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# Cultural Identity and Sustainable Resource Management: A Systematic Review of Environmental Practices, Knowledge, and Community Sustainability

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**Abstract**

The social and cultural aspects of sustainability are receiving more attention due to growing environmental issues. Cultural identity is becoming more widely acknowledged as a factor influencing how people relate to natural resources, even though policy and technology are still crucial. However, a comprehensive grasp of its importance is limited by the dispersed nature of extant research across fields. Using PRISMA criteria, this systematic review synthesises recent research (2020–2025) from five databases. To investigate how cultural identity affects sustainable resource management and to pinpoint important gaps, a theme analysis was carried out. The results demonstrate how cultural identity promotes sustainability through stewardship activities, community involvement, traditional ecological knowledge, and environmental ideals. Strong cultural identification is typically associated with increased participation in sustainable behaviour, communal governance, and conservation. Long-term environmental activities seem to be especially dependent on shared norms and traditional ecological knowledge. However, urban and multicultural contexts continue to receive little attention in research, which is still mostly focused on indigenous and rural settings. Additionally, little is known about how various mediating elements interact with one another. The review emphasises the importance of incorporating cultural viewpoints into sustainability research and policy, arguing that culturally sensitive methods can improve community-based resource management and environmental governance.

Keywords: Cultural Identity; Environmental Values; Resource Management Behaviors; Traditional Ecological Knowledge; Community Participation; Sustainability Outcomes.

## 1. Introduction

As ecological systems continue to be threatened by climate change, biodiversity loss, resource depletion, and rising urbanisation, environmental sustainability has emerged as a global concern (Das et al., 2024). Governments and academics have responded by advocating a variety of approaches, such as community-based resource management, renewable resource development, ecosystem conservation, and circular economy projects (Plachkov, 2024). Growing data indicates that sustainability also depends on social and cultural processes that affect how people utilise

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and manage natural resources, even while technological innovation and environmental legislation continue to be key components of these efforts (Sovacool et al., 2022).

Resource management is influenced by how people and communities perceive their relationship with the environment, in addition to scientific knowledge and legal frameworks (Seddon et al., 2020). Conservation, resource usage, and community involvement are all impacted by environmental decision-making, which is influenced by cultural ideas, shared values, social norms, and past experiences (Adefila et al., 2024). The cultural aspects of sustainability have thus received more attention as scholars attempt to explain why comparable environmental policies frequently result in disparate outcomes across societies.

Cultural identity is one of these cultural elements that has garnered increasing attention. It offers a crucial basis for environmental attitudes and group action and displays a common sense of belonging based on shared values, customs, language, beliefs, and historical experiences (Milfont et al., 2020). Communities create unique approaches to understanding, managing, and safeguarding natural resources through cultural identity. Additionally, it promotes stewardship practices based on regional traditions and enduring connections with the environment, as well as the dissemination of traditional ecological knowledge (Verschuuren et al., 2021). At the same time, cultural identities are being reshaped by urbanisation, globalisation, and socioeconomic development, which presents new difficulties for sustainable resource management.

In recent years, research on the connection between cultural identity and sustainability has grown significantly. Previous research indicates that cultural identity has a role in sustainable agriculture, waste reduction, community involvement, forest and water management, biodiversity conservation, and sustainable consumption (Kumar et al., 2021). Numerous studies also highlight the value of local institutions and traditional ecological knowledge in promoting long-term environmental stewardship (Ford et al., 2020). All of these results point to cultural identity as a significant factor in sustainability rather than just a social background trait.

The data is still dispersed over a variety of fields, including environmental science, sociology, anthropology, geography, and resource management, despite this expanding corpus of work. It is challenging to get a thorough grasp of how cultural identity helps to sustainable resource management because the majority of studies concentrate on particular communities or environmental challenges (Harefa, 2024). Furthermore, the mechanisms that connect cultural identity to sustainability outcomes, specifically, the roles of environmental values, traditional ecological knowledge, community involvement, and resource management practices, have received comparatively little attention.

This comprehensive literature review summarises previous studies on the function of cultural identity in sustainable resource management in order to fill in these gaps. This review attempts to determine the ways in which cultural identity influences environmental practices, resource management behaviours, and sustainability results by methodically analysing empirical and conceptual works from various geographic and disciplinary contexts. The review specifically aims to address the following research questions:

RQ1: How does cultural identity influence resource management techniques?

RQ2: How do cultural identity and sustainable resource management relate to one another?

RQ3: What gaps exist in the literature on sustainability and cultural identity?

By answering these queries, this review adds to the expanding body of knowledge on sustainability by offering a comprehensive grasp of the cultural aspects of resource management. By emphasising the significance of culturally aware approaches to environmental governance and resource stewardship, the findings are anticipated to influence future research, environmental policy creation, and sustainability activities. In addition, the review offers a conceptual framework that shows how cultural identity, environmental values, resource management practices, and sustainability outcomes are related. This provides a basis for future interdisciplinary research in environmental management and sustainability.

## 2. Literature Review

### 2.1 Cultural Identity

A person's or group's sense of belonging to a cultural community through common values, customs, beliefs, language, and past experiences is referred to as cultural identity (Rangubtook, 2024). It affects how people perceive themselves and interact with society and the environment, shaping both individual identity and communal meaning.

Cultural identity is not static; rather, it changes as a result of family, education, involvement in the community, and wider social connections. Although cultural identity continues to be a crucial source of social orientation and behavioural guidance, globalisation and cultural interaction have further led to hybrid identities (Shen & Zhang, 2024).

There is growing evidence that human-nature relationships and environmental perceptions are also influenced by cultural identity. Based on their historical and ecological experiences, each cultural groups form unique conceptions of stewardship, resource usage, and environmental responsibility (Hankins, 2024). As a result, cultural identity has emerged as a key factor in understanding differences in sustainability practices and environmental attitudes.

Concepts like place attachment, environmental identity, community identity, and Indigenous identity are strongly related to cultural identity in sustainability studies. These cultural links promote conservation, group action, and long-term stewardship by fortifying social and emotional ties to local habitats.

### 2.2 Sustainable Resource Management and Environmental Sustainability

The ethical use and management of natural resources to satisfy current demands while protecting future generations is known as sustainable resource management (Hariram et al., 2023). By striking a balance between social well-being, economic growth, and environmental preservation, it advances the more general objectives of sustainable development. Conservation of biodiversity, sustainable agriculture, water management, renewable energy, waste reduction, and circular economy techniques are important activities.

The need for more sustainable management strategies has been highlighted by growing environmental issues as pollution, resource depletion, climate change, and ecosystem deterioration (Awewomom et al., 2024). Sustainability increasingly rely on social and behavioural aspects, even though policy and technology innovation are still crucial.

According to research, cultural values, social norms, and community views influence resource management in addition to institutions and financial incentives (Pascual et al., 2023). People's views of environmental responsibility and societal expectations have a significant impact on their willingness to

conserve resources, engage in environmental governance, and adopt sustainable lifestyles.

As a result, current sustainability research promotes including social and cultural factors into resource management. It is now commonly acknowledged that attaining resilient and long-term sustainability outcomes requires community involvement, local knowledge, and culturally rooted methods.

**2.3 Theoretical Perspectives Linking Cultural Identity and Sustainability**

The way that cultural identity influences sustainable resource management is explained by a number of theoretical stances.

According to social identity theory, people adopt behaviours that align with the norms and values of their group (Brown, 2020). Members of a group are more likely to support sustainable activities when environmental stewardship is ingrained in their identity. People's psychological ties to nature are highlighted by environmental identity theory (Wang et al., 2021). Strong environmental identities are linked to increased environmental awareness and conservation efforts, especially in areas where cultural customs support peaceful interactions between humans and the natural world. The framework of Traditional Ecological Knowledge (TEK) emphasises how ecological knowledge is passed down through generations and integrated into cultural identity (Rani et al., 2025). Long-term environmental stewardship, adaptive resource use, and biodiversity protection are all supported by this information. In a similar vein, community-based resource management (CBRM) emphasises the value of shared accountability, local involvement, and teamwork (Rivera et al., 2024). Strong cultural identification improves communal resource governance by fostering cooperation and trust.

When taken as a whole, these viewpoints show that cultural identity affects sustainability through a variety of channels, such as social norms, environmental ideals, traditional ecological knowledge, and community involvement. They offer the theoretical framework for comprehending the cultural aspects of managing resources sustainably.

**2.4 Empirical Research on Cultural Identity and Sustainable Resource Management**

Research continuously demonstrates that cultural identity plays a role in sustainable resource management in a variety of environmental contexts (Aggarwal & Agarwala, 2023). A strong sense of cultural identity fosters environmental care, sustainable management of forests, fisheries, agriculture, and water resources, and the preservation of traditional ecological knowledge. Additionally, by promoting common values and social norms, it promotes sustainable practices including recycling, waste reduction, energy saving, and responsible consumerism.

According to Hernández Guzmán and Hernández García de Velazco (2024), research indicates that cultural identification enhances community involvement, trust, and collective action, hence increasing the efficacy of local environmental governance. These results imply that cultural identity serves as a crucial social mechanism that connects sustainable actions and environmental values.

The literature is nonetheless dispersed among disciplines and research environments in spite of these contributions. The majority of research restricts more comprehensive theoretical integration by concentrating on certain cultural groups or environmental contexts. Furthermore, comparatively few studies look at the ways that cultural identity affects sustainability, such as community involvement, traditional ecological knowledge, and environmental ideals. As a result, a thorough synthesis is still missing.

By methodically incorporating the available data, this review fills up these gaps by elucidating the ways in which cultural

identity supports sustainable resource management.

## 3. Methodology

In order to investigate the connection between cultural identity and sustainable resource management, this study used a systematic literature review (SLR) technique. Because research on cultural identity, environmental practices, traditional ecological knowledge, and community sustainability is scattered across several disciplines, including environmental studies, sustainability science, sociology, anthropology, and natural resource management, a systematic review was chosen. The study sought to identify recurrent themes, highlight knowledge gaps, and synthesise existing information by using an organised and transparent review procedure.

To guarantee scientific rigour and openness throughout the identification, screening, eligibility assessment, and inclusion stages, the review adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) standards (Page et al., 2021). A methodical process for choosing pertinent studies and reducing selection bias was made possible by the PRISMA framework.

### 3.1 Search Strategy

Five scholarly databases were used for a thorough literature search: Scopus, Web of Science (WoS), ScienceDirect, Springer Link, and Google Scholar. These databases were chosen due to their broad coverage of peer-reviewed publications in the domains of multidisciplinary, social science, environmental, and sustainable research. An additional resource that is manually uploaded and searched is Google Scholar.

Studies released between January 2020 and December 2025 were the main focus of the search. This period was selected to provide a manageable and pertinent quantity of literature while capturing recent advancements in sustainability studies.

Keyword combinations pertaining to sustainable resource management and cultural identity were used to find pertinent publications. The search string was created by refining important concepts that regularly appeared in the literature and conducting exploratory scoping searches. In order to find possibly pertinent studies that were missed by the database search, additional manual searches were carried out by looking through the reference lists of particular papers. The following keyword combinations were included in the search queries (Table 1).

**Table 1.** Full search strings used in five databases.

| Databases | Search String (Boolean Operators) | Count |
|---|---|---|
| **Scopus** | TITLE-ABS-KEY=((“cultural identity”) AND (“sustainable resource management”)) | 88 |
| **WoS** | TS =( (“cultural identity”) AND (“sustainable resource management”) ) | 75 |
| **ScienceDirect** | TITLE-ABS-KEY=( (“cultural identity”) AND (“sustainable resource management”) ) | 11 |
| **Springer Link** | TS =( (“cultural identity”) AND (“sustainable resource management”) ) | 7 |
| **Google Scholar** | Keywords=( (“cultural identity”) AND (“sustainable resource management”) ) | 11 |
| | **Total** | 192 |

### 3.2 Inclusion and Exclusion Criteria

Prior to the screening procedure, predetermined inclusion and exclusion criteria were set to guarantee uniformity in study selection. Only studies that were directly

pertinent to the review's goals were kept for analysis thanks to the inclusion and exclusion criteria (Table 2).

**Table 2.** Inclusion and exclusion criteria.

| Criterion | Inclusion Criteria | Exclusion Criteria |
|---|---|---|
| **Document Type** | Full-text accessibility | Full text unavailable. |
| **Publication Period** | Published between 2020 to 2025 | Studies published before 2020. |
| **Research Focus** | Addressed sustainable resource management, environmental sustainability, conservation practices, waste management, water management, circular economy, or related environmental topics. | Examined environmental issues without discussing cultural identity or related constructs. Focused exclusively on cultural identity without any environmental or sustainability component. |
| **Research Methodology** | The review included empirical primary studies utilizing quantitative, qualitative, or mixed-methods research designs. | Studies employing research approaches outside of quantitative, qualitative, or mixed-methods designs. |
| **Peer Review** | Published in peer-reviewed academic journals. | Conference abstracts, editorials, book reviews, dissertations, or non-peer-reviewed publications. |
| **Publication Language** | Academic articles written in English. | Non-English content. |
| **Research Context** | Examined cultural identity, ethnic identity, community identity, or related cultural constructs. | Focused exclusively on cultural identity without any environmental or sustainability component. |

### 3.3 Study Selection Process

The selection and screening procedure is shown in the PRISMA flow diagram (Figure 1).

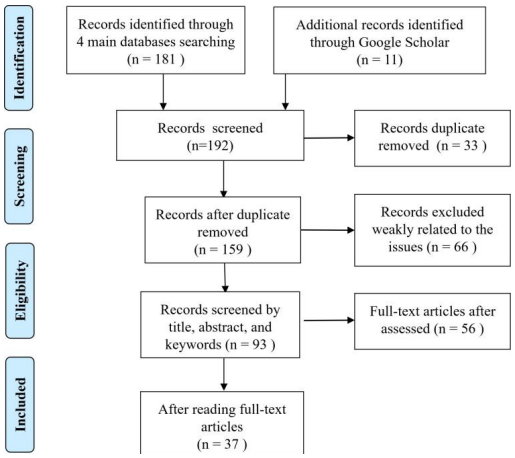


**Figure 1.** PRISMA flow diagram.

### 3.4 Quality Assessment

The Mixed Methods Appraisal Tool (MMAT) was used to evaluate the methodological quality of the included studies in order to increase the review's trustworthiness (Hong et al., 2018). Because the literature included mixed-methods, qualitative, and quantitative research designs, the MMAT was chosen.

Each article was evaluated independently by two reviewers. Each study was assessed based on factors pertinent to its methodological approach, such as the suitability of the research design, data collection techniques, analytical rigour, and

findings clarity. In addition to identifying methodological flaws in the body of current literature, the appraisal process influenced future research directions. The quality assessment was used to give a general idea of the strength and dependability of the body of evidence rather than to reject research. Abimbola et al. (2026)

## 4. Findings

### 4.1 General Findings

A significant number of studies from five databases were first found by the systematic search. The final sample included research that looked at the connection between cultural identity and different facets of sustainable resource management after duplicate records were eliminated and the inclusion and exclusion criteria were applied. The chosen 37 studies covered a wide range of geographical areas, including Asia (14), Europe (7), Africa (6), North America (5), South America (2), Oceania (1), and mixed regions (2), demonstrating the significance of cultural influences in sustainability practices on a global scale.

A range of methodological techniques were used in the evaluated literature, including mixed-methods research (17), qualitative research (18), and quantitative research (2). Water conservation, forest management, biodiversity protection, waste management, sustainable agriculture, the use of renewable resources, and circular economy efforts were among the environmental settings that were investigated. The literature consistently found that cultural identification has a substantial impact on environmental attitudes, resource management practices, and sustainability outcomes, despite variations in context and technique. Table A1 of Appendix A lists all of the studies that were taken into consideration, along with the authors' stated methodologies and the methodological categories that were applied to them.

### 4.2 Main Findings

Five main themes emerged from the thematic analysis: (1)cultural identity and environmental values, (2) traditional ecological knowledge (TEK) and sustainability, (3) community participation and resource governance, (4) sustainable consumption and resource use behaviors, and (5) environmental resilience and sustainability outcomes (Table 3).

**Table 3.** Thematic Classification of Reviewed Studies.

| | Theme | Description | Key Studies |
|---|---|---|---|
| 1 | **Cultural Identity and Environmental Values** | Investigates how environmental attitudes and stewardship practices are influenced by cultural identity, cultural values, place connection, and environmental worldviews. | Díaz-Pinzón et al. (2025), Majumdar & Chatterjee (2021), Martínez-Márquez et al. (2025), Meyer et al. (2025), Sulistyorini et al. (2025), Yang & Sato (2025) |
| 2 | **Traditional Ecological Knowledge (TEK) and Sustainability** | Examines the ways that traditional management practices, indigenous knowledge, ethnobotanical knowledge, and local wisdom support | Awoke et al. (2025), Chen & Akamine (2021), El Mahroussi et al. (2025), Fan et al. (2022), Gutierrez et al. (2022), Kasoki et al. (2025), Mekonnen et al. (2021), |

| | | | |
|---|---|---|---|
| | | biodiversity conservation and sustainable resource use. | Millang (2025), Pasta et al. (2020), Saensouk et al. (2025), Toujgani et al. (2021), Wei et al. (2025) |
| 3 | **Community Participation and Resource Governance** | Emphasises co-management of natural resources, collective action, indigenous leadership, community-based government, and participatory management. | Ansah et al. (2024), Champagne-Côté et al. (2023), Dyrset et al. (2022), Hartmann et al. (2022), Holtgren & Auer (2023), Moreira et al. (2024), Natcher & Brunet (2020), Salas-Bravo et al. (2025), Shaheen et al. (2025), Syahrun et al. (2024) |
| 4 | **Sustainable Consumption and Resource Use Behaviors** | Examines how cultural identity affects decisions about resource usage, sustainable consumption, circular economy practices, waste reduction, and food systems. | Azkar et al. (2025), Evans et al. (2025), Gutierrez et al. (2022), Papacharalampous & Ponis (2025), Suvittawat et al. (2025), Williams et al. (2022) |
| 5 | **Environmental Resilience and Sustainability Outcomes** | Examines sustainability benefits related to cultural identity, such as community well-being, climate adaption, environmental protection, and resilience. | Fiorentino & Vandini. (2024), Kasoki et al. (2025), Korowi et al. (2025), Lopes et al. (2025), Mekonnen et al. (2021), Millang (2025), Niko et al (2025), Salas-Bravo et al. (2026) |

#### 4.2.1 Cultural Identity as a Driver of Environmental Values and Stewardship

Environmental values are continuously shaped by cultural identity, which promotes long-term responsibility, reciprocity, and care for natural resources. Environmental stewardship is viewed in a variety of cultural contexts not only as resource management but also as a cultural duty strongly associated with spirituality, ancestry, and community identity (Champagne-Côté et al., 2023; Holtgren & Auer, 2022; Majumdar & Chatterjee, 2021). Through taboos, sacred forests, ritual obligations, and traditional governance systems that control hunting, grazing, water use, and biodiversity protection, customary institutions further translate these values into conservation practices (Kasoki et al., 2025; Irwansyah et al., 2025; Niko et al., 2025; Jatav, 2025).

However, because it interferes with traditional livelihoods, sacred landscapes, and the transmission of knowledge between

generations, environmental degradation is frequently seen as a danger to cultural continuity (Sulistyorini et al., 2025). When taken as a whole, these results imply that cultural identity promotes stewardship by framing human-nature relationships around shared responsibility rather than just financial gain.

For sustainable resource management, cultural rituals and symbolic behaviours serve as unofficial government structures. According to El Mahroussi et al. (2025), Fan et al. (2022), Hartmann et al. (2022), Syahrun et al. (2024), and others, seasonal harvests, traditional grazing systems, customary regulations, and group rituals control resource usage while promoting biodiversity protection, social cohesion, and local identity. By incorporating ecological knowledge into regular community life, these culturally embedded practices maintain environmental stewardship instead of depending only on formal regulations.

According to the reviewed research, cultural identification promotes environmental values, place attachment, and a sense of duty toward natural resources, all of which support environmental stewardship. Communities that have deeper cultural ties to their surroundings are typically more dedicated to resource conservation and sustainability.

**4.2.2 Traditional Ecological Knowledge as a Mechanism for Sustainability**

Traditional ecological knowledge (TEK), which is mostly passed down through everyday activities, community involvement, and intergenerational learning, is strongly associated with cultural identity. Cultural identity is strengthened and ecological knowledge is preserved through traditional food production, livestock management, customary rituals, and gender-specific practices (El Mahroussi et al., 2025; Fan et al., 2022; Niko et al., 2025; Awoke et al., 2025; Irwansyah et al., 2025).

However, urbanisation, environmental deterioration, and shifting lifestyles pose a growing threat to this expertise. According to several research (Gutiérrez et al., 2022; Saensouk et al., 2025; Sulistyorini et al., 2025), intergenerational knowledge transfer is falling as newer generations lose ties to traditional practices, which lowers ecological knowledge and cultural identity.

Additionally, the review demonstrates that cultural identification encourages adaptation rather than opposing change. To increase environmental resilience while preserving cultural continuity, indigenous and local groups are increasingly fusing traditional ecological knowledge with modern resource management. Community-based conservation in the Democratic Republic of the Congo, indigenous marine governance in Oceania, traditional agro-pastoral systems in Sicily, climate adaptation strategies in Ethiopia, and sustainable food tourism in Thailand are examples of this pattern (Kasoki et al., 2025; Bambridge et al., 2021; Pasta et al., 2020; Mekonnen et al., 2021; Suvittawat et al., 2025). All things considered, the data points to cultural identity as a means of both maintaining traditional ecological knowledge and facilitating its ongoing adaptation to modern sustainability issues.

One important way that cultural identity affects sustainability is through traditional ecological knowledge. Cultural identity promotes long-term ecological resilience, sustainable resource use, and biodiversity protection by maintaining locally adapted environmental knowledge and management techniques.

**4.2.3 Cultural Identity and Community Participation in Resource Governance**

Through the legitimisation of local authority and the encouragement of collective stewardship, the evaluated research consistently demonstrate that cultural identity

enhances community participation in resource governance. Through shared values and local knowledge, communities can manage forests, coastal resources, biodiversity, and agricultural systems through indigenous governance, customary institutions, and traditional organisations (Ansah et al., 2025; Champagne-Côté et al., 2023; Irwansyah et al., 2025; Azkar et al., 2025). On the other hand, governance structures that disregard local people frequently erode traditional knowledge, lower participation, and jeopardise conservation results (Lopes et al., 2025).

The results also imply that cultural identity strengthens community-based governance's resilience. Customary institutions, collective memory, and long-standing management techniques support communities in responding to resource scarcity, market pressures, policy changes, and climate impacts while preserving sustainable resource use in a variety of contexts (Hartmann et al., 2022; Jatav, 2025; Niko et al., 2025; Kasoki et al., 2025). Overall, the data shows that when cultural identity is acknowledged as a fundamental element of environmental management, resource governance is more robust and successful.

By encouraging cooperation, trust, and shared responsibility, cultural identity increases community involvement. Communities that incorporate cultural values into governance procedures frequently exhibit more efficient and long-lasting resource management strategies.

**4.2.4 Cultural Influences on Sustainable Consumption and Waste Management**

Cultural identity shapes environmental ideals, ethical duty, and collective action, all of which contribute to the durability of sustainability projects, according to the analysed studies. Identity is not a fixed cultural characteristic; rather, it directs how societies respond to environmental change and comprehend human-nature relationships through locally entrenched knowledge and behaviours (Bambridge et al., 2021; Majumdar & Chatterjee, 2021; Niko et al., 2025).

By preserving traditional ecological knowledge, place connection, customary institutions, and community involvement, cultural identity promotes sustainable resource management in a variety of contexts. Local knowledge and cultural practices continue to impact environmental decision-making in fisheries, forest management, agriculture, and biodiversity conservation (Korowi et al., 2025; Saensouk et al., 2025; Irwansyah et al., 2025; Sulistyorini et al., 2025; Hartmann et al., 2022; Syahrun et al., 2024).

Additionally, the data indicates that culturally grounded governance enhances communities' ability to adjust to social and environmental change. Integrating cultural values with environmental management improves long-term sustainability and resilience, as evidenced by traditional livestock management, common-property governance, agroecosystems, ecosystem valuation, fisheries management, wetland conservation, water management, and heritage landscapes (Fan et al., 2022; Jatav, 2025; Toujgani et al., 2021; Díaz-Pinzón et al., 2025; Dyrset et al., 2021; Martínez-Márquez et al., 2025; Wei et al., 2025). Overall, the results show that cultural identity is a significant source of adaptive ability for sustainable resource management in addition to being a social asset.

Because it promotes food sovereignty, biodiversity conservation, and traditional ecological knowledge, cultural identity is crucial to sustainable food systems. While externally promoted farming models frequently rely on institutional incentives and policy support to promote adoption, indigenous food practices strengthen long-term resource stewardship through cultural continuity and community participation (Gutiérrez et al., 2022;

Niko et al., 2025). In general, culturally integrated food systems seem to be more sustainable and resilient than those largely motivated by outside interventions.

Cultural identity shapes daily ideas, social norms, and resource-use behaviours, all of which have an impact on sustainable consumption and waste management. Communities' perceptions of food waste, recycling, and environmental responsibility are influenced by cultural values, which also have an impact on whether sustainability programs are accepted (Papacharalampous & Ponis, 2025; Williams et al., 2022; Sulistyorini et al., 2025). Overall, the results imply that technology-driven interventions alone are less likely to promote sustainable consumption than culturally sensitive strategies.

**4.2.5 Cultural Identity and Resilience in Sustainability Initiatives**

According to the reviewed studies, intergenerational learning, place connection, and traditional ecological knowledge are all disrupted when cultural identity is weakened, which lowers the resilience of sustainability programs. Similar issues have been documented in Papua New Guinea, the Democratic Republic of the Congo, and Japan, where long-term resource stewardship is threatened by social change, biodiversity loss, and a lack of environmental knowledge (Chen & Akamine, 2021; Kasoki et al., 2025; Korowi et al., 2025).

Additionally, cultural identification promotes community involvement, information sharing, and adaptive governance, all of which increase resilience. Cultural values are preserved and environmental stewardship is enhanced through participatory mapping, youth heritage programs, and traditional resource management techniques (Moreira et al., 2024; Fiorentino & Vandini, 2024; Niko et al., 2025). By incorporating local knowledge into resource management and decision-making, indigenous governance, customary institutions, and collaborative management further improve resilience (Bambridge et al., 2021; Jatav, 2025; Azkar et al., 2025; Yang & Sato, 2025; Holtgren & Auer, 2022; Natcher & Brunet, 2020). In order to increase the efficacy of sustainability measures, the results also emphasise the significance of inclusive governance that acknowledges many cultural viewpoints, including gendered resource use (Meyer et al., 2025).

In general, cultural identity is shown to be a significant source of adaptive ability, allowing societies to react to social and environmental change more skilfully.

According to the reviewed literature, cultural identification promotes social cohesiveness, adaptability, and information transfer, all of which increase resilience. Cultural identity can support long-term environmental and community resilience when paired with inclusive governance and modern sustainable practices. 62. Kumar, G. (2026)

Environmental values, traditional ecological knowledge, and community involvement are the three main mediating processes via which cultural identity promotes sustainable resource management across all five topics. Conservation, sustainable consumption, environmental stewardship, and group action are examples of resource management behaviours that are shaped by these mechanisms. These behaviours then lead to more general sustainability outcomes like ecosystem protection, resource efficiency, resilience, and community well-being. The integrated framework suggested in the discussion section is based on this pattern.

## 5. Discussion

### 5.1 Summary of the findings

This analysis shows that a major socio-cultural factor influencing sustainable resource management is cultural identity.

Instead of acting as a static background feature, it influences resource-use practices, moulds environmental values, and promotes long-term sustainability in a variety of cultural contexts.

Research repeatedly demonstrates that cultural identification fosters reciprocity, group accountability, and intergenerational care, all of which promote environmental stewardship. Cultural customs, community involvement, rituals, and local education all contribute to the preservation of traditional ecological knowledge. Ecological knowledge, governance ability, and community resilience all tend to deteriorate as these cultural systems deteriorate. On the other hand, communities can adapt while maintaining cultural continuity by combining traditional knowledge with modern sustainability strategies.

The significance of culturally grounded governance is also emphasised in the review. While externally imposed policies frequently encounter opposition when they disregard local identities and values, indigenous institutions, customs, and community-based management generally increase involvement, trust, and stewardship.

Cultural identity connects symbolic meanings with real-world environmental practices, such as conservation, sustainable consumption, community resource management, and shared environmental responsibility, throughout the literature. These results imply that preserving cultural identity and integrating local knowledge into environmental governance are just as important to sustainability as technology advancement or policy change. Thus, acknowledging cultural identity as a fundamental element of sustainability can improve long-term environmental results, community resilience, and resource management.

### 5.2 Integrated Framework of Cultural Identity and Sustainable Resource Management

A recurrent pattern describing the ways in which cultural identity affects sustainability outcomes was found throughout the reviewed literature. The results show that cultural identification rarely has a direct impact on sustainable resource management. Rather, a number of interrelated elements, such as environmental values, traditional ecological knowledge, community involvement, stewardship behaviours, and sustainable consumption practices, mitigate its influence.

An integrated framework is suggested based on the evidence synthesis (Figure 2). According to this paradigm, cultural identity serves as the fundamental sociocultural element influencing people's perspectives on the environment and their shared obligations. Community engagement is strengthened, traditional ecological knowledge is preserved, and environmental ideals are developed as a result of these cultural influences. When combined, these mediating processes promote resource stewardship, conservation, waste reduction, and involvement in environmental governance, among other sustainable resource management practices. In the end, these actions support more general sustainability goals like long-term environmental sustainability, community resilience, resource efficiency, and ecosystem protection.

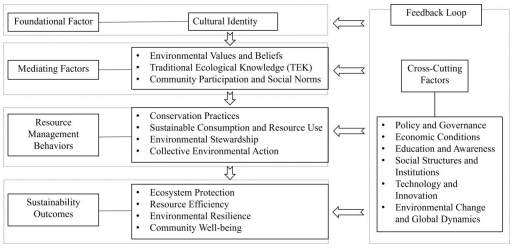


**Figure 2.** Integrated framework of cultural identity and sustainability

The framework emphasises how crucial it is to acknowledge cultural identity as an essential part of sustainability plans. The analysed research indicate that culturally

informed approaches can greatly improve the efficacy and long-term success of sustainable resource management projects, as opposed to treating culture as an incidental issue.

**5.2.1 Cultural Identity as a Foundational Driver of Sustainable Resource Management**

The results demonstrate how cultural identity influences sustainable resource management in a variety of settings. The evidence presented here indicates that cultural elements also have a significant impact on environmental behaviour and long-term results, despite the fact that sustainability research has frequently concentrated on technology, policy, and financial incentives. Shared norms and values that govern how people and communities interact with natural resources are provided by cultural identity.

Strong cultural identification is consistently associated with increased environmental stewardship, including involvement in conservation and local resource protection, according to the evaluated studies. It promotes more sustainable daily behaviours by fostering a sense of community and shared accountability. This suggests that sustainability is influenced by social and cultural connotations in addition to being a technological problem.

Cultural identity has an impact on people both individually and collectively. Individually, it influences attitudes and behaviours related to the environment; collectively, it fosters collaboration, trust, and coordinated resource management. This implies that the efficacy of environmental management techniques may be increased by incorporating cultural viewpoints into sustainability policy and governance.

**5.2.2 The Mediating Role of Environmental Values and Traditional Ecological Knowledge**

The review demonstrates that cultural identity primarily affects sustainable resource management indirectly, especially through traditional ecological knowledge and environmental ideals.

Cultural identity and behaviour are closely related to environmental values. Cultural norms frequently specify acceptable ways to engage with the natural world and influence perspectives on responsibility and conservation. People are more likely to adopt sustainable behaviours and establish pro-environmental beliefs when they strongly identify with such cultural frameworks.

Another crucial mechanism is traditional ecological knowledge. Many societies use intergenerational learning, oral traditions, and cultural activities to transmit environmental knowledge. This information promotes sustainable agriculture, resource management, and biodiversity conservation. Additionally, the evidence points to the importance of cultural identity in preserving and disseminating this knowledge.

However, by upsetting cultural continuity, trends like urbanisation and globalisation may erode these systems. when a result, societies' ability to manage resources sustainably may be diminished over time when some ecological knowledge is lost. This emphasises how crucial it is for sustainability initiatives to safeguard culturally entrenched knowledge systems.

**5.2.3 Community Participation and Collective Environmental Action**

The results also emphasise how cultural identification fosters community involvement and group environmental action. A common cultural identity promotes social cohesiveness, trust, and collaboration, all of which encourage participation in resource management and environmental governance.

Communities with stronger cultural ties are more likely to participate in conservation efforts and be more willing to support group sustainability objectives, according to the

evaluated studies. This implies that cultural identity serves as a social resource that encourages group accountability and concerted action.

Additionally, the data shows that sustainability projects are more successful when they are in line with community priorities and local cultural values. Programs that disregard cultural context, on the other hand, can encounter opposition or low participation. This implies that incorporating cultural identity into environmental governance can enhance sustainability initiatives' long-term efficacy and involvement.

**5.2.4 Implications for Sustainable Consumption and Circular Economy Practices**

The review demonstrates how cultural identity influences engagement with circular economy techniques and sustainable consumerism. People's attitudes about waste and consumption are frequently influenced by values like accountability, moderation, and resource conservation. In many situations, cultural customs rather than official policies encourage behaviours like recycling, repairing, sharing, and reusing.

These results imply that cultural norms influence sustainable consumption in addition to incentives and regulations. People are more inclined to embrace low-impact lifestyles and engage in circular economy activities when sustainability is consistent with local values.

Initiatives pertaining to the circular economy may be more successful from a policy standpoint if they are presented in a way that takes into account local cultural identity. Stronger public engagement is expected to result from communication tactics that resonate with common values and routines, particularly in areas like resource efficiency and waste reduction.

An integrated framework connecting cultural identity, mediating factors, resource management practices, and sustainability results is supported by the synthesis of studies. Together, these procedures support outcomes like community well-being, environmental preservation, and resource efficiency.

This emphasises how crucial it is to view cultural identity as a fundamental component of sustainability research and policy rather than as a supporting factor. When tackling sustainability issues, it also emphasises the necessity of strategies that integrate social and cultural knowledge with environmental and economic viewpoints.

**5.3 Research Gaps and Future Directions**

There are still a number of gaps in our understanding of the connection between cultural identity and sustainability, despite the increased interest in this topic. Evidence from urban, multicultural, and quickly industrialising societies is still scarce, with the majority of current study focused on Indigenous and rural populations. More study is required to investigate how cultural identities affect environmental decision-making in these contexts as they grow more varied and malleable. In terms of methodology, the majority of research use cross-sectional or qualitative designs, which offer scant proof of causal linkages. Research using mixed-methods and longitudinal approaches may be more effective in capturing how cultural identity evolves over time and how these shifts impact sustainable practices in various social and environmental situations.

The limited emphasis on specific mechanisms, such as environmental ideals or conventional ecological knowledge, is another drawback. More comprehensive frameworks that look at how identity interacts with values, social norms, community involvement, and governance to affect resource management results should be used in future study. Lastly, there aren't many studies that examine how cultural identity affects new sustainability

challenges including the circular economy, renewable energy transitions, and climate adaption. Developing sustainable methods that are both culturally and environmentally appropriate will be made easier with an understanding of these relationships.

To better understand the significance of cultural identity in sustainable resource management, future study would generally benefit from stronger research designs, a wider geographic scope, and more thorough analytical frameworks.

**5.4 Limitation**

There are various restrictions on this review. First, because the search was restricted to five databases and English-language publications, pertinent research published in other languages, books, or regional sources—particularly those on regional sustainability practices—may have been missed. Second, there is an uneven body of research, with the majority of studies concentrating on rural and Indigenous environments. The lack of representation in urban, industrial, and ethnic settings restricts the findings' applicability. Third, it is challenging to compare the included research since they differ in theory, methodology, and the definition and measurement of cultural identity and sustainability. Furthermore, the majority of research is cross-sectional, providing little understanding of long-term dynamics. Lastly, as research with noteworthy results are more likely to be published, publication bias could exist. Despite these drawbacks, the study emphasises the significance of cultural identity in sustainability and offers a helpful summary of current research. Larger databases, multilingual sources, and more longitudinal and comparative designs should all be included in future research.

**6. Conclusion**

Cultural identity is a crucial socio-cultural component of sustainable resource management, as this review shows. Instead of serving as a background feature, it influences resource management techniques in many social and environmental contexts, improves community involvement, promotes the transmission of traditional ecological knowledge, and shapes environmental values. ’Trikoti et al. (2026)

According to the findings, cultural identity influences sustainability in a number of interrelated ways. Ecological knowledge preservation, collective stewardship, and resource management strategies that promote biodiversity conservation, sustainable consumption, environmental protection, and community resilience are all more likely to occur in communities with strong cultural identities. However, cultural identity seldom acts in isolation. Understanding sustainability as a socio-cultural as well as environmental process is crucial because of its tight relationship to environmental values, traditional knowledge, social norms, and local government.

Additionally, this review integrates data from other academic fields to offer a more comprehensive understanding of the connection between sustainability and cultural identity. Through environmental values, traditional ecological knowledge, community involvement, and resource management practices, cultural identity indirectly affects sustainability results, as demonstrated by the suggested conceptual framework. The review provides a more coherent basis for further study in this area by combining previously dispersed findings.

The results have useful ramifications for resource governance and environmental policy. Rather than depending exclusively on technology or regulatory measures,

sustainability projects are more likely to thrive when they acknowledge local cultural values, knowledge systems, and community engagement. Incorporating cultural viewpoints into environmental decision-making can enhance local stewardship, increase policy adoption, and promote resource management that is more resilient.

Overall, this analysis emphasises that cultural circumstances in which environmental decisions are made are just as important to sustainable resource management as scientific advancement and strong institutions. More inclusive, context-sensitive, and long-lasting environmental solutions can result from acknowledging cultural identity as a fundamental element of sustainability.

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**Conflict of interest**

The authors declare no conflicts of interest..

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**Appendix A**

**Table A1.** List of studies review.

| Authors | Year | Title | Country of study | Study design |
|---|---|---|---|---|
| Ansah et al. | 2025 | Integrating Asafo Companies for Sustainable Ocean and Coastal | Ghana, Africa | Qualitative |

| | | | | |
|---|---|---|---|---|
| | | Heritage Management in Ghana | | |
| Awoke et al. | 2025 | Ethnobotanical study of wild and semi-wild edible plants in Yeki district, Sheka Zone, Southwest Ethiopia | Ethiopia, Africa | Mixed |
| Azkar et al. | 2025 | Sustainability of the Toraja Arabica coffee value chain in Indonesia: economic, cultural, environmental, and certification dimensions | Indonesia, Asia | Qualitative |
| Champagne-Côté et al. | 2023 | Indigenous leadership in creating a protected area: The Akumunan Biodiversity Reserve (Canada) | Canada, North America | Qualitative |
| Chen & Akamine | 2021 | Distribution and utilization of homestead windbreak Fukugi (Garcinia subelliptica Merr.) trees: an ethnobotanical approach | Japan, Asia | Mixed |
| Díaz-Pinzón et al. | 2025 | The socio-cultural value of urban wetlands: Insights into local sustainable management | Colombia, South America | Mixed |
| Dyrset | 2 | Local | Norway, | Quali |

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| et al. | 021 | knowledge, social identity and conflicts around traditional marine salmon fisheries – A case from Mid-Norway | Europe | tative |
| El Mahroussi et al. | 2025 | Traditional Knowledge, Gendered Practices, and Agro-Biodiversity Conservation: A Case Study of Pomegranate in Moroccan Pre-Saharan Oases | Morocco, Africa | Mixed |
| Evans et al. | 2025 | “It's ‘common-sense’ farming”: Exploring farmers' decision-making and behaviours towards adopting circular agricultural practices | UK, Europe | Qualitative |
| Fan et al. | 2022 | An ethnobiological study on traditional knowledge associated with black-boned sheep (Ovis aries) in Northwest Yunnan, China | China, Asia | Qualitative |
| Fiorentino & Vandini | 2024 | Resilience and Sustainable Territorial Development: Safeguarding Cultural Heritage | Italy, Europe | Mixed |

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| | | at Risk for Promoting Awareness and Cohesiveness Among Next-Generation Society | | |
| Gutiérrez et al. | 2022 | The Kumiai traditional food system: Reconnecting nature, food and health through ancestral knowledge | Mexico, North America | Qualitative |
| Hartmann et al. | 2022 | Coping with Dismantling Forces: Traditional Management and Transformations of Székely-Hungarian Village Commons of Transylvania, in the 16–21th Centuries | Romania, Europe | Qualitative |
| Holtgren & Auer | 2022 | Forging a new path for multi-cultural fishery management | US, North America | Qualitative |
| Irwansyah et al. | 2025 | Sustainable forest utilization based on indigenous knowledge of Mappurondo community in Mamasa District, West Sulawesi, Indonesia | Indonesia, Asia | Qualitative |
| Jatav | 2025 | Exploring Adaptive Capacity of Indian Agricult | India, Asia | Qualitative |

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| | | ure to Climate Change: An Agroclimatic Zone Level Analysis | | |
| Kasoki et al. | 2025 | Indigenous Knowledge and Sustainable Management of Forest Resources in a Socio-Cultural Upheaval of the Okapi Wildlife Reserve Landscape in the Democratic Republic of the Congo | DRC, Africa | Mixed |
| Korowi et al. | 2025 | Small-scale fisherfolk in Papua New Guinea: Perspectives on climate | Papua New Guinea, Oceania | Mixed |

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| | | variability and its impact on coastal fishing operations and activities | | |
| Lopes et al. | 2025 | Unintended and overlooked consequences of exclusionary marine conservation | South America / Europe | Mixed |
| Majumdar & Chatterjee | 2021 | The cultural dimension of environment: Ethnoscientific study on Santhal community in eastern India | India, Asia | Qualitative |
| Martínez-Márquez et al. | 2025 | Perception of Ecosystem Services Provided by Mangroves on the | Mexico, North America | Qualitative |

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| | | Coast of Tabasco, Mexico | | |
| Mekonnen et al. | 2021 | Traditional knowledge and institutions for sustainable climate change adaptation in Ethiopia | Ethiopia, Africa | Mixed |
| Meyer et al. | 2025 | Gender-based ocean uses and values: Implications for marine spatial planning | Maldive/Azores/Belize, Asia / Europe / North America | Mixed |
| Moreira et al. | 2024 | Engaging participatory mapping for co-management and spatial depiction of nature's contributions to people in the Portuguese biosphere reserves | Portugal, Europe | Mixed |
| Natcher & Brunet | 2020 | Extractive resource industries and indigenous community-based monitoring: Cooperation or cooptation? | Canada, North America | Mixed |
| Niko et al. | 2025 | Experiencing Ngitemp: Tradition, Food Sovereignty, and Human-Nature Relations among the Dayak Benawan Indigenous Community in Indonesia | Indonesia, Asia | Qualitative |
| Papachalampo | 20 | Leftovers at the | Greece, Europe | Qualitative |

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| us & Ponis | 25 | Greek table: the role of culture in food waste behaviors | | |
| Pasta et al. | 2020 | An Updated Checklist of the Sicilian Native Edible Plants: Preserving the Traditional Ecological Knowledge of Century-Old Agro-Pastoral Landscapes | Italy, Europe | Mixed |
| Saensouk et al. | 2025 | Ecological Analysis and Ethnobotanical Evaluation of Plants in Khantharat Public Benefit Forest, Kantarawichai District, Thailand | Thailand, Asia | Mixed |
| Salas-Bravo et al. | 2025 | Participatory scenario planning for sustainable development in San Pedro de Atacama, Chile: Addressing water scarcity and cultural preservation | Chile, South America | Mixed |
| Sulistyorini et al. | 2025 | Integrating ecocriticism and place dependence to reveal the post-deforestation conditions of Dayak communities in a documentary | Indonesia, Asia | Qualitative |

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| Suvittawat et al. | 2025 | Sustainable Food Festival Tourism: Integrating the Bio-Circular-Green (BCG) Model for Cultural and Environmental Resilience in Thailand | Thailand, Asia | Quantitative |
| Syahrun et al. | 2024 | Local knowledge of Mecula Haroano Laa as social cohesion of agricultural communities in Butonutara district | Indonesia, Asia | Qualitative |
| Toujgani et al. | 2021 | Traditional knowledge and use value for sustainability: "Castanea sativa Mill.' as a model of socio-economic recovery in northern Morocco | Morocco, Africa | Mixed |
| Wei et al. | 2025 | Spatial Management and Ecological Wisdom of Ancient Human Settlements in the Yiluo River Basin (Luoyang Section), China | China, Asia | Mixed |
| Williams et al. | 2022 | Challenging perceptions of socio-cultural rejection of a taboo technology: Narratives of | India, Asia | Qualitative |

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| | | imagined transitions to domestic toilet-linked biogas in India | | |
| Yang & Sato | 2025 | The Linkage Between Cultural Ecosystem Services and Local Culture | China, Asia | Quantitative |