

UNIVERSITY OF IOANNINA

## School of Economics and Administrative Sciences Department of Accounting and Finance Postgraduate Studies, Program Business and Organization Management

**Postgraduate Thesis** 

The relationship between culture, cultural heritage, environment, and economic development at the level of small business and the local economy.

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Preveza, 20 April 2024



ΣΧΟΛΗ ΟΙΚΟΝΟΜΙΚΩΝ ΚΑΙ ΔΙΟΙΚΗΤΙΚΩΝ ΕΠΙΣΤΗΜΩΝ ΤΜΗΜΑ ΛΟΓΙΣΤΙΚΗΣ ΚΑΙ ΧΡΗΜΑΤΟΟΙΚΟΝΟΜΙΚΗΣ ΠΜΣ ΔΙΟΙΚΗΣΗ ΕΠΙΧΕΙΡΗΣΕΩΝ ΚΑΙ ΟΡΓΑΝΙΣΜΩΝ

ΜΕΤΑΠΤΥΧΙΑΚΗ ΕΡΓΑΣΙΑ

### Η σχέση μεταξύ του πολιτισμού της πολιτιστικής κληρονομιάς, του περιβάλλοντος και της οικονομικής ανάπτυξης στο επίπεδο των μικρών επιχειρήσεων και της τοπικής οικονομίας

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Πρέβεζα, 20 Απριλίου 2024

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#### Acknowledgement

The author wishes to acknowledge the helpful comments provided by many of our academic staff and the helpfulness of them during the postgraduate program. I am particularly grateful for the careful consideration and suggestions made by the following:

+ "Professor" Nikolaos Arnis

Professor Ioannis Sotiropoulos

Associate Professor George Kolias

Associate Professor Aikaterini Galanou

Lecturer Eirini Triarchi

Professor Ioannis Ganas

#### Abstract

The relationship between environment, culture, and economy is complex and multifaceted, and it varies across different societies and regions. These three aspects are interconnected and influence each other in various ways. Here's an overview of how they interact. The environment encompasses the natural resources, ecosystems, and physical surroundings of a particular area. It includes elements such as land, water, air, flora, and fauna. Environmental factors have a significant impact on both culture and the economy. For example, the availability of fertile land and water sources can determine the types of agriculture practiced in a region, which in turn can shape the culture and economic activities of the people living there. Environmental degradation, such as deforestation, pollution, and climate change, can have negative consequences on both culture and the economy. For instance, changes in weather patterns can affect agricultural practices and livelihoods, leading to cultural adaptation and economic challenges. Culture refers to the shared beliefs, values, traditions, customs, and practices of a group of people. It encompasses language, religion, art, music, cuisine, and more. Culture can be deeply influenced by the environment. For example, indigenous cultures often have strong connections to their natural surroundings, with their beliefs, rituals, and storytelling rooted in their relationship with the land. Economic activities are often influenced by cultural factors. For instance, certain cultural practices may dictate the types of goods produced, traded, or consumed. Cultural heritage can also be a source of economic value through tourism and cultural industries. The economy refers to the system of production, distribution, and consumption of goods and services in a society. It includes factors like industries, businesses, trade, labor, and monetary systems. Economic activities can impact the environment. Industrial processes, for example, can lead to pollution and resource depletion if not managed sustainably. Economic policies and incentives can either promote environmental conservation or contribute to environmental degradation. Economic prosperity can influence culture by shaping lifestyles and values. Economic growth can lead to changes in consumption patterns, urbanization, and social structures, which in turn can influence cultural norms and practices. The relationship between these three elements is not unidirectional but rather a dynamic interplay. For example, cultural values may drive efforts to protect the environment, and environmental constraints can shape economic activities and cultural adaptations. Achieving a sustainable balance among these factors is a global challenge, as it requires understanding and managing their complex interactions to ensure the well-being of both current and future generations. Sustainable development aims to strike this balance by considering environmental, cultural, and economic factors together in decision-making processes.

#### Περίληψη

Η σχέση μεταξύ περιβάλλοντος, πολιτισμού και οικονομίας είναι πολύπλοκη και πολύπλευρη και ποικίλλει σε διαφορετικές κοινωνίες και περιοχές. Αυτές οι τρεις πτυχές είναι αλληλένδετες και επηρεάζουν η μία την άλλη με διάφορους τρόπους. Ακολουθεί μια επισκόπηση του πώς αλληλεπιδρούν. Το περιβάλλον περιλαμβάνει τους φυσικούς πόρους, τα οικοσυστήματα και το φυσικό περιβάλλον μιας συγκεκριμένης περιοχής. Περιλαμβάνει στοιχεία όπως γη, νερό, αέρας, χλωρίδα και πανίδα. Οι περιβαλλοντικοί παράγοντες έχουν σημαντικό αντίκτυπο τόσο στον πολιτισμό όσο και στην οικονομία. Για παράδειγμα, η διαθεσιμότητα εύφορης γης και πηγών νερού μπορεί να καθορίσει τους τύπους γεωργίας που ασκείται σε μια περιοχή, η οποία με τη σειρά της μπορεί να διαμορφώσει τον πολιτισμό και τις οικονομικές δραστηριότητες των ανθρώπων που ζουν εκεί. Η υποβάθμιση του περιβάλλοντος, όπως η αποψίλωση των δασών, η ρύπανση και η κλιματική αλλαγή, μπορεί να έχουν αρνητικές συνέπειες τόσο στον πολιτισμό όσο και στην οικονομία. Για παράδειγμα, οι αλλαγές στα καιρικά πρότυπα μπορούν να επηρεάσουν τις γεωργικές πρακτικές και τα μέσα διαβίωσης, οδηγώντας σε πολιτισμική προσαρμογή και οικονομικές προκλήσεις. Ο πολιτισμός αναφέρεται στις κοινές πεποιθήσεις, αξίες, παραδόσεις, έθιμα και πρακτικές μιας ομάδας ανθρώπων. Περιλαμβάνει τη γλώσσα, τη θρησκεία, την τέχνη, τη μουσική, την κουζίνα και πολλά άλλα. Ο πολιτισμός μπορεί να επηρεαστεί βαθιά από το περιβάλλον. Για παράδειγμα, οι αυτόγθονες πολιτισμοί έγουν συχνά ισχυρές συνδέσεις με το φυσικό τους περιβάλλον, με τις πεποιθήσεις, τα τελετουργικά και την αφήγηση ιστοριών που έχουν τις ρίζες τους στη σχέση τους με τη γη. Οι οικονομικές δραστηριότητες συχνά επηρεάζονται από πολιτιστικούς παράγοντες. Για παράδειγμα, ορισμένες πολιτιστικές πρακτικές μπορεί να υπαγορεύουν τους τύπους των αγαθών που παράγονται, εμπορεύονται ή καταναλώνονται. Η πολιτιστική κληρονομιά μπορεί επίσης να αποτελέσει πηγή οικονομικής αξίας μέσω του τουρισμού και των πολιτιστικών βιομηγανιών. Η οικονομία αναφέρεται στο σύστημα παραγωγής, διανομής και κατανάλωσης αγαθών και υπηρεσιών σε μια κοινωνία. Περιλαμβάνει παράγοντες όπως βιομηγανίες, επιγειρήσεις, εμπόριο, εργασία και νομισματικά συστήματα. Οι οικονομικές δραστηριότητες μπορούν να επηρεάσουν το περιβάλλον. Οι βιομηχανικές διεργασίες, για παράδειγμα, μπορούν να οδηγήσουν σε ρύπανση και εξάντληση των πόρων εάν δεν αντιμετωπιστούν με βιώσιμο τρόπο. Οι οικονομικές πολιτικές και τα κίνητρα μπορούν είτε να προωθήσουν τη διατήρηση του περιβάλλοντος είτε να συμβάλουν στην υποβάθμιση του περιβάλλοντος. Η οικονομική ευημερία μπορεί να επηρεάσει τον πολιτισμό διαμορφώνοντας τρόπους ζωής και αξίες. Η οικονομική ανάπτυξη μπορεί να οδηγήσει σε αλλαγές στα πρότυπα κατανάλωσης, την αστικοποίηση και τις κοινωνικές δομές, οι οποίες με τη σειρά τους μπορούν να επηρεάσουν τους πολιτισμικούς κανόνες και πρακτικές. Η σχέση μεταξύ αυτών των τριών στοιχείων δεν είναι μονοσήμαντη αλλά μάλλον μια δυναμική αλληλεπίδραση. Για παράδειγμα, οι πολιτιστικές αξίες μπορεί να οδηγήσουν τις προσπάθειες για την προστασία του περιβάλλοντος και οι περιβαλλοντικοί περιορισμοί μπορούν να διαμορφώσουν οικονομικές δραστηριότητες και πολιτιστικές προσαρμογές. Η επίτευξη μιας βιώσιμης ισορροπίας μεταξύ αυτών των παραγόντων είναι μια παγκόσμια πρόκληση, καθώς απαιτεί κατανόηση και διαγείριση των πολύπλοκων αλληλεπιδράσεών τους για να διασφαλιστεί η ευημερία τόσο των σημερινών όσο και των μελλοντικών γενεών. Η αειφόρος ανάπτυξη στοχεύει στην επίτευξη αυτής της ισορροπίας λαμβάνοντας υπόψη περιβαλλοντικούς, πολιτιστικούς και οικονομικούς παράγοντες μαζί στις διαδικασίες λήψης αποφάσεων.

#### Introduction

We now live in an era dominated by neo-liberal policies that promote free trade, free markets, deregulation of economic activity and upwardly re-distributive tax policies in the name of innovation and economic growth. Sociology offers a fundamental critique of the assumptions that lie at the root of neo-liberalism, and indeed shows that the very concept of the ideological holy grail of neo-liberalism—the free market—is an abstraction that bears little resemblance to real economic behavior. Clarification of the social character of markets is not just an intellectual exercise: neo-liberal ideology, in large part articulated by economists, obscured governments' ability to anticipate the catastrophic collapse of the world's financial markets in 2008 and continues to justify efforts to undermine governments' ability to enact and enforce policies that might prevent the crisis from reemerging in the future. Neo-liberal ideology has also spurred a wide range of policies that have spurred rapidly growing inequality in most nations, a trend that is undermining social stability in the U.S. and across the globe, most recently in Greece (Weber, M. 1987).

It is difficult to comprehend the magnitude of the impact humans have on the environment and the destruction of the remaining of civilizations of the past, directly affecting the bases of the evolution of human culture of the future. These human action raises questions about the concept of progress and economic evolution. To argue that economy and environmental, cultural, and natural heritage are the parameters of sum zero game. A driving force behind the decimation of the earth's ecosystem including the human heritage by humans is the notion of progress as measured by economic growth, measuring economic growth in terms of material possessions which in turn leads to the obsession that the increase of economic output increases the human prosperity.

Undoubtedly, the earth in recent years has been subject to many problems due to the excessive production and reckless consumption of products by man. The positive, however, of this difficult situation facing our planet is the fact that more and more people are becoming aware of environmental issues.

The purpose of this work is to provide a place of sustainable discussion and feedback on the understanding of the relation between the economic development and the effect on the tree elements of human evolution, environment, culture and national. The relationship between them is not unidirectional but rather is a multifaceted and complex relation. This examination raises interesting questions about the concept of progress. To argue that succeeding periods of evolution were radically different than the previews ones, the idea refers to the fact that economic evolution depends on the bases of these three elements, environment, culture, and national heritage. In other words, economic evolution destroys and decimates its foundations in order to elevate.

Economic development depends significantly on environmental and cultural resources due to several interconnected factors that shape the foundation for sustainable growth and prosperity. There is an explanation of why economic development relies on these resources. Economic activities rely heavily on natural resources such as water, land, minerals, energy, and biodiversity. These resources serve as inputs for various industries, including agriculture, manufacturing, energy production, and tourism. Without access to these resources, economic development would be constrained, highlighting the crucial role of the environment in providing the necessary raw materials and ecosystem services to support economic activities. According to the neo-Austrian school of environmental economics, ecosystems provide a wide range of services that are essential for economic development. These services include clean air and water, soil fertility, climate regulation, pollination, and disease control. Incorporating the value of these ecosystem services into economic decisionmaking ensures the sustainable use of natural resources and contributes to the resilience of economies. The cultural heritage provides cultural resources, including historical sites, monuments, traditions, arts, and cuisine, contribute significantly to economic development through tourism and cultural industries. Preserving cultural heritage attracts visitors, generates revenue, creates jobs, and fosters local economic growth. Cultural diversity and authenticity play a crucial role in attracting tourists and enhancing the overall tourism experience. Environmental and cultural resources stimulate innovation and creativity, driving economic growth in various sectors. Nature-inspired technologies, sustainable practices, and eco-friendly products are examples of innovations that leverage environmental resources to address societal challenges and create economic value. Similarly, cultural diversity fosters creativity, entrepreneurship, and the development of unique products and services with market appeal. A healthy environment and rich cultural heritage contribute to the overall quality of life and human development, which are essential drivers of economic development. Access to green spaces, recreational activities, cultural amenities, and educational opportunities enhances well-being, attracts talent, and improves productivity. Investments in environmental conservation and cultural preservation contribute to building resilient and inclusive societies, thereby supporting long-term economic prosperity. Environmental and cultural resources play a crucial role in building resilience to environmental risks and disasters, which can have significant economic impacts. Investing in natural infrastructure, such as wetlands and forests, helps mitigate the effects of floods, storms, and other natural hazards, reducing economic losses and safeguarding livelihoods. Similarly, preserving cultural heritage contributes to community identity, social cohesion, and adaptive capacity in the face of adversity. Recognizing the intrinsic value of environmental and cultural resources promotes ethical and sustainable development practices. Integrating environmental and cultural considerations into economic planning ensures that development pathways are environmentally responsible, socially inclusive, and culturally sensitive. This approach fosters long-term resilience, fosters equitable growth, and ensures the well-being of current and future generations. In conclusion, economic development depends on environmental and cultural resources because they provide the essential foundation for sustainable growth, innovation, resilience, and human well-being. Recognizing the interconnectedness of economic, environmental, and cultural dimensions is essential for promoting holistic development strategies that balance economic prosperity with environmental and cultural sustainability.

Most economists who write about environmental and cultural resources issues use neoclassical assumptions and techniques (Gowdy, J. 1994). But there are alternative approaches to addressing environmental and cultural resource issues that diverge from the neoclassical framework commonly used by many economists. Some of these alternative approaches include. The recent years ecological economics provide a different approach. Ecological economics is a transdisciplinary field that integrates ecological principles and sustainability considerations into economic analysis. It emphasizes the interconnectedness of economic systems with natural systems and advocates for the recognition of ecological limits in economic decision-making. Ecological economists often employ methods such as systems thinking, interdisciplinary research, and integrated assessment models to analyze complex interactions between the economy and the environment. Feminist economics challenges traditional economic theories by highlighting the gendered dimensions of economic activities and the unequal distribution of resources and opportunities. Feminist economists advocate for incorporating feminist perspectives into economic analysis, which includes recognizing the contributions of unpaid care work, valuing non-market activities, and addressing gender inequalities in access to resources and decisionmaking power. Post-Keynesian economics builds upon the work of John Maynard Keynes and emphasizes the role of uncertainty, liquidity preferences, and institutional dynamics in driving economic outcomes. Post-Keynesian economists often critique neoclassical assumptions such as perfect information, rational expectations, and market efficiency. In the context of environmental and cultural resource issues, post-Keynesian economists may focus on market failures, externalities, and the need for government intervention to address sustainability challenges.

Marxian economics draws on the theories of Karl Marx and analyzes capitalism's systemic tendencies towards environmental degradation, resource exploitation, and social inequalities. Marxian economists critique capitalist modes of production and advocate for alternative economic systems that prioritize environmental sustainability, social justice, and democratic decision-making. Marxian approaches to environmental and cultural resource issues often emphasize the role of class struggle, historical materialism, and the contradictions of capitalist growth imperatives.

Critical development economics examines the social, political, and environmental dimensions of development processes, with a focus on power relations, colonial legacies, and global inequalities. Critical development economists challenge mainstream development paradigms and advocate for approaches that prioritize environmental sustainability, cultural diversity, and social equity. This perspective emphasizes the importance of participatory approaches, community empowerment, and decolonial practices in addressing environmental and cultural resource issues.

And finally, Institutional economics focuses on the role of institutions, norms, and governance structures in shaping economic behavior and outcomes. This approach emphasizes the importance of understanding social, political, and cultural factors that influence economic behavior, including property rights, legal frameworks, cultural norms, and social networks. Institutional economists often explore how institutions affect resource management, environmental governance, and cultural preservation.

These alternative approaches offer diverse perspectives and methodologies for analyzing environmental and cultural resource issues, moving beyond the narrow confines of neoclassical economics and enriching our understanding of the complex interrelationships between the economy, society, and the environment. By incorporating insights from these diverse perspectives, policymakers and researchers can develop more holistic and contextually appropriate solutions to pressing environmental and cultural challenges.

#### Part One: Institutional Arrangement and Regulation

## The role of economic theory and accounting in sustainable economic development

The issue of environmental protection has deep historical roots. Initially it appeared from the civilizations that had close contact with nature and acquired greater dimensions at the time of Aristotle, who systematically monitored the evolution of the fauna species in his zoo. Also at that time, the first treatments of animals and respect for nature began. In the Middle Ages, the first attempts to systematically protect the environment were made, due to urbanization and the gradual movement of the population to the cities, and the first environmental principles were developed. In 1908 US President Roosevelt established the first nature commission and launched the Tennessee Plan, where there is an attempt to regulate sustainable development. At the same time, the first institutions for the protection of work and the working environment were formed at the same time. The post-crash New Deal era was instrumental in the growth of green entrepreneurship and employment. In 1962 R. Carson's book titled "Silent Spring" was published presenting the effects of human consumerism on the environment. In 1972, the United Nations Conference on Man and the Environment was held in Stockholm and aimed to inspire and guide the peoples of the world to preserve and enhance the human environment. In addition, the Paris Summit took place that year, with the same goal. In 1975 the European community created an action plan for the monitoring and protection of the marine environment in the Mediterranean. At the same time, Rawls' theory of generational equality was developed, and environmental issues were recognized as fields of rights and obligations from generation to generation. In 1983, the first reference to the term sustainable development was made by the Brutland report. The 1990s later saw the summit meeting in Rio (1992), where humanity recognized the great dangers threatening the planet. In the same year, the Maastricht Treaty upgraded environmental protection in all its dimensions. In 1998 all member states signed the Kyoto Protocol, which required all member states to reduce their greenhouse gas emissions by 8% for the period 2008-2012 compared to 1990 values. In addition, developed countries pledged to reduce the total emissions of carbon dioxide, nitrogen, fluorinated hydrocarbons, and sulfur hexafluoride by at least 5%, while no quantitative targets were set for the developing ones. In addition, political measures were introduced to achieve the goal according to national conditions and a strict compliance regime. A year later the Treaty of Amsterdam strengthened the legal basis for better environmental protection and for the promotion of sustainable development in the EU. Today the European Union attaches great importance to environmental protection and aims for sustainable and sustainable development.

In accounting science in recent decades there has been a trend to track information related to environmental management using environmental and social terms. In particular, in recent years the term environmental accountant is often accompanied by the word sustainable accounting, which is an identical concept. The definition that can be initially given for the concept under consideration is that environmental or sustainable accounting deals mainly with the recording of costs and benefits, in measurable economic units that result in every decision, management and in general strategic direction that is deemed necessary to be applied in business so that its economic, social, and environmental capital achieves the desired results. But in the modern era, the attempt to interpret environmental and sustainable accounting is determined by many different scientific formulations with similar content. These scientific formulations belong to theories that exist in the international literature and can categorize environmental accounting based on the theory they advocate. The main theories that can be mentioned have to do with the institutional definition (institutional theory), with the political side (political economy accounting theory), with the legal framework (legitimacy theory) as well as with the way of interaction of the interested groups mentioned in field of environmental and sustainable accounting (stakeholder theory). Furthermore, it is important to emphasize that environmental accounting is born of the responsibility that businesses have towards society and the environment. Included in this branch of accounting are new methods and techniques for monitoring information, which are necessary to derive results and statements.

These official statements are then interpreted and contribute to strategic planning and communication, since accounting is the language in which every company can communicate with the state, society, with other companies and in general with interested parties. Information extraction situations of this category can be separated based on Gray initially into information voluntarily recorded by the company itself and concerning society. In the other case, to information that is collected and constitutes environmental and social situations by external controls, mainly by the state. And the third and most current division has to do with the new wave of environmental accounting, in this particular category the company itself tries to adhere to certain institutionalized standards or methods concerning social and environmental issues.

We must learn to appreciate the issues concerning the value of past human achievements and the frame where social and environmental challenges contribute to human evolution. We therefore should use appropriate techniques to magnify the given quality for future achievements. Accounting provides solutions and techniques able to contribute to companies' better performance toward the preservation of those resources. Current accounting and reporting techniques that have been designed for the linear economy are often ill-equipped to truly capture the value and positive impact of circular businesses. Circular accounting describes the practice of measuring, analysing and reporting on a company's financial and non-financial performance, to truly reflect the value and impact of circular businesses on all relevant stakeholders. The transition to a circular economy will require rethinking our present way of doing business—and we must not overlook the pivotal role of accounting.

Realising a circular economy is essential for mitigating the worst impacts of climate breakdown and will deliver heightened profit and resilience, trumping our current systems. We are living in a time of rampant pollution and waste, resource scarcity, biodiversity loss and rising global temperatures— all of which are linked to our increasing consumption rates. Circular strategies and business models offer solutions, creating an economy that eliminates waste and pollution, keeps products and materials in use and regenerates nature. In a business-as-usual situation where we continue to live beyond the means of the planet, businesses will also suffer and be prone to a range of risks, including price volatility and supply chain failure. Circular businesses have proven to be resilient to such risks and will—in the long term— amass more profits than their linear counterparts (Circle Economy., 2018)

The impact is analogous to the value of the resources and the role of accounting lies in the understanding of the measurement and to capture the long-term social, environmental and economic impacts organisations have on their stakeholders. Nonfinancial impacts should be listed on companies' income statements and balance sheets alongside financial factors.

It is an ambiguous situation of modern society, that a portion of individuals are fighting for the environment and on the other hand, the majority of industries, factories and businesses aim only at profit. Environmental pollution and fragmentation of natural resources are some of the key problems facing the environment. In order to reduce these issues, the state mechanisms establish laws that will reduce these phenomena with their implementation by factories and businesses (Bretschger, L., Pittel, K., 2020). A main technique used to improve the aforementioned problems is Life Cycle Analysis (LCA) (De Marco et al., 2018).

In particular, the international organization SETAC, which created the LCA technique, aims to investigate the effects caused by a product, process or activity on the environment from the moment it is manufactured until it is destroyed and at the same time looks for measures to prevent or minimize the burden on the environment, using alternative or improved products (De Marco et al., 2018).

Therefore, through LCA, the attempt is made to analyze all the stages of the course of a product, an activity or an action. Through this, the environmental consequences caused by the specific product during its "life" are identified and assessed.

In particular, the main parameters taken into account for the environmental impact of the products are:

- ➤ The way of obtaining the raw material
- ➤ The transport of construction materials
- ➤ The final disposition of the product
- $\succ$  The disposal of waste

These parameters affect the consumption of natural or human resources while simultaneously releasing waste and pollutants into the environment.

Furthermore, the use a product undergoes is also an indicator of environmental degradation. Reusable products greatly reduce waste and environmental destruction and are usually made from recyclable materials, thus saving resources, energy and waste (Cooper, Gutowski, 2015).

However, AKZ appeared for the first time around 1960 and was a key method that ensured the safe method of producing a product without burdening the environment, since the fact of the elimination of energy resources and therefore of raw materials began. The energy quantity of the material processing and the waste that end up in the environment are measured through the LCA (Thanopoulos, 2003).

Consequently, it becomes easier to manage the environment, but also the assessment of the effects of energy use and the use of materials and waste is carried out, but at the same time positive reforms are carried out that reduce the issues that are identified in order to reduce or eliminate the environmental effects that arise (Finkbeiner et al, 2006).

Specifically, the analysis achieved investigates the following:

➤ The acquisition of raw materials

- ➤ The way the product is manufactured
- $\succ$  The packaging
- ➤ Standardization,
- ► Transport and distribution
- $\succ$  Use and reuse
- ➤ Maintenance
- ► Recycling
- ≻ Waste management

> The final disposal and disposal of the product (Avramidis, Kythraiotou, & Fatta, 2008).

#### The financial and environmental cost

The environmental cost is related to both the functionality and the productivity of a company, when implementing environmental strategies by it. At the same time, it contains both the technological and logistical equipment needed to improve its efficiency according to green techniques.

On the other hand, internal fixed costs include only the operating and production costs of the business. Finally, the external environmental cost contains the costs that arise after the establishment of each organization and are a waste for the environment since it has negative effects on it (Cormier & Magnan, 1999).

Epstein and Ray claimed that "many companies find it difficult to determine their total environmental costs and do not recognize that they can be controlled and reduced. Most of the time environmental costs are hidden in overheads, costing systems. They are often allocated on an arbitrary basis within the overhead allocation framework. The main difficulty lies in identifying the environmental costs and responsible products, processes and underlying activities" (Burritt & Schaltegger, 2010).

Finally, environmental costs can be distinguished into private costs related to the costs of the company and collective costs that concern costs to the company, an individual, society or the environment.

In general, the operation of a business is based on integrated management systems concerning the environment and its effects on it and is necessary. These systems are as follows:

- ➤ The environmental cost
- $\succ$  The cost of production
- $\succ$  The liability cost
- ➤ The Benefits

While the costs are divided into:

- $\succ$  Direct cost
- ≻ Sunk cost
- ➤ Contingent cost of liabilities
- ➤ Less tangible costs (Gray, Bebbington, & Walter, 1993).

#### Institutional arrangement and law

Environmental protection is a major issue that concerns the entire world. Industrial development and human overconsumption have led the planet to a suffocating quagmire, which if it continues to exist its future is uncertain. To address the above issue, many people, especially young people, seem to be becoming more and more aware in recent years.

The law plays a crucial role in preserving the environment by establishing regulations, standards, and legal frameworks to protect natural resources, prevent pollution, and promote sustainable practices. The law helps preserve the environment, through environmental regulation, laws set forth principles and standards to limit pollution, regulate hazardous substances, and protect natural habitats. These laws establish limits on emissions, discharges, and waste generation, ensuring that industrial activities comply with environmental standards to minimize their impact on the environment. Especially environmental laws govern the management and conservation of natural resources, including water, air, land, forests, wildlife, and marine ecosystems. These laws establish frameworks for sustainable resource use, protection of biodiversity, and preservation of critical habitats, ensuring that resources are managed responsibly for present and future generations. Many jurisdictions require environmental impact assessments (EIAs) for proposed development projects to evaluate their potential environmental effects. Environmental laws mandate the assessment of project impacts on ecosystems, water quality, air quality, biodiversity, and cultural heritage, helping to identify potential risks and mitigate adverse effects through project planning and design.

Environmental laws establish protected areas, national parks, wildlife reserves, and other conservation areas to safeguard ecosystems, endangered species, and sensitive habitats. These laws regulate human activities within protected areas, restrict harmful practices such as deforestation and poaching, and promote habitat restoration and biodiversity conservation. In addition, environmental laws govern waste management practices, including waste disposal, recycling, and hazardous waste treatment. These laws establish requirements for waste collection, segregation, recycling infrastructure, and disposal facilities, aiming to minimize waste generation, promote recycling, and prevent pollution of land, water, and air. Environmental laws enhance and promote environmental justice by ensuring that vulnerable communities, including low-income populations and minority groups, are protected from disproportionate environmental risks and impacts. These laws address environmental inequalities, promote public participation in decision-making processes, and uphold the rights of communities to a clean and healthy environment.

*International Cooperation*: Environmental laws facilitate international cooperation and collaboration on global environmental issues, including climate change, biodiversity conservation, and transboundary pollution. International agreements, treaties, and conventions establish frameworks for collective action, set common goals and targets, and promote cooperation among countries to address shared environmental challenges. International cooperation establishes mechanisms for enforcement and compliance monitoring to ensure that regulations are effectively implemented and enforced. Regulatory agencies, environmental inspectors, and legal mechanisms enforce environmental laws, investigate violations, impose penalties for noncompliance, and promote accountability among individuals, businesses, and governments. The institutional framework complies with the innovative economic trends because incentivize innovation and the adoption of clean technologies by establishing regulatory frameworks, providing financial incentives, and supporting research and development efforts. These laws promote the development and deployment of renewable energy, energy efficiency, pollution control technologies, and sustainable practices to reduce environmental impacts and promote green growth.

In summary, environmental law plays a critical role in preserving the environment by establishing legal frameworks, regulations, and standards to protect natural resources, prevent pollution, promote sustainable practices, and ensure environmental justice. By enforcing compliance, fostering innovation, and promoting international cooperation, environmental laws contribute to the conservation and sustainable management of ecosystems, biodiversity, and the overall health of the planet.

#### Law and national and world heritage.

The law plays a vital role in protecting and preserving both national and world heritage by establishing legal frameworks, regulations, and mechanisms to safeguard cultural sites, artifacts, traditions, and intangible heritage. Here's how the law helps to protect and preserve national and world heritage. National laws and international conventions provide for the identification, designation, and protection of heritage sites, monuments, and cultural landscapes. Governments establish lists of designated heritage sites based on criteria such as historical significance, architectural value, cultural importance, and uniqueness. These designations grant legal protection to heritage properties and regulate their conservation and management. Heritage laws establish legal protections to prevent the destruction, alteration, or unauthorized development of cultural sites and artifacts. Legal protections may include restrictions on demolition, alteration, excavation, and development within heritage zones or protected areas. Penalties for unauthorized activities and damage to heritage properties are also specified under heritage laws.

This seems a sensible suggestion. But if the coherence of the state arises from the conservation and restoration. In recent years laws mandate the conservation, restoration, and maintenance of heritage sites and artifacts to preserve their historical, cultural, and architectural integrity. Governments establish conservation guidelines, standards, and best practices for the preservation of heritage properties, ensuring that conservation activities adhere to established principles of authenticity, reversibility, and minimal intervention. These laws require the development of heritage management plans for designated sites and cultural landscapes. These plans outline strategies for the sustainable management, maintenance, and interpretation of heritage properties, including visitor management, educational programs, and community engagement initiatives. Heritage management plans ensure that conservation efforts are coordinated, systematic, and adaptive to changing conditions.

Heritage laws establish cultural heritage institutions, agencies, and authorities responsible for the protection, conservation, and management of heritage resources. These institutions undertake research, documentation, and inventorying of heritage properties, provide technical assistance and expertise for conservation projects, and coordinate heritage preservation efforts at the national and local levels.

International conventions and agreements facilitate cooperation among countries to protect and preserve world heritage sites and cultural heritage assets of global significance. UNESCO's World Heritage Convention, for example, establishes a framework for international cooperation in identifying, protecting, and conserving world heritage properties, promoting collaboration among member states to safeguard cultural and natural heritage of outstanding universal value. Accordingly, international laws promote public awareness, appreciation, and understanding of cultural heritage through educational programs, outreach activities, and heritage interpretation initiatives. Governments support heritage education in schools, universities, and communities to foster a sense of pride, ownership, and stewardship among citizens, encouraging active participation in heritage conservation efforts. Comparison is of great assistance in recognizing the specific marks of international institution acting under the regulation and encourage community engagement and participation in heritage preservation and management. Governments consult with local communities, indigenous peoples, and stakeholders to ensure their involvement in decision-making processes, respect traditional knowledge and practices, and promote community-led initiatives for heritage conservation and sustainable development. International agreements and national laws establish legal frameworks for the protection and repatriation of cultural property, including archaeological artifacts, sacred objects, and cultural treasures. These legal instruments regulate the trade and export of cultural property, prevent illicit trafficking, and facilitate the restitution of stolen or illegally acquired cultural artifacts to their countries of origin. This leads to the close causal relationship between the hardness and the softness of the regulation constrains and the effectiveness of laws. These laws are prepared to refrain and provide for emergency measures and disaster preparedness to mitigate risks to heritage properties from natural disasters, armed conflicts, and human-made threats. Governments establish contingency plans, emergency response teams, and risk mitigation strategies to safeguard heritage sites and artifacts during crises and ensure their rapid recovery and reconstruction following emergencies. All these have a multiple effect and play a critical role in protecting and preserving national and world heritage by establishing legal frameworks, regulations, and mechanisms to safeguard cultural sites, artifacts, traditions, and intangible heritage. By promoting legal protections, conservation efforts, community engagement, and international cooperation, heritage laws contribute to the safeguarding of cultural diversity, promotion of sustainable development, and enhancement of global heritage conservation efforts.

Certainly! The law plays a crucial role in protecting and preserving culture by establishing legal frameworks, regulations, and mechanisms to safeguard cultural heritage, traditions, expressions, and intangible cultural assets. Here's how the law helps to protect and preserve culture:

#### Law and culture preservation

Cultural heritage laws recognize and define cultural assets, including tangible and intangible heritage, historic sites, artifacts, cultural landscapes, traditions, and expressions. These legal definitions provide clarity and legal recognition to cultural as

sets, facilitating their protection, preservation, and promotion. Cultural heritage laws establish legal protections to prevent the destruction, damage, or unauthorized alteration of cultural assets. Legal protections may include designations of protected areas, heritage sites, and cultural landscapes; restrictions on development and construction; and prohibitions on unauthorized excavation, export, or trafficking of cultural artifacts. If anything keeps the cultural heritage from distraction and dissolution it is mostly the laws mandate the conservation, restoration, and maintenance of cultural assets to preserve their authenticity, significance, and integrity. Governments establish conservation guidelines, standards, and best practices for the preservation of cultural heritage, ensuring that conservation activities adhere to principles of authenticity, reversibility, and minimal intervention. This procurement of laws in every generation establishes property rights and ownership regimes for cultural assets, ensuring that cultural communities, indigenous peoples, and individuals have legal rights and interests in their cultural heritage. These laws protect against unauthorized appropriation, exploitation, or misuse of cultural assets and promote the restitution and repatriation of cultural property to their rightful owners. We keep these restraining factors in mind making together with cultural institutions the appropriate base for law enforcement.

*Cultural Institutions and Authorities*. Cultural heritage laws establish cultural institutions, agencies, and authorities responsible for the protection, conservation, and management of cultural heritage. These institutions undertake research, documentation, and inventorying of cultural assets, provide technical expertise and support for conservation projects, and coordinate cultural preservation efforts at the national, regional, and local levels. Cultural heritage laws promote cultural diversity and freedom of expression by protecting the rights of individuals and communities to practice, preserve, and transmit their cultural heritage, traditions, and expressions. These laws safeguard cultural rights, linguistic diversity, and cultural identities, ensuring the vitality and resilience of diverse cultural communities.

All the same, it has to be said that cultural heritage laws recognize and protect intangible cultural heritage, including oral traditions, performing arts, rituals, festive events, traditional knowledge, and craftsmanship. Legal mechanisms such as UNESCO's Intangible Cultural Heritage Convention establish frameworks for safeguarding intangible heritage, promoting community-based inventorying, documentation, and transmission of cultural practices. These points elaborate and present a brief account of the genesis of the creative industries and cultural economy bases especially on tourism. Because these laws support cultural tourism and creative industries by promoting the sustainable development of cultural resources for economic and social benefits. Governments establish policies, incentives, and programs to promote cultural tourism, heritage-based industries, creative entrepreneurship, and cultural heritage entrepreneurship, generating revenue, employment, and community development opportunities.

The last factors enable knowledge and international cooperation the most enduring institutional engagement with which has been developed the public awareness, education, and outreach programs to raise awareness of cultural heritage, foster appreciation and understanding of diverse cultures, and promote heritage conservation and stewardship. Governments support heritage education in schools, universities, and communities, develop interpretive programs and exhibitions, and engage in public outreach initiatives to promote cultural heritage conservation and appreciation. As if

this was not itself enough, furthermore laws facilitate international cooperation and collaboration on cultural heritage conservation and preservation efforts. International agreements, conventions, and treaties establish frameworks for sharing knowledge, expertise, and resources, promoting collaborative research, capacity building, and technical assistance to address global challenges in cultural heritage conservation.

In response, cultural heritage laws play a critical role in protecting and preserving culture by establishing legal protections, conservation measures, property rights, and cultural institutions to safeguard cultural heritage, traditions, expressions, and intangible cultural assets. By promoting legal recognition, conservation efforts, community engagement, and international cooperation, cultural heritage laws contribute to the safeguarding of cultural diversity, promotion of cultural rights, and enhancement of global cultural heritage conservation efforts.

A multitude of actions by organizations, governments and ordinary citizens are taking place every day in order to deal with environmental degradation and cultural heritage preservation. In particular, on a global level, certain rules and laws for the protection of the planet must be followed by all states. If these measures are not followed, states are subject to (Cadbury, 2006). Therefore, in order to protect the environment, environmental law was established, which is the main axis for observing the measures for the protection and exploitation of the environment.

Since 1970, the international economy has been directly linked to the destruction of the environment. Immediately, in 1972, the 1st International Conference was held in Stockholm and it was decided to carry out the first studies on the effect of industry on environmental destruction. As a result, environmental law was enacted, with the ultimate goal of controlling environmental pollution and the exploitation of natural resources (Shafer, 1994). The first country to implement environmental law was the USA. Also, it immediately began to be applied around 1980 in many European countries. At the same time, many organizations publicized the rules and aims of environmental law to raise the awareness of even more citizens and businesses (Shafer, 1994).

Sustainable development as a concept appeared for the first time in 1987, while in 1992 in Brazil, the 2nd International conference was held, where more than 148 countries participated. In 1997 in Japan, measures related to the greenhouse effect were added to environmental law. In short, environmental law is defined as "the rules of law that balance human action with the environment, natural, cultural or any environment in which the individual is active" (Tassopoulou, 2021). According to Article 1 of Law 1650/1986, which is related to environmental protection, the main objectives of environmental law are the following:

1. The prevention of environmental pollution and the degradation of the environment and the natural landscape, but also the taking of preventive measures to avoid the above.

2. The safeguarding of human health from contamination and pollutants.

3. The balanced development of the state territory as a whole, but also of its individual geographical and residential units.

4. The protection of rare and non-renewable sources as well as the assurance of the future existence and restoration of renewable resources as well as their rational use with the environment as the main concern.

- 5. The restoration of the environment.
- 6. The protection of the soil from its reckless use
- 7. The protection of waters, since they are considered natural resources and ecosystems
- 8. The protection of the atmosphere.

9. Ensuring the preservation and protection of natural protected areas with great biological, ecological, aesthetic or geomorphological value.

10. The protection of the sea, lakes, rivers and their guests

11. The definition of waste (Alexiou et al., 2021).

#### **Business and Environment**

Undoubtedly, businesses affect the environment, the natural landscape and the cultural heritage. Waste, pollution produced, and the use of natural resources are just some of the main causes. Business activities have a multitude of negative environmental effects and have created a spectrum of "environmental pressures", which belong to two main categories: 1. the pressures of legislation, 2. the pressures of the market (Gray, Bebbington 2001). As a result of these pressures were the more intense actions of organizations to protect the natural environment, the establishment of environmental law and environmental legislation, political pressures, fiscal policy, the thinking of consumers for less waste, "green" competitors, the organic and environmentally friendly products, investors and NGOs. In addition, all the states allied themselves and through a common policy made reform legislations to protect the environment. Environmental law aims to regulate practices harmful to the environment, correct and enact environmental legislation (Kelsall, 2020).

Some examples of environmental legislation are the EPA (Environmental Program Agency), the Water Act, the Environmental Act and the IPPC (Integrated Pollution Prevention and Control). While Europe started to use the EC environmental legislation, which aims at sustainable development. As a result of the above environmental laws, companies began to invest in "cleaner" technologies, i.e., they began to change their products to more environmentally friendly ones, their production processes and created programs that minimized waste (Amosh & Mansor, 2021).

With the compliance of more and more companies according to environmental law, society manages to distance itself from the risk of contamination, but also the companies themselves avoid the hefty fines for non-compliance. A vivid example of a company that was charged an exorbitant amount was in 2015 Volkswagen who paid 25-30 billion after selling oil-burning cars with high levels of emissions.

In recent years, many organizations have been established that advise and encourage every business to develop a sustainable policy that will have a positive impact on the environment. Such organizations are the Global Reporting Initiative (GRI), the World Business Council for Sustainable Development (WBCSD) and the International Code Council (ICC) that have created standards, indicators and initiatives that help every company manage and improve its environmental performance. In fact, research shows that consumers themselves prefer to buy products from companies that have adopted a more sustainable way of production and are willing to spend more money to buy goods or services from companies characterized by social responsibility and environmental concerns. Specifically, Deloitte4 conducted a survey in England that showed that 32% of consumers in 2021 follow a sustainable lifestyle, 28% of consumers no longer buy products due to ethical and environmental concerns and 46% require full information on the origin of goods (Adamik & Sikora-Fernandez, 2021).

In particular, a firm's environmental performance is positively correlated with competition. In fact, many companies today are competing for high leadership roles in environmental management and technology sectors. The development of competition is achieved through an economic and at the same time efficient response to the legislative framework and the needs of customers, a conscious environmental profile of the company in the market that promotes the environmental way of product development.

Finally, it is now clear that investors, in addition to profit, seek to invest in companies that produce alternatively, with the aim of preserving and protecting the environment. For this reason, they choose companies that publish non-financial information mainly on issues related to climate change, energy and social instability (Judrupa, 2021).

#### **Environmental policy**

By the term environmental policy, we mean any measure by a state or private company, or some other public or private organization related to the impact of any human activity on the environment, especially any measure aimed at preventing or reducing the harmful effects of human activities on ecosystems. Environmental policies are necessary to exist since environmental values are usually not taken into account when making profit-related decisions. The main reasons for the above are: Environmental impacts which are basically negative economic externalities for businesses. In fact, most of the time, those responsible for pollution do not bear the consequences of their actions (Cocklin & Moon, 2020).

Natural and cultural resources that are almost always undervalued since they are usually assumed to be available forever. In combination, these two factors can lead to the "tragedy of the commons" as the American ecologist Garrett Hardin called it in 1968. That is, the stock of natural resources can be considered common by anyone, considering that they can use it uncontrollably for his personal benefit. Humanity finds it logical to waste natural and cultural resources to earn money, but it does not consider that if this happens to every human being, the resources will run out very soon for future generations. A fact that will only bring about negative results for everyone. This is because at the given time only profits are to be enjoyed, while the negative consequences will be seen in the long run when the resources are exhausted. Since the incentives for an individual to use resources sustainably are almost non-existent, the government must protect its citizens (Senn & Giordano-Spring, 2020).

Since ancient times, finds have been found that referred to policies aimed at protecting the environment. Sewers were a policy measure to protect the citizen. The earliest sewers were constructed at Mohenjo-daro (Indus, or Harappan, civilization) and Rome (ancient Roman civilization), nearly 4,500 years and 2,700 years ago, respectively. Other cultures applied environmental laws. In ancient Greece, in many city-states, laws were created regarding the harvesting of forests almost 2,300 years ago, while in feudal European societies, hunting reserves were created, which limited the harvesting of wood and game, practically preventing unnecessary exploitation until 1000 A.D.

Paris developed the 1st large-scale sewage system built in Europe around 1700. While around 1900 when the effects of industrialization and urbanization began to become apparent, and human health was threatened, even more laws and regulations were developed regarding public hygiene, sewage, housing, sanitation, and the protection of natural resources, landscapes and wildlife. At the same time, many organizations such as the Sierra Club and the National Audubon Society in turn made their own fight to defend and preserve natural resources and wildlife (Acerete, Gasca & Llena, 2019).

Humanity began the destructive effects on itself of pollutants and harmful chemicals coming from factories, pesticides in agriculture very late, around 1956, when Minamata disease appeared in Japan, which came from the release of mercury from nearby chemical companies. At the same time, many newspapers began to publish articles on the environment. One such was by American biologist Rachel Carson, who referred to the dangers of pollution and shook many citizens on environmental issues, while also detailing other countries' regulations on industries. Some such regulations were prohibiting the use of hazardous substances or large emission rates of chemicals (Mousa & Hassan, 2015).

Additionally, in the 1980s studies conducted on the effects of acid rain demonstrated that the causes of environmental pollution could be separated geographically from its effects. More generally, however, all environmental problems led to the conclusion that the earth's natural resources are not inexhaustible and are being degraded (Mousa & Hassan, 2015). Towards the end of the 1980s, sustainable development, i.e. promoting economic growth while maintaining the quality of the environment for future generations, became a key objective for the environmental policy of each country. This was a very difficult undertaking since for the majority of people and governments natural resources were an economic driver (Nicolaou, 2007).

#### **Principles of environmental policy**

Environmental policy, the protection and conservation of natural resources and the management of natural resources were the responsibilities of civil servants (Hamann, R et al., 2018). Today, however, they are managed by a wider audience such as citizens, communities, non-governmental organizations and the corporate sector. Consequently, responsibilities began to be shared and not assigned exclusively to the respective civil servant. That is, the responsibilities are assigned more widely both for the protection of the public interest and for the protection of the environment (Hamann, R. et al., 2018). A multitude of principles and practices have been developed to create guiding principles for an innovative policymaking focused on environmental protection. Some of these principles that have been developed and given legal dimension in many countries are the "polluter pays" principle. According to her, whoever is responsible for pollution, environmental costs should take into account that an activity may be prohibited as well as know it is possible, which may be harmful to the environment and not reversed.

In 1970, environmental policy began to try to prevent and control situations. These efforts are aimed at mitigating the negative effects. Also, if a negative impact was unavoidable, you would have to compensate with an investment in nature in some other place, other than where the disaster happened (Oh, C., Oetzel, J. 2022). Additionally, a policy that focuses on how to adapt the environment to possible changes is equally important. In particular, measures have been used that encourage the ecological

resilience of an ecosystem in combination with measures aimed at prevention as well as mitigation.

A vivid example is Curitiba, Brazil, where there are many floods every year. There, people who lived low in the flooded areas were moved to higher places and the areas they previously lived in were turned into parks that even when flooded do not disrupt people's lives or the functioning of the city (Charles et al., 2020). Finally, environmental governance aims in particular to bring about a positive impact on both social and ecological issues based on 5 main axes (Charles et al., 2020):

1. On adaptation and scale (ie, temporal and spatial scales of governance)

2. Adaptation, flexibility and learning (e.g. environmental protection learning through action)

3. To the bodies such as state and non-state bodies, organizations etc.

4. In the co-production of knowledge, i.e. the exchange of opinions and ideas from all agencies for environmental protection

5. Accountability and legitimacy, that is, to have clear and unambiguous roles so that responsibilities are properly assigned (Cadbury, 2006).

#### Economic and environmental means

The creation of new intergovernmental forms took place due to the need for a new institutional system in order to overcome the basic problems facing today's society, such as that of environmental pollution. Furthermore, ideology and economic globalization contributed to the shift from government to governance (Lunt et al., 2019). While some believe that globalization has made national governments less powerful, others argue that rather than simply eroding government power, globalization has changed the way governments operate and influence situations.

For example, the three dominant institutional sectors of society—government, market, and civil society—have begun to work more closely together, cooperating with each other in many ways when their goals align. This cooperation does not mean that they always, or even mostly, work together or that they have aligned priorities, but it does mean that they do so more often than in the past, including on environmental policy objectives.

The nature of global governance on a range of issues, including the environment, is now best understood not only as what states do but as a combination of what states, civil society and markets do or do not do (Andersson, 1998). Governments can decide to stimulate behavioral change by providing positive or negative financial incentives for example, through subsidies, tax rebates, or fines and levies. Such incentives can play an important role in stimulating innovation and in the diffusion and adoption of initiatives. In Germany, the widespread subsidy of solar energy systems for homeowners has increased the larger scale adoption of photovoltaic (PV) panels.

Financial incentives or disincentives can also motivate professionals to change. A potential disadvantage of financial incentives is that they change the market. When not used for a limited period, they can make recipients dependent on the subsidy. An additional disadvantage is that subsidies are expensive means of managing the situation, especially when they are open-ended.

The complexity, uncertainty and urgency of many contemporary environmental problems have raised many questions about the traditional development model and the relationship between society, economy and environment. It has also raised questions about the suitability of the traditional governance model to meet the demands of sustainable environmental and economic management. Thus, responsibility for environmental management has shifted - upwards to international agencies and transnational corporations, and downwards to local governments and businesses and resource users (Warren, Sullivan, 2005). In addition, individuals play a greater role in the environment as consumers, private landowners, and participants in political discourse, as does civil society (Warren, Sullivan, 2005).

#### **Part Two: Economy – environment – cultural heritage - culture**

# Relationship between environment, national heritage, culture and economy

To overcome the limitations of both voluntary and regulatory approaches, there has been increasing interest and acceptance in the use of financial instruments to support environmental policy objectives. These market-like mechanisms aim to internalize negative environmental externalities. Financial instruments provide economic incentives/disincentives that, in many cases, are likely to elicit better responses to environmental issues while avoiding the complexity and restrictive nature of legislation (Edwards, 2004).

Although enthusiasm for financial instruments is widespread, they have also been subjected to extensive critical evaluation. There are equity issues and future operational problems arising from the definition of ownership rights and organizational capacity. A review of the use of financial instruments in Organization for Economic Co-operation and Development (OECD) states revealed "no black-and-white picture of their overall success". The success of policy instruments is based on matching them to the specific ecological, political and economic situation and to the capabilities of institutions and stakeholders. It is not necessarily about developing new tools and instruments, but about designing a "mix" of policy instruments that best suits the circumstances.

Attitudes and perspectives of stakeholders (eg industry, individuals and land managers) have also been found to be fundamental factors in effecting changes in environmental practices. To succeed, new policy approaches require the cooperation of these stakeholders. Thus, the effective and efficient implementation of policy and management strategies by government is based, in part, on understanding what stakeholders view as key issues that influence decisions that in turn impact on the environment, how they respond to these issues, their disposition towards various policy and management tools and their previous experience working with government agencies.

Almost every aspect of environmental policy carries risks. Economic tools provide a framework for structuring environmental policy analyzes that consider these risks in a rational way. Sound economic analysis also helps avoid incorrect results, such as overreacting to negligible risks or dismissing truly important risks. Risk analysis practices and the targeting of environmental policies are sometimes flawed in ways that can be improved by grounding policies in the proper assessment of expected benefits and costs (Thanopoulos, 2003).

All businesses are inextricably linked to impacting the natural world. However, business historians have for many years neglected the development relationship between business and the environment. Both from the process of extracting raw materials and the management of resources and the waste they create (Galiti, 2019). In general business history has never dealt with its effects on the environment, never taken measures to protect it and never set goals related to it. Unconcerned with the dependence and impact of corporations on the natural world, early business historians were concerned only with the role of entrepreneurs and the ways in which they would rise and turn them into giants. It was far from difficult for them to ignore, marginalize, or completely ignore the life cycle of raw materials, that is, natural materials carved or

uprooted from mountains, forests, and deserts, funneled into factories to be compressed, processed and turned into goods (Galiti, 2019). With great difficulty they considered the ever-changing varieties of "waste" generated by their businesses and customers. Equally little did they deal with the extraction and use of resources in plants, animals, land, air or water and the effects resulting from the above both on the ecosystem and the climate (Mouzoulias, 2003).

However, in recent years it seems that the situation has started to change in the business and environmental history. This is due to the fact that the world is informed and the state restricts businesses with rules and regulations. At the same time, "organizational" lines of scholarship have matured and the limits of Chandler's model have become apparent. Young business historians began to look for new lines of research that could broaden the horizons of entrepreneurs (Galiti, 2019). A recent conference on the future of business history featured numerous attempts to define new research agendas and analytical models through newer and less functionalist sociological thinking about organizations, the economics of imperfect information, and constructivist theory (Bundi, 2016). Among these proposals was a call for the creation of an "industrial ecology" that would be the starting point for a more environmental business history. In addition, another suggestion was the changes in the attitudes and views of the business and regulatory world as well as the fields of engineering and economics that will strengthen the relevance of environmental issues to business history (Argyropoulou, 2021). The new managers now taking over the management of companies, both men and women, are young, educated people, with sensibilities that grew up with the environmental movement, and are unquestionably seeking ways to reduce the harmful environmental impact of business, without, however, sidelining the competitive background of the companies.

"Green" packaging, ecotourism, organic farming and breeding products and many more environmentally friendly forms of consumption have taken a key position in the market and sales sector. More generally, the economy is inextricably linked to the environment since economic forces contribute to the degradation of the environment. At the same time, while natural resources enhance economic production and consumer opportunities, companies and businesses damage the environment through the reckless use of non-renewable environmental resources, products and services, fragmenting and polluting it with abundant waste and sewage (Galiti, 2019).

As environmental quality and resources decrease, economic activities are affected as the quantity of available goods and services offered for future production and consumption decreases, thus gradually excluding all economic activity. Most obviously, production and consumption activities are capable of leading to a downward trajectory of environmental degradation, economic costs and loss of productive opportunities. On the contrary, the preservation and protection of the environment can achieve an upward course of economic development and multiple benefits. A key objective should be to ensure that sound environmental management systems are put in place with the aim of enhancing current production and consumption opportunities, while maintaining economic growth in the future (Argyropoulou, 2021).

In addition, there are environmental accounting management tools that are divided into two main categories:

- 1. Domain-based tools
- 2. In functional tools ("functional tools").

The first category includes 3 types of tools: supportive tools, specific tools and integrative use tools (Gunarathne et al., 2023).

Supporting tools include activities that promote the implementation of environmental accounting in the organization. Some such activities are the determination of the different environmental costs that will be calculated each time, their categorization, their assignment to functions/products/services of the organization and also the management of the above by some specialized team with the simultaneous construction and use of environmental cost accounts (Schaltegger, Christ and Burritt, 2022). The specific tools are related to specific management tools related to environmental accounting that every company is likely to use. They mainly include more specialized tools related to green accounting, such as the tools related to the water wasted by the business ["water management accounting", (Sary et al., 2022], the tools related to energy ["energy accounting", (Christensen and Himme, 2017)], the tools for resource costs and material flow ["accounting for materials and material cost accounting", (Mokhtar et al., 2016)] and carbon emissions ["carbon management accounting", (Qian et al., 2018)].

Finally, the supporting tools are the basis for the application of all "specific and integrative use tools", while the implementation of examples of tools from the first 2 categories represent the database for the application of the last category of integrated management of environmental accounting (Gunarathne et al., 2022). In particular, some examples of supporting tools are accounting with life cycle analysis of products, their operations, resources and services ["life cycle accounting", (Chan et al., 2014;], environmental audit ["eco- control", (Gunarathne and Lee, 2015], balanced corporate sustainability using environmental KPIs ["Sustainability Balanced Scorecard", (Hansen and Schaltegger, 2016)] and environmental capital budgeting ["environmental capital budgeting" (Mokhtar et al., 2016)]. All these tools of integrated use require the connection and balancing of several environmental aspects – sectors of corporate management (Windolph et al., 2014).

#### Industry and National heritage, Culture and Environment

Industrial activity is considered potentially destructive to the environment since it has an impact on it. Some of these sources of pollution can be the emission of gases into the atmosphere, sewage into the aquatic ecosystem, waste, and the consumption of natural resources. Despite the fact that in recent years the pollutants released by European industries have a downward trend, both the cost of pollution and its effects are still at very high levels. In most states large pollutant sources of pollution originating from industrial activity are characterized as a relatively minor source of pollution of water bodies. The greatest environmental pressures may actually come from smaller sites (Balashanmugam, Ramanathan, & Kumar, 2012). Many states have established comprehensive environmental protection systems with laws and regulations to address both direct and indirect impacts, visible and invisible, arising from industrial activity. This fact led to the creation of specific technical regulations, but over time it became apparent that the awareness of those responsible for the management of industries plays a key role in bringing about substantial changes.

Consequently, various environmental management techniques were developed aimed at reducing, evaluating, monitoring and controlling the environmental impacts caused by the companies themselves. More generally, industrialization to achieve economic growth ultimately brought about global environmental degradation. At the same time, however, developed countries are concerned about the negative effects caused by industrial activity on the natural environment (Shahzad et al., 2021). Recent research has shown that developing countries have a higher percentage of heavy polluting activities in their industrial sector. This fact, combined with deforestation, soil erosion and desertification, leads to the fragmentation of the environment and at the same time impoverishes the population since its natural resource base is destroyed. This crisis states that any healthy political industrialization is vital for the economic development of developing countries and needs the proper management of natural resources and the adoption of innovative technologies that result in low waste rates (Rathore et al., 2022).

It is a fact that every industrial process plays a key role in the degradation of the environment on a global level. Despite the fact that in industrialized countries, environmental regulations and innovative technologies used are reducing the environmental impact of each production unit, industrial activities and ever-increasing demand are putting more and more pressure on the environment and the natural resource base. In developing countries, the impact on the environment branches into two areas:

I. In the old environmental problems, such as deforestation, soil fragmentation, which are still basically considered unsolved problems.

II. In the new problems that are inextricably linked to industrialization, such as the increase in gas emissions, the worsening of the greenhouse effect, air and water pollution, the increase in waste, and desertification and chemical pollution (Bala Shanmugam, Ramanathan, & Kumar, 2012).

In order to be considered sustainable in the long term, industrial development must be based on the sustainable use of natural resources. The European Union supports global resource efficiency and efficient waste management, promoting relevant multilateral environmental agreements in developing countries. In development cooperation, providing better access to basic goods such as water, sanitation and energy helps to achieve more sustainable consumption and production. In fact, in 2005, the European Commission started a campaign promoting a long-term strategy for the sustainable use of every natural resource. Its aim was to decouple environmental impacts from economic development that were inextricably linked to the extraction and use of natural resources both in the EU and globally. In common with the United Environment Program (UNEP), the commission established an international scientific panel to provide information on the key environmental impacts of natural resource extraction and use from a life-cycle perspective and to advise on policies and strategies for achieving detachment (Patnaik, 2018).

Many institutional shareholders make an assessment of the environmental responsibility of the business before spending its stock. Corporate Environmental Responsibility relates to the environmentally friendly features of corporate public responsibility. More generally, corporate environmental responsibility is considered an approach in which any government can include environmental issues in its duties to eliminate waste and discharges, increase the efficiency and performance of its assets, and reduce practices that seriously affect natural resources of the country (Kusyk, 2021).

Corporate environmental responsibility relates to regulating the use of natural resources to reduce environmental impacts and economic burdens. In particular, the areas of concentration may be:

- ► Energy efficiency and investments
- ≻ Waste control
- ➤ Travel and shipping
- ➤ Sustainable achievement
- $\succ$  The ecological events
- ➤ Management systems (Schwartz & Carroll, 2003).

The advantages of Corporate Environmental Responsibility are many such as:

 $\succ$  The image of the company: if the company shows its friendly face for the environment, it can increase its status.

 $\succ$  Customer reliability: the person shows that he is now very interested in the environment, so he prefers companies that are friendly to it, and has more motivation to buy from them.

➤ Diversity: Personally, discerning and conservation conscious customers, obtaining a green status can help differentiate (Schwartz & Carroll, 2003).

Pressures on the environment have been high in the recent past both in OECD countries and globally. While economic, social and technological developments in the coming decades are likely to reduce some of these pressures, others will increase, sometimes significantly. To help OECD countries address this problem, the organization has produced an Environmental Outlook that identifies a number of environmental problems that will need to be urgently addressed over the next decade (Warwick, 2013).

Based on this information, OECD Environment Ministers agreed an ambitious Environmental Strategy for the First Decade of the 21st Century when they met in Paris on 16 May 2001. Underlying the strategy is the need to further develop environmental policy to ensure that the economic development will not come at the price of environmental degradation in OECD countries, while at the same time responding to third countries in their quest for sustainable development (Wang et al., 2019).

For many years, OECD countries have been trying to deal with environmental problems. Significant improvements have been made in some areas, such as reducing ozone-depleting chlorofluorocarbon (CFC) emissions. In other cases, such as water quality in lakes and rivers, some progress has been made but not yet enough, while problems such as overfishing, and greenhouse gas emissions require urgent action to reverse negative trends. The OECD used a "traffic light" system to identify these three categories of environmental problems.

Green light environmental issues or pressures are those in which OECD countries have experienced some positive trends but should proceed with caution. They include reducing emissions of air pollutants such as lead from gasoline and ozone-depleting CFC emissions, reversing deforestation trends in OECD regions, and reducing pollution from industry. The green market for environmentally friendly goods and products is gaining ground, and organic farming and other environmentally friendly farming practices are spreading rapidly. At the same time, energy efficiency and resource efficiency are increasing in many OECD countries (Wang et al., 2019).

Yellow lights are given to environmental issues or pressures that pose a potential problem or where the outlook is uncertain. They include water use in OECD countries, which is expected to continue to increase overall through 2020, despite declines in per capita use. Similarly, while there have been significant improvements in surface water quality in OECD regions, few OECD countries are satisfactorily achieving key water quality targets. And, although CFC emissions have fallen significantly in recent years, the ozone layer continues to thin as earlier emissions gradually reach the stratosphere. Current data or scientific understanding is also insufficient for many environmental concerns. Therefore, the effects on human health and ecosystem functions due to toxic emissions from industry are still uncertain and poorly understood. Data on hazardous waste generation in OECD countries is not reliably collected, so recent trends are difficult to discern, although there are some indications that hazardous waste generation is increasing. Similarly, with respect to many aspects of modern biotechnology, the potential impacts on both human and ecological health are still poorly understood. While intensive production of renewable resources, such as through aquaculture and plantation forests, can help alleviate pressures from increased demand for fish and forest products on the natural resource base, both have potentially negative impacts on local ecosystem quality (Wang et al., 2019). Most attention is focused on the red light issues that signal significant problem areas that need to be addressed urgently. Many of these relate to global issues - the state of environmental resources or pollution sinks (ie the ability of the environment to accept and assimilate pollution) of global importance, for which OECD countries are only some of the users or polluters. Overfishing is a clear example of a red-light issue of global importance: a quarter of the world's marine fisheries are already depleted, overfished or recovering from overfishing, and the other half are fished to their limits. Global deforestation is another serious problem, as is biodiversity loss. Efforts in OECD countries to improve conditions at home are steps in the right direction, but insufficient to buck global trends, with non-OECD regions expected to lose almost 10% of their forest area by 2020.

What can policy makers do to address these environmental problems? For starters, they need to look at examples where improvements have already occurred or are beginning to occur. Improvements have often been linked to pricing incentives or regulatory interventions. Recent reductions in water use have been sharper in countries that have removed subsidies for water use and implemented charges that better reflect the marginal cost of water provision.

Similarly, the main reductions in the energy intensity of OECD economies, although not driven by environmental policy, occurred during the great oil price shocks of the 1970s, when energy prices rose sharply. Government regulations and restrictions have been particularly successful in reducing industrial pollution, cleaning up the worst contaminated surface waters, and reducing levels of some air pollutants, for example phasing out the use of CFCs (Warwick, 2013).

Direct government intervention has also been successful in increasing the size and number of natural areas in OECD countries that are conserved or where only limited use is permitted, protecting ecosystems and biodiversity. In other cases, government policies can facilitate environmentally beneficial changes in consumption patterns. This is true for the development of organic farming and other environmentally sustainable agricultural practices, whose rapid growth in OECD countries is partly due to greater consumer demand and partly to government support. In general, increasing public access to environmental information and the policy-making process can help inform individual consumer choices and increase support for environmental policies (Wang et al., 2019).

The problems of the future are likely to be more complex and their solution will require more difficult compromises and greater international cooperation. It is often difficult to design a single policy instrument that will successfully provide the right incentives for overall reductions in resource use or pollution and waste generation. Instead, it will generally be necessary to use a mix of policy instruments combining a strong regulatory framework with a variety of other instruments. These could include stronger pricing mechanisms to influence consumer and producer behavior, voluntary agreements, tradable permits, eco-labels and other information-based incentives, land use regulation and infrastructure provision (Warwick, 2013).

Industry releases thousands of different chemicals into the environment. Industrial activities are a source of pressure on the environment in the form of emissions to the atmosphere and aquatic ecosystems, waste production and resource consumption. Although emissions from European industry have generally decreased over the last decade, the impacts and costs of industrial pollution remain high (Sikora, 2021). The social costs, or 'externalities', of air pollution from large industrial facilities are high and include impacts on human health, ecosystems, infrastructure and the climate. In the context of the European Green Deal, the European Union has committed to the transition to climate neutrality, alongside the ambition of zero pollution. European industry also has an important role to play in this shift, strengthening Europe's credentials as a leader in 'green' industry (Pianta & Lucchese, 2020).

Europe's industry has made significant progress in reducing its impact on the environment and climate. However, the social costs or "externalities" caused by air pollution from the industry remain high and include damage to human health, ecosystems, infrastructure and the climate. A small number of industrial facilities are responsible for 50% of the damage caused by air pollution, emitted mainly by Germany, the United Kingdom, Poland, Spain and Italy. When this cost is compared to GDP as an indicator of relative environmental performance per unit of national economic product, the top five include Estonia, Bulgaria, the Czech Republic, Poland and Slovakia (Filipović et al., 2022). Europe's Green Deal and zero pollution targets are an opportunity for change, with industry fully engaged in the debate and able to become a key part of the solution.

Externalities are unintended costs of an activity, such as factory waste or power plant emissions, to a third party or society at large. However, the cost of the activity is not directly factored into the price of the product or service. Models that estimate industrial impacts on the environment take into account the estimated spread of pollution from its industrial source and the resulting chemical releases to the environment, calculate human and environmental impacts (ill health, deaths, damage to ecosystems/climate/agriculture, for example) as well as related monetary implications.

As providers of goods, jobs, basic materials and taxable income, industry is no less vital to Europe's socio-economic success today than it was a decade ago, when the EEA first began reporting on external effects of pollution. The European Green Deal is just one recent example of how the debate is changing as awareness grows of the costs and

benefits to society of industrial activity. The way forward is as much about changing our ways as it is about changing the narrative and how we work together. Change is not only possible, but required by politicians, businesses and society. There has been a clear shift in outlook since the last report in 2014, highlighted by greater awareness of environmental issues and market trends from circularity, carbon offsetting and impact investing to the sharing economy.

There is a clear European dimension here, not least because air pollution does not respect national borders or political agendas. Harmful pollutants are emitted in one time zone, and weather patterns and atmospheric chemistry decide whose problem it is. The added value of the EU is to make it a common problem with common aspirations and solutions, bringing member states together as a group with a vision for the next generation (Yapıcıoğlu & Irfan Yeşilnacar, 2022). The use of green methods should be done in modern technologies based on the 6Rs (reduce, reuse, recycle, recovery, redesign, rethink) (Spence, 2016).

#### National heritage and economic development

The relationship between national heritage and economic development is intricate and can have significant impacts on a country's economy. National heritage refers to the cultural, historical, and natural assets that are considered to be of great value to a nation's identity and heritage. This heritage can include historical sites, landmarks, artifacts, traditions, languages, and natural landscapes. The relationship between national heritage and economic development can be understood through several key points:

*Tourism*: National heritage sites and cultural attractions often draw tourists from both domestic and international markets. These tourists spend money on accommodation, food, transportation, and souvenirs, contributing to the local and national economy. Heritage tourism can be a substantial source of revenue and job creation.

*Cultural Industries*: Preservation and promotion of national heritage can lead to the growth of cultural industries such as museums, theaters, art galleries, and festivals. These industries can create jobs, generate income, and stimulate economic activity.

*Education and Research*: National heritage can support education and research institutions. Universities, research centers, and libraries often rely on heritage materials for academic purposes. This can attract students, researchers, and funding to a country, bolstering its intellectual and knowledge-based economy.

*Global Reputation*: A strong national heritage can enhance a country's global reputation. This can attract foreign investment and trade partnerships, as well as encourage international collaborations in various fields, including tourism, arts, and sciences.

*Cultural Export*: Cultural products rooted in national heritage, such as traditional crafts, music, literature, and cuisine, can be exported to international markets, generating income and boosting a nation's cultural exports.

*Community Development*: The preservation and promotion of national heritage often involve local communities. Community-based heritage projects can lead to economic development at the grassroots level, including job creation and the development of small businesses related to heritage preservation and promotion.

*Urban Development*: Historic preservation and the revitalization of heritage districts within cities can attract businesses, residents, and tourists, leading to urban renewal and increased property values.

However, there are also challenges associated with the relationship between national heritage and economic development. Over-tourism can lead to environmental degradation and the over-commercialization of heritage sites. Preservation efforts can be costly, and the economic benefits may not always be evenly distributed among local communities. Additionally, a lack of proper planning and sustainable management can lead to the deterioration of heritage assets over time.

Therefore, achieving a balance between preserving national heritage and using it as a catalyst for economic development is crucial. Effective heritage management strategies should consider both cultural preservation and sustainable economic growth to ensure that the benefits of heritage are realized while protecting these valuable assets for future generations.

#### National heritage and environment

The relationship between national heritage and the environment is intricate and interconnected, with national heritage often closely tied to the natural surroundings and ecosystems of a region. There are several aspects that highlight the relationship between national heritage and the environment:

- National heritage often includes cultural landscapes, which are places that have cultural, historical, and aesthetic significance. These landscapes are shaped by the interaction between people and the environment, reflecting human adaptation to, and influence on, the natural surroundings.
- National heritage encompasses both cultural and natural elements. Historical sites, monuments, and landmarks are often situated within specific environmental contexts, contributing to the overall heritage value. Natural features such as mountains, rivers, and forests may hold cultural significance and become part of the national heritage.

The diversity of natural ecosystems often corresponds to the cultural diversity of a region. Indigenous cultures, for example, may have deep connections with specific landscapes and ecosystems, and their cultural practices may contribute to biodiversity conservation. Traditional ecological knowledge, often embedded in the national heritage of indigenous communities, reflects generations of understanding about the environment, including sustainable resource management, weather patterns, and ecosystem dynamics. Many national heritage sites hold religious or spiritual significance, and these places are often situated in environmentally significant areas. Natural features may be considered sacred, and the protection of these sites becomes intertwined with cultural and environmental conservation. Traditional cultural practices often incorporate sustainable ways of living that are harmonious with the environment. Agricultural methods, land-use practices, and resource management strategies may be passed down through generations, contributing to environmental conservation. Efforts to preserve national heritage often involve the conservation of both cultural and natural elements. National parks, protected areas, and heritage sites may be established to safeguard both historical artifacts and the ecosystems in which they are located.

- Human activities associated with cultural practices can have both positive and negative impacts on local ecosystems. For example, traditional farming practices may enhance soil fertility, while other cultural activities may contribute to environmental degradation. Climate change poses threats to both the natural environment and cultural heritage. Rising sea levels, extreme weather events, and shifting ecosystems can impact heritage sites, leading to the loss of tangible and intangible cultural assets.
- Heritage sites often attract tourism, and the management of tourism can have environmental implications. Sustainable tourism practices are essential to mitigate the impact on both cultural heritage and the environment.

Cultural heritage can serve as a platform for environmental education. Understanding the cultural significance of natural resources may enhance awareness and promote responsible environmental stewardship. The relationship between national heritage and the environment is multidimensional. Cultural practices and values are often intimately connected to the natural world, and efforts to preserve national heritage must consider both the cultural and environmental dimensions. Sustainable development strategies aim to balance the preservation of cultural heritage with the conservation of ecosystems, recognizing the importance of maintaining a harmonious relationship between culture and the environment.

#### Culture and national heritage

Culture and national heritage are closely interconnected, and together they contribute to the identity, traditions, and shared history of a nation. The relationship between culture and national heritage is intricate and involves various aspects:

1. Preservation of Traditions and Customs:

- National heritage encompasses the tangible and intangible aspects of a nation's history and identity, including monuments, artifacts, traditions, folklore, and customs.
- Culture, on the other hand, is the broader set of shared values, beliefs, behaviors, and practices that define a society.
- The preservation of cultural traditions and customs often falls under the umbrella of national heritage, as these elements are seen as integral to the identity of a nation.
- 2. Cultural Expression through Heritage:
- National heritage provides a platform for the expression of cultural identity. Festivals, ceremonies, rituals, art, and literature are often deeply rooted in a nation's cultural heritage.
- Culture finds tangible representation in the form of monuments, museums, historical sites, and other artifacts, which become part of the national heritage.
- 3. Transmission of Knowledge and Identity:
- National heritage serves as a vehicle for transmitting knowledge and preserving the historical and cultural identity of a nation.
- Cultural practices and expressions are often passed down through generations and become embedded in the heritage of a nation.
- 4. Symbolism and National Pride:

- Cultural symbols, such as flags, anthems, and national emblems, are important components of both culture and national heritage.
- National heritage often includes symbols that evoke a sense of pride, unity, and shared identity among the people.
- 5. Cultural Diversity within Heritage:
- Nations are often characterized by cultural diversity, with various ethnic, linguistic, and regional groups contributing to the overall cultural tapestry.
- National heritage reflects this diversity by incorporating the contributions of different cultural groups, showcasing the richness of the nation's collective cultural heritage.
- 6. Cultural Heritage Management:
- Efforts to preserve and protect cultural heritage involve the management of historical sites, museums, and artifacts. These efforts contribute to the safeguarding of cultural practices and expressions.
- Policies and initiatives aimed at preserving cultural heritage often consider the importance of maintaining diverse cultural identities within the broader national context.
- 7. Identity Formation:
- Both culture and national heritage play crucial roles in the formation of national identity. They shape how individuals within a society perceive themselves and how they are perceived by others.

Culture and national heritage are interconnected and mutually reinforce each other. The preservation, celebration, and transmission of cultural practices contribute to the formation and maintenance of a nation's heritage, while the tangible and intangible elements of national heritage serve as tangible expressions of the nation's cultural identity. Together, they shape the collective consciousness and shared sense of belonging among the people of a nation. Public choice theory is a branch of economics that applies the principles of economic analysis to the behavior of individuals and groups in the political decision-making process. It seeks to understand how people make choices and decisions within the context of the political system, especially in democratic societies.

#### Culture and economic development

The relationship between culture and economic development is complex and multifaceted, with cultural factors influencing various aspects of economic life. Culture encompasses the shared beliefs, values, customs, behaviors, and social norms of a society. Here are several ways in which culture and economic development are interlinked:

1. Work Ethic and Productivity: Cultural attitudes towards work, diligence, and discipline can significantly impact economic development. Societies with a strong work ethic and a culture that values industriousness tend to foster higher productivity and economic growth.

2. Entrepreneurship and Innovation: Cultural attitudes towards risk-taking, entrepreneurship, and innovation play a role in shaping a nation's economic landscape. Cultures that encourage creativity, risk-taking, and the pursuit of new ideas can contribute to a more dynamic and innovative economy.

3. Social Institutions and Economic Systems: Cultural values often influence the development of social institutions and economic systems. For example, the prevalence of individualism or collectivism in a culture can shape the nature of economic structures, including the role of government, the importance of individual initiative, and the strength of social safety nets.

4. Education and Human Capital: Cultural attitudes towards education and knowledge acquisition can impact the development of human capital. Societies that value education tend to invest in the skills and knowledge of their population, contributing to economic development through a more skilled and innovative workforce.

5. Consumer Behavior and Preferences: Cultural preferences and consumer behavior influence market demands. Understanding cultural preferences is crucial for businesses in shaping products and services that resonate with local consumers, impacting economic sectors such as retail, advertising, and entertainment.

6. Social Networks and Trust: Cultural factors influence the strength of social networks and levels of trust within a society. High levels of social trust can facilitate economic transactions, reduce transaction costs, and enhance economic cooperation, fostering economic development.

7. Institutional Quality: Cultural values can contribute to the development and maintenance of effective institutions. Societies with a strong cultural aversion to corruption, for instance, may be more likely to establish and sustain transparent and accountable institutions, which are essential for economic development.

8. Cultural Industries and Tourism: Cultural industries, such as arts, literature, music, and film, can contribute to economic development through creative and cultural exports. Similarly, cultural heritage and attractions can boost tourism, generating revenue and employment opportunities.

9. Inclusive Economic Policies: Cultural values can influence the acceptance of inclusive economic policies. Societies that value equity and social justice may be more supportive of policies aimed at reducing income inequality and promoting inclusive economic growth.

10. Globalization and Cultural Exchange: Cultural openness and receptiveness to global influences can facilitate international trade and economic integration. Societies that embrace cultural exchange may benefit from increased global economic opportunities.

It's important to note that the relationship between culture and economic development is not one-directional; it's a dynamic and reciprocal process. Economic development can also influence cultural values and practices over time. Understanding and appreciating the cultural dimensions of economic development is essential for policymakers, businesses, and researchers seeking to promote sustainable and inclusive growth.
## **Culture and environment**

The relationship between culture and the environment is complex and multifaceted. Culture shapes people's perceptions, attitudes, and behaviors, influencing how they interact with and impact the environment. At the same time, the environment can also shape cultural practices and values. Different cultures have varying perspectives on nature. Some cultures may view nature as sacred and interconnected with spiritual beliefs, while others may see it as a resource to be utilized for economic purposes. Cultural perceptions influence how individuals and communities value and relate to the environment. Cultural practices and traditions often involve interactions with the environment. Agricultural practices, fishing techniques, hunting rituals, and land management systems are examples of how cultural traditions shape the way people utilize natural resources.

Cultural ecology studies the relationship between culture and the environment, examining how cultural practices and adaptations are influenced by the natural environment. It explores how societies adapt to their ecological surroundings and how these adaptations, in turn, influence cultural evolution. Cultural values, norms, and beliefs influence resource use patterns. For example, a culture that places a high value on conservation and sustainable living may adopt practices that minimize resource exploitation, while others may prioritize economic development over environmental concerns. Cultural practices, including agriculture, urbanization, and habitat modification, can have a direct impact on biodiversity. Some cultural practices may contribute to the preservation of biodiversity, while others may pose threats to ecosystems and wildlife. Cultures often adapt to changes in the environment, such as climate variations or natural disasters. Cultural resilience and the ability to adapt to environmental challenges are influenced by the values and knowledge systems within a society.

Language plays a role in shaping environmental awareness and values. Cultures with rich environmental vocabulary and metaphors may have a greater capacity to express and transmit ecological knowledge, fostering a deeper connection with the natural world. Cultural values related to stewardship and responsibility for the environment can influence conservation efforts. Cultures that emphasize a sense of responsibility toward future generations and the Earth may be more inclined to engage in sustainable practices. Cultural values and ethical systems contribute to the formulation of environmental ethics. Some cultures emphasize the moral duty to protect the environment, while others may prioritize economic interests. These ethical considerations shape policy decisions and individual actions.

Conservation efforts are often influenced by cultural factors. Local communities may play a vital role in conservation initiatives, drawing on traditional knowledge and practices to sustainably manage natural resources.

Understanding the relationship between culture and the environment is crucial for addressing contemporary environmental challenges. Effective environmental management and conservation strategies need to take into account cultural perspectives, engage local communities, and foster a shared commitment to sustainable practices. Moreover, recognizing the interdependence between culture and the environment is essential for promoting global environmental stewardship and fostering a harmonious relationship between humanity and the natural world.

## **Environment and economic development**

The relationship between the environment and economic development is a critical aspect of sustainable development. Balancing economic growth with environmental conservation is essential for addressing global challenges such as climate change, biodiversity loss, and resource depletion. There are key points that characterize the relationship between the environment and economic development.

- 1. Natural Resource Dependency
- 2. Ecosystem Services and Economic Value
- 3. Environmental Impact of Economic Activities
- 4. Climate Change and Economic Risks
- 5. Renewable Energy and Green Technologies
- 6. Economic Opportunities in Environmental Conservation
- 7. Environmental Regulation and Corporate Responsibility
- 8. Circular Economy and Resource Efficiency
- 9. Access to Clean Water and Sanitation
- 10. Loss of Biodiversity and Economic Impact
- 11. Sustainable Agriculture and Food Security
- 12. Global Cooperation for Environmental Sustainability:

Economic development often relies on the use of natural resources, including water, minerals, energy, and raw materials. The extraction and utilization of these resources can impact ecosystems, leading to environmental degradation if not managed sustainably. Ecosystem services, such as clean air, water purification, pollination, and climate regulation, contribute to economic well-being. Recognizing the economic value of these services is crucial for sustainable development, as their degradation can negatively impact human welfare and economic activities. Industrial processes, agriculture, transportation, and other economic activities can generate pollution, waste, and emissions that harm the environment. Effective environmental policies and regulations are necessary to mitigate these negative impacts and promote cleaner, more sustainable practices. Climate change, largely driven by human activities, poses significant risks to economic development. Extreme weather events, sea-level rise, and shifts in temperature patterns can impact agriculture, infrastructure, and overall economic stability. The development and adoption of renewable energy sources and green technologies are crucial for reducing dependence on fossil fuels and mitigating environmental impacts. Transitioning to a green economy can promote sustainable development by minimizing carbon emissions. Investments in environmental conservation and sustainable practices can create economic opportunities. Sectors such as renewable energy, eco-tourism, and sustainable agriculture contribute to both economic development and environmental protection. Governments and international bodies implement environmental regulations to ensure that economic activities adhere to environmental standards. Additionally, corporate social responsibility initiatives encourage businesses to adopt environmentally friendly practices, contributing to sustainable development. The concept of a circular economy focuses on minimizing

waste and maximizing resource efficiency. This approach aims to decouple economic growth from resource depletion and environmental degradation, promoting sustainable production and consumption patterns.

Access to clean water and sanitation is fundamental for public health and economic development. Ensuring sustainable water management practices is crucial for both human well-being and the environment. Biodiversity loss can have economic consequences, affecting agriculture, fisheries, and pharmaceutical industries, among others. Preserving biodiversity is not only essential for ecological balance but also for sustaining various economic activities. Sustainable agricultural practices are vital for ensuring food security and reducing the environmental impact of farming. Balancing agricultural productivity with environmental conservation is crucial for long-term economic and ecological sustainability.

Addressing global environmental challenges requires international cooperation. Agreements and initiatives, such as the Paris Agreement on climate change, demonstrate the importance of collective efforts to achieve sustainable economic development.

Achieving sustainable economic development requires a careful balance between economic activities and environmental preservation. Policies, technologies, and practices that prioritize sustainability and resilience are essential for fostering a healthy environment while promoting long-term economic growth and human well-being. Integrating environmental considerations into economic planning is key to sustainable economic development.

## **Part Three: Economic Theory**

## **Public choice theory**

Public choice theory assumes that individuals, including politicians and public officials, act rationally to maximize their own self-interest, just as they do in economic transactions (Tabarrok, Alexander; Cowen, Tyler, 1992). Key concepts and ideas in public choice theory include Rational Self-Interest, Public choice theory assumes that individuals are rational actors who make decisions to maximize their own utility or well-being. This includes voters, politicians, bureaucrats, and other participants in the political process.

Voting and Elections: Public choice theory examines the behavior of voters and candidates in elections. It seeks to explain why individuals vote or choose not to vote, how they decide which candidate to support, and the role of political parties.

Politicians and Bureaucrats: Public choice theory considers the behavior of politicians and public officials. It analyzes their motivations, incentives, and how they make decisions that may not always align with the public interest.

Rent-Seeking: Rent-seeking refers to efforts by individuals, businesses, or interest groups to influence government policies and regulations in their favor, often to gain economic advantages or subsidies. Public choice theory studies the incentives and consequences of rent-seeking behavior.

Bureaucracy: Public choice theory examines the behavior of government bureaucrats and the incentives they face. It considers issues such as bureaucracy's tendency to expand, budget maximization, and inefficiencies in government agencies.

Public Goods and Externalities: Public choice theory analyzes how public goods (goods that are non-excludable and non-rivalrous) are provided by the government and how externalities (spillover effects of economic activities) can lead to suboptimal outcomes.

Political Institutions: The design of political institutions, such as voting systems, legislative processes, and checks and balances, is of interest to public choice theorists. They examine how these institutions affect decision-making and outcomes.

Public choice theory has been influential in shaping our understanding of the political process and government decision-making. It emphasizes that individuals in the political arena are not immune to self-interest and may pursue their personal goals and preferences, which can lead to outcomes that may not always align with the collective good. This theory has implications for issues such as government regulation, public policy, and the functioning of democratic systems, as it highlights the need to consider incentives and the potential for inefficiencies in the political realm.

Studies dealing with social issues should take into account the social dimension and the improvement of social life in addition to the economic dimension. In order for this to be possible, the researcher should start the research free from the prejudices of economic quantities and include in his research philosophical elements, which concern the social dimension and the moral perception of things. For this reason, we will use the veil of ignorance. The "veil of ignorance" is a concept in political philosophy introduced by the American philosopher John Rawls in his influential work "A Theory of Justice," published in 1971. The idea behind the veil of ignorance is to help design a just and fair society by eliminating biases and self-interest in decision-making. It is a thought experiment that asks individuals to make choices about the structure of society while imagining they have no knowledge about their own personal attributes or circumstances.

Imagine you are about to design the rules, laws, and institutions of a society, but you don't know anything about yourself. You have no knowledge of your own gender, race, socioeconomic status, talents, or personal preferences. From this "original position" of ignorance, you are asked to make decisions about the principles that will govern this society. These principles could include issues like the distribution of wealth, opportunities, and resources, as well as the rights and responsibilities of individuals.

The idea is that because you don't know your own position or attributes, you will aim to create a fair and just society that doesn't favor any particular group, as you might end up being a member of any group once the veil is lifted. The concept of the veil of ignorance is meant to help people think objectively about justice and fairness by stripping away their personal biases and self-interest. It encourages the consideration of principles and policies that would be fair and just for everyone, regardless of their individual circumstances. Rawls used this concept to develop his two principles of justice:

The principle of equal basic liberties, which ensures that everyone has an equal claim to a basic set of political and civil rights.

The difference principle, which allows for social and economic inequalities but only if they benefit the least advantaged members of society.

The veil of ignorance is a thought experiment often used in ethical and political philosophy to explore questions of justice and fairness and to help create principles that can guide the design of more equitable societies. It provides a way to approach moral and political dilemmas with a focus on impartiality and avoiding biases that can arise from individual circumstances.

Studying the relationship between economic development and the number of laws protecting the environment is a complex task that requires careful analysis of various factors and data sources. While there may be some studies or analyses that attempt to explore this relationship, it's essential to approach such research with caution due to several challenges and considerations:

1. Data Availability and Quality: Gathering comprehensive and reliable data on the number of environmental laws across different countries and regions can be challenging. Variations in legal systems, definitions of environmental laws, and enforcement mechanisms make it difficult to compare data consistently. Additionally, the quality and enforcement of environmental laws may vary widely, impacting their effectiveness in protecting the environment.

2. Causality vs. Correlation: Establishing a causal relationship between economic development and the number of environmental laws is challenging. While it's plausible that economic development may lead to the enactment of more environmental laws as societies become wealthier and more concerned about environmental issues, it's also possible that strong environmental regulations contribute to sustainable economic development by protecting natural resources and public health.

3. Contextual Factors: Economic development is influenced by a myriad of factors beyond the number of environmental laws, including economic policies, technological advancements, institutional capacity, social norms, and cultural attitudes towards the environment. Disentangling the specific impact of environmental laws on economic development requires careful consideration of these contextual factors.

4. Long-Term Effects: The impact of environmental laws on economic development may unfold over the long term and may be influenced by interactions with other policies and societal changes. Assessing the long-term effects of environmental regulations on economic growth, innovation, competitiveness, and sustainability requires longitudinal studies and sophisticated econometric techniques.

5. Heterogeneity Across Countries: Countries vary in their approaches to environmental regulation, ranging from stringent enforcement to lax implementation. Cross-country comparisons must account for these differences and consider the unique social, political, and economic contexts of each country.

While there may be studies or analyses that explore the relationship between economic development and environmental laws, it's essential to interpret their findings with caution and consider the limitations and complexities inherent in such analyses. Robust empirical research that accounts for these challenges can provide valuable insights into the dynamics between economic development and environmental protection, informing policy decisions and sustainable development strategies.

## Part four: Research and Analysis

Protected areas are important reference points of local communities of local, regional and global strategies for the preservation of environment and cultural heritage. However, the ecological performance of these areas, as well as economic development, both in terms of the representation and preservation of key cultural features and their inclusion in the general development strategy, remains poorly understood. In recent years a large and rapidly expanding literature has addressed these issues, but the results are extremely unclear and fragmented, mostly involving specific case studies and using a variety of approaches. We will attempt to provide a synthetic review of this work, distinguishing between issues of inventory performance and the orientation of economic development at the scale of individual protected areas, portfolios, and networks of protected areas.

Cultural heritage consists of monuments (such as architectural works, monumental sculptures, or inscriptions), groups of buildings, and sites (including archaeological sites). Natural features (consisting of physical and biological formations), geological and physiographical formations (including habitats of threatened species of animals and plants), and natural sites which are important from the point of view of science, conservation or natural beauty, are defined as natural heritage (UNESCO World Heritage centre). Greece ratified the convention on 17 July 1981, making its natural and cultural sites eligible for inclusion on the list (UNESCO World Heritage centre).

The aim is based on data analysis to document whether and to what extent protected areas affect the environment and human well-being, and economic development. An answer is also sought to the question of whether the economic and industrial development of some areas, in which there are also important cultural heritage monuments and unique ecosystems, prevents their protection and promotion?

Documenting these impacts is important, but understanding exactly how conservation affects the environment and human well-being is just as important (Ferraro P., J., and Hanautr M., M., 2015).

Reports in the literature that protected areas alleviate poverty or improve conditions in neighboring communities (Clements T, Milner-Gulland EJ. 2015) would be more credible if scholars could provide empirical support for plausible mechanisms through which such improvements might occur (Baird TD, Leslie PW. 2013).

To determine which protected areas are more economically developed, the UNESCO protected areas in Greece and those on the UNESCO list for inclusion were recorded. The areas under integration were included because protection rules apply to them as well. For example, the creation of business units at a certain distance from the monuments, the creation of infrastructure projects, national roads, and other constructions that do not fit the nature of the protected area, but could contribute to economic development, are prohibited.

It is necessary to determine which protected areas are most effective, what is meant by *protected* areas and to assess more rigorously what the conditions would be in the absence of protected areas or the presence of different forms of protected areas or other conservation actions, which we call *anti-protective* conditions.

UNESCO (United Nations Educational, Scientific and Cultural Organization) designates various types of sites for their cultural, natural, or mixed (both cultural and natural) significance.

UNESCO designates World Heritage Sites based on their outstanding universal value to humanity. These sites can be cultural, natural, or mixed properties of significant cultural or natural importance. Examples include iconic landmarks, historical cities, national parks, and cultural landscapes.

**Biosphere Reserves** are designated areas that promote the conservation of biodiversity, sustainable development, and research. These sites typically include protected ecosystems, buffer zones, and areas for sustainable development activities. Biosphere Reserves aim to reconcile conservation with sustainable use of natural resources.

**Global Geoparks** are areas with geological heritage of international significance, managed with a holistic approach to protection, education, and sustainable development. Geoparks showcase geological features, landscapes, and cultural heritage, promoting geotourism, education, and community engagement. The official UNESCO website provides comprehensive information on World Heritage Sites, Biosphere Reserves, and Global Geoparks. You can search their database, access detailed profiles of designated sites, and explore interactive maps to identify protected areas. National governments often maintain lists of UNESCO designated sites within their territories. You can consult national heritage agencies, environmental ministries, or tourism departments to obtain information on protected areas and their designations. Various online databases and mapping platforms provide information on UNESCO protected sites worldwide. Websites such as World Heritage List, UNESCO Biosphere Reserves, and Global Geoparks Network offer searchable databases and interactive maps to explore designated areas.

Academic publications, research reports, and scientific journals may contain information on UNESCO protected sites, including case studies, assessments, and management plans. Academic sources can provide valuable insights into the significance, management, and conservation status of designated areas. Engaging with local stakeholders, conservation organizations, and experts in relevant fields can provide firsthand knowledge and insights into UNESCO protected sites. Local communities, indigenous groups, and NGOs may offer information on cultural traditions, ecological values, and management practices of designated areas. By utilizing these resources and methods, you can define and identify UNESCO protected sites and gather relevant information for your analysis or research project. It's essential to verify the accuracy and currency of the information obtained and consider consulting multiple sources to ensure comprehensive coverage of designated areas.

It is also important to understand what protected areas mean. There are ten criteria according to which a monument of cultural heritage or natural environment is included in the UNESCO list.

Until 2004, there were six sets of criteria for cultural heritage and four for natural heritage. In 2005, UNESCO modified these and now has one set of ten criteria. Nominated sites must be of "outstanding universal value" and must meet at least one of the ten criteria (UNESCO World Heritage Centre. Archived from the original on 12 June 2016).

### Cultural

i."To represent a masterpiece of human creative genius"

- ii. "To exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design"
- iii."To bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living, or which has disappeared."
- iv."To be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history."
- v."To be an outstanding example of a traditional human settlement, land-use, or seause which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change."
- vi. "To be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance."

### Natural

- vii."To contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance"
- viii. "To be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features"
- ix."To be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals"
- x."To contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation"

The differences between observed conditions and anti-protective conditions are, by definition, the effects we seek to understand. Without a strong understanding of impacts based on rigorous methods, scientists cannot offer much guidance to practitioners who aim to sustain economic growth while preserving and promoting cultural heritage and the environment. In other words, this is called sustainable development.

The questions are:

- Is sustainable development possible?
- Do we raise the question of sustainable development when an area is underdeveloped?
- Is the question of sustainable development not raised in the public debate, when an area is overdeveloped economically, even when the environment and cultural heritage are being destroyed?

# Methodology:

The research method is organized as follows. It is primarily based on the protective and non-protective sites in Greece. The protected areas are recorded in one list, and then the non-protected areas, in which there are archaeological and other sites of significant interest, and which are the most environmentally degraded areas of the country, are recorded in a different list. It is worth noting that 6% of the world's most environmentally degraded areas are in Greece.

In addition, the population of the cities or villages to which the protected and nonprotected areas belong administratively is recorded. The cities or even the villages to which the protected areas belong administratively, according to our case, influence and are influenced by them.

On the contrary, *unprotected* areas are negatively affected by the cities and villages to which they belong administratively. In other words, according to our hypothesis, economic activity in protected areas is at lower levels, due to the restrictions placed on economic activity by the protection rules. In non-protected areas, according to our hypothesis, economic development has two consequences, firstly it prevents the development of sites of interest, because this would result in the establishment of rules that would limit economic activity, and secondly economic development has destroyed the environment. To test our hypotheses, we recorded the population of the cities or villages, in the areas of interest, the number of businesses and businesses of tourist interest, limited to hotels and accommodations.

The proposed structure, which is based on successive stages of a research project, avoids at least to some extent, the classical distinction between quantitative and qualitative approaches. Then using statistical methods, we tested our hypotheses.

Table 1. UNESCO lists sites		
Site	UNESCO	UNESCO
	data	criteria
Temple of Apollo Epicurius at Bassat	Cultural	i, ii, iii
Archeological site of Delphi	Cultural	i, ii, iii, iv, vi
Mount Athos	Mixed	i, ii, iv, v, vi, vii
Acropolis, Athens	Cultural	i, ii, iii, iv, vi
Meteora	Mixed	i, ii, iv, v, vii
Sanctuary of Asklipios at Epidaurus	Cultural	i, ii, iii, iv, vi, vii
Paleochristian and Byzantine monuments of Thessaloniki	Cultural	i, ii, iv
Medieval city of Rhodes	Cultural	ii, iv, v
Archeological site of Mystras	Cultural	ii, iii, iv
Archeological site of Olympia	Cultural	i, ii, iii, iv, vi
Delos	Cultural	ii, iii, iv, vi
Nea Moni of Chios	Cultural	i, iv
Pythagoreion and Heraion of Samos	Cultural	ii, iii
Archeological site of Aigai Vergina (modern name Vergina)	Cultural	i, iii
Archeological site of Mycenae and Tiryns	Cultural	i, ii, iii, iv, vi
The Historic Centre (Chora) - Monastery - Cave of	Cultural	ii, iv, vi
Apocalypse on the Island of Patmos		
Old town Corfu	Cultural	iv
Archeological site of Phillippi	Cultural	iii, iv
Zagori Cultural Landscape	Cultural	v
National Park of Dadia	Natural	Х
Ancient Lavrion	Cultural	ii, iv
Petrified forest Lesvos	Mixed	vi, vii, viii, x
Archeological site of Messene	Cultural	i, iii, vi
Minoan Palatian Centres (Knossos – Faistos, Malia, Zakros)	Cultural	ii, iii, vi
Archeological site of Nikopolis	Cultural	ii, iv, vi
The Region of Mount Olympos	Mixed	vi, viii, ix, x
The area of Prespa Lakes	Mixed	ii, iv, vii, ix
Gorge of Samaria National Park	Natural	vii, viii, ix, x
Fortress of Spinaloga	Cultural	i, ii, iv, vi

The cultural and natural heritage monuments related to Greece have been recorded, they are presented in the table below:

Source: UNESCO website

The following table refers to non-protected areas conditionally adapted to the importance of the archeological, cultural, or natural resources.

Tab	ole 2. Non-prot	ected areas and site of interest
	Town or	
	area	Site
1	Vasilika	Neolithic settlement of Vasilica
2	Irakleio	Archeological sites of Minoan civilization
3	Plagiari	city of Kassandros 316/315 BC at the mouth of the Thermaic gulf
4	Ioannina	Remains of Ottoman empire, castles, settlements
5	Kardia	important archeological findings "Trapeza" of Neo Rysiou-Kardia
6	Ilion	It is one of the most important archaeological municipalities of Attica
7	Acharnes	The entire municipality is an archaeological site - vaulted tombs, mounds etc.
8	Peraia	It is possibly the area of ancient Raikilos according to Aristotle
9	Agrinio	Important archaeological finds-temples-theatres and important historical events such as the unique defeat of the Macedonians, etc.
10	Thermi	city of Kassandros 316/315 BC at the mouth of the Thermaic gulf
11	Ovria	Important underwater archaeological finds Municipality of Messatis
12	Agios Ioannis Rentis	Ancient Attic olive grove-Sacred road-cemeteries-sacred road (relics)-Sanctuary of Eleusis-altars tombs-Plato's olive tree
13	Peristeri	Important archaeological site - ancient Lefkonoi
14	Meligalas	Archaeological area of the time of Nestor - sanctuaries - temples - tombs
15	Orestiada	Archaeological treasures of northern Evros
16	Souroti	city of Kassandros 316/315 BC at the mouth of the Thermaic gulf -additional Neolithic settlements of significant archaeological value
17	Alexandroupoli	Archeological findings
18	Agia Varvara	"Iera Odos" and other archeological findings
19	Pefki	Non available
20	Sitia	Submerged building remains of two archaeological periods, Minoan and Roman
21	Trikala	Prehistoric settlements and rare findings of the Bronze Age - a unique artisanal combination in Greece
22	Pyrgos	Ancient Tenea - Ilia Coastal Cultural Heritage Network - Antiquities of Byzantine Post-Byzantine Periods
23	Neapoli	Archeological site of important value
24	Peristera	city of Kassandros 316/315 BC at the mouth of the Thermaic gulf
25	Nea Alikarnassos	Important archeological findings
26	Metamorfosi	Rich archeological findings
27	Vrachnaika	Important archaeological finds Municipality of Messatis
28	Tinos	Kionia One of the most important places of worship of the ancient Greeks - ancient caves - Mycynaean tombs - sanctuary of Poseidon etc.
29	Aktaio (Αχαΐα)	Submerged archeological setletments
30	Skyros	Rich archaeological findings - prehistoric settlements
31	Arta	Byzantine churches and magnificent buildings of Byzantine heritage - capital of the Despotate of Epirus
32	Rio	Archeological settlements

# **Data Analysis:**

The following tables 3 and 4 present the findings of the analysis, including the percentages of businesses and hotels in UNESCO protected sites versus non-protected sites accordingly.

Table 3. Site – population – number of businesses							
Table 2.	Site	UNESCO	Population	Number of businesses			
1	Temple of Apollo	YES					
2	Delphi	YES	1.767	189			
3	Mount Athos	YES					
4	Meteora	YES	19.724	1.095			
5	Epidaurus	YES	8.304	345			
6	Medieval Rhodes	YES	50.636	6.878			
7	Mystras	YES	4.408	191			
8	Olympia	YES	11.307	537			
9	Delos	YES					
10	Nea Moni of Chios	YES	27.015	2.840			
11	Heraion of Samos	YES	9.003	936			
12	Vergina	YES	2.120	89			
13	Mycenae	YES	4.349	178			
14	Patmos	YES	3.283	625			
15	Old town Corfu	YES	30.737	6.000			
16	Phillippi	YES	10.824	751			
17	Zagori	YES	3.804	241			
18	Dadia	YES/NO	11.709	487			
19	Lavrion	YES/NO	9.752	882			
20	Petrified forest Lesvos	YES/NO	28.564	1.709			
21	Messene	YES/NO	11.041	764			
22	Knossos	YES/NO					
23	Nikopolis	YES/NO	31.733	2.128			
24	Olympos	YES/NO	2.779	141			
25	Dion-Olympos	YES/NO	1.554	126			
26	Prespa	YES/NO	83	6			
27	Samaria Gorge	YES/NO	57	27			
28	Spinaloga	YES/NO	27.074				

The Acropolis and the monuments of the city of Thessaloniki were excluded from the analysis for objective reasons. Mount Athos, Delos, Knossos and the temple of Apollo were not included in the analysis, because either there is no population and they are monuments isolated from a city or village, Delos and Spinalonga or because they influence and are influenced by multiple settlements, Knossos and temple of Apollo.

Then the population of the cities or villages and the number of businesses, to the administrative and financial management of which these areas belong, were recorded. These towns or villages affect and are affected by the protected areas.

	Site	Dopulation	No of businesses
1	Vasilika	Population 4.115	702
2	Irakleio	179.302	14.995
2	Plagiari	5.392	702
4	Ioannina	80.371	8.014
5	Kardia	3.394	448
6	Ilion	84.004	5.662
7	Acharnes	100.857	6.559
8	Peraia	16.995	1.358
9	Agrinio	94.181	4.902
10	Thermi	16.004	2.066
11	Ovria	6.308	552
12	Agios Ioannis Rentis	15.411	1.466
13	Peristeri	139.981	11.683
14	Meligalas	4.040	444
15	Orestiada	18.426	1.806
16	Souroti	1.560	223
17	Alexandroupoli	62.936	4.540
18	Agia Varvara	26.550	1.405
19	Pefki	25.398	799
20	Sitia	18.318	1.563
20	Trikala	62.514	5.715
22	Pyrgos	23.274	3.401
23	Neapoli	27.084	1.872
24	Peristera	770	78
25	Nea Alikarnassos	12.542	580
25	Metamorfosi	30.174	2.493
27	Vrachnaika	2.571	2493
28	Tinos	8.636	1.002
28	Aktaio (Achaia)	1.472	1.002
30	Skyros	2.888	343
31	Arta	42.985	3.285
32	Rio	12.674	742

Source: 2022 World Air Quality Report, Region & City PM2.5 Ranking

The 2022 World Air Quality Report reviews the status of air quality around the world for the year 2022. This report presents PM2.5 air quality data from 7,323 cities across 131 countries, regions, and territories. The data used in this report was aggregated from over 30,000 regulatory air quality monitoring stations and low-cost air quality sensors. These monitoring stations and sensors are operated by governmental bodies, research institutions, non-profit non-governmental organizations, universities and educational facilities, private companies, and citizen scientists across the globe. IQAir aims to engage, inform, and inspire governments, educators, researchers, non-profit organizations, companies, and citizens to build collaborative efforts to increase air

quality awareness. IQAir seeks to facilitate an informed dialogue and inspires action that improves air quality and the health of global communities and cities.

The two following tables 5 and 6 additionally contain the percentage of businesses in the total population and the percentage of hotels in the total number of businesses.

Table 5. Percentages of businesses and hotel – Protected areas							
	Site	UNESCO	Population	No of Businesses	% Businesses	Hotels	% Hotels
1	Temple of Apollo	YES	<b>^</b>				
2	Delphi	YES	1.767	189	10,70%	33	17,460%
3	Mount Athos	YES					0,000%
4	Meteora	YES	19.724	1.095	5,55%	36	3,288%
5	Epidaurus	YES	8.304	345	4,15%	27	7,826%
6	Medieval Rhodes	YES	50.636	6.878	13,58%	277	4,027%
7	Mystras	YES	4.408	191	4,33%	1	0,524%
8	Olympia	YES	11.307	537	4,75%	22	4,097%
9	Delos	YES					0,000%
10	Nea Moni of Chios	YES	27.015	2.840	10,51%	28	0,986%
11	Heraion of Samos	YES	9.003	936	10,40%	125	13,355%
12	Vergina	YES	2.120	89	4,20%	3	3,371%
13	Mycenae	YES	4.349	178	4,09%	2	1,124%
14	Patmos	YES	3.283	625	19,04%	48	7,680%
15	Old town Corfu	YES	30.737	6.000	19,52%	415	6,917%
16	Phillippi	YES	10.824	751	6,94%	8	1,065%
17	Zagori	YES	3.804	241	6,34%	38	15,768%
18	Dadia	С	11.709	487	4,16%	6	1,232%
19	Lavrion	С	9.752	882	9,04%	12	1,361%
20	Petrified forest Lesvos	С	28.564	1.709	5,98%	55	3,218%
21	Messene	С	11.041	764	6,92%	5	0,654%
22	Knossos	С					
23	Nikopolis	С	31.733	2.128	6,71%	34	1,598%
24	Olympos	С	2.779	141	5,07%	18	12,766%
25	Dion-Olympos	С	1.554	126	8,11%	34	26,984%
26	Prespa	С	83	6	7,23%	2	33,333%
27	Samaria Gorge	С	57	27	47,37%	13	48,148%
28	Spinaloga	С	27.074		0,00%		

Table 6. Percentages of businesses and hotel – Non-Protected areas								
				No of				
	Site	UNESCO	population	businesses	businesses	hotels	% hotels	
1	Vasilika	NO	4.115	702	17,06%	0	0,000%	
2	Irakleio	NO	179.302	14.995	8,36%	213	1,420%	
3	Plagiari	NO	5.392	702	13,02%	0	0,000%	
4	Ioannina	NO	80.371	8.014	9,97%	39	0,487%	
5	Kardia	NO	3.394	448	13,20%	0	0,000%	
6	Ilion	NO	84.004	5.662	6,74%	4	0,071%	
7	Acharnes	NO	100.857	6.559	6,50%	10	0,152%	
8	Peraia	NO	16.995	1.358	7,99%	13	0,957%	
9	Agrinio	NO	94.181	4.902	5,20%	10	0,204%	
10	Thermi	NO	16.004	2.066	12,91%	8	0,387%	
11	Ovria	NO	6.308	552	8,75%	0	0,000%	
12	Agios Ioannis Rentis	NO	15.411	1.466	9,51%	2	0,136%	
13	Peristeri	NO	139.981	11.683	8,35%	8	0,068%	
14	Meligalas	NO	4.040	444	10,99%	0	0,000%	
15	Orestiada	NO	18.426	1.806	9,80%	6	0,332%	
16	Souroti	NO	1.560	223	14,29%	1	0,448%	
17	Alexandroupoli	NO	62.936	4.540	7,21%	37	0,815%	
18	Agia Varvara	NO	26.550	1.405	5,29%	0	0,000%	
19	Pefki	NO	25.398	799	3,15%	1	0,125%	
20	Sitia	NO	18.318	1.563	8,53%	60	3,839%	
21	Trikala	NO	62.514	5.715	9,14%	15	0,262%	
22	Pyrgos	NO	23.274	3.401	14,61%	20	0,588%	
23	Neapoli	NO	27.084	1.872	6,91%	0	0,000%	
24	Peristera	NO	770	78	10,13%	0	0,000%	
25	Nea Alikarnassos	NO	12.542	580	4,62%	3	0,517%	
26	Metamorfosi	NO	30.174	2.493	8,26%	5	0,201%	
27	Vrachnaika	NO	2.571	246	9,57%	0	0,000%	
28	Tinos	NO	8.636	1.002	11,60%	54	5,389%	
29	Aktaio (Αχαΐα)	NO	1.472	104	7,07%	0	0,000%	
30	Skyros	NO	2.888	343	11,88%	45	13,120%	
31	Arta	NO	42.985	3.285	7,64%	7	0,213%	
32	Rio	NO	12.674	742	5,85%	5	0,674%	

The preceding tables and the following, charts, visually represent the data and highlight any significant differences or trends.



From the first analysis of the data in the protected areas, the trend of the percentage of businesses in the total population and the percentage of hotels in the total number of businesses are moving uniformly. The four high points of the diagram in terms of the percentage of hotels in the total number of businesses concern the areas of Delphi, Samos, Z agori, and Samaria. Regarding Delphi, Zagori, and Samaria, the explanation can only be given by assessing the qualitative characteristics of these areas, as well as in these three areas the population is minimal and deals mainly with agricultural production and tourism which attracts the relevant cultural heritage. As far as Samos is concerned, it is a purely touristic destination.

The use of qualitative analysis provides context and meaning to quantitative data by exploring the underlying factors, processes, and dynamics that influence numerical patterns. Qualitative methods allow researchers to gather rich, descriptive data that elucidate the social, cultural, and organizational contexts in which quantitative phenomena occur. Quantitative analysis may reveal correlations, trends, or associations between variables, but it may not capture the complexity of underlying relationships. Qualitative analysis can help unpack these relationships by identifying causal mechanisms, contextual factors, and intervening variables that contribute to observed patterns in quantitative data. Qualitative analysis can help explain outliers or anomalies observed in quantitative data by exploring unique cases, outliers, or unexpected patterns. Qualitative methods allow researchers to investigate outliers in-depth, uncovering underlying reasons, contextual factors, or methodological issues that may have contributed to their occurrence.



Accordingly, the chart represented the trend of non-protected areas reveals additional insight of the data.

The use of qualitative analysis supports the interpretation and explanation of quantitative findings by providing narrative explanations, Qualitative data can help answer why there is an area where the percentage of hotels of the total businesses is higher than the percentage of businesses of the total population. There are also two more picks represented the town of Sitia and the Island of Tinos. The first case concerns accordingly the town of Sitia. All the three areas are mostly touristic places and the main businesses are involved in tourism.

In both cases the analysis for protected and non-protected areas, the qualitative analysis complements quantitative data analysis by providing contextual understanding, exploring complex relationships, triangulating findings, identifying outliers, interpreting results, informing theory development, and enhancing the validity of research findings. Integrating qualitative and quantitative approaches enables researchers to gain deeper insights, address research questions from multiple perspectives, and produce more robust and comprehensive research outcomes.

# Analysis of percentages of businesses and hotels in UNESCO protected versus non-protected sites.

The section presents an analysis comparing the variables representing the percentages of the number of firms to the population of cities ("firm\_pc") as well as the percentage of hotels to total firms ("hot\_pc") between regions characterized by UNESCO as protected and the areas that have not been designated by UNESCO as protected. The objective is to determine if there are statistically significant differences in these rates by studying the effect of UNESCO designation on local economic characteristics.

### Methodology

The analysis included the following steps:

- Conduct normality tests (Shapiro-Wilk) to evaluate the distribution of the "firm\_pc" and "hot\_pc" variables.

- Depending on the results of normality tests, application of appropriate statistical tests (Mann-Whitney U) to compare median values between UNESCO and non-UNESCO sites. The Shapiro-Wilk test was chosen for tests of normality and the Mann-Whitney U test was chosen for median comparison due to the non-normal distribution of some of the data.

### **Results of normality tests**

Shapiro-Wilk test results showed that:- "firm\_pc" and "hot\_pc" in UNESCO parts deviate significantly from a normal distribution (p < 0.05), indicating non-normality.- "firm\_pc" in non-UNESCO parts UNESCO appears to follow a normal distribution (p > 0.05), while 'hot\_pc' does not (p < 0.05) Given these results, the Mann-Whitney U test, (non-parametric test) was used to compare of "firm\_pc" and "hot\_pc" of UNESCO protected areas

## Mann-Whitney U test results

The Mann-Whitney U test provided the following information:- For "firm\_pc", The test showed no statistically significant difference in medians between UNESCO and non-UNESCO areas (U-statistic = 306.0, p-value = 0.053), indicating a borderline significance that could warrant further investigation.- For 'hot\_pc', there was a statistically significant difference in median values (U-statistic = 680.5, p-value = 0.00017), suggesting that the UNESCO designation can have a significant impact on the percentage of Hotels.

### **Descriptive Statistics**

Firm\_Pc Unesco Average: 0.0863 Standard deviation: 0.0921 Median: 0.0652 Minimum: 0.0000 Maximum: 0.4737 Hot\_Pc Unesco Average: 0.0774 Standard deviation: 0.1158 Median: 0.0325 Minimum: 0.0000 Maximum: 0.4815 Firm\_Pc Non Unesco Average: 0.0894 Standard deviation: 0.0288 Median: 0.0853 Minimum: 0.0315 Maximum: 0.1461 Hot\_Pc Non Unesco Average: 0.0098 Standard deviation: 0.0253 Median: 0.0020 Minimum: 0.0000 Maximum: 0.1312

## Conclusion

In conclusion, the analysis predicts that there is a significant difference in the proportion of businesses between UNESCO and non-UNESCO sites, with UNESCO sites potentially having a higher proportion of hotels. Meanwhile, the difference in the percentage of businesses is not statistically significant, although it shows a trend that could be further explored. These findings suggest that UNESCO designation may affect the economic landscape, particularly regarding the presence of hotels and further the sustainable, environmentally friendly development.

According to our hypothesis, economic activity in protected areas is at lower levels, due to the restrictions placed on economic activity by the protection rules. The statistical analysis shows that there is not statistically significant the difference in economic activity between protected and non-protected areas. The findings that there is no statistically significant difference in economic activity between protected and non-protected areas provide an important insight into the relationship between environmental protection and economic development. For further discussion the implications of the findings in the context of the initial hypothesis provide useful suggestion. Despite expectations that protected areas would have lower economic activity due to environmental and archeological restrictions, the analysis did not find evidence supporting this assumption. Reflecting on the significance of this discrepancy I will consider possible explanations for the unexpected results.

Firstly, there are potential factors influencing economic activity. Many potential factors that may influence economic activity in both protected and non-protected areas could be the population density, infrastructure development, access to markets, tourism demand, and government policies, which may have a more substantial impact on economic activity than environmental protection status alone. That the first *suggestion* for further research.

Another issue is the quality of life and well-being. It is possible that broader indicators of well-being beyond economic activity, such as quality of life, environmental sustainability, and social cohesion should be considered. There is a need to evaluate whether protected areas contribute to enhanced quality of life through access to natural amenities, recreational opportunities, and cultural heritage, which may not be captured solely by economic measures. Another *suggestion* for further research is to assess the alignment of the findings with the United Nations Sustainable Development Goals (SDGs). This could rise the discussion, how environmental and cultural heritage protection efforts contribute to achieving SDGs related to biodiversity and cultural heritage conservation, sustainable tourism, climate action, and inclusive economic growth, highlighting the interconnectedness of environmental, social, and economic dimensions.

Finally, we should consider the implications of the findings for policy-making and decision-making processes. An evaluation whether current environmental protection policies strike an appropriate balance between conservation goals and socio-economic development objectives is needed. The discussion of potential policy reforms or adaptive management strategies to enhance synergies between environmental protection and economic development will enhance and reorient the research.

### Future research suggestions and directions:

Identify opportunities for future research to deepen understanding of the relationship between environmental protection and economic activity. Consider exploring specific sectors or industries within protected areas, analyzing long-term trends in economic indicators, conducting case studies of successful conservation and development initiatives, or integrating qualitative methods to capture stakeholders' perspectives.

### **Limitations and Caveats:**

Acknowledge any limitations or caveats associated with your analysis, such as data constraints, methodological assumptions, or potential confounding variables. Discuss how these limitations may have influenced your findings and suggest avenues for further research to address these limitations.

Conclusion concerning the first question-assumption: Summarizing the key findings of the analysis and their implications for theory, practice, and policy we should emphasize the nuanced relationship between environmental and cultural heritage protection and economic development and highlight the importance of interdisciplinary approaches to addressing complex socio-environmental challenges. By furthering the discussion along these lines, we can provide a comprehensive analysis of the implications of the findings and contribute valuable insights to the ongoing discourse on the relationship between environmental and cultural heritage protected areas and economic activity. In non-protected areas, according to our hypothesis, economic development has two consequences, firstly it prevents the development of sites of interest, because this would result in the establishment of rules that would limit economic activity, and secondly economic development has destroyed the environment. To test our hypotheses, we recorded the population of the cities or villages, in the areas of interest, the number of businesses and businesses of tourist interest, limited to hotels and accommodations. We consider our findings. Breaking down the analysis by region, country, or type of UNESCO designation and interpreting the results of the statistical analysis and its findings, we could suggest that there is a trend of economic activities towards tourism.

It is important to qualitatively analyze if touristic development is more appropriate for sustainable development, to answer the second question referred to protected areas where the economic development complies with the environmental and cultural heritage protection. Tourism is often considered more environmentally friendly than heavy industry. Tourism has a low environmental footprint because typically all other businesses have a lower environmental footprint compared to heavy industry. While heavy industries such as manufacturing, mining, and energy production often involve resource extraction, pollution, and habitat destruction, tourism activities generally have less direct impact on the environment. For example, tourists primarily consume services rather than physical goods, resulting in lower resource consumption and waste generation. Tourism relies on renewable resources such as landscapes, cultural heritage, and wildlife, which can be sustainably managed and regenerated over time. In contrast, heavy industries often depend on non-renewable resources such as fossil fuels, minerals, and forests, leading to resource depletion and environmental degradation.

Tourist businesses can contribute to the conservation of cultural and natural heritage by generating revenue for conservation efforts, raising awareness about environmental issues, and promoting sustainable practices. Tourist attractions such as national parks, wildlife reserves, and heritage sites often rely on tourism revenues for their preservation, incentivizing the protection of biodiversity, ecosystems, and cultural

landscapes. It is also can create employment opportunities and generate economic benefits for local communities without causing significant environmental harm. Tourism-related activities such as ecotourism, adventure tourism, and cultural tourism provide livelihoods for millions of people worldwide, particularly in rural and remote areas where other economic opportunities may be limited. It can also promote environmental awareness and conservation education among tourists, local residents, and businesses. Sustainable tourism practices such as responsible travel, ecocertifications, and community-based tourism initiatives emphasize the importance of minimizing environmental impacts, respecting local cultures, and supporting conservation efforts, fostering a culture of environmental stewardship. Sustainable tourism practices, such as energy efficiency, waste reduction, and carbon offsetting, can help mitigate climate change by reducing greenhouse gas emissions and promoting sustainable development. Eco-friendly accommodations, transportation options, and tour operators contribute to climate change mitigation efforts by adopting renewable energy sources, promoting public transportation, and implementing carbon offset projects.

Tourism fosters cultural exchange, dialogue, and understanding among people from different backgrounds, promoting appreciation for cultural diversity and fostering peace and cooperation. By facilitating intercultural interactions and promoting cross-cultural understanding, tourism contributes to social cohesion and global solidarity, addressing environmental and social challenges through collaboration and mutual respect. While tourism can be more environmentally friendly than heavy industry in many respects, it's essential to recognize that unsustainable tourism practices, such as overdevelopment, mass tourism, and environmental degradation, can also pose significant threats to ecosystems, biodiversity, and local communities. Therefore, promoting sustainable tourism practices, responsible travel behavior, and destination stewardship is essential for maximizing the environmental and socio-economic benefits of tourism while minimizing its negative impacts.

Raising the question of sustainable development is particularly pertinent when an area is underdeveloped. Sustainable development aims to meet the needs of the present without compromising the ability of future generations to meet their own needs. In underdeveloped areas, there is often a pressing need to address poverty, inequality, environmental degradation, and social exclusion while promoting economic growth, social equity, and environmental sustainability. Sustainable development strategies can help break the cycle of poverty by promoting inclusive economic growth, improving access to education, healthcare, and basic services, and creating opportunities for decent employment and livelihoods. By addressing poverty and inequality, sustainable development contributes to improving the well-being and quality of life of local communities. In underdeveloped areas, environmental degradation and natural resource depletion often occur due to unsustainable land use practices, deforestation, pollution, and habitat destruction. Sustainable development approaches emphasize the conservation and sustainable management of natural resources, the promotion of renewable energy, and the adoption of environmentally friendly technologies to protect ecosystems, biodiversity, and ecosystem services.

Sustainable development also involves empowering local communities to participate in decision-making processes, prioritize their needs and aspirations, and take ownership of development initiatives. In underdeveloped areas, community-based approaches to sustainable development, such as participatory planning, social entrepreneurship, and

grassroots mobilization, can enhance local capacity, resilience, and self-reliance. Underdeveloped areas are often disproportionately affected by the impacts of climate change, including extreme weather events, droughts, floods, and sea-level rise. Sustainable development strategies integrate climate change adaptation and mitigation measures, such as building resilient infrastructure, promoting sustainable agriculture, and enhancing disaster preparedness, to strengthen communities' resilience and adaptive capacity. It recognizes the importance of preserving cultural heritage, traditions, and indigenous knowledge as essential components of human well-being and identity. In underdeveloped areas, sustainable development approaches respect and value local cultures, promote cultural diversity, and support indigenous rights, contributing to social cohesion, cultural vitality, and intergenerational equity.

While the economic factors are very important, sustainable development has another very important ethical value, it is inherently linked to global equity and justice, recognizing that the world's resources are finite and should be shared equitably among all people, regardless of their socio-economic status or geographical location. In underdeveloped areas, sustainable development aims to address global disparities in wealth, power, and access to resources by promoting international cooperation, solidarity, and shared responsibility for sustainable development.

By raising the question of sustainable development in underdeveloped areas, policymakers, development practitioners, and local communities can work together to address complex socio-economic and environmental challenges while fostering inclusive, resilient, and sustainable development pathways that benefit present and future generations.

Based on statistical data, normative and social economics we can recall the question of do we raise the question of sustainable development when an area is underdeveloped, giving a positive answer. The interpretation of the above is that *we consider and discuss about sustainable development only for economic reasons*.

The question of sustainable development is often raised in public debate, even in areas that are overdeveloped economically but face environmental degradation and cultural heritage destruction. In such contexts, the tension between economic growth, environmental conservation, and cultural preservation becomes particularly salient, prompting discussions about the need to balance competing interests and prioritize long-term sustainability over short-term gains.

The question of sustainable development is relevant in overdeveloped areas facing environmental and cultural challenges because overdeveloped areas often experience significant environmental degradation due to industrial activities, urbanization, infrastructure development, and resource exploitation. Pollution, habitat loss, deforestation, water scarcity, and air pollution are among the environmental issues that arise in densely populated, industrialized regions. Public concern about the adverse environmental impacts of overdevelopment frequently leads to debates about the necessity of adopting sustainable practices to mitigate and reverse environmental damage. Overdevelopment can threaten the preservation of cultural heritage sites, historic landmarks, traditional practices, and indigenous knowledge. Rapid urbanization, tourism development, and infrastructure projects may encroach upon culturally significant areas, disrupt traditional lifestyles, and erode cultural identities. Public discourse often centers on the importance of safeguarding cultural heritage, respecting local communities' rights, and integrating cultural considerations into development planning processes.

Based on ethical and social economics, the issue of overdeveloped areas often grapples with social inequalities, disparities in access to resources, and marginalization of vulnerable populations. Discussions about sustainable development in these contexts emphasize the need to address social justice issues, promote inclusive growth, and ensure that development benefits are equitably distributed among all segments of society. Concerns about social exclusion, gentrification, and displacement often feature prominently in public debates about sustainable development. These areas are increasingly vulnerable to the impacts of climate change, including extreme weather events, sea-level rise, and heatwaves. Public discourse on sustainable development often includes discussions about climate change adaptation, resilience-building measures, and the transition to low-carbon economies. Calls for sustainable urban planning, green infrastructure, renewable energy adoption, and climate-resilient infrastructure feature prominently in public debates about addressing climate-related risks and vulnerabilities.

In overdeveloped areas, corporate practices and business activities often come under scrutiny for their environmental and social impacts. Public pressure and advocacy campaigns may push for greater corporate responsibility, transparency, and accountability in addressing environmental degradation, promoting sustainable supply chains, and respecting human rights. Discussions about sustainable development in these contexts frequently focus on the role of businesses in advancing sustainable practices and contributing to the common good.

Overall, public debate about sustainable development in overdeveloped areas underscores the importance of balancing economic growth with environmental protection, cultural preservation, social equity, and climate resilience. By engaging in dialogue, advocacy, and collaborative decision-making processes, stakeholders can work together to address the complex challenges facing overdeveloped regions and chart a course towards more sustainable and equitable futures.

Answering the third question based on the previous analysis it comes the first suggestion, requiring further investigation, that in overdeveloped areas the public discussion about sustainable development concerns only the political softening which balances between politics and businesses. The first evidence in this work suggests that sustainable development in overdeveloped areas is lacking in worldly wisdom or informed judgment in other words is a naïve public discussion.

Summarize the key findings of the analysis and highlighting any limitations of the study and areas for further research, we conclude with reflections on the broader implications of your findings for sustainable development and heritage conservation. By structuring the description in this way, it is clearly communicating the objectives, methods, findings, and implications of the analysis of percentages of businesses and hotels in UNESCO protected versus non-protected sites. This will help future researchers understand the scope and significance of the orientation of the research.

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