Journal of Infrastructure, Policy and Development 2025, 9(1), 10345.
https://doi.org/10.24294/jipd10345

Case Report

Development and implementation of a wildlife and biodiversity protection Eco-label: The "RESPECT" initiative

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CITATION

Spentzou M, Chatzopoulou E, Argyraki P, et al. (2025). Development and implementation of a wildlife and biodiversity protection Eco-label: The "RESPECT" initiative. Journal of Infrastructure, Policy and Development. 9(1): 10345. https://doi.org/10.24294/jipd10345

ARTICLE INFO

Received: 15 November 2024
Accepted: 11 December 2024
Available online: 6 January 2025

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Abstract: The reduction of biodiversity and the decline in wildlife populations are urgent environmental issues with devasting consequences for ecosystems and human health. As a result, the protection of wildlife and biodiversity has emerged as one of humanity's greatest goals, not only for protecting and maintaining human health but also for environmental, economic, and social well-being. In recent years, people have become increasingly aware of the importance and effectiveness of wildlife conservation efforts alongside environmental protection measures, sustainable agricultural practices and non-harmful production procedures and services. This study describes the development and implementation of a labeling scheme for wildlife and biodiversity protection for products or services. The label is designed to encourage the adoption of sustainable and environmentally friendly production methods and services that will contribute to biodiversity conservation and the harmonic coexistence of human-wildlife. Moreover, using a case study approach, the research presents an innovative information system designed to streamline the label-awarding process, ensuring transparency and efficiency. The established system evaluates the sustainability practices and measures implemented by businesses, with a focus on honey production in this case. Additionally, the study explores the broader social implications of the label, particularly its potential to engage consumers and promote awareness of biodiversity conservation.

Keywords: biodiversity; wildlife; bear; RESPECT; Eco-label

1. Introduction

The reduction of biodiversity and the decline in wildlife populations are pressing environmental issues with far-reaching consequences for natural ecosystems and all life on Earth (Carter et al., 2016; Dasgupta, 2021; Rahman, 2024; Steffen et al., 2015; World Economic Forum, 2022). Recently, the One Health approach has remarkably highlighted that human actions affecting animal and environmental health will continuously increase the frequency and scope of zoonotic diseases. Further, due to the inextricable link among humans, animals, and ecosystems, biodiversity and wildlife losses will also lead to economic, social, and cultural issues. The main drivers of biodiversity degradation have been widely recognized, involving human overconsumption, population growth, unsustainable farming, wildlife habitat destruction, poaching, and the illegal wildlife trade (Abrahms et al., 2021; Darwall et al., 2008; Glikman et al., 2021; IPBES, 2019; König et al., 2020; Pooley et al., 2021;

Steering Committee, 2012). Unsurprisingly, all of the above is implemented with the aim of profit at the expense of the planet's sustainability. However, in recent years, economic benefits seem to be increasingly used to trigger and further promote biodiversity and wildlife protection efforts, leading to the rise of a new generation of eco-conscious consumers. Voluntary standard systems have emerged as mechanisms for producers and companies to demonstrate adherence to environmental, social, ethical, or other standards.

These systems generally consist of three key components (Lybbert et al., 2002; Marx and Wouters, 2022): (a) the standard definition, which sets out social and environmental best practices for specific industries, crops, or products, including compliance criteria, indicators, scoring systems, and implementation guidelines; (b) the compliance verification, which involves on-site inspections, interviews, and record reviews to ensure that products marketed as certified sustainable meet the relevant standards. Independent third parties typically oversee audit integrity, while traceability systems track certified products from origin to sale; and (c) the sustainability labels, that distinguish sustainable products at the consumer level. These standard systems for Eco-labels play a crucial role in encouraging producers to adopt sustainable practices, reducing negative impacts on ecosystems, and shaping consumer behavior.

Eco-labeling plays a crucial role in promoting environmental preservation. First, Eco-label schemes enable producers to play an active role in protecting nature. By complying with the standards established by those labels, producers adopt sustainable practices in areas such as resource management, waste reduction, and the utilization of environmentally friendly materials. This active engagement helps reduce the negative impact on ecosystems and supports the preservation of biodiversity (Bansal and Roth, 2000; Tscharntke et al., 2015; Waldron et al., 2012). Moreover, eco-friendly labels establish a mutual commitment among producers, consumers, and certification bodies (Grunert et al., 2014). From this perspective, they are further shaping consumer perceptions based on trust, awareness, and active involvement in a mutual goal (Bangsa and Schlegelmilch, 2019; Chen and Tung, 2016; Taufique et al., 2016). Also, they can be used as engagement and training tools, improving consumers' understanding and knowledge of biodiversity (Asioli et al., 2020; Donato and D'Aniello, 2021).

A growing number of consumers are now more conscious of their environmental impact, choosing products and services aligned with sustainable practices (Kolodenko et al., 2024). This remarkable shift in consumer behavior is motivating businesses to adopt eco-friendly strategies and innovate towards more sustainable solutions (Díaz et al., 2020; Edenbrandt and Lagerkvist, 2021; European Commission, 2019; Risius and Hamm, 2018; Tulloch et al., 2021) and motivating them to make environmentally friendly choices (Stampa et al., 2022; Tanveer et al., 2024; Torma and Thøgersen, 2021; van Amstel et al., 2008; Zaharia et al., 2021). Recent studies show that Eco-labels can influence consumer behavior in areas such as seafood, coffee, wine, tuna, and agricultural products (Bansal and Roth, 2000; European Commission, 2019; Sorqvist et al., 2013; van Amstel et al., 2008; Zaharia et al., 2021). Consumers tend to distinguish between conventional products and environmentally friendly products (Díaz et al., 2020; Panopoulos et al., 2022b). The latter are usually being preferred even if the traditional products available on the market are identical (Samant and Seo,

2016). In fact, consumers are often willing to pay more for products or services that do not negatively impact the environment. This is undoubtedly a strong argument that encourages producers to adopt sustainable practices, even if these practices come with higher production costs. Despite the importance and market acceptance of Eco-labeling systems, significant challenges remain, particularly concerning the procedures and requirements that the potential beneficiaries should meet (Pomarici et al., 2018; Weinrich and Spiller, 2016). Thus far, each Eco-label scheme seems to follow its logic, focusing on only one or a few species of animals or plants without considering the overall environmental footprint of the production process. Also, most of the schemes that are already in place are based only on qualitative criteria, often leading to confusion among consumers and conflicts between producers.

The main objectives of the present paper are (a) to present an Eco-label award that has a holistic approach to wildlife and biodiversity protection; (b) to present the innovative design and pilot implementation of a wildlife and biodiversity conservation label for products and services implemented in Greece; and (c) to briefly describe the newly established certification information system, emphasizing ease of use and open access to all stakeholders.

2. Materials and methods

A qualitative methodology was used to obtain the research objectives for the purpose of this study, included two stages: Strategic Information System Planning (SISP) methodology for Information System (IS) and a qualitative case study after the software's design.

2.1. Information system methodology

2.1.1. Framework for SISP methodology and technological architecture

Concerning information technology resource planning, Strategic Information System Planning (SISP), at the most basic, can be defined as "the process of determining an organization's portfolio of computer-based applications that will help it achieve its business objectives" (Newkirk and Lederer, 2006, p. 34). Before SISP, the information technology resource planning process was referred to simply as Information System Planning (ISP) (Fergerson, 2012; Teo and King, 1996). ISP is defined as: "IS (Information System) planning is a set of activities directed toward achieving three objectives: (a) recognizing organizational opportunities and problems where IS might be applied successfully; (b) identifying the resources needed to allow IS to be applied successfully to these opportunities and problems; and (c) developing strategies and procedures to allow IS to be applied successfully to these opportunities and problems." (Hann and Weber, 1996, p. 1044).

The software infrastructure is based on a Client-Server architecture. Clients (or front end) input information and request services from a server (or back end), which processes and offers the requested information. The technologies used to implement the information infrastructure were compatible with internationally recognized technological standards and standardized communication protocols (e.g., HTML, JavaScript, etc.).

2.1.2. Criteria formulation for the Eco-label and IS

The evaluation criteria for the Eco-label were carefully formulated, drawing on international best practices in biodiversity and wildlife conservation, taking under consideration the existing literature. These criteria were based on a) standards for sustainable resource management (ensuring efficient use of materials and energy), b) waste reduction (promoting recycling and minimizing environmental impact), c) wildlife habitat preservation (prohibiting actions that harm biodiversity), and d) the prohibition of harmful chemicals (eliminating the use of harmful substances in production processes). The criteria were developed to ensure that businesses demonstrate comprehensive actions for protecting biodiversity, including the adoption of eco-friendly materials and practices. These standards are aligned with internationally recognized sustainability frameworks (Bansal and Roth, 2000; IPBES, 2019).

The decision to employ an IS is grounded in the increasing recognition of digital tools as essential components of label award systems, offering advantages such as automation, data integrity, and enhanced user accessibility (Marx and Wouters, 2022; Nikolaou and Tsalis, 2018). Furthermore, an IS allows for centralized data management, secure information storage, and user access control, aligning with best practices in Eco-labeling systems and certification standards. Traditional, manual certification procedures are often labor-intensive and susceptible to inconsistencies. In contrast, an IS automates repetitive processes such as application handling, preliminary scoring, and document verification, which significantly alleviates administrative workloads and accelerates the certification timeline. Transparency, a fundamental attribute of Eco-label credibility, is another crucial advantage provided by the IS. By employing predefined criteria and algorithms for scoring, the system minimizes subjective biases and ensures equitable treatment of all applicants. This objectivity is essential for building trust among stakeholders and aligning with best practices in certification systems, as highlighted by existing literature (Grunert et al., 2014; Weinrich and Spiller, 2016). Furthermore, the centralized data management capabilities of the IS further strengthen its suitability. By securely storing all information and implementing safeguards such as SSL encryption and GDPR compliance, the system ensures the integrity and confidentiality of sensitive user data. Finally, the IS is designed to accommodate a diverse range of stakeholders, including producers, the awarding body, and the general public.

2.1.3. Quality assurance and integrity measures

To ensure the integrity of the awarding process, quality assurance techniques were embedded into the design of the IS. The IS uses predefined algorithms for scoring, reducing the risk of subjective bias during evaluations. Additionally, the process is also monitored through periodic audits to ensure continued compliance and the sustainability of the Eco-label.

The methodology was implemented through iterative cycles of development, testing, and refinement. Each phase included stakeholder input to ensure alignment with organizational objectives and end-user requirements. Monitoring frameworks were also integrated to track progress and evaluate the effectiveness of the SISP-based IT (Information Technology) resource planning system. By combining the principles

of SISP with cutting-edge technology and rigorous evaluation criteria, this methodology establishes a robust foundation for IT resource management that prioritizes both organizational goals and ecological sustainability.

2.2. Case study

After the literature review and design of the IS, a case study was considered. A case study is defined as an empirical investigation that explores a contemporary phenomenon within its actual context, especially when the boundaries between phenomenon and context are not clearly evident and cannot be separated from its context (Baxter and Jack, 2008; Yin, 2009), which depends on the qualitative approach as a method used in an information system. According to a research by Onatu (2013), three reasons have been identified that the choice of case study in information system (IS) research is the best method of qualitative approach: The case study 1) allows the researcher to study the IS in its physical settings and generate theories from practice; 2) is the most appropriate method when the research question is how and why, to gain clearer information; and 3) allows the researcher to know the nature and complexity of the process. This research applied a case study, in which the implementation of the information system was examined. It was the most appropriate method as it was not possible to disconnect the application from the practice.

The IS was piloted with honey producers to assess its functionality and effectiveness, using a stratified sampling process. Selection criteria included: i) geographic representation to ensure diverse environmental contexts; ii) adherence to initial biodiversity-friendly practices; and iii) willingness to participate and provide feedback. During the pilot test, the system recorded detailed information about producers' biodiversity measures, supporting documents, and scoring outcomes. Evaluators assessed both quantitative (e.g., compliance with specific criteria) and qualitative (e.g., innovativeness of implemented measures) aspects.

3. Information system (IS) development and structure

The IS developed for the Eco-label was conceived as a modern solution to streamline the awarding process while ensuring transparency, efficiency, and scalability. This inclusivity promotes broader participation and engagement in biodiversity protection efforts, demonstrating the system's role as a versatile and impactful tool for environmental conservation. The website www.respect-label.gr developed and offers this IS.

The IS was designed to serve the following categories of users/beneficiaries: (a) Production/classification/packaging/trading/service provision companies; (b) Awarding Body; and (c) Any interested party wishing to access the register of incorporated businesses or information on protecting wildlife and biodiversity.

The IS was meticulously designed to reflect the Eco-label's holistic approach to biodiversity and wildlife protection. The workflow (**Figure 1**) incorporates the following steps:

- Registration: Businesses create accounts and provide preliminary organizational information.

- Application Submission: Applicants complete a comprehensive questionnaire detailing biodiversity protection measures and upload supporting documents.
- Automated Scoring: The system calculates preliminary scores based on specific actions and documentation, weighted by their environmental significance (Torma and Thøgersen, 2021).
- Evaluator Review: Independent evaluators review applications, assign final scores, and note any deficiencies.
- Award Decision: The awarding body issues a digital certificate with unique identifiers, ensuring authenticity.
- Ongoing Monitoring: The IS supports periodic audits and compliance checks to maintain label standards.

Criteria for evaluation were derived from best practices in Eco-labeling and aligned with international sustainability standards. These include measures such as sustainable soil management, prohibition of harmful chemicals, and the protection of wildlife corridors (Bansal and Roth, 2000; IPBES, 2019).

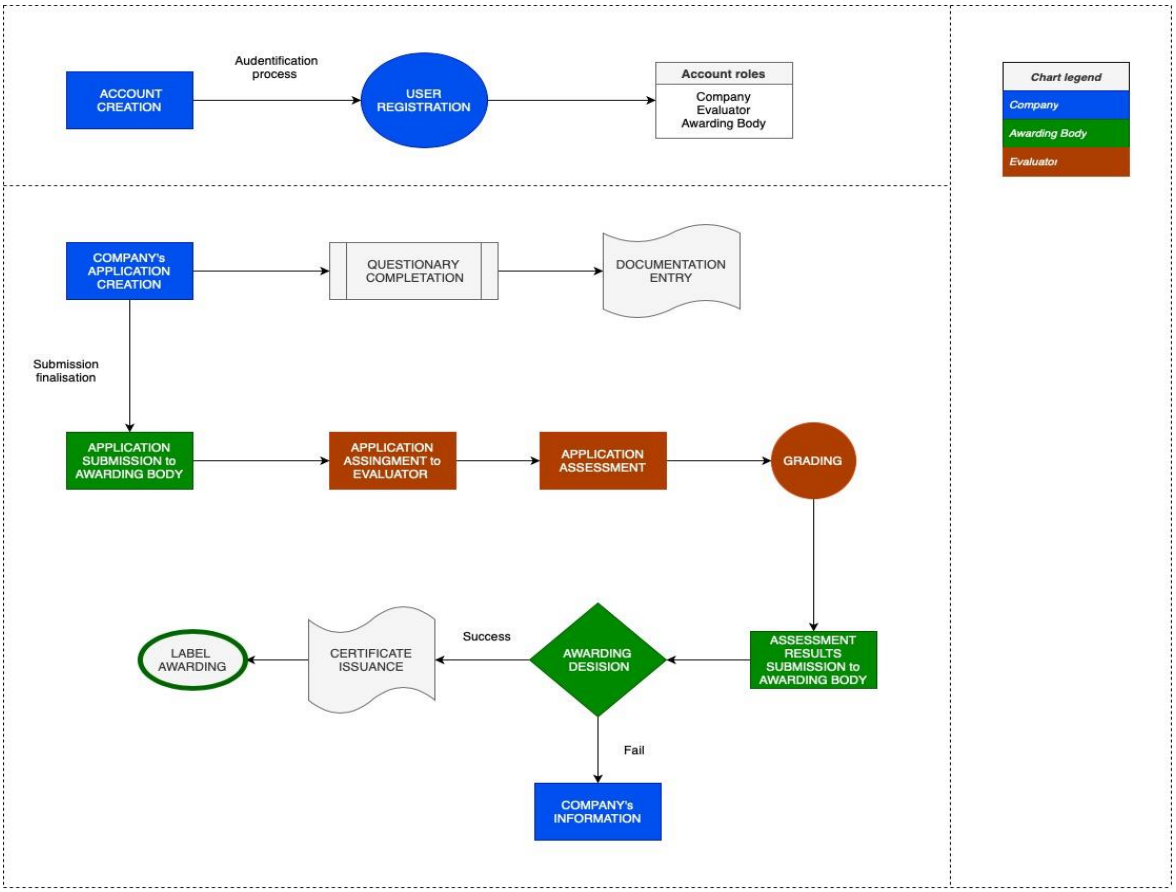

Figure 1. The workflow of the awarding process in the designed information system.

4. Label awarding scheme and label design

Following the IS design, a label awarding scheme was developed, incorporating several documents. The Specification Guide for the label awarding sets the standard, requiring businesses to use methods that are friendly to wildlife and biodiversity, demonstrate environmental protection, and distinguish their products/services in the

market. Compliance grants a Certificate from the Awarding Body, the Veterinary Science faculty of the University of Thessaly, permitting the use of the "RESPECT" label on product labeling and promotional materials. The requirements include measures to protect the environment and practices beneficial to wildlife. The procedure for awarding the label is described in the guideline that stipulates the procedure of verification of compliance, including submission of applications, evaluation, issuance of certificates, and maintenance of monitoring over time on continued compliance. Finally, the guideline contained an appendix with a manual of the awarding information system, which provided how-to instructions to use the specific information system in awarding. This comprehensive scheme ensures that businesses meet the required standards and can effectively communicate their commitment to biodiversity and wildlife conservation.

This study introduces the "RESPECT" label, which recognizes organizations committed to protecting biodiversity and wildlife. The awarded label design, therefore, tries to reinforce clarity and consumer perception. The chosen label name, "RESPECT", relates a message of environmental respect and is in pursuit of harmonious co-existence between human beings, wildlife, and biodiversity. The label's tagline (slogan), "for Wildlife and Biodiversity", complements the "RESPECT" logo, completing the phrase: "RESPECT FOR WILDLIFE and BIODIVERSITY". The label's design reveals an abstract silhouette of a bear's head in front of a mountain, representing wildlife and biodiversity, as shown in **Figure 2**. The bear's head was intentionally chosen for the logo, as it is the largest mammal in Europe and it has been listed in the Red Book of Endangered Species. Additionally, the mountain and the green color in the logo symbolizes biodiversity, which is also under threat.

To guarantee the legal safeguarding of the "RESPECT" label, its design was officially registered as a trademark with the appropriate regulatory authorities. This process included an in-depth evaluation to verify the originality of the design and its consistency with the label's core mission and values (De Vries et al., 2017; Kerly, 2020). By obtaining trademark protection in international level, the Eco-label's exclusive use was ensured, preventing unauthorized reproduction and reinforcing its distinctiveness in the marketplace (Block et al., 2014; Kerly, 2020). This step was crucial in maintaining the integrity and credibility of the label, allowing it to be recognized as a trusted symbol of sustainability and biodiversity conservation (Bently and Sherman, 2014; de Almeida and Trzaskowski, 2018).

Figure 2. The awarded label "RESPECT".

5. Application of IS

5.1. Specification criteria

The awardees of this label exemplify a robust involvement in environmental conservation through a comprehensive set of criteria they apply and are committed to continuing to apply, as shown in **Table 1**. These include strict prohibitions on practices that degrade or pollute natural ecosystems. In addition, awardees implement sustainable soil management or restoration measures, ensuring the longevity of vital ecosystems. The "RESPECT" prohibits the use of Genetically Modified Organisms and highly toxic pesticides, prioritizing the health of both wildlife and their habitats. In addition, strict restrictions are placed on the hunting and killing of wild animals, underlining the deep respect for wildlife. Measures for sustainable water management and preservation of wildlife corridors further demonstrate the commitment to harmonious coexistence with nature. At the same time, criteria related to the protection of their feeding, reproduction, or disturbance were set through some targeted applications and actions, such as the placement of waste bins that were inaccessible to wild animals, the regulation of light pollution, and the appropriate use of the road network. Finally, the criteria envisage installing notification systems and preventive measures in case of approach of wild animals and keeping wild animal diaries. By meeting these rigorous standards, "RESPECT" label recipients embody the essence of responsible stewardship, ensuring the protection of our planet's precious biodiversity for generations to come.

Table 1. Biodiversity and wildlife-friendly criteria.

Specification's criteria
Measures to protect the environment and prohibition of methods or practices that degrade or contaminate or pollute the natural ecosystem, e.g., waste recycling, use of alternative energy sources, creation of plant hedges, preservation of biodiversity in surrounding areas
Implementation of sustainable soil management or restoration measures
Prohibition of using varieties or hybrids of cultivated plants derived from modification by genetic engineering (GMO)
Prohibitions on using highly toxic and synthetic pesticides
Restrictions on hunting or killing wild animals
Implementation of measures for sustainable water management
Requirements for not obstructing the feeding, breeding, or crossing of wild animals or their disturbance, e.g., placement of waste bins that are inaccessible to wild animals
Maintenance or restoration of wildlife corridors
Measures to avoid disturbing wild animals (e.g., avoiding the use of road networks in wintering areas of wild animals)
Installation of notification systems and prevention measures in case of approach of wild animals

The scheme criteria were developed to cover a wide range of products and services to identify market, legislative, or consumer demand concerning biodiversity and wildlife protection. In particular, "RESPECT" can be used for products and services, enabling their distinction in the market. This distinction benefits their competitiveness by giving them the comparative advantage of having an

environmentally friendly character over other conventional ones. This label on a honey product packages informs consumers that the product complies with these specific requirements. Furthermore, when an independent third party (in this case, a University) verifies compliance with these requirements and is not just a company claim, the information provided to the discerning and aware consumer is guaranteed. As a voluntary sustainability standard, specification requirements facilitate stakeholders' commitment to implementing an environmental policy that protects biodiversity and wildlife.

5.2. Application of IS: Case study

The implication of an information system (IS) for awarding label honey producers in wildlife and biodiversity conservation marks a significant advancement in streamlining Eco-labeling processes. The case study outlines the application of the IS, the insights gained during its pilot test implementation, and the outcomes for stakeholders in the honey production industry.

Honey producers tested the use of the information system. All necessary steps were followed as were designed.

- Account creation: Producers created user accounts to initiate the process.
- Application filling out: Producers completed their applications by providing necessary details and documentation. A comprehensive application form was completed that describes company profile information and implementing biodiversity protection actions. There is a Questionnaire with mandatory fields to fill out as described in **Table 1**. Mandatory fields within the questionnaire form correspond to predetermined scores, ensuring thorough documentation. Before applying, a completeness check is conducted to inform the user of any deficiencies. Once completed, the application is automatically submitted to the system administrator for evaluation.
- Application evaluation-grading: The system conducted automated preliminary scoring based on submitted data, followed by evaluations from independent reviewers. The evaluation in the information system is based on a point system logic. A predetermined point is earned for each document attached to the application and for each statement the user makes. The points are assigned based on the importance of the actions taken by the concerned company to protect wildlife and biodiversity. When applying, the user is automatically informed of the score received. The administrator assigns the application to an evaluator to assess quality and grade criteria, recording any identified deficiencies.
- Awarding decision: Scores were assessed against the minimum requirements for certification, and award decisions were made accordingly. Evaluation results, including accurate scores for each criterion, are submitted to the administrator for the award decision. If the total score meets or exceeds the minimum prescribed threshold, a "verification label award" is issued, confirming compliance with specified requirements.
- Issuance of verification label award: Certified producers were granted the right to use the wildlife and biodiversity protection label for the specified period. This digital document, complete with a unique code and QR code for authenticity

verification, is available for download. Ongoing compliance is ensured through onsite audits conducted by auditing teams, with any non-conformities addressed through corrective actions within the IS. As a result, the awarding body verified that the companies meet the requirements set out in the relevant specification in the scope of "honey production and labeling" and have the right to use the wildlife and biodiversity protection label on their honey products for the period indicated in the corresponding verification award.

During application evaluations, discrepancies emerged between the system's automated scores and those assigned by human evaluators. The automated scores were higher in cases where applicants failed to provide adequate supporting documentation. For example, applicants claimed biodiversity measures but lacked evidence, leading evaluators to adjust the scores downward. Despite this, most applicants met the minimum score required for certification. The findings underscored the importance of ensuring principles of independence and transparency in the certification process. The final award decisions relied on third-party reviews to uphold the integrity and credibility of the label.

The label awarded fostered increased market opportunities, as the label aligned with growing consumer demand for sustainability-certified products. Honey producers leveraged the "RESPECT" label, to enhance their competitiveness. Feedback from the honey producers, the IS's effectiveness was in simplifying the label award process. The honey producers reported increased market interest in their products, particularly from hotels and retailers. Hotels indicated plans to incorporate the label into their sustainability initiatives, further promoting biodiversity awareness among consumers. The label helped differentiate their products and attracted eco-conscious customers.

6. Discussion

This study introduced the "RESPECT" Information System (IS), a novel digital platform designed to facilitate the awarding of an Eco-label for wildlife and biodiversity protection, outlining its structure and functionality. The IS addressed key challenges in awarding processes, such as subjective evaluations, and limited accessibility for stakeholders (Marx and Wouters, 2022). Thus, its development is a significant contribution to the environmental certification field, offering a transparent, user-friendly, and scalable solution. A major achievement of the IS is its ability to simplify traditionally labor-intensive processes. By combining technological innovation with environmental conservation goals, the IS demonstrates how digital tools can bridge gaps in complex workflows, as noted in previous research (Grunert et al., 2014; Marx and Wouters, 2022).

The "RESPECT" Information System has simple requirements and procedures for awarding the label and ensuring its credibility. The innovative information system concerns all steps from application submission to suitable practitioners' assessment and awarding of a label. It is based on a workflow that assures the independence of the compliance evaluation and the awarding decision carried out by different roles. This systematic approach guarantees the label's integrity and promotes continued adherence to biodiversity protection measures. The automated scoring mechanism reduces administrative burdens and ensures consistency in evaluations (Weinrich and

Spiller, 2016). Moreover, the system's structured workflow ensured independence in compliance evaluations and award decisions, fostering transparency and stakeholder trust (Grunert et al., 2014).

The case study of honey producers provided valuable insights into its performance. The automated scoring system successfully identified compliance gaps, prompting corrective actions from producers. However, discrepancies between automated and evaluator-assigned scores highlighted the need for more comprehensive documentation. The case study also revealed that honey producers saw increased interest from competitors. Certified honey products were perceived as high-value and ethically produced, aligning with consumer trends favoring sustainable goods (Lazzarini et al., 2018; Pomarici et al., 2018; Tanveer et al., 2024). The workflow of the IS ensures the independence of compliance evaluations and final award decisions. By clearly defining roles and responsibilities, the system upholds principles of fairness and transparency. This structured approach has been instrumental in building trust among stakeholders and establishing the credibility of the "RESPECT" Eco-label. Furthermore, the label's widespread publicity and educational initiatives have amplified its impact, encouraging broader adoption and promoting biodiversity conservation as a market priority (Bhatia, 2021).

Despite its successes, the case study identified areas for improvement, including refining criteria to address documentation gaps and expanding user training resources. Addressing these challenges will improve the system's functionality and support its scalability across different sectors. Additionally, integrating feedback from stakeholders will help ensure the IS remains responsive to evolving environmental and market dynamics (Glikman et al., 2021; Marx and Wouters, 2022).

7. Conclusion

The "RESPECT" Eco-label represents a pioneering effort in wildlife and biodiversity protection, underpinned by an innovative IS that redefines Eco-labeling processes. This study highlights the system's ability to streamline application, evaluation, and monitoring workflows, ensuring transparency and accessibility for all stakeholders. By harnessing technological innovation, the IS establishes a new model for environmental labeling systems, focusing on fairness, objectivity, and scalability (Grunert et al., 2014). The presented IS and label were designed to be applied in various fields, e.g. agriculture, food production and marketing, agritourism services, hospitality services (hotels), and recreational activities, as well as to facilitate the development of environmental, economic and social consciousness.

From environmental perspective, Eco-labels like "RESPECT" are crucial in addressing global environmental challenges, such as biodiversity loss and ecosystem degradation. By setting rigorous standards for eco-friendly practices, the label directly mitigates harmful practices such as habitat destruction and overexploitation of resources (IPBES, 2019). Its criteria, which prohibit genetically modified organisms (GMOs) and toxic pesticides, ensure sustainable production methods that protect ecosystems and wildlife (Darwall et al., 2008; Tscharntke and Clough, 2015). Businesses adopting the label contribute to reducing their environmental footprint, while customers are encouraged to support products that align with their ecological

values (Bhatia, 2021). The integration of technological tools within the information system further reinforces these efforts by simplifying compliance and enabling transparency in environmental stewardship (Marx and Wouters, 2022).

By encouraging sustainable practices and providing consumers with credible information, these labels contribute to market transformations that benefit both the environment and society (Bhatia, 2021; Glikman et al., 2021; Shi and Omar, 2024). The holistic approach of the "RESPECT" label, which incorporates various environmental criteria, aligns with global demands for more comprehensive sustainability standards (IPBES, 2019). Eco-labels, generally, and the "RESPECT" label, can motivate consumers to make environmentally friendly choices (Bhatia et al., 2021, Carter et al., 2016, Glikman et al., 2021, König et al., 2020; Panopoulos et al., 2022), boost the brand image of producers' products and strengthen the bond with product/services consumers. The Eco-labelling system's success hinges on consumer recognition of the certification (Donato et al., 2021; Mameno et al., 2022; Nikolaou et al., 2018) and the proposed specification criteria.

The "RESPECT" label provides significant economic benefits both businesses and consumers, enhancing their market competitiveness and brand value (Kabaja et al., 2022; Lybbert et al., 2002; Mameno et al., 2021; Tscharntke et al., 2015; Waldron et al., 2012). Certified businesses gain a competitive edge by distinguishing their products in the market, often commanding higher premiums due to the perceived value of sustainable practices (Nicolaou and Tsalis, 2018; Pomarici et al., 2018). The label attracts eco-conscious consumers who are increasingly willing to pay more for products that align with their values, fostering market growth for sustainable goods (Mameno et al., 2022). Furthermore, businesses achieve long-term cost savings through sustainable resource management and improved supply chain efficiencies, positioning themselves as leaders in the eco-conscious marketplace (Lybbert et al., 2002). These economic incentives strengthen the adoption of sustainable practices, creating a robust framework for market transformation.

From the social perspective, customers align their sustainable purchases with their personal beliefs and values. Any environmentally conscious consumers strive to minimize their ecological impact and preserve the environment for future generations (Taufique et al., 2016; Zaharia et al., 2021). Therefore, they have turned to consuming products that are sustainable and have minimal impact on the environment. Many consumers, especially those who care about animal welfare and the environment, are opting for goods that have certifications confirming their ethical and environmentally friendly production methods. These consumers are not only concerned with the environment and animal protection but also with the working conditions involved in the production. They prioritize products that are certified to be safe for consumption, free from harmful chemicals, and produced using eco-friendly methods. On a broader scale, the label promotes community engagement by highlighting the importance of wildlife protection and ecological balance, fostering a culture of responsibility and shared stewardship (Glikman et al., 2021). Businesses, in turn, benefit from enhanced social capital, positioning themselves as ethical leaders in their industries.

Future research

The findings of this study point to several areas for future research and development. These include exploring the long-term impacts of Eco-label adoption on market dynamics and biodiversity conservation, investigating consumer behavior and willingness to pay for certified products, enhancing the IS to support new product categories, and examining the phenomenon of label renewal after certification and its implications for market trust and sustainability. In addition, widespread dissemination of the Label awarded requires consistent communication from the awarding body and certified businesses through integrated communication across traditional and digital media, such as advertising and social media campaigns and seminars. Integrated communication should address the stages of the information processing, alternative evaluation, and buying decision of the decision-making process. Therefore, the use of opinion leaders and social media influencers who will emphasize the value of the labels' benefits, highlighting the importance of sustainability, will act as a determining factor in the final behavior of buyers. Businesses awarded with the "RESPECT" label can work together to offer integrated services and customer experiences that are geared towards their shared goal of protecting wildlife and biodiversity. Professionals and the awarding body can leverage the aforementioned promoting strategies to build trust with all involved shareholders and educate certified companies and their consumers.

Having designed the first version of the information system for the label awarding, there is a need for its future improvement. It is believed that the implementation of the specifications for different categories of products and services will highlight the improvement points of both the specifications and the information system's elements. However, market trends, consumer preferences, advantages, disadvantages or any impacts related to using this label on products or services should be studied in the future.

By addressing these areas, the "RESPECT" initiative can continue to evolve and expand its impact, contributing to sustainable development goals and fostering harmony between human activities and natural ecosystems.

Funding: This research study was funded by the European Union, under the project "LIFE ARCPROM: Improving human-bear coexistence in 4 National Parks of South Europe" (LIFE18NAT/GR/00768). This support is gratefully acknowledged.

Conflict of interest: The authors declare no conflict of interest.

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