such projects; thus, they do not pay attention. There is also a possibility that some share of "Maybe (I do not know)" answers should be analysed as the "No" answer. Consequently, regarding the

reliability of conclusions regarding those answers, it is recommended to interpret them as indicators of awareness of social activities related to the SDGs. The last (multiple-choice) question asked about the actions for climate change that respondents are personally willing to take (Figure 6).

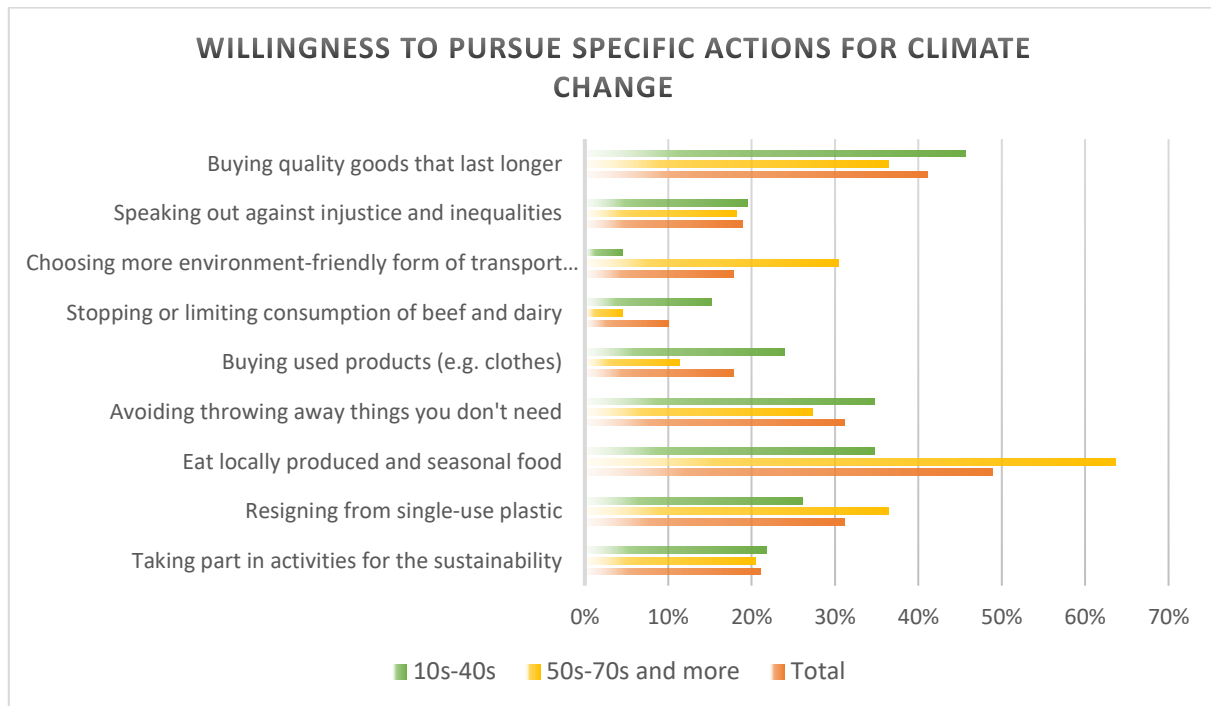


Figure 6. Willingness to pursue specific actions for climate change

Source: authors created based on *their data*

Most people choose to eat locally produced and seasonal food. This option was trendy among people aged 50 to 70 and older, with 64% of votes. Among those aged 10 to 40, the most popular answer was buying quality goods that last longer (46%), which was also popular among the older generation (36%). The next three most popular practices received 31% support from all respondents: resigning from single-use plastic and avoiding throwing away things a person does not need. This can inspire a circular approach to the products we buy and use. Then, taking part in activities for sustainability was chosen by 21% of respondents, just before speaking out against injustice and inequalities in society, which was selected by 19% of those surveyed. Buying used products, such as clothes, was chosen by 18% of all respondents and 24% by those aged 10 to 40, making a visible difference between the older generation, with 11% supporting this action. Another significant disparity between generations can be observed in choosing a more environmentally friendly mode of transportation, such as a train instead of a car or a plane. This action also received 18% support, whereas 30% comes from those aged 10 to 40, and only 5% of those over 50 are willing to implement it. The least appealing idea was to stop or limit beef and dairy consumption (10% of the total), especially among those aged 50 to 70 and older, with only 5% willing to try it. Slightly more popular, with 18% of the votes, was buying used products, such as clothes; again, older respondents were less keen on implementing this practice, with only 11% marking this option. Apart from the answers to the question, two respondents proposed their ideas, such as reducing total energy usage from fossil fuels and switching to renewable energy. The other idea included self-development and learning about the global environment and human society. Both respondents represented the 50s age group.

To conclude, the analysed data and visible trends do not differ much from the secondary data presented. Such similarity can be attributed to a more extensive awareness of sustainability among men; however, the difference is insignificant. The overall knowledge of Japanese people is remarkable. Examples where respondents did not recognise terminology were a rarity. For example, in the secondary data, the primary sources of knowledge on sustainability included TV, online sources (such as the Internet), and newspapers.

Another common point is that the older generation finds climate change more important (than the younger ones), which both datasets have shown. Moreover, regarding SDG-related activities, respondents chose to buy quality goods and avoid throwing away things, as these are the actions they are willing to pursue, which aligns with the data from the Dentsu survey. It can be observed that the respondents do not have positive feelings towards governmental initiatives and find them insufficient. More severe actions from the authorities are crucial for efficiently implementing sustainable transformation. Nevertheless, it would affect the lives of people who feel that new restrictions and obligations decrease the quality of their lives. Again, due to the small sample size, it is worth noting that the obtained result may vary from the actual state.

5. Conclusions

The subject of sustainability and sustainable development remains relatively new to many; for some, it is even unfamiliar. Apart from the ambitious objectives the 17 Sustainable Development Goals (SDGs) provided, they introduced sustainability to a broader audience, enabling people to understand it more clearly. However, some misunderstandings still arise from interpreting the definitions of these two terms, which are often used interchangeably. It should be remembered that although both terms refer to managing resources for future generations, sustainable development focuses on improving the quality of life and economic well-being; thus, it emphasises economic factors, whereas sustainability encompasses environmental, economic, and social factors. Considering the Sustainable Development Goals (SDGs), the next few years will be crucial for the successful implementation of the 2030 Agenda for Sustainable Development. After this time, we might face new, updated goals and objectives, just like the SDGs replaced the Millennium Development Goals (MDGs).

One of the main findings of this research is the long and deep history of the relationship between Japanese society and nature. The roots of this connection can be traced back to culture, religion, and tradition. Despite their origins and beliefs, it is common for Japanese people to associate natural habitats with holy places and various elements of nature with deities. Throughout the centuries, they have utilised the environment and nature for shelter, food, and places of worship, and have learned how to utilise them most effectively. Furthermore, although many such functions are now unnecessary and people no longer have to fulfil them in the same way, the tradition of living in harmony with nature has evolved and influenced their culture. An example is the expression of *Mottainai*, which refers to respecting things and not wasting, or the gratitude towards consumed food conveyed in *Itadakimasu* before a meal.

Moreover, when it comes to legal aspects of sustainability, Japan actively participates in international summits and expresses its commitment to global actions for sustainability. It also aspires to be among the most influential players in shaping the creation of future sustainable initiatives. It also engages with various policies and initiatives within the country's borders, focusing on the most critical matters from the country's perspective and its international commitments. However, it should be noted that a significant share of such actions takes the non-obligatory form, making it difficult for broad transformation. Based on that, governmental actions targeting enterprises are primarily focused on promoting and encouraging sustainable transformation. Nevertheless, the current level of sustainability in Tokyo ranks it among the most sustainable cities in the world, demonstrating that years of effort have paid off, and the future of this city may be even more prosperous.

When we compare Japanese society to the rest of the world, its knowledge of sustainability topics is relatively low. Many people are still unfamiliar with these terms and unaware of their meanings and how they relate to everyday life. Nevertheless, the series of surveys has shown that awareness of the mentioned topic increases yearly. Japanese people learn about sustainability and sustainable development at their own pace and are, in fact, willing to take part in sustainable transformation. Nevertheless, the crucial finding is that Japanese respondents tend to hold a unique perspective on such topics, even one contrary to what is commonly acknowledged globally; thus, general and usual strategies are probably not expected to be effective in Japanese society.

This research highlights the substantial number of local initiatives and the comprehensive approach to sustainable development in Tokyo. However, it also raises the question of the effectiveness of such action. As

was mentioned, the voluntary nature of many policies does not require compliance, making it difficult to evaluate their success. Nevertheless, a crucial fact is that Tokyo has a clear goal for the future, and it knows how to achieve its set objectives. The project for a sustainable future in Tokyo fully utilises all three pillars of sustainability (economic, environmental, and social). It aims to provide citizens with an equal and innovative environment for all. Again, this work evaluates awareness among Japanese society, but this time, it is based on the authors' research.

Regarding the most common terms related to sustainability, most respondents had no difficulty recognising them; only a few were unfamiliar with them. Another important finding is that Japanese people do not feel the government is doing enough for sustainable development. This implies that more decisive actions are expected, especially considering respondents did not perceive any impact on their lives due to implementing sustainable initiatives. Moreover, Japanese society's priorities differ from those observed in Europe or globally, reflecting unique characteristics. Finally, Tokyo is expected to face many external factors, which will significantly affect the sustainable development of Tokyo (and Japan) and the eventual outcome of the transformation. Tokyo must continually focus on and develop its natural risk mitigation and adaptation measures, extending them to policies targeting other issues that, from a sustainability perspective, are not doing well. Nevertheless, considering Tokyo's and Japan's current position and the amount of work the country is doing to commit to sustainable development, the future for Tokyo looks bright.

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