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# Letters from Byblos

## No. 29

DARINA SALIBA ABI CHEDID (ED.)

### EQUITABLE TRANSITIONS IN GREEN AND BLUE HUMANITIES



**Byblos  
2024**

**Letters from Byblos**  
EQUITABLE TRANSITIONS  
IN GREEN AND BLUE HUMANITIES

**No. 29**

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This work has gone through a review process by a group of experts (reviewers) in the field.

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## Foreword

Our lives are inextricably connected to the ocean. We rely on oceans for food, energy, transportation, trade and even for the air we breathe. That is why the twin emergencies of climate change and biodiversity loss are not only impactful on our environment but also on our society and economy as a whole.

Today, almost all countries are committed to the UN Agenda 2030, the standards by which we create policies and programs to protect the future of our ocean.

Women's integration into the maritime sector around the world started since the late 1980s as well as benchmarking its impact on various levels, such as policy, employment, education, leadership and sustainability. Even 20 years after the Beijing Declaration, gender-related challenges at work still remain in the maritime sector, for example, lack of gender policy, difficulty in work-life balance, access to education, and leadership opportunities. In the UN Decade of Ocean Science for Sustainable Development and in the context of the SDGs, there has been an imperative moment to join efforts to tackle the climate and marine coastal biodiversity loss emergencies, and the 3 ocean conservation protection. In fact, there is an intrinsic connection between our oceans and socio-economic matters as well as more complex impacts to employment, health, well-being, trade, education and technology.

We should ensure that we maintain strong ties between the country's policymakers and the scientific community. This relationship has to optimize synergies between diverse policy areas such as climate targets, education and trade policies so that they all work towards the same outcomes and can help minimize compromises such as the shared use of the sea by fishing and energy industries. Getting this right is called "Policy Coherence".

There is a need for partnership to ensure Policy Coherence for Sustainable Development (PCSD) and the implementation of the UN 2030 Agenda. This means that stakeholders' engagement is important, promoting SDG integration and connections is important, and monitoring and tracking the PCSD is also important!

**Dr. Darina Saliba Abi Chedid<sup>1</sup>**

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**Refurbishing Values in Times of Crisis:  
An Alteration of Human Values Reflected in Rural Architecture  
in Lebanon from Pre-Modern to Contemporary Times**

Issam S. Chemaly

**Introduction**

This paper seeks to study an alteration in the human values in the context of Lebanese rural areas, where habitats, in diverse dialogues with nature, embody those same values. Accordingly, this research provides insight on pre-modern vernacular<sup>2</sup> and modern<sup>3</sup> values, concluding with the specificities of the recent times of crisis<sup>4</sup> in Lebanon where a potential return to pre-modern values is considered.

The first section goes through the various vernacular values as referenced in Anīs Frayḥah’s book, *Al-Qaryah al-Lubnāniyyah: Ḥaḍārah fī Ṭarīq al-Zawāl* (1957). The author describes the values of village inhabitants that are shaped by nature and their relation to the built environment. Accordingly, the different architectural typologies of the pre-modern period are analyzed in terms of their form, spatial layout, and integration in nature.

Imported modern values are underlined in the second section of the paper, detailing their correlation to the McDonald’s industry, as defined by George Ritzer in his book, *The McDonaldization of Society* (2000). Such an industrialized environment that engenders contemporary values

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<sup>2</sup> It is challenging to identify the date of origin of vernacular houses in rural areas of Lebanon. An attempt has been made by Kfoury (2022, p. 20), asserting that the “Lebanese house” dates from the second half of the nineteenth century. This period lasted until the arrival of French colonialism in the 1920s.

<sup>3</sup> Related to the International Style in the 1920s. It is still relevant today in many recent constructions in traditional Lebanese villages.

<sup>4</sup> “Lebanon is grappling with a deep economic crisis after successive governments piled up debt following the 1975-1990 civil war with little to show for their spending binge... The final spark for unrest came in October 2019... Mass protests, driven by a disenchanted youth demanding wholesale change, erupted against a political elite...” (Blair, E. 2022). The currency experienced a collapse, dropping from 1,500 against the dollar prior to the crisis to an approximate street rate of 90,000 (November 2023).

can be paralleled to the International Style in architecture, implemented in Lebanon with the advent of the French mandate in the 1920s.

The study concludes with an attempt to establish a comprehensive understanding of both vernacular and modern values, thereby proposing a potential perspective for Lebanon's contemporary crises.

The following is not an exhaustive exploration of the various human values, nor an attempt to confine the classification of contemporary buildings to the International Style in the diverse rural areas of Lebanon. The subsequent text is an observation not unrelated to the author's background as a practicing architect and an academic with a keen interest in the essence of being found in architecture.

### Part 1: Pre-Modern Period

According to the Blackwell Encyclopedia of Sociology (2007), social values are “relatively abstract and generalized standards or principles of what the individuals in a society consider good and desirable... Values are the source for concrete prescription for behavior in practical situations of everyday life.” This abstract concept will thus be employed in terms of its manifestation in architecture and the built environment. In his book on Lebanese villages, *Al-Qaryah al-Lubnāniyyah: Ḥaḍārah fī Ṭarīq al-Zawāl* (1957), Anīs Frayḥah identified nine values that are shaped by nature itself (Frayḥah, 1957. p. 19–32). This paper argues that at least four of them have inspired and informed the architecture of Lebanese village houses<sup>5</sup>. Throughout this period—prior to the advent of the French mandate in Lebanon after the two World Wars—rural areas mainly adopted the vernacular methodology of construction, defined as “a spatial scheme transmitted by tradition... and not by knowledge codified by books” (Kfoury, 2013. p. 53). Values that are mirrored in this architecture, per Frayḥah, are: generous hospitality<sup>6</sup>, help or collective aid<sup>7</sup>, contentment<sup>8</sup>, and

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<sup>5</sup> The values of “trust and honesty”, “secret friendships”, “reconciliation and conflict resolution”, “respect of the elders” and “public morals” are not addressed in the present paper as they are not deemed to be directly related to architecture.

<sup>6</sup> كرم الضيافة

<sup>7</sup> النجدة أو العونة

<sup>8</sup> القناعة

austerity and patience over adversity<sup>9</sup>. Friedrich Ragette is another author that has studied the architecture in Lebanon<sup>10</sup>. In fact, he was the first modern scholar to publish on the Lebanese architecture. He identified five categories of architecture before modernity: the closed rectangular house, the gallery house, the liwan house, and the central hall house. He added the “combination types” that is out of this paper's scope. Kfoury argued the central hall house to be Lebanese architecture, implying a distinct identity, rather than simply being architecture in Lebanon (Kfoury, 2013. p. 56). These arguments allow for a repositioning of fixed models and well-defined typologies. By referring to Kfoury's book, this study will emphasize architectural “constituents, plan layouts and standardization of certain architectural elements... all of which can be combined” (Kfoury, 2013. p.68), while maintaining Ragette's architectural types as well.

Of the four selected values that Frayḥah defines, generous hospitality is the primary value which drove people to make personal sacrifices in order to honor a friend or a guest. One can observe this parallel in architecture, where the semi-private areas (that are the extension of the front of the house) in different typologies invite people to access their space from the outside and landscape without obstruction. Later on, this area became the central space of the house, called the dār, a space essentially dedicated to hosting guests and where several domestic activities happen. The central hall house, developed from the *liwan*<sup>11</sup>, either accentuated the semi-private space by remaining accessible to the outside, or embraced that space as a quasi-internal part of the house. Tabet describes the dār's evolution wherein it remained an intact space while various elements, materials, and techniques were modified and adjusted (in: Rowe and Sarkis, 1998. p. 84). Kfoury evokes that in the “classical Arabic language dār means house, and in the spoken Lebanese language, the living room” (Kfoury, 2013. p. 73). Therefore, the house in Lebanese society is inherently and linguistically tied to entertaining guests.

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<sup>9</sup> التقشف والصبر على المكاره

<sup>10</sup> In addition to Haroutune Kalayan and Jacques Liger-Belair's *L'Habitation au Liban* (1966) and Semaan Kfoury's *Maisons Libanaises* (2013).

<sup>11</sup> The “liwan house” is “a central space, totally open in front... (that) connects to two closed rooms right and left” (Ragette, 1998. p.68).

The second value of help or collective aid, i.e. people uniting in order to help a person in physical or economic need, is observable in examples such as assisting in home construction or uprooting tree. The collective construction process that aims at building a shelter is therefore dictated by the value of collective aid. In the absence of technology, manpower was the means by which difficult tasks were performed.

Contentment is a third identified value and one which, according to the popular proverb, is considered as an “inexhaustible treasure”<sup>12</sup>. The simple geometric forms and the homogenous stone mass that constitute the house can be considered a metaphor for the villagers’ beliefs in non-hierarchical structures and equality, thereby promoting an architecture of contentment. This can be further reflected in the fact that animals and humans dwelled, during a certain segment of time, under the same roof; service, sanitary, and working areas were outdoors, spread across the landscape. Natural space is therefore used as a house annex, and thus, the boundaries between the inside and outside are blurred, a state of the bond between humanity and nature par excellence.

Lastly, the values of austerity and patience over adversity are applied by villagers in both prosperous and desperate times. Indeed, this seems largely inevitable knowing that nature is a vital part of everyday life, and that due to the lack of developed elements and components in charge of comfort inside the house, natural factors may have a substantial impact on residents. In such a period, an intimate dialogue is established between construction and nature. Materials are acquired from the site, such as rocks and wood, and a flawed geometry appeared in supposedly straight lines and orthogonal corners that are nevertheless skewed due to human inaccuracies and the absence of machines for assistance. Site integration could also be seen in houses that follow the topography of the land, sometimes regardless of its orientation in mountainous areas.

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<sup>12</sup> “القناعة كنز لا يفنى” (Author’s translation).

## Part 2: The Modern Period

In his book, *The McDonaldization of Society* (2000), author George Ritzer explains how the American fast food chain has impacted the economic and social life<sup>13</sup>. He identifies four main dimensions in this business industry that are arguably correlated to modern architecture. Modern architecture was further implemented in Lebanon under French colonialism in the 1920s. It is directly related to the International Style that is defined as “the style of architecture after World War I that was spread throughout the world, becoming the dominant architectural style until the 1970s. The style is characterized by an emphasis on volume over mass, the use of lightweight, mass-produced, industrial materials, rejection of all ornament and color, repetitive modular forms, and the use of flat surfaces, typically alternating with areas of glass” (*Getty Research Institute*). From a specific point of view, one can observe a shared pursuit of ubiquity and pragmatism that unites a predominant American mentality, the McDonald’s approach, with an European school that is the International Style in architecture.

The business strategy set by McDonald’s is based on the following values: efficiency, calculability, predictability, and control, the same process of standardization that might be applied to architecture. Looking closer at Ritzer’s theory, a parallel can be drawn between the mentioned values and the specificities of modern architecture in Lebanon (and certainly worldwide).

### Efficiency

It defines a mission that is accomplished in a quick and optimal manner; “For consumers, McDonald’s offers the best available way to get from being hungry to being full” (Ritzer, 2000. p. 12). The remarkable supply chain of McDonald’s (from supplier to consumer), in addition to the predesigned process of food making, have made this work model a prototype for other sectors. In architecture, the International Style emerged after the World Wars due to the emerging need to shelter a large number of people. Construction thus prioritized efficiency, leading to the execution of predesigned architecture irrespective of the specific needs and values of its future residents. This fast food/fast construction approach was primarily concerned with optimization,

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<sup>13</sup> An impact of globalization in Lebanon and many other countries.



even though space users in Lebanon continuously sought to overcome the initial designs and existing laws by adapting and modifying the spaces in order to respond to their needs.

### **Calculability**

Ritzer defines calculability as “an emphasis on the quantitative aspects of products sold (portion size, cost) and services offered (the time it takes to get the product)” (Ritzer, 2000. p. 12). The restaurant chains offer more food with the same quality at a low price, securing a high profit for the owners. It is the reflection of a standardized method that offers a well-measured amount of ingredients, thus depersonalizing customers from the product and workers from their labor. In high-rise buildings where apartments are duplicated atop one another, a meticulous calculation is done, for example, for the number of electrical outlets in the residence, the strict room dimensions and ceiling heights, and the limited variations in design. In fact, ornaments are set aside to the detriment of smooth surfaces and minimalistic designs, recalling Adolf Loos’ modernist statement: “The evolution of humanity goes hand in hand with the disappearance of ornaments in every-day objects.” (Jimena, et al. 2005)

### **Predictability**

Predictability is “the assurance that products and services will be the same over time and in all locales” (Ritzer, 2000. p. 13). The burger’s taste is well-expected, as are the service process and the behavior of the employees. The consistency, routine, and discipline of this system is universal in the same way that the International Style has dominated world architecture. Ready-made models invade the traditional and vernacular constructions; some resisted, others partially accepted, while others fully implemented them. In the case of Lebanon, the full Western models are adopted without much critical approach since the start of the 1975 civil war.

### **Control**

“Lines, limited menus, few options, and uncomfortable seats all lead diners to do what management wishes them to do—eat quickly and leave... Technology that increases control over workers helps

McDonaldized systems assure customers that their products and service will be consistent” (Ritzer, 2000. p.14-15). Control is a dimension that engenders uniformity of production, strictness in rules and behavior, and above all, a one-way operative system of employees whose tasks are easily automatized as machinery continues to replace manual labor. Modern architects believe that their knowledge in the art of construction allows them to impose space designs on their clients. Designers refer, when drawing from a Western template, to international norms and standards. A predesigned building is a good example of a habitat that disregards the specific needs of its users to the detriment of the architect/designer’s own vision or perspective.

Efficiency, calculability, predictability, and control are the four main values that shape the McDonald’s industry and a main part of our modern society: it is an industrialized environment. In modern buildings, the same method of standardization is adopted in order to shelter a growing number of people, needs, and new values. Nature, which previously generated values and guided the construction process, is relegated to the background and given a secondary role. It is instead present in some greenery on balconies, some windows allowing visual access to it, or some sustainable strategies that are rarely seen in rural areas. The ecological impact is underestimated as mass production, technology, and virtual realities continue to grow and impact daily life; our habitats have changed and our values have been reprioritized.

### **Part 3: Values Refurbished**

In the West, post-modernism rose after and in reaction to modernism. Post-modernists mocked the foundations of rationalism, armed by cynicism, double-coding, and the rejection of history. Deconstruction theory subsequently came in an attempt to question and challenge existing discourses and instead establish a body of theory based on uncertainty, chaos, and nihilism. New interpretations of human values emerged, ignoring and/or redefining previous ones. For the most part, however, architecture in Lebanese rural areas scarcely includes post-modern buildings and design. By the end of 2019, Lebanon was hit with a dire economic, social, and health climate that endures to the present day. As a result, construction growth has been considerably attenuated and denial of a Lebanese identity has been underway. Values are sometimes deconstructed, not only as a reaction to previous

thinking trends, but also when the vital needs of security, medication, or food are missing. Pragmatism finds its way in.

This paper has dealt with major human values during pre- and modern times in Lebanon. A speculative parallelism might summarize the areas that were highlighted, taking into consideration that the vernacular values did not vanish today, but are either attenuated or shifted to another “space”:

1. Generous hospitality in pre-modern times were embodied in architecture in the centrality of the guest area in house layouts, while in modern times, calculability seeks to maximize financial profits using standardized and depersonalized methods.
2. In pre-modern times, construction processes relied on collectivism, and the value of help or collective aid was prevalent. Later, efficiency provoked the spirit of support that previously existed to be replaced by self-support in order to reach optimization. As a result, fast construction pace, low-cost, and low-effort methods are implemented.
3. Likewise, austerity and patience over adversity were the consequence of the contextualization of architecture as both within and an extension of nature. It was followed in modern times by predictability where the expected, the consistent, and the universal are addressed.
4. Contentment as a simple, homogenous, non-hierarchical form of habitats, is overshadowed by control through non-human technology where uniformity and strictness led to predesigned architectural layouts that are imposed on inhabitants, and where architecture controls space and residents, as opposed to the inverse.

What preceded may be readdressing concepts introduced by Bernard Rudofsky in 1964 (in the United States), albeit in a different context, as outlined in his seminal work, “Architecture Without Architects: An Introduction to Nonpedigreed Architecture.” Rudofsky’s work celebrates the diversity of architectural forms shaped by local traditions, materials, and needs. It presents a compelling argument for reevaluating preconceived notions of what constitutes good design. These spaces encompass vernacular houses, markets, and communal areas.

To conclude, if architecture is the physical concretization of human values, questions regarding the nature of these values must be addressed. Without rejecting or undermining the genuine worth of certain modern

imported values, I have suggested that Lebanon’s vernacular rural values should not be discarded in favor of what is expedient and modern. In times of crisis, many fell back harnessing the sun and the wind to light their houses, collecting wood to heat water and cook food, or investing in agriculture as a way of becoming self-sufficient. Without denying the obvious benefits of certain modern values that emerge from valid technical progress, perhaps we should reconsider our vernacular values again.

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**Blue Humanities, Maritime Security and Blue Economy:  
A Gender Perspective  
Maria-Vera Azadian**

**Introduction**

***Context and Rationale***

This study is the result of two conferences organized by the International Centre for Human Sciences under the auspices of UNESCO, in July and August 2023. The first, entitled Women Empowerment in Maritime Leadership: The Blue Humanities Leading the Way to Sustainability and organized in collaboration with the Hanns Seidel Stiftung Foundation, featured panel discussions on gendered perspectives of maritime security, the empowerment of women in marine research, and women leading energy coastal systems and marine cultural heritage. It highlighted both the importance of female leadership in all maritime sectors and the ways in which blue humanities can be harnessed for a more sustainable future (“CISH Organizes Two-Day Roundtables on Women Empowerment in Maritime Leadership,” 2023).

The second conference, Ocean Governance and Maritime Awareness, was organized in conjunction with the Research and Strategic Studies Center at the Lebanese Armed Forces. Speakers discussed maritime delimitation, hydrographic activities, the United Nations Convention on the law of the sea, and the role of both the International Maritime Organization (IMO) and UNESCO with regards to underwater cultural heritage, addressing these issues from national, regional, and global perspectives (“Ocean Governance and Maritime Awareness,” 2023).

This report stands as a non-exhaustive compilation of the information transmitted during the above conferences. It expands on the points discussed and debated, and subsequently provides policy recommendations addressed to state governments and organs of international governance.

***Overview***

This study aims to provide an overview on the state of the Maritime Security, Blue Humanities, and Blue Growth, both globally, and when relevant, within the Middle East and North Africa (MENA) region. It specifically focuses on the state of women, underlining issues of equal participation by examining barriers to access, while keeping cultural attitudes towards the social roles of women in mind.

This text will be divided in three large sections, each focused on a different facet of the inquiry: Maritime Security, Blue Humanities, and Blue Growth. Each section will begin with a rundown of legal mechanisms governing the sector. It will then, depending on availability of data, provide either a quantitative or qualitative summary of the state of affairs in this sector. In this portion, a particular emphasis will be placed on the involvement of women. Last, each section of the text will provide specific policy recommendations, aimed at, (1) best harnessing the sector's potential further economic growth and/or social cohesion, and (2) further involving women in the sector.

### ***Theoretical Framework: A Gender Perspective***

This report will consider its focus areas through a lens of gender. Gender in this paper does not purely refer to issues concerning the inclusion of women, but rather, follows Robinson's approach which defines it as:

'... a lens or perspective that casts a different light on social phenomena [...] gender is not limited to socially constructed sex, but encapsulates the way in which social life is implicitly and explicitly patterned by meanings, knowledges, and power relations inflected by constructions of masculinities and femininities, sex/gender, and categories such as "men" and "women" (Robinson, 2011).

Gender is not only a women's issue, but rather, one of men and women. Both are thus subjects of analysis under this framework (Chapsos & Norman, 2023).

This perspective thus holds especially important ramifications in the field of Maritime Security. Chapsos and Norman write that these issues are not gender neutral, "with men and women experiencing these phenomena in different ways due to the social construction of their gender" (Chapsos & Norman, 2023). Indeed, as 'patriarchal' views on masculinity and femininity in military and conflict areas remain dominant, they may create inaccurate views on the experiences of men and women. In times of conflict, women are often perceived as either "victims or peacemakers", while men are the "aggressors or saviours" (Chapsos & Norman, 2023).

These stereotypes impact the views of leaders, policy makers, and researchers, as women may be victims, but also activists and perpetrators. They may also conceal the ways in which men may be victims of

violence, but also of ideas of "feminisation" and "gender coercion" (Chapsos & Norman, 2023). In the domain of Maritime Security, taking these stereotypes into account will allow for more appropriate policy, which includes the security issues that both men and women face.

Moreover, as the Blue Humanities and the Blue Economy are relatively new fields, placing a focus on women's inclusion early on in their development will allow women to be central parts of it. Indeed, avoiding issues women's inclusion puts these sectors at risk of following in the footsteps of many others – meaning, at risk of developing according to the status quo, and placing women as an 'afterthought'. Ensuring that women are included will allow their participation to be understood as essential, rather than 'remedial' to past injustice.

Additionally, gender equality is an indispensable component of genuine sustainable development. Numerous studies have demonstrated that gender equality not only enhances economic efficiency but also increases productivity for both current and future generations. The European Institute for Gender Equality has established that "gender equality boosts economic growth." Conversely, limiting women's access to the labor market has detrimental effects on economic prosperity. According to the IMF, regions that fail to integrate women into the workforce may experience GDP losses of up to 27%. Therefore, it is imperative to integrate women effectively and comprehensively into the Blue Economy, recognizing that their participation is not only a matter of social justice but also a key driver of economic advancement (Verma, 2018).

### ***Key Definitions: Maritime Security, Blue Humanities and Blue Economy***

#### *Maritime Security*

Maritime security is a subset of ocean governance, which refers to "the most recent phase in the evolution of the international law of the sea" that encompasses a complex set of drivers and actors with different perspectives and aims, including states, local communities, civil society, non-governmental organizations (NGOs), and industry, or the blue economy (Haas et al., 2022; Molenaar, 2019).

The concept of maritime security is loosely defined, and is often surrounded by discussions that point to 'threats' to maritime security, such as

“maritime inter-state disputes, maritime terrorism, piracy, trafficking of narcotics, people and illicit goods, arms proliferation, illegal fishing, environmental crimes, or maritime accidents and disasters” (Bueger, 2015). It is therefore typically argued that maritime security ought to be defined negatively, meaning, as the absence of threats like those above (Bueger, 2015).

### *Blue Humanities*

The term ‘Blue Humanities’ covers a wide range of disciplines, fluctuating between fields traditionally confined to either the scientific or the humanities realms (Gillis, 2013). John Gillis contextualizes what he calls the “cultural turn to the sea” within a trend he defines as “the historicization of the oceans” (Gillis, 2013). Examining cases from disciplines like “archeology, anthropology, maritime history, biology, and environmental history, as well as on poetry, painting, narrative fiction, and other arts”, Gillis finds that humankind knows the sea just as much through humanities as through the sciences (Mentz, 2023). Blue Humanities studies are therefore “diverse and expansive”, with a rapidly increasing number of publications using the ocean as a lens of analysis for different works of art and literature (Bakker, 2019). Indeed, although the ocean has been a focus of countless artistic works since the start of the nineteenth century, it has only become a widespread subject of study in the first decades of the twenty-first century (Mentz, 2023).

Steve Mentz, who coined ‘Blue Humanities’ and authored of the first comprehensive text on the topic, attributes this recent focus to the flood of images showing the devastating effects of human activity on the ocean, from oil spills to islands of plastic pollution. Blue Humanities serve as a response to “the global concerns of today’s ecocatastrophic times” (Mentz, 2023).

For the purposes of this report, the Blue Humanities will encompass the fields of ocean science and underwater heritage preservation.

### *Blue Economy*

First introduced at the 2012 Rio+20 Summit by Small Island Developing States and supported by the FAO, the concept of ‘blue economy’

refers to the part of the economy that is directly dependent on large bodies of water: such as oceans, seas, large inland lakes (Atkisson et al., 2018; Eikeset et al., 2018). However, despite being used by several scientists, stakeholders, and policymakers, the term has no widely agreed upon definition (Eikeset et al., 2018; Pauly, 2018; Tsiouvalas et al., 2022). It instead encapsulates many different perspectives, some of which may be competing. For some, it may refer to purely “maximizing economic growth around marine and aquatic resources”, while for others, it can refer to a more inclusive approach while promoting conservation and preventing degradation of these resources (Eikeset et al., 2018). The lack of a well-defined objective to blue growth similarly causes issues in communications between different stakeholders to define and fill different knowledge gaps and holistically balance competing interests and trade-offs in the blue economy (Eikeset et al., 2018). While recognizing the challenges of defining and applying principles of the blue economy, this report will set its objectives as follows; first, blue economy ought to be sustainable, meaning, “in the fundamental sense that all its component activities could be, in principle, be continued forever” (Pauly, 2018), and second, it ought to “improve human well-being and social equity, while significantly reducing environmental risks and ecological scarcities” (Pauly, 2018; UNEP, 2020).

### *A Note on Interconnections*

It is important to avoid making the mistake of viewing these sectors as independent from each other; the Blue Humanities, Maritime Security, and the Blue Economy are deeply interconnected. For instance, expansion of the ocean economy through shipping activities – a blue economy issue – may cause damage to natural or human underwater heritage – which concerns the blue humanities. Additionally, a country declaring underwater heritage as its own, such as Ukraine recently declaring Russia’s sunken warship Moskva Ukrainian Underwater Heritage, may have an important ramifications in the realm of maritime security (Halpert, 2022). Thus, while this paper will be addressing each sector separately for the sake of clarity, it recognizes the wide overlap between them.

***Relation to United Nations Sustainable Development Goals***

*United Nations Decade of Ocean Science for Sustainable Development*

The United Nations Decade of Ocean Science for Sustainable Development or the ‘Ocean Decade’, is held from 2021 to 2030, over the last decade of the 2030 Agenda for Sustainable Development. The Ocean Decade aims to create a common framework created to ensure every country can produce the ocean science that is needed to achieve the 2030 Agenda. Its Implementation Plan was designed “in recognition of the interactions that exist between the ocean and global socio-ecological systems” by the Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), while consulting member-states and a diverse set of other stakeholders. It identifies ten Decade challenges in ocean science, and through a Decade Action Framework, works with stakeholders to deliver concrete projects to fulfill three Decade Objectives. These objectives are:

- 1) Identify required knowledge for sustainable development.
- 2) Generate comprehensive knowledge and understanding of the ocean.
- 3) Increase the use of ocean knowledge.

While its main purpose is to bolster efforts towards achieving SDG 14, the Ocean Decade is “cross-cutting”, as it will also help achieve many other SDGs.

*SDG 14: Life Below Water*

SDG 14 refers to “life below water”, or, in its full form, to “conserve and sustainably use the oceans, seas, and marine resources for sustainable development.” Its ten sub-targets relate directly to the topics covered in this report.

Blue Humanities	<ul style="list-style-type: none"> <li>• 14.8: Increase Scientific Knowledge, Research, and Technology for Ocean Health</li> </ul>
Maritime Security	<ul style="list-style-type: none"> <li>• 14.1: Reduce Marine Pollution</li> <li>• 14.2: Protect And Restore Ecosystems</li> <li>• 14.5: Conserve Coastal and Marine Areas</li> <li>• 14.6: End Subsidies Contributing to Overfishing</li> <li>• 14.A: Implement And Enforce International Sea Law</li> </ul>
Blue Economy	<ul style="list-style-type: none"> <li>• 14.1: Reduce Marine Pollution</li> <li>• 14.2: Protect And Restore Ecosystems</li> <li>• 14.3: Reduce Ocean Acidification</li> <li>• 14.4: Sustainable Fishing</li> <li>• 14.5: Conserve Coastal and Marine Areas</li> <li>• 14.6: End Subsidies Contributing to Overfishing</li> <li>• 14.7: Increase The Economic Benefits from Sustainable Use of Marine Resources</li> <li>• 14.9: Support Small Scale Fishers</li> </ul>

*SDG 5: Gender Equality*

SDG 5, “Gender Equality”, or “Achieve gender equality and empower all women and girls” will also be discussed in this paper. Five out of nine targets will be addressed.

Blue Humanities	<ul style="list-style-type: none"> <li>● 5.1: End Discrimination Against Women and Girls</li> <li>● 5.8: Promote Empowerment of Women Through Technology</li> </ul>
Maritime Security	<ul style="list-style-type: none"> <li>● 5.1: End Discrimination Against Women and Girls</li> <li>● 5.5: Ensure Full Participation in Leadership and Decision-Making</li> <li>● 5.9: Adopt And Strengthen Policies and Enforceable Legislation for Gender Equality</li> </ul>
Blue Economy	<ul style="list-style-type: none"> <li>● 5.1: End Discrimination Against Women and Girls</li> <li>● 5.4: Value Unpaid Care and Promote Shared Domestic Responsibilities</li> <li>● 5.5: Equal Rights to Economic Resources, Property Ownership and Financial Services</li> <li>● 5.8: Promote Empowerment of Women Through Technology</li> </ul>

This paper aims to explore the intimate link between SDG 5 and SDG 14. A study by the OECD in 2021 found that addressing marine pollution is crucial for both the health of our oceans and human well-being. Particularly vulnerable are pregnant women and children, who can be significantly affected by the toxic substances found in fish, as microplastics have the capacity to cross the placental barrier, posing risks to unborn children. Furthermore, the interconnected issues of human-induced ocean damage and climate change are compounding, approaching critical tipping points that could have devastating consequences. Coastal disasters, in particular, disproportionately impact women and children due to the increasing frequency and

intensity of sea storms, with studies revealing that women, boys, and girls are 14 times more likely than men to perish during such calamities (OECD, 2021).

Another aspect of gender disparity is seen in the global fishing and aquaculture workforce, where women make up only 20%, often relegated to lower-paying roles, though they are more prevalent in artisanal fishing. Leadership roles in the fishing sector also see a gender imbalance, with only 1 in the top 100 seafood companies led by a woman in 2016, and 54% of these companies lacking female representation on their boards. Empowering women in decision-making positions within the fishing industry can contribute significantly to sustainable fishing practices and marine conservation efforts (OECD, 2021).

Women can also play a vital role in safeguarding marine ecosystems and promoting sustainable use of marine resources, exemplified by successful initiatives in East African countries that involve women in regenerating mangroves, thereby protecting coastal areas and increasing marine biodiversity. To ensure the success of such initiatives, addressing discrimination, securing access to financial resources, and fostering skill development are imperative (OECD, 2021).

Effective policy solutions for preserving our oceans must therefore adopt a gender-sensitive approach, addressing the unique gender-related concerns arising from ocean degradation, including the consequences of coastal storms, depletion of fish stocks, and the proliferation of marine litter. (OECD, 2021)

Last, as specified by the United Nations Development Program (UNDP), all SDGs are integrated, as “they recognize that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability” (Sustainable Development Goals | United Nations Development Programme, n.d.). As such, issues of climate action (SDG 13) or industry, innovation, and infrastructure (SDG 9), among others, are also inextricable from the topics covered in this report.

### ***United Nations Convention on the Law of the Sea***

The United Nations Convention on the Law of the Sea (UNCLOS) is likely the most important international treaty governing the use and management of the world’s oceans and seas. It was adopted in 1982 and came into force in 1994, currently boasting 167 signatory states

and the European Union. UNCLOS serves as a comprehensive framework for addressing various aspects of maritime affairs, ranging from territorial sovereignty to environmental protection (United Nations Convention on the Law of the Sea, 1982).

One of the fundamental principles of UNCLOS is the concept of maritime zones. These include territorial seas, contiguous zones, exclusive economic zones (EEZs), and the high seas. Each of these zones has specific provisions and limitations, aimed at regulating the rights and responsibilities of coastal states and other maritime actors. For instance, UNCLOS grants coastal states sovereignty over their territorial seas, which extend up to 12 nautical miles from their coastlines (United Nations Convention on the Law of the Sea, 1982).

UNCLOS remains a complex legal framework. However, below are two provisions which prove to be most relevant to the two focus points of this report:

- **Environmental Protection (Article 192)**

UNCLOS emphasizes the need to protect and preserve the marine environment, which, in addition to recommending sustainable practices, indirectly benefits coastal communities. A healthy marine environment can contribute to the well-being of those who rely on marine resources for their livelihoods (United Nations Convention on the Law of the Sea, 1982).

- **Exclusive Economic Zones (Part V)**

- **Resource Management:** Coastal states have the exclusive right to explore and exploit the living and non-living resources in their EEZs. This includes fisheries, oil and gas reserves, minerals, and other marine resources. Coastal states can establish regulations and licenses for resource extraction and fishing within their EEZs (United Nations Convention on the Law of the Sea, 1982).

- **Environmental Protection:** While coastal states have sovereignty over their EEZs, they are also obligated to protect and preserve the marine environment. UNCLOS includes provisions for preventing and controlling marine pollution within EEZs, which is crucial for

maintaining the health of marine ecosystems (United Nations Convention on the Law of the Sea, 1982).

- **International Cooperation:** UNCLOS encourages coastal states to cooperate with each other and with other states in managing and conserving the resources in their EEZs. This is particularly important for shared fish stocks that migrate across EEZ boundaries (United Nations Convention on the Law of the Sea, 1982).

- **Equitable Utilization:** UNCLOS promotes the principle of “equitable utilization” of resources in shared or adjacent EEZs. This means that neighboring coastal states should work together to ensure that the benefits of resource exploitation are shared fairly, considering the needs of both states (United Nations Convention on the Law of the Sea, 1982).

While UNCLOS does not have specific clauses aimed at protecting women’s rights or gender equality, its provisions related to sustainable resource management and environmental protection can indirectly contribute to the well-being of women in coastal communities. Additionally, the Convention underscores the importance of international cooperation in addressing various maritime issues, which can be used to promote gender equality and improve the lives of coastal populations through regional and global initiatives.

## Maritime Security

### *Legal Context*

There are no laws specifically pertaining to the issue of gender equality in Maritime Security on an international scale (Chapsos & Norman, 2023). However, it seems appropriate to consider UN Resolution 1325 on Women, Peace and Security (2000), as it represents the United Nations Security Council’s decision to officially acknowledge the role of women in international peace and security agendas (Chapsos & Norman, 2023; Hudson, 2009; *Landmark Resolution on Women, Peace and Security (Security Council Resolution 1325)*, n.d.). This resolution “urges Member States to ensure increased representation of women at all decision-making levels” (art. 1), and overall underlines the need for further women’s representation in peacemaking processes (*Landmark Resolution on Women, Peace and Security (Security Council Resolution 1325)*, n.d.).



Nevertheless, this resolution remains lacking. Scholars find that it assumes that women will naturally either be peacemakers or victims in times of conflict (Hudson, 2009). Additionally, it seems to use the terms “gender” and “women” interchangeably and never addresses men, which may mean that it is taking “men and masculinity [...] for granted” (Hudson, 2009).

However, what is perhaps most important for this report is that this resolution does not tackle maritime security specifically, or the way it may relate to gender. This reflects a broader pattern, where gender dynamics and women’s roles at sea often go unnoticed within existing international legal frameworks. As Papanicolopulu finds in 2019, gender-related concerns are conspicuously absent from mainstream law of the sea textbooks, pointing to the disconnect between gender and maritime law (Papanicolopulu, 2019).

### ***State of Affairs***

As Robinson points out, “Despite the broad and inclusive nature of the human security approach, the gender dimension tends to be overlooked” (Chapsos & Norman, 2023; Robinson, 2011). Indeed, in the ever-changing security landscape, the state continues to be the primary provider of security, and in the maritime domain, navies play a crucial role in maintaining order at sea on behalf of the state. When examining two advanced Western Navies, namely the Royal Navy in the UK and the US Navy, it is evident that women constitute only 10% to 20% of their total workforce (Demographics of the U.S. Military, 2020; Gregory et al., 2018). Moreover, women serve in various ranks and roles. While progress has been made since the 1990s, with women being allowed to take on roles beyond nursing and traditional male-dominated positions at sea, this progress may not fully represent the situation in other regions, including the case study countries in this paper.

Moreover, an emerging trend in maritime security is the outsourcing of security responsibilities to the private sector, including Private Maritime Security Companies (PMSCs). The security industry remains predominantly male-dominated. PMSCs prefer to recruit ex-military personnel, preferably Marines, for their security teams. Consequently, women are rarely, if ever, deployed as Privately Contracted Armed Security Personnel (PCASP). Thus, their participation in this sector mirrors the percentages and roles observed in land-based security roles (Chapsos & Norman, 2023).

### **CASE STUDY: Piracy in Somalia**

This case study, extracted from Chapsos & Norman’s 2023 study, aims at illustrating the situation in Somalia through a gendered lens, to better understand the roles of men and women in both piracy and counter-piracy operations.

Efforts to counter piracy on the shores of Somalia have seen limited involvement from women due to concerns that their presence might weaken or undermine the counter-piracy response (Gilmer, 2017). When women have participated in international efforts against piracy, their presence has often been viewed as unusual, as illustrated by one woman’s experience in a UN capacity building project (95).

### **CASE STUDY: Illegal Fisheries in Indonesia**

Chapsos and Norman’s research project selects Somalia and Indonesia as case studies to illustrate this point.

In Somalia, the first woman joined the Somaliland coast guard in 2016 and currently leads the Training Department and serves as the gender focal point of the coast guard (73, 77). The UNODC provides training to female marine enforcement officers in the country, and alongside Somali maritime enforcement agencies, efforts are underway to promote gender equality and support women in the security sector. While there is still a long road ahead, gradual progress has been made in Somalia to combat discrimination against women seeking entry into male-dominated occupations. This discrimination is rooted in social stereotypes and misconceptions derived from local patriarchal structures, which suggest female intellectual, physical, and emotional inferiority compared to their male counterparts (91).

In Indonesia, women constitute approximately 2% of the total military staff (83) and less than 6% of the total police staff (69).

While women are typically perceived as victims in piracy cases, data indicates that the primary victims of maritime piracy are predominantly male, particularly in high-risk areas around the world. This is largely because most seafarers are male, and maritime piracy victims are primarily seafarers transiting these high-risk zones (45). The International Maritime Organization (IMO) acknowledges that the maritime industry has historically been male dominated, with official IMO figures from 2019 revealing that women represented only 2% of the world’s 1.2 million seafarers, and 94% of female seafarers working in the cruise industry (76).

Consequently, the analogy between male and female seafarers suggests that males are far more likely to be victims.

In more decentralized and remote areas, where infrastructure is limited or nonexistent, the employment situation for women in the fishing sector differs significantly. In remote fishing communities, women generally have limited employment opportunities in fishing, as one community leader describes, “There is a lack of government dissemination to the community, especially to women in fishing villages, regarding creative activities that could provide additional income” (13, p. 6).

Research conducted among participants from five different Indonesian fishing communities provides evidence that these communities engage in illegal fishing activities, including the capture and landing of protected species like sharks, the use of explosives and chemicals like potassium, transshipments, and human trafficking (13, pp. 5–6). Since women typically do not have opportunities to fish at sea, male fishers are the primary perpetrators in these activities.

However, women also engage in such crimes in Indonesia and internationally. On several occasions, women have been reported to be arrested for illegal fishing offenses (88, 79), although these instances are significantly fewer in number compared to their male counterparts. In conclusion, the research findings emphasize the significant role women can play in the fisheries sector, particularly in coastal areas. While women’s victimization has been well-documented, men have predominantly been identified as perpetrators of crimes. Given that men are primarily responsible for fishing activities at sea, their involvement in illegal activities is a logical and expected outcome. Nevertheless, it would be unrealistic to assume that men are immune to becoming victims of crimes associated with the offshore fishing industry.

The concept of the land-sea nexus theorizes that security concerns and crimes at sea originate and evolve on land. This highlights the necessity of addressing these issues at their source on land, rather than merely dealing with their consequences at sea.

### ***Policy Recommendations***

#### **1. United Nations Security Council (UNSC):**

**Gender Mainstreaming in Peacekeeping Missions:** Mandate peacekeeping missions to integrate gender perspectives and actively recruit and train

female peacekeepers. Ensure that maritime security is considered in peacekeeping mandates where relevant.

**Reporting on Gender Dimensions:** Require regular reporting on the gender dimensions of conflicts, including maritime security issues, and their impact on women and girls in conflict-affected areas.

#### **2. International Maritime Organization (IMO):**

**Gender Equality in the Maritime Industry:** IMO should develop guidelines and recommendations for member states to promote gender equality within the maritime industry, including measures to increase the representation of women in seafaring roles.

**Support for Female Seafarers:** Establish programs to support female seafarers, address gender-based harassment and discrimination at sea, and encourage training and career development opportunities.

#### **3. United Nations Women (UN Women):**

**Advocacy and Awareness:** UN Women should lead global advocacy efforts to raise awareness about the importance of women’s participation in maritime security and climate change discussions, and encourage governments to adopt gender-responsive policies.

**Gender-Responsive Climate Action:** Promote gender-responsive climate action initiatives, including those related to climate adaptation and resilience in coastal communities.

**4. United Nations Office on Drugs and Crime (UNODC):** Capacity Building for Female Maritime Enforcement Officers: UNODC should expand training programs for female marine enforcement officers, especially in regions affected by piracy and illegal fishing.

#### **5. International Labour Organization (ILO):**

**Protection of Female Seafarers’ Rights:** ILO should ensure that labor rights of female seafarers are protected, including provisions for safe working conditions and equal pay.

#### **6. United Nations Human Rights Council (UNHRC):**

**Addressing Discrimination:** UNHRC should investigate and address cases of discrimination and violence against women in maritime and security sectors through reporting mechanisms and advocacy.

## **7. United Nations Educational, Scientific and Cultural Organization (UNESCO):**

Promoting Gender-Responsive Education: UNESCO should promote gender-responsive educational programs in maritime and coastal areas to encourage women and girls to pursue careers in maritime security and related fields.

### **Blue Humanities**

#### ***Legal Backing***

The Blue Humanities, encompassing a wide array of disciplines, are not directly subject to many international conventions or laws. However, two relevant treaties are UNESCO's 2001 Convention on the Protection of the Underwater Cultural Heritage (CPUCH) and the United Nations Convention on the Law of the Sea (UNCLOS). Additionally, the European Union's Integrated Maritime Policy contains several initiatives launched to document 'marine data and knowledge' (Integrated Maritime Policy of the European Union | Fact Sheets on the European Union | European Parliament, 2023).

#### **Convention on the Protection of the Underwater Cultural Heritage**

The 2001 Convention on the Protection of the Underwater Cultural Heritage (CPUCH) is dedicated to the preservation of submerged cultural sites and artifacts, including shipwrecks and underwater archaeological sites. While the convention's primary objective is the safeguarding of cultural heritage, it extends its influence on coastal communities and raises pertinent considerations regarding gender equality within the field of underwater archaeology. This instrument stands as a *lex specialis* focusing on Underwater Cultural Heritage (UCH), whereas UNCLOS remains as *lex generalis* for the entirety of the law relating to the sea (Carducci, 2002).

Indeed, UNCLOS takes a vague stance on UCH, specifying the need to protect it without necessarily defining it. For instance, Article 303's Paragraph 1 is *lex generalis* because it, in theory, applies to any UCH that falls under the authority of the LOS Convention. Contrarily, Article 303, paragraph 2, and Article 149, paragraph 2, are *lex specialis*, the former for UCH only in the contiguous zone with a maximum extent of 24 miles, and the latter for UCH only in the

territory outside of national jurisdiction (the territory) (Carducci, 2002). The LOS Convention's rationale and recognised need for preserving UCH are consequently considered by the Convention, which also creates the new *lex specialis* for UCH whose merits were already implicitly acknowledged in 1982. Technically speaking, the Convention implements the insufficient and insufficient rules of the LOS by defining what constitutes UCH and establishing the minimal level of protection for it through a high-standard framework. The Convention therefore "implements" the LOS Convention's rules (Carducci, 2002).

In its first Article, the Convention defines UCH as:

"all traces of human existence having a cultural, historical or archaeological character which have been partially or totally under water, periodically or continuously, for at least 100 years such as:

- (i) sites, structures, buildings, artefacts and human remains, together with their archaeological and natural context;
- (ii) vessels, aircraft, other vehicles or any part thereof, their cargo or other contents, together with their archaeological and natural context; and
- (iii) objects of prehistoric character" (UNESCO, 2001).

Article 3 of the convention also specifies the Convention's relationship to UNCLOS. It states that "nothing in this Convention shall prejudice the rights, jurisdiction and duties of States under international law", and that it shall be applied in a manner that is consistent with UNCLOS and international law.

The Convention includes several specific clauses and provisions that have, albeit indirect, implications for the wellbeing of coastal communities and gender equality in the field of UCH:

#### **Participation of Diverse Stakeholders (Preamble):**

"Believing that cooperation among States, international organizations, scientific institutions, professional organizations, archaeologists, divers, other interested parties and the public at large is essential for the protection of underwater cultural heritage." (UNESCO, 2001).

While not a specific clause, the convention's preamble emphasizes the importance of involving a diverse range of stakeholders in the protection

of underwater cultural heritage. This inclusivity can indirectly address gender imbalances in the field by encouraging the participation of women and underrepresented groups.

**Protection of Archaeological Sites (Article 2):**

Article 2 defines the scope of the convention and includes the protection of archaeological sites as one of its key objectives (2.3, 2.5). This protection can directly benefit coastal communities by preserving historical and cultural assets in their vicinity. This can also reaffirm historical community identities.

United Nations Convention on the Law of the Sea

UNCLOS contains several regulations for scientific marine research.

**1. Article 245: Marine scientific research in the territorial sea**

Article 245 of UNCLOS states that Coastal States “have the exclusive right to **regulate, authorize and conduct marine scientific research** in their territorial sea.” Additionally, any scientific “shall be conducted only with the express consent of and under the conditions set forth by the coastal State”.

Scope	Organisation	Relevant Legal Sources and Documents
Global	UNESCO	• Convention on the Protection of the Underwater Cultural Heritage (2001)
	UNGA	• United Nations Convention on the Law of the Sea (1982)
Regional	European Parliament	• Integrated Maritime Policy (European marine and maritime research strategy, 2008; Marine Knowledge 2020 Strategy, 2010)

**2. Article 246: Marine scientific research in the exclusive economic zone and on the continental shelf**

Article 246 of the United Nations Convention on the Law of the Sea (UNCLOS) outlines the principles and procedures governing marine scientific research in the exclusive economic zone (EEZ) and on the continental shelf by coastal States. The article begins by affirming the rights of coastal States, stating that they “have the right to regulate, authorize and conduct marine scientific research in their exclusive economic zone and on their continental shelf in accordance with the relevant provisions of this Convention.”

It further emphasizes the need for consent from the coastal State: “Marine scientific research in the exclusive economic zone and on the continental shelf shall be conducted with the consent of the coastal State”. This consent is crucial and should be granted, in normal circumstances, for research projects conducted “exclusively for peaceful purposes and in order to increase scientific knowledge of the marine environment for the benefit of all mankind”.

To ensure that such consent is not unreasonably delayed or denied, coastal States are encouraged to establish rules and procedures. The article also recognizes that normal circumstances for obtaining consent may exist even in the absence of diplomatic relations between the coastal State and the researching State.

However, the article delineates specific circumstances under which a coastal State may withhold consent. These include situations where the research project is of “direct significance for the exploration and exploitation of natural resources, whether living or non-living,” or involves activities such as drilling, the use of explosives, or the introduction of harmful substances into the marine environment. Consent may also be withheld if the project relates to the construction, operation, or use of artificial islands, installations, and structures or if there are outstanding obligations from prior research projects.

Notably, coastal States are generally prohibited from withholding consent for marine scientific research projects conducted on the continental shelf beyond 200 nautical miles from the territorial sea baselines. The exceptions are specific areas designated by the coastal State for resource exploration or detailed exploratory operations, for which reasonable notice of designation is required.

### **3. Article 247: Marine scientific research projects undertaken by or under the auspices of international organizations.**

Article 247 of the United Nations Convention on the Law of the Sea (UNCLOS) addresses the authorization of marine scientific research projects conducted by international organizations within the exclusive economic zone (EEZ) or on the continental shelf of a coastal State. This provision establishes a framework for authorization when a coastal State is a member of or has a bilateral agreement with an international organization wishing to conduct marine scientific research in its EEZ or on its continental shelf.

The article stipulates that when an international organization seeks to undertake a marine scientific research project within a coastal State's jurisdiction, the coastal State's authorization is implied under certain conditions. Specifically, the coastal State is considered to have authorized the project to be carried out in accordance with the agreed specifications if the following criteria are met:

- The coastal State is a member of or has a bilateral agreement with the international organization.
- The coastal State approved the detailed project when the organization made the decision to undertake it.
- The coastal State is willing to participate in the research project.
- The coastal State does not express any objection within four months of being notified of the project by the international organization.

Integrated Maritime Policy (European marine and maritime research strategy, 2008; Marine Knowledge 2020 Strategy, 2010)

#### *State of Affairs*

Looking at the international legal framework regulating the Blue Humanities, it is striking to see the lack of representation of women, as well as the lack of consideration towards specific communities, which may benefit from the protection of heritage through (1) a view of heritage as a reaffirmation of their group identity, and (2) increased revenue as a result of tourism.

#### CASE STUDY: Campeche Island, Brazil

A small island which embraced ecotourism of its underwater heritage sites. Shows how sustainability can include (Chamas & Schmidt, 2011)

#### Women in Marine Sciences

Women underrepresented in scientific fields (Kuwaiti expert).

“There is “a consistent pattern of women being under-represented across institutions and nations characterized by a relatively balanced representation of men and women in early career stages and a growing gap in later stages, with women occupying only 13% to 24% of senior positions. The same pattern was found in publishing, funding, and leadership of research institutes. Survey results demonstrate that most marine scientists are aware of the general and persistent gender bias, and perceive that it may compromise our ability to effectively solve conservation problems. Measures that increase fairness in evaluations (e.g. for hiring) and that support work-life balance ranked high, whereas gender-oriented measures, such as gender-specific scholarships, received less support. Our findings suggest that mechanisms promoting a fairer share of family responsibilities and transparent processes in hiring and evaluation are the most promising path to a more balanced participation of women in scientific leadership and conservation decision-making. Such measures may benefit not only women but diversity more generally.” (Giakoumi et al., 2021)

#### CASE STUDY: Empowering Women for the United Nations Decade of Ocean Science for Sustainable Development

In order to achieve gender equality and the empowerment of women of all ages and socioeconomic backgrounds at all levels, Empowering Women for the Ocean Decade seeks to advance a different, inclusive model that will make it possible for more representative ocean science information to be produced. The research for the program will pinpoint findings that can be applied to increasing institutional capacity and public awareness. This includes doing a baseline assessment on the status of women's empowerment in specific intergovernmental and non-governmental organizations having an interest in maritime issues. Key obstacles and best practices will be identified via research findings, which can be used to drive the proposed Strategy and Action Plan. As part

of the Ocean Decade, this will help provide equal chances for women to fully participate and lead at all levels of ocean science. The program will strengthen current partnerships with partners to provide significant research outputs that support transformative initiatives (*The Contribution of the UN Decade of Ocean Science for Sustainable Development to the Achievement of the 2030 Agenda - UNESCO Digital Library, n.d.*).

#### Women in the Protection of Underwater Cultural Heritage

There is virtually no data about the representation of women in research on UCH.

The Blue Humanities, as explained above, are a relatively new practice. At the nexus of scientific marine research and the humanities, they represent an opportunity for an *early* inclusion of

#### Women in Ocean Science

In the realm of ocean science, gender equality fares better, with female scientists constituting an average of 38% of researchers in ocean science, surpassing the representation in science overall by about 10%. Nevertheless, gender equality should be integrated into development cooperation efforts targeting oceans, supporting initiatives for coastal protection and sustainable small-scale fishing that benefit local communities and narrow gender gaps. Additionally, there is a pressing need to enhance data collection and evidence gathering regarding the differential impact of ocean degradation on the health, well-being, and employment prospects of women and men, with a focus on the most vulnerable populations and recognizing intersecting challenges (OECD, 2021).

#### *Policy Recommendations*

##### **UNESCO, National Governments**

- To establish a “**Women in Marine Research Network**” and a “**Women in Ocean Humanities Network**” that brings together female researchers, scientists, policymakers, and stakeholders. This network will provide a platform for collaboration, knowledge sharing, mentorship, and support among women in the field.

- “To develop **educational, awareness, and outreach programs and training opportunities** specifically tailored for women in marine research to highlight the importance of marine science and the diverse career opportunities it offers.
- **Mentorship and Role Model Programs:** To engage experienced marine scientists, both national and international, with early-career women in marine research to serve as mentors and role models for aspiring marine scientists.
- **Collaboration with International Institutions:** To foster collaborations and partnerships with renowned international marine research institutions. This can involve exchange programs, joint research initiatives, and capacity-building opportunities for Kuwaiti students and researchers, providing exposure to cutting-edge research and international networks.” (to be rephrased, by Kuwaiti expert)

### **The Blue Economy**

#### ***Legal Context***

The blue economy is regulated through a robust legal framework tackling issues of trade, pollution, fisheries and conservation. Promotion of sustainability in the big picture.

- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**  
Protects “certain species of wild fauna and flora against over-exploitation through international trade.” CITES requires Parties to implement its objectives through the Party’s own domestic legislation.
- **Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)**  
“A regional FTA designed to promote economic integration and cooperation between the Parties, to open markets, increase world trade and create new economic opportunities. It recognizes values such as the importance of corporate social responsibility, environmental protection, sustainable development, labor rights, cultural diversity, the

elimination of bribery and corruption, and the promotion of small and medium-sized enterprises.<sup>2</sup> While the CPTPP is open to all States, (pending agreement by the Parties) it is meant to cover trans-Pacific regional trade. Its current Parties are Australia, Canada, Japan, Mexico, New Zealand, Singapore, and Vietnam. Brunei Darussalam, Chile, and Peru are signatories and will become Parties after they complete their respective ratification process. Other countries, including the United Kingdom, have signaled interest in joining.”

- **General Agreement on Tariffs and Trade (GATT)**

Addresses “international trade in goods and creates a framework for the regulation of international trade. It was designed to substantially reduce tariffs and other barriers to trade and to eliminate discriminatory treatment in international commerce”

- **Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (The Basel Convention)**

“Main international treaty on transboundary movements of hazardous and other wastes. The Convention aims to protect human health and the environment against the adverse effects resulting from the generation, management, transboundary movements and disposal of hazardous and other wastes.”

- **International Convention for the Control and Management of Ships’ Ballast Water and Sediments (BMW)**

“Aims to prevent, minimize and ultimately eliminate the spread of harmful aquatic organisms and pathogens from one region to another, by establishing standards and procedures for the management and control of ships’ ballast water and sediments.<sup>2</sup> It was negotiated under the authority of the International Maritime Organization (IMO) to carry out the goals of Article 196 of the United Nations Convention on the Law of the Sea regarding “accidental introduction of species, alien or new, to a particular part of the marine environment, which may cause significant and harmful changes thereto.” Ships’ ballast water and sediments have been identified as a major pathway of introduction of invasive aquatic species into new environments, with serious environmental consequences. The harm is increasing due to international maritime transport.”

- **Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention & Protocol)**

“Aims to protect the marine environment from pollution caused by human activities, particularly the dumping of waste, and other matters that can harm human health or living resources and marine life, damage amenities, or interfere with other legitimate uses of the sea.<sup>2</sup> Both the Convention and Protocol provide global standards that aim to promote the effective control of all sources of marine pollution, and to take all practicable steps to prevent pollution from reaching the sea.”

- **International Convention for the Prevention of Pollution from Ships (MARPOL)**

“Main international convention covering the prevention of pollution of the marine environment by ships”

- **United Nations Framework Convention on Climate Change (UNFCCC) & Paris Agreement**

“Paris Agreement entered into force in 2016 and spells out for all Parties mitigation, adaptation, and financial obligations after 2020. The Paris Agreement’s objectives include limiting the global average temperature increase to “well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels.”

- **Code of Conduct for Responsible Fisheries (FAO)**

- \* On a voluntary basis

- \* “For the effective conservation, management, and development of all fisheries<sup>24</sup>, including aquaculture. Specifically, the Code aims to establish principles for responsible fisheries and fishing activities, taking into account all their relevant biological, technological, economic, social, environmental, and commercial aspects. In addition, it aims to serve as a reference framework and guidance in the formulation and implementation of national policies and international agreements. The Code also promotes cooperation, food quality and security, the trade of fisheries products in accordance with relevant laws, and protects living aquatic resources”

- **Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UN Fish Stocks Agreement)**

“a general framework for cooperation between port, coastal and flag States to ensure conservation and effective management of straddling fish stocks and highly migratory fish stocks, including an ecosystem approach”

- **Convention of Biological Diversity (CBD)**

(i) the conservation of biological diversity, (ii) the sustainable use of its components, (iii) and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies

- **Nairobi conference for sustainable blue economy**

***State of Affairs***

While the blue economy, as mentioned previously, holds several definitions in and of itself, it is also subject to various subdivisions. One particularly prominent classification is Park and Kildow’s, which divides the blue economy into twelve subgroups:

1. Fisheries;
2. Marine mining;
3. Offshore oil and gas;
4. Shipping and port;
5. Marine leisure and tourism
6. Marine construction;
7. Marine equipment manufacturing;
8. Ship building and repair;
9. Marine business service;
10. Marine research and development and education;
11. Marine administration;

Others (ocean energy, marine bio industry, seawater desalination, others).  
With its diversity, the blue economy represents many opportunities for

a sustainable growth and human development, especially for women in coastal areas.

Gender parity should be integrated into the blue economy as it develops as one of its central tenets. Excluding it from the conversation surrounding the blue economy risks it following the present institutional discriminatory track, placing women once again, as afterthoughts.

Traditionally, in all coastal States, women participate in fisheries and aquaculture to some extent. The challenge therein lies in upgrading their skills, ‘convert their peripheral’ or to create systems to increase their ‘value addition’. Additionally, it is important to initiate women’s participation in the blue economy on an equal footing to men, as the challenge of inclusion is not only economic, but rather, lies in educational, societal and cultural factors.

In the year 2000, the Food and Agriculture Organization (FAO) undertook a comprehensive assessment of the global fisheries and fish farming sector, revealing that approximately 35 million individuals worldwide were directly involved in fishing activities. This number swelled to a staggering 120 million when considering the indirect dependencies linked to this industry. Within this expansive estimate, it was striking to note that an overwhelming 70% of the workforce was engaged in the traditional and small-scale fishing sector, reflecting the profound impact of this age-old practice on economies and livelihoods across the globe.

Yet, amid this vast sea of statistics, there remained a notable dearth of data concerning the pivotal role of women within the fisheries domain. It is widely acknowledged that women have made and continue to make substantial contributions to the sector, even though their involvement varies across different facets of fishing and aquaculture. Strikingly, a study conducted in 2002 by MacAllister Elliot & Partners in the European Union illuminated a prevailing sense of unwelcome and disinterest among women in seafaring activities.

However, women’s participation in inland fishing, aquaculture, seafood processing, and related preparatory tasks such as fishnet mending cannot be underestimated. They have also played a pivotal role in caring for families and bolstering fisher movements and organizations. In the realms of post-harvest processing and marketing, women emerge as prominent figures. For example, in West Africa, women are responsible for marketing a substantial 80% of the total seafood



output. Additionally, women's prominence in aquaculture is undeniable, with figures reaching as high as 80% in Vietnam. In India, they constitute 60% of the workforce in fish processing, signaling a significant shift in gender dynamics within the industry.

This transition is further evident in the increasing number of women venturing into traditional male-dominated domains, such as owning boats and engaging in solo fishing expeditions. In countries like Cambodia, Thailand, and Bangladesh, this phenomenon is steadily gaining momentum, with 60% of fish farmers in Bangladesh being women.

However, it is important to recognize that existing gender statistics scratch the surface and fail to show the full scope of women's contributions in fisheries and aquaculture. Unfortunately, available data often falls short in capturing the multifaceted nature of fisherwomen's activities, rendering their contributions largely unrecognized and unrewarded. Consequently, policy frameworks frequently overlook the critical gender perspective in the fisheries sector.

In numerous developing nations, women's roles are often relegated to low-value activities, perpetuating gender discrimination by restricting their access to credit, skills development, and training opportunities. For example, female fish farmers frequently grapple with higher post-harvest losses due to their limited knowledge of modern processing and storage techniques.

Modernization must also be approached with a critical lens. While it has brought advancements, it has also led to the displacement of women in the industry. Modernization often translates into the replacement of female fishmongers with male traders, and the shift from traditional sailing boats to motorized vessels has further disrupted the status quo. In the industrial processing sector, women often find themselves at a disadvantage, earning lower wages in gender-insensitive work conditions and facing job insecurity. This is exemplified in India, where women not only receive lower pay but are also frequently away from home for extended periods, preventing them from fulfilling their domestic roles.

Moreover, property rights for women are either poorly enforced or entirely absent in numerous Asian and African communities. This lack of inheritance rights serves as a deterrent to women's participation in larger economic roles, perpetuating their economic dependency.

Additionally, the adoption of new aquaculture practices, such as cage and pen culture, can have unintended consequences. These methods often require significant water resources, diverting water away from domestic activities.

Consequently, it falls upon women to search for alternative water sources, further expanding their responsibilities within the household. In summary, while the global fisheries and aquaculture industry has undergone significant transformations and witnessed increased participation by women, the multifaceted nature of their contributions remains obscured by inadequate data and gender-related challenges. It is therefore imperative for policymakers and stakeholders to recognize and address these issues to ensure equitable opportunities and recognition for women in this vital sector.

#### CASE STUDY: The Role of Women in the Blue Economy

A 2002 study by MacAlister Elliot and Partners Ltd MEP in 2002.

- promotion of social and econ cohesion and promotion of equal opportunities

- some recommendations made:

\* **Fishing:** Women do not usually wish to go on sea-faring activities, and they are not wanted either. it would be fair to ensure that they can participate if they wish, but no need to promote it.

\* **Aquaculture:** Women feel discriminated, but to a lesser extent than fishing. there are big barriers to access. training to increase access.

#### CASE STUDY: TRY Oyster Women's Association in The Gambia

The TRY Oyster Women's Association in the Gambia is the first women's association in sub-Saharan Africa to have exclusive rights over a fishery and represents ways to link blue economic growth with both women's inclusion and efforts towards environmental protection (Verma, 2018).

Indeed, founded in 2007, the Association went from holding small gatherings with about 40 women in the same community in the Tanbi, to being a large and organized group with over 500 members in 15 different communities in the Greater Banjul Area. These members are grouped into "cooperatives", where they can exchange sustainable harvesting or small business management techniques. The cooperatives have been prolific in improving women's inclusion in the economy.

Indeed, they have set higher labour security and hygiene standards, as well as more efficient processing, packaging, and advertising methods. Through these practices, the price of a kilogram of oyster has nearly doubled. More importantly, however, it is through this association that women are acquainted with the value of cooperation (Verma, 2018). When previously, they worked as individuals “in isolation and in poor and worsening economic social, and environmental conditions”, they are now able to work together as leaders in the eyes of the law and as decision-makers in their communities (Verma, 2018).

The association has also had a positive impact on the environment, as its women have planted 33.5 hectares worth of mangroves in an effort towards reforestation. Additionally, it has allowed for better education of children and community members about the benefits of “environmentally responsible resource management” (Verma, 2018).

TRY has been such a resounding success due to its “participatory” approach with all stakeholders, ranging from female harvesters to regional and national government. Another factor is its “adaptive” approach to management, which is flexible enough to evolve through local and scientific environmental research. Last, any research findings or implementation challenges are reviewed every year by all stakeholders (Verma, 2018).

#### CASE STUDY: MENA Blue Program

The Middle East and North Africa (MENA) region heavily relies on industries like fishing, maritime transport, renewable energy offshore, and tourism to provide employment and livelihoods for millions of people. For example, in Morocco, the ocean and coastal activities make up 59 percent of the country’s GDP, while in Tunisia, tourism and fishing together employ around 450,000 people. However, these essential ocean resources face severe threats due to issues like overfishing, pollution, rising sea levels, and warming oceans, leading to problems like coastal flooding and erosion.

The consequences of this ocean damage are expensive for society, with problems such as marine plastic pollution making tourist destinations less appealing and sea-level rise damaging coastal infrastructure. In Morocco, this environmental degradation costs about US\$260 million annually, which is equivalent to 0.27 percent of its GDP.

To tackle these challenges, the MENA Blue Program, led by the World

Bank, aims to support a shift toward a more sustainable ocean-based economy. This program helps countries identify the reasons behind the degradation of marine and coastal ecosystems and develop strategies to counter them. Additionally, the Program completes research aimed at better understanding environmental crises in the region, by, for instance, analyzing coastal erosion and its economic consequences, or working with the Moroccan government to track coastal and underwater plastic pollutions, and developing a national strategy to eradicate both. It also encourages investments that are resilient to climate change, methods to account for the value of natural resources, and comprehensive planning for marine and coastal areas. By promoting sustainable ocean industries, the MENA Blue Program seeks to create jobs while preserving the health of the oceans and contribute to building a resilient, inclusive, sustainable, efficient (RISE), and ocean-friendly economy (Acerbi, n.d.).

#### ***Policy Recommendations***

General Goals:

- Collecting more data on women’s contributions across the entire fishing value chain. Clarity on women’s labour participation and value generation allows for robust descriptions of the inequalities in the sector. For example, aquaculture—often considered an effective pro-poor programme—lacks gender-disaggregated data. Therefore, evidence cannot answer whether women share equally in the benefits of the burgeoning industry. (*Sustainable Fishing and Women’s Labour in the Blue Economy*, 2023)
- Formalising the blue commodity markets and labour roles. Women with existing industry-specific knowledge can be brought into well-paying jobs. Without formalisation, there are only marginal productivity improvements in processing, selling and handling equipment where women work informally. (*Sustainable Fishing and Women’s Labour in the Blue Economy*, 2023)
- Investing in tools and education for women in fisheries to move into entrepreneurial and governance roles can ensure women participate in the management of fisheries and aquaculture farms. Women can create new commodities for export if given the proper training and social support.” (*Sustainable Fishing and Women’s Labour in the Blue Economy*, 2023)

## Specific methods

- Microgrants:
  - PROBLEM ADDRESSED: women often lack resources to start getting involved in the sector. They do not run their own businesses and are overshadowed by men.
  - HOW WOULD IT SOLVE IT? Microgrants would play incentive for women to be further involved in the sector, to start their business. Microgrants may be administered at a local, national, or international scale. local may be preferable – intl organizations take time to build trust in small communities.
  - CASE STUDY:  
<https://www.undp.org/sites/g/files/zskgke326/files/migration/ye/Fisheries-ProDoc.pdf>  
\* UNDP in Yemen, microgrants to help businesses affected by conflict  
\* 10% of the families headed by women
- Accessible Educational Programs:
  - PROBLEM ADDRESSED: Women do not always know the ins and outs of the business, especially with the increasing mechanization of the sector. They often fall behind men, choosing to rather retreat into their assigned roles.
  - HOW WOULD IT SOLVE IT? Courses will provide women with the expertise to not only be able to conduct their own seafaring activities if they wish, but also to keep up with technological advances in processing and manufacturing. Courses would have to allow women to complete their traditional societal roles (i.e, would have to be during the day, where they may not have children to care for, or would allow for children to go there too, offer free childcare). Accessible courses would also act as an equalizing factor for women who are already involved in the blue economy.
- CASE STUDY:
- Investment, especially in aquaculture:

- PROBLEM ADDRESSED: women often lack monetary resources to get started. They also often lack the financial stability – women in developing coastal states may not be willing to risk a large sum of money to integrate the economy.
- HOW WOULD IT SOLVE IT? Women represent an untapped growth potential for the blue economy. A more widespread entry of women into the workforce in blue economy sectors could make it much more productive and generate a new stream of revenue for investors. investing in woman-led or inclusive blue economy initiative would facilitate their entry. Furthermore, as proven by the Macalister Elliot and partners study, women do wish to enter aquaculture but often face barriers and discrimination. Financially empowering woman-led or inclusive initiatives would be a way to fight that.  
<https://www.globalseafood.org/advocate/morgan-stanley-sustainable-aquaculture-expansion-a-major-investment-opportunity/>  
<https://www.oecd-ilibrary.org/sites/78785e4d-en/index.html?itemId=/content/component/78785e4d-en>
- “Collect evidence on the impact of oceans degradation on women’s health, well-being and employment opportunities, with a focus on the most vulnerable and an intersectionality lens.
- Design policy solutions to better conserve the oceans with a gender-lens, addressing the specific differentiated concerns of degrading oceans, including the impact of coastal storms, the depletion of fish stocks and the increase in marine litter.  
Empower women to contribute to preserve marine ecosystems and sustainably use of marine resources.
- Design and implement legislation that enables and supports associations, organisations and networks of women within the fisheries and aquaculture sector.
- Ensure women’s full integration in the blue economy through policy that recognises women’s work in harvest and post-harvest and provides access to credit and markets, comprehensive social security and occupational health and safety measures based on women’s needs.
- Mainstream gender in development co-operation targeting the

sustainable management of oceans, supporting women's initiatives to protect coastal areas (in particular mangrove swamps and coral reefs) and developing small-scale, sustainable fishing that benefit local communities. There is potential in replicating the benefits from small-scale projects to a more global scale.”

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**The Human Right to a Clean, Healthy, and Sustainable Environment  
in the USA: Application and Controversies**  
Joelle Abi Raad

**Introduction**

Ever since the dawn of the human race, human populations have been drastically impacting the environment they inhabit through their activity. From the discovery of farming up to the day of generating artificial intelligence, humans have been increasingly exploiting and degrading the natural resources and services of their world leading to unprecedented damages and catastrophes. This overexploitation has resulted throughout the years in the emergence of critical issues, such as water, air, and soil pollution, climate change, biodiversity degradation, extreme weather, and many more. The problem, however, does not resign only in that humans are negatively altering the environmental patterns of their world, but that these very environmental problems are backclashing with the human race. The disequilibrium created by humans and their activity in nature has an unconcealable power to alter the very foundation of their health, survival, and even existence. A life of dignity, security, prosperity, and sustainable development cannot be insured unless populations get access to and dwell in a healthy environment. For example, according to a 2021 report by the World Health Organization (WHO), around seven million people die every year due to air pollution<sup>24</sup>. Even more alarming numbers are displayed by the Internal Displacement Monitoring Centre report indicating that in 2020 alone, approximately 30 million people suffered from displacement because of climate-changed-caused disasters<sup>1</sup>. Knowing this important relationship between the sacredness of human life and a healthy sustainable environment, the UN's general assembly voted on July 28 of 2022 on a resolution recognizing the human right to a clean, healthy, and sustainable environment (HRCHSE)<sup>9</sup>. This is regarded internationally as an immense step towards generating a better environmental support system for all people to thrive, live in food security and develop sustainably, especially that 193 member states witnessed the session, and more than 150 countries integrated this right in their national law.

The sights however, were all concentrated on the USA, whose

internal decision making, government, congress and even people have incompatible opinions towards pro-environmental policies. The steps that are taken by the USA government towards this right does not only determine the livelihood of its large population from whom a considerable fraction is already suffering from environmental damages<sup>3</sup>, but also the fate of the whole world. Considering its immense global impact on the level of politics, economy and military, any step taken by the USA towards a more sustainable environment will drastically impact international relations and influence other states and regions to peruse parallel decisions, and vice versa. The USA has a complicated history when it comes to implementing pro and anti-environmental laws. The decision making constantly varied from one president to another and from one congress to another. The division of opinion mostly occurs between the Republicans that do not priorities environmental protection policies at the expense of economic growth especial mining and fossil fuel extraction and between the democrats who usually hold a firm ground of approval for pro-environmental laws and a strict opposition for unsustainable economic and financial growth. Thus, a fraction of the American population and leaders believe that environmental protection might hinder businesses and industries that support the livelihood of thousands of American families like the coal, oil and mining companies, while another section argues that enforcing pro-environmental regulations will ensure a safe and healthy livelihood for the people allowing them to survive and thrive in a sustainable system.

After discussing the definition and the legal foundation of this right, we will explore briefly the historical progress regarding the topic of environmental protection in the USA and discover the international agreements and treaties that were and were not signed by the USA. Secondly, we will display the two different stands regarding the necessity of environmental protection and the reasons behind resisting and violating this human right. Finally, we will enumerate some international and national responses towards this breaching. By that, we would be able to find a possible answer for the problematic treated in this paper: Could the HRCHSE be threatened in the USA?

## **Definition of the Human Right to a Clean, healthy, and Sustainable environment and its legal foundations**

By definition, the HRCHSE is the right that protects the environment, its resources and services to enable humans to thrive in dignity and security, where living conditions are adequate with the needs of life. This right collectively unites all the aspects of human life: civil, cultural, economic, political and more, under the umbrella of environmental protection to ensure sustainable and respectable living conditions for all humans, such as clean air, water, soil, large biodiversity, a habitable ecosystem, and a healthy surrounding<sup>14</sup>.

It is important to note that this right is not legally binding for nations who voted upon its declaration, meaning nations are not bound under law to fulfill any obligations. However, nations are expected to take this right as a guide to fulfill the needed actions to a healthier and more sustainable environment that supports human life<sup>20</sup>. Some examples of these duties include strengthening national legal frameworks, where constitutional environmental laws and rights are enforced and protected under juridical power. Other measures would include encouraging civil society members and the cooperate sector to contribute in implementing this right by launching their own campaigns, projects, initiatives and many more<sup>10</sup>. In other terms, the commitment of sates is the only catalyst for the fulfillment of this right; it goes back to faithfulness and sense of responsibility that leaders and citizens have for the right to be protected<sup>19</sup>.

This human right consists of eight important pillars and they are the following: right to clean air, clear and sufficient water, healthy and sustainably produced food, same climate, preserved biodiversity, toxic free environment, access to information, participation in decision making, and access to justice in courts. This right is universal and includes a guarantee of nondiscrimination, meaning that all people around the world must have access to it<sup>25</sup>.

### **Historical context of the topic**

#### **A. The historical context before Biden's administration:**

To understand where the USA stands in terms of respecting the HRCHSE at the moment, we need to reflect upon the history of environmental protection and harm in the USA through the years. The first enacted environmental law in the USA was the Rivers and

harbors Act in 1899 and was later on replaced by the Clean Water Act that majorly protects water sources in the USA. The main environmental actions however, started in the 1970s and 1980s with president Richard Nixon signing the National Environmental Policy Act<sup>14</sup>, creating the Environmental Protection Agency<sup>15</sup> and concentrated remarkable federal efforts to protect the environmental. The administration of president Ford (1974-1977) on the other hand, had totally opposing concerns; he prioritized economic stability and growth over environmental protection and solving environmental degradation. After that, president Carter's administration (1977-1981) was known for its immense pursuit of sustainable and renewable energy and limiting oil dependency for energy. His main call was to reduce greenhouse gas emissions and warned against a catastrophic climate change. The presidency of Ronald Reagan (1981-1989) was marked by skepticism towards environmental policies leading to drafting of environmental laws that would rather benefit industries, economic development and the surgency of the free market in the USA rather than protecting the environment. Despite showing great willingness for environmental protection in his amendment and improvement of the Clean Air Act, president George H. W. Bush (1989-1993) refused to sign *Convention on Biological Diversity*<sup>16</sup> and to support the limiting of the global carbon dioxide emissions in the Earth Summit of Rio de Janeiro in 1992. Opposingly, president Clinton (1993-2001) demonstrated great international effort in environmental protection by signing the **Kyoto protocol**<sup>17</sup>, and by accomplishing national victories towards a more sustainable and cleaner environment and against the anti-environmental proceedings of Republicans. The presidency

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<sup>14</sup> The first major environmental law in the United States and is often called the "Magna Carta" of Federal environmental laws

<sup>15</sup> US agency that protects people and the environment from significant health risks, sponsors and conducts research, and develops and enforces environmental regulations

<sup>16</sup> He international legal instrument for "the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources"

<sup>17</sup> United Nations Framework Convention on Climate Change by committing industrialized countries and economies in transition to limit and reduce greenhouse gases (GHG) emissions in accordance with agreed individual targets.

of George W. Bush (2001-2009) witnessed great international opposition and criticism despite the initiatives done on a national level. The reason goes back to the withdrawal of the USA from the **Kyoto protocol** claiming that it hinders economic development in the country. However, in 2008, president Bush took an unexpected step towards international climate negotiation suggesting to join the efforts in creating a **Post-2012 Global Climate Plan** that proceeds the expired Kyoto protocol. Later on, president Obama (2009-2017) supported the first ever international agreement on reducing greenhouse gas emissions to maintain the global temperature of the earth from rising above +1.5 degrees C, the **Paris Agreement**. However, the congress had incompatible views upon the agreement especially that it is legally binding to the state that ratifies it<sup>2</sup>. The USA finally joined the agreement in 2015. During the Trump's administration, drastic changes occurred troubles environmentalist through the world. In November 2020, the USA officially quit the Paris Agreement to become the first country ever to **withdraw** from the agreement<sup>15</sup>. This paralleled the anti-environmentalist ideologies of the republicans in congress and opposed the proenvironmentalist approaches of democrats. Additionally, the president cancelled the Clean Power Plan established by President Obama for cleaner energy sources and a healthier air and environment for the people.

### **B. The current context within the Biden's administration**

Opposingly, the Biden's administration showed great support for environmental protection. On his first office day, the president announced the USA will **rejoin** the Paris agreement. Not only that, but the White House Environmental Justice Advisory Council was established prioritizing the fight for legal protection of the environment. Cutting greenhouse gas emissions and access to a clean energy suitable for the health and security of the communities was a well performed step alongside expanding the people's reach to clean water. Enforcing environmental law, preventing and mitigating against climate disasters and toxic site all support the human right to a cleaner environment and sustained livelihoods<sup>16</sup>.

### **Case studies of violations of the HRCHSE by the USA**

Despite having the highest scores in the Human Development Index with a value of 0.921, the USA is considered to be a violator of the HRCHSE under many levels. The issue of human health deterioration

due to environmental violations has been a great problem mostly unspoken of in the USA. We will present two major violations of this human right and discuss in a later stage the reasons behind the support of some people to this beaching. The two cases studies displayed below showcase cases of intoxicated environments and spaces where human health was at risk.

The unconventional oil and gas development (UOGD):

One of the most notorious violations of the HRCHSE are the UOGDs – which have immense industrial and economic benefit - created near citizen settlements. According to a study conducted in 2022 by the Chan School of Public Health in Harvard, there is a clear causation, and not only correlation, between early death amongst American citizens and living next to UOGDs<sup>11</sup>. This is due to the large volume of toxicants released into the air and the water systems when performing the drilling and the extraction. The exposure of the citizens to polluted water and air and contaminated soil is a direct threat to people's livelihood and safety. Now, more than 17.6 million USA residents live within one kilometer of a UOGD raising the alarm for the HRCHSE<sup>11</sup>. On the other hand, air pollution in cities have their fair share of threats and danger on the health of American citizens. Be it form the direct transportation emissions or industrial and manufacturing pollutants, recent studies have shown that

### **The unsustainable waste disposal**

The USA produces around 12% of the waste in the world while it only harbors 8% of the population in the world. Yet the problem goes to the unhealthy and unsustainable disposal of these waste that directly or indirectly affects the quality of life of Americans. Nearly 62% of the produced waste in first burned in incinerators or dumped into landfills. This strategy leads to immense soil, air and water pollution and toxification that has undeniable effects on human health. Waste incinerators emit cancer-causing chemicals, and leachate exiting landfills infect water streams and infiltrates to the drinking water supplies. Plastic discarding in the ocean leads to the micro-fragmentation of plastic into small undegradable plastic flakes that would eventually be swallowed by marine wildlife and passed unto the population via sea-food intake<sup>18</sup>. Yet the alarming numbers are presented by the Public Interest Research Group in the USA, indicating that one out of every



six American citizens live three miles near a toxic waste field<sup>13</sup>. A recent study done on the environmental and socio-economic impact of landfills in New York suggested that there is a 12 % increase I chance of inborn malformations in children born to families living near landfills compared to other who do not<sup>22</sup>.

### **The reasons behind these violations**

The fraction of the people in the USA that support such violations, are mostly people who benefit from, or have vital connections to the breaching being committed, meaning that the human activity they are partaking -that is producing environmental and social harm - is critical for their economic and financial growth. For case study one, the partisans of oil extraction in the USA are mostly represented by the Republican party that has had a clear stand to its support for economic growth and financial profit<sup>21</sup>. This ideology goes in parallel with the pro-oil and gas extraction defenders, who believe that this industry has a necessary role in preserving the economic wellbeing of the USA. Their arguments emanate from the large number of families these industries support economically, where according to the 2021 statistics by the American Petroleum Institute, oil and natural gas industries support 10.3 million workers, providing them with a dignified, prosperous and comfortable lives. That is without mentioning the large contribution of this sector to the nation's GDP with an 8% contribution as a whole<sup>5</sup>. Adding to that, being part of the international market of oil and natural gas allows the USA to hold geopolitical power in international relations<sup>7</sup>. As for the unsuitable waste disposal, it could be unexpected that some Americans benefit from landfills. This goes back to the affordable payment charged upon a user for landfilled disposal compared to the costly services provided by a recycling company. When it comes to using landfills or discarding waste in rivers and oceans, the services required to perform the disposal is simply transporting the trash into the designated zone. This only requires a transportation company, unlike the complicated and costly industries that require a multiplex of recycling steps to finally obtain the desired product<sup>6</sup>. As an example, in 2002, Mayor Michael Bloomberg deviated from recycling policies and adopted the landfill alternative, and the savings made by this decision was around \$57 million. Needless to say, that

many transportation companies and renters of landfills benefit, economically and financially from the unsustainable waste disposal, that fuels their business.

### **The national and international response towards these violations**

When it comes to the unsustainable waste disposal, the citizens of the USA had a strong appeal towards the establishment of landfills and incinerators in close proximity to their habitat. The opposition first began in 1986, where in the State of Michigan in the city of Detroit, the local incinerator was inaugurated and with it started the toxic and cancerous emissions from the smokestack. Similar incidences occurred on the American territory, such as the protest against the California incinerator in 1989<sup>12</sup>. The deteriorating effect of these incinerators public health, has led multiple NGOs, such as Breath Free Detroit and Southern California's East Yard Communities for Environmental Justice, alongside the protesting citizens to pressure decision makers and politicians to refuse the upgrade of the contract made with the investors of the incinerators. The contracts made were valid for a span of thirty years over which the decision makers can extend or end. In 2019, the Detroit incinerator was shut down and the contract was not regenerated due to the high levels of pollutants exceeding the accepted health standard, whereas those in California are still a debate. The opposition to landfill establishment has also taken the same route by bringing protesters of the local citizens and NGOs to appeal to the decision taken by the policy makers. What aggravated the level of the responses was the inadequate disposal of waste among regions with different classes and ethnical group. This also led to the rise of a new concept of environmental discrimination, where certain color groups and economically and financially misfortunate citizens in the USA suffered from toxic wastelands more than white and financially stable residents<sup>4</sup>. The gravity of the responses increased with the issue of oil and gas extractions especially due to the unbearable issue of climate change and global warming. The extraction of oil does not only affect directly the health and livelihood of citizens, but it also does so indirectly. Production of fuel and exhaustible energy directly correlates with higher release of greenhouse gases, higher earth temperatures, more ice caps melting and eventually higher risks of more American cities of being submerged under water in the near

future. That is without mentioning the other numerous issues that climate change poses on the life of Americans and the rest of the world as a result of the political decision making. When it comes to the international arena, it is somehow questionable whether the USA receives any official or formal rebuking for its violation of the HRCHSE. This mainly is due to the geopolitical and international power of the USA as a leading nation in all international relations and its undeniable role as influencer on decision making in multiple UN bodies. Even though the UN has multiple bodies that are responsible of monitoring the implementation of human rights, such as the Charter Bodies, or the Human Rights Council, Treaty Bodies, or the Office of the United Nations High Commissioner For Human Rights, the impact of these bodies on the decision making and commitment of nations is intangible<sup>8</sup>. In other words, the steps taken by the UN to protect the implementation of human rights is not binding or forceful in any way. The protection provided by these entities range from suggesting recommendations for improvement, promoting cooperation between nations, asking for periodic reports on the state of a certain human right. All of the later actions are considered to be unimpactful in terms of safeguarding the implementation of a human right. Adding to this the immense political privileges of the USA, it in terms of the Veto right in the Security Council, the UN is found to be lacking he needed power to address the very violations committed by its Member states.

### **Conclusion**

The aim of this paper is to examine whether the HRCHSE is being violated in the USA and whether this issue should be of ultimate concern to the public and the international community. Throughout the multiple subtopics covered, it could be inferred that the USA has breached the health and safety of its citizens on the level of the environment for the service of its economic and financial success. Be it from the short- or long-term damages caused by oil extractions, or the unhealthy disposal of waste, up to the recent problematic drought in California that is coupled with the use of water reserves for viscous oil extraction<sup>23</sup> the USA has witnessed a wide range of environmental destructions that directly affected the wellbeing, the needs and the safety of the people. However, it would be foolish

to disregard the previous and current actions of the USA that are providing a constant response to those environmental health issues. The call of American citizens for a safer and healthier environment and their pressure on the government were answered eventually. This right to criticize officials and decision makers, to rise in opposition to projects, laws, and initiatives that might affect their livelihood and wellbeing is well exercised in the USA. This freedom and liberty of expression enables them to hold violators accountable through legal procedures. Therefore, the later indicates that even though the USA is not innocent of environmental violations, the government and the civil society members are constantly working to improve their livelihood and exercise the right. The continuous progress and work towards a cleaner and safer environment can be seen by tracking Biden-Harris Climate & Environmental Agenda that aims at improving environmental protection and responding to the damage caused by previous administrations. This agenda is by far the most ambitious and promising of all other initiatives take by any other USA president. The scope of the agenda incorporates three main aims: first, to repair the deregulatory damage created during the Trump's administration, secondly, to tackle new goals; thirdly to restructure environmental agencies<sup>17</sup> This agenda is a clear proof of the ongoing work and active operations of the USA to thrive for healthier communities and spaces for their citizens. Thus, the answer to our problematic is not a direct and simple one, that is because despite the violations that the USA government is accused of, multiple governmental agencies and legislative bodies are tirelessly fighting towards health and sustainability justice and raising the bar of protection and service gradually, aiming at improving the living conditions of the citizens.

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