GOVERNING INVESTMENTS ON MARS: WHY A "HOST STATE" IS NEEDED?

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Abstract

Progress in space technology has made colonization of Mars a realistic goal. Given the extreme environment of Mars, one prerequisite is the construction of habitat units that provide life support, enabling potential commercial investments to take root. The governance of habitat units involves managing investment projects therein, which may originate from other countries and fall under the jurisdiction of those states. Existing space law fails to resolve such jurisdictional conflicts and possible disputes between the states operating the habitat units and investors. Moreover, the absence of sovereignty hinders the application of investment treaties on Mars. Recognizing that establishing sovereignty and concluding treaties regarding investment governance and protection on Mars are remote, this Article proposes a pragmatic transitional solution: designating the states operating the habitat units as host states with habitat jurisdiction over the investments therein. This jurisdiction would supersede that of the investors' home states. The exertion of effective control by these host states over the units allows extraterritorial application of their investment treaties on Mars. The solution is also applicable to habitat units operated by private entities. This proposal could lay the groundwork for investment governance and protection on Mars and pave the way for future developments in the law.

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INTRODUCTION

Since time immemorial, human beings have aspired to immigrate to the moon or other celestial bodies. Now, thanks to the advancements in space technologies created by both public and private entities, this dream has never been so close to becoming a reality.[1] One prominent and recent example concerns Space X, an American space technology firm founded by Elon Musk. Since its establishment in 2002, the company has achieved a series of technological breakthroughs that significantly lower the cost of space transportation. Notably, its Falcon 9 rocket is the world's first fully and rapidly reusable launching vehicle.[2] In the meantime, these accomplishments have sparked considerable enthusiasm for the topic of Mars' colonization. Indeed, Space X has launched a "Mars Program" with the aim of sending people to Mars, establishing Martian settlements, and thereby "allowing humanity to become not just multi-planetary but

1. Tom James, *Deep Space Commodities and the New Space Economy*, *in* DEEP SPACE COMMODITIES: EXPLORATION, PRODUCTION AND TRADING (Tom James ed., 2018), 1, 1–7.

2. *Falcon 9*, SPACEX, https://www.spacex.com/vehicles/falcon-9/ [https://perma.cc/H5B2-4LQM]; Justyna Matuszak, *How Was the SpaceX Falcon 9 Reusable Rocket Built?*, KNOWHOW (Jan. 11, 2022), https://knowhow.distrelec.com/defence-aerospace-and-marine/how-was-the-spacex-falcon-9-reusable-rocket-built [https://perma.cc/QB84-N8A6].

also interstellar."[3] The successful launch of Starship in March of 2024 marks another substantial leap towards achieving these goals.[4] More recently, the venture received fresh endorsement from the newly elected President of the United States, Donald Trump, who vowed to send astronauts to Mars during his second inaugural address. "We will pursue our Manifest Destiny into the stars," he declared.[5]

Not surprisingly, lawyers have also joined the debate on the legal issues surrounding these spacefaring achievements. Topics of focus include the possibility of establishing property rights over the surface of Mars, the governance of human inhabitants on the planet,[6] and the human rights issues concerning the mission pilots considering the extreme environments on both Mars and spacecraft.[7] The literature on these subjects largely focuses on two distinct stages: either the initial phase where a few missioners are sent to Mars or the stage of mass immigration to the planet.

In contrast, this Article will focus on the transitional phase that lies between the aforementioned stages, which can be termed the "urbanization stage." The logic is straightforward: considering the harsh environment of the Red Planet, the prospect of large-scale immigration will only be faint until a minimum number of habitat units with adequate life-support capabilities are established. Undoubtedly, substantial and long-term investments would be required during this urbanization stage.

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3. Anthony Cuthbertson, *Elon Musk says Mars colony sets humanity up 'to become interstellar'*, THE INDEP. (Nov. 26, 2021), https://www.independent.co.uk/space/elon-musk-mars-colony-spacex-interstellar-b1964122.html [https://perma.cc/CLR4-YU2W]. *See also Human Spaceflight*, SPACEX, https://www.spacex.com/human-spaceflight/ [https://perma.cc/5WZX-TGSS].

4. HT TECH, *Elon Musk's ambitious vision aims to make Mars colonization a reality within 5 years*, Hindustan Times (Mar. 17, 2024), https://tech.hindustantimes.com/tech/news/elon-musks-ambitious-vision-aims-to-make-mars-colonization-a-reality-within-5-years-71710685323703.html [https://perma.cc/9S3C-WSFX].

5. Jonathan Lambert, *It's America's 'Manifest Destiny' to Plant a Flag on Mars, Trump Says*, NAT'L PUB. RADIO (Jan. 20, 2025), https://www.npr.org/2025/01/20/g-s1-43861/mars-nasa-manifest-destiny-trump-inauguration [https://perma.cc/DAU3-A3N5].

6. *See* Sara Bruhns & Jacob Haqq-Misra, *A pragmatic approach to sovereignty on Mars*, 38 SPACE POL'Y 57, 57–63 (2016); David Collins, *Efficient Allocation of Real Property Rights on the Planet Mars*, 14 J. SCI. & TECH. L. 201, 201–20 (2008); Henry R. Hertzfeld & Frans G. von der Dunk, *Bringing Space Law into the Commercial World: Property Rights without Sovereignty*, 6 CHI. J. OF INT'L L. 81, 81–99 (2005); Konrad Szocik et al., *Political and legal challenges in a Mars colony*, 38 SPACE POL'Y 27, 28–29 (2016); Claudiu Mihai Tăiatu, *Legal Implications for Gender Mixed Human Settlements on Mars—Preliminary Thoughts on Human Reproduction and Childbirth in Space*, *in* ASSESSING A MARS AGREEMENT INCLUDING HUMAN SETTLEMENTS 99 (Annette Froehlich ed., 2021).

7. *See* Juan García Bonilla, *How Five Fundamental Human Rights Could Be Violated in Privately-Funded Space Settlements and the Role of the Mars Agreement in Their Protection*, *in* ASSESSING A MARS AGREEMENT INCLUDING HUMAN SETTLEMENTS 37 (Annette Froehlich ed., 2021).

Somewhat surprisingly, the literature has paid limited attention to the investment law dimension of Mars' colonization. It might be assumed that Mars does not fall within the realm of the existing international investment law regime since investment disputes on Earth typically arise between international investors and the host state, and there would be no host state on Mars due to the non-appropriation principle. However, as will be elucidated later, the identification of a host state does not necessarily rely on the concept of sovereignty. Indeed, the potential disputes over territorial sovereignty underscore the crucial role of the investment regime in maintaining a stable business environment for foreign investors.

This Article examines the jurisdictional issues related to the governance of investments and settlement of possible investment disputes on Mars. In particular, it explores the need for designating a host state vis-à-vis Martian investments. The arguments may also be applicable to other celestial bodies like the Moon. This Article is structured as follows. The next Part provides an overview of Martian colonization, highlighting the emergence of investment ecosystems during Mars' urbanization and the associated risk of investment disputes. Part II assesses the efficiency of existing space law in governing investments on Mars and addressing related disputes. Part III delves into the desirability and feasibility of designating a host state for specific investments on Mars. Part IV applies the previous arguments to the context of private Martian settlements, demonstrating how the need for a host state also pertains to that latter context. The last Part concludes.

I. INVESTING IN MARS' "URBANIZATION"

A. *Urbanizing Before Colonizing*

To be sure, human aspiration for space exploration has not been confined to Mars. Legends and fictions from the early age showed a greater interest in the Moon as a destination for space travel and settlement.[8] Nonetheless, the Red Planet is considered to offer a more hospitable environment for human survival compared to the Moon and other neighboring planets such as the hot Venus and the gas giants, Jupiter and Saturn. Moreover, scientific research has supported the belief that Mars possesses liquid water, a crucial ingredient for life.[9]

Notwithstanding, the prospect of Mars as a livable place that can be turned into a self-sustained colony is still remote. Hazards of living on the surface of Mars include, among others, radiation exposure, toxic soil,

8. James, *supra* note 1, at 1.

9. Nadia Drake, *Why We Explore Mars—and What Decades of Missions Have Revealed*, NAT'L GEOGRAPHIC (July 29, 2020), https://www.nationalgeographic.com/science/article/mars-exploration-article [https://perma.cc/53WD-C4D8].

low gravity, and cold temperatures.[10] Therefore, Martian colonization necessitates the construction of habitat units that can withstand the hostile environment of the planet and provide life support systems for immigrants from Earth.[11] Other infrastructural facilities such as transportation networks and energy systems will also be needed. In other words, urbanization on Mars would become a prerequisite for, rather than a consequence of, any substantial immigration to the planet. Undoubtedly, the process would require extensive investments towards the planet, and arguably those projects would be financed primarily from Earth in the foreseeable future until the Martian colonies attain economic self-sufficiency.[12]

B. *Investment in Martian Urbanization: Public or Private*

In the past, space exploration was dominated by national governments with strong budgets, as exemplified in the space race between the United States and the former Soviet Union during the Cold War.[13] However, the landscape has gradually been reshaped as a growing number of private enterprises joined the venture as in the case of Space X. In this context, the United States' Spurring Private Aerospace Competitiveness and Entrepreneurship (SPACE) Act of 2015 marked a turning point in the history of spacefaring.[14] As the name indicates, the Act for the first time explicitly grants permission to private enterprises in the United States to engage in commercial exploration and exploitation of space resources.[15] Several other countries such as Luxembourg,[16] the United Arab Emirates, Japan, China, and Australia are either following suit or considering doing so.[17] Arguably, these policy moves mark a shift to allowing space activities to tap into a greater pool of financial resources.

That being said, the fundamental role of public authorities in Martian investments—particularly with respect to infrastructural facilities such as

10. Kasra Amini et al., *Design of a Set of Habitat Units and the Corresponding Surrounding Cluster for Long-Term Scientific Missions in the Pre-Terraforming Era on Mars*, 385 ICARUS 115, 115–17 (2022).

11. *See id.*

12. Robert Zubrin, *The Economic Viability of Mars Colonization*, *in* DEEP SPACE COMMODITIES: EXPLORATION, PRODUCTION AND TRADING (Tom James ed., 2018), 159, 159–62.

13. James, *supra* note 1, at 4.

14. Spurring Private Aerospace Competitiveness and Entrepreneurship Act of 2015, Pub. L. No. 114-90, 129 Stat. 704 (codified as amended in scattered sections of 51 U.S.C.).

15. *Id. See also* James, *supra* note 1, at 2.

16. Loi A674 du 20 juillet 2017 sur l'exploration et l'utilisation des ressources de l'espace [Law A674 of July 20, 2017 on the Exploration and Use of Space Resources], JOURNAL OFFICIEL DU GRAND-DUCHE DE LUXEMBOURG [J.O.] [OFFICIAL GAZETTE OF LUXEMBOURG], Jul. 28, 2017, p. 7093.

17. Abigail D Pershing, *Interpreting the Outer Space Treaty's Non-Appropriation Principle: Customary International Law from 1967 to Today*, 44 YALE J. INT'L L. 149, 160–61 (2019).

habitat units, power systems, and transportation networks—will not fade away, at least in the foreseeable future. Robert Zubrin, the founder and president of the Mars Society, even claims that the early stages of Martian colonization "can and probably must be carried out on the basis of outright government funding."[18] While perhaps overstating the point, there is truth to Zubrin's statement: economists have long proved that the private sector generally has insufficient incentive to invest in public goods.[19] It may also be more ethically appropriate for public authorities, as compared to their private counterparts, to provide public services to the community. It can be reasonably expected that, at least in the near future, infrastructural facilities including habitat units will mostly be built or sponsored by national governments.

This is certainly not to rule out the possibility of private Martian settlements—indeed, both Elon Musk and Space X have revealed their ambition to build a colony on Mars.[20] Nevertheless, this Article will mainly focus on the scenario of habitat units being built by public authorities. As will be argued in Part IV, the analysis of the state-investor relationship in habitat units built by national governments can provide valuable insights into the dynamics between states and investors in private Martian settlements.[21]

C. *Investment Ecosystems on Mars and Possible Investment Disputes*

With the prospect of Martian urbanization in mind, it would be natural to envision Martian investment ecosystems in which individual investments parasitize infrastructural platforms on Mars, particularly habitat units. A further logical inference from this is that the nationality state of a parasite investor (the "home state") and the state which sponsors the construction of the related habitat unit (the "construction state") may not necessarily be the same. Specifically, considering the vast imbalance of states' spacefaring capabilities,[22] Martian urbanization may be led by only a few powerful states that are capable of building habitat units and other infrastructures to host investments from both themselves and those less capable states. Indeed, as per articles one and two of the Outer Space

18. Zubrin, *supra* note 12.

19. N. GREGORY MANKIW & MARK P. TAYLOR, ECONOMICS 193 (5th ed. 2020).

20. Anthony Cuthbertson, *Elon Musk's SpaceX will 'make its own laws on Mars'*, THE INDEP. (Oct. 28, 2020), https://www.independent.co.uk/space/elon-musk-spacex-mars-laws-starlink-b1396023.html [https://perma.cc/W549-YK4U].

21. See discussion *infra* Section 4.

22. *See Countries with Space Programs 2024*, WORLD POPULATION REV., https://worldpopulationreview.com/country-rankings/countries-with-space-programs [https://perma.cc/A9C5-ZAGZ] (assessing different countries' capabilities of completing space launches).

Treaty,[23] it would be against international law for a construction state party to restrict access to their habitat units based on nationality alone, such as only granting the entrance to their own citizens.[24] Such compulsory property sharing is considered economically efficient as parasite projects can benefit from existing infrastructure and can avoid redundant expenditure, instead investing in more productive development of the region.[25] Those construction states may also have a commercial incentive to attract investments from other countries ("foreign investments") to recoup the enormous costs involved in Martian urbanization.

In a business ecosystem, the orchestrating firm acts as the governor of the ecosystem. For instance, Amazon routinely imposes regulatory rules upon buyers and sellers operating on its online marketplace. The same is true for Metaverse (Facebook) vis-à-vis the users of this social media platform.[26] In a similar vein, an investment ecosystem on Mars would also involve a power imbalance between the orchestrator and the complementors, as the former provides key resources such as habitats or other infrastructures to the latter. Consequently, the habitat owner would naturally assume the role of governing the ecosystem, imposing rules related to, for example, entry control, subsequent operations, project termination, and interaction between different projects. Indeed, such regulation would be necessary for the proper maintenance and functioning of the habitats.

The problem, however, is that regulation may give rise to pushback and disputes. What if, for instance, the home state of an investor insists that the investment activities in question should be governed solely by its own laws despite the investment parasitizing a habitat unit that was built by another state? Additionally, what if an investor perceives their project as being treated unfavorably or even as confiscated by the owner of the hosting habitat unit? These problems, if left unaddressed, could become a significant obstacle to Martian investments, which are destined to be long-term with significant upfront costs. Therefore, the establishment of an effective system for investment governance and dispute resolution would be of pivotal importance for Martian urbanization and colonization.

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23. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, Jan. 27, 1967, 610 U.N.T.S. 205 [hereinafter Outer Space Treaty].

24. *See id.* art. I.

25. Collins, *supra* note 6, at 218.

26. Qiang John Cai, *Hello Platform Governance; But Never Ending Corporate Governance*, 19 EUR. CO. L. 47, 50 (2022).

II. INVESTMENT GOVERNANCE AND INVESTMENT DISPUTE SETTLEMENT ON MARS: ARE THE EXISTING LAWS SUFFICIENT?

A. *Overview*

Before delving into the concept of Martian investment law, it would be desirable to first evaluate the adequacy of existing international law in governing Martian investments and resolving potential investment disputes. In general, the backbone of space law, particularly concerning the exploration and exploitation of celestial bodies, is constituted by five United Nations (UN) outer space treaties.[27] These treaties include the Outer Space Treaty; the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (Rescue Agreement);[28] the Convention on International Liability for Damage Caused by Space Objects (Liability Convention); [29] the Convention on Registration of Objects Launched into Outer Space (Registration Convention);[30] and the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement).[31] In addition, some also consider the Intergovernmental Agreement regarding the International Space Station (ISS Agreement) as precedent for regulating the first human settlements on Mars.[32] A comprehensive examination of these treaties and agreements is beyond the scope of this Article. Instead, the focus will be on those rules that are most relevant to the governance of investments and dispute resolution in the context of space activities. The next section will analyze the implications of the non-appropriation principle, which is enshrined in almost all of the aforementioned legal instruments. Section II.C will examine the effects of the Outer Space Treaty on Martian Investments. Section II.D will focus on the space liability rules stipulated in both the Outer Space Treaty and the Liability Convention. Finally, Section II.E will analyze the liability rules of the ISS Agreement.

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27. *Space Law Treaties and Principles*, UNITED NATIONS OFF. OUTER SPACE AFFS., https://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties.html [https://perma.cc/UJ7K-ABG5]. *See also* Alexandros Eleftherios Farsaris, *The International Space Station (ISS) Intergovernmental Agreement as a Precedent for Regulating the First Human Settlements on Mars*, *in* ASSESSING A MARS AGREEMENT INCLUDING HUMAN SETTLEMENTS 63 (Annette Froehlich ed., 2021).

28. Apr. 22, 1968, 672 U.N.T.S. 119 [hereinafter Rescue Treaty].

29. Mar. 29, 1972, 961 U.N.T.S. 187 [hereinafter Liability Convention].

30. Nov. 12, 1974, 1023 U.N.T.S. 15 [hereinafter Registration Convention].

31. Dec. 5, 1979, 1363 U.N.T.S. 3 [hereinafter Moon Agreement].

32. Farsaris, *supra* note 27.

B. *Non-Appropriation Principle*

If every piece of Martian land, or at least those enclosed by habitats, is owned by a State, the governance of Martian investments and the resolution of relevant investment disputes would be as straightforward as those on Earth. Specifically, states' jurisdiction would automatically extend to the Martian land they own, and their investment treaties would also automatically extend to their Martian territories unless they indicate otherwise,[33] although adaptations to the substantive rules may be needed considering the special conditions on the planet. Arguably, investors would prefer their Martian investments to be governed by investment treaties, which typically guarantee foreign investors and their investments certain standards of treatment, such as fair and equitable treatment, together with a mechanism for investor-state dispute resolution.[34] However, it is a firmly established principle in all of the five space treaties and some relevant UN resolutions that outer space is not subject to national appropriation. For instance, Article 2 of the Outer Space Treaty stipulates that "outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means."[35] Article 11 of the Moon Agreement also provides that the placement of personnel, space vehicles, equipment, facilities, stations and installations shall not create a right of ownership over the surface or the subsurface of the Moon.[36] This principle and other relevant rules should also apply to other celestial bodies.[37] That extraterrestrial property is not subject to national appropriation flows from the idea that outer space is regarded as the "common heritage of mankind" and thus "the management, exploitation and distribution of natural resources of the area in question are matters to be decided by [the] international community, not something left to [the] initiative and discretion of individual [s]tates and their nationals."[38]

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33. The scope of investment treaties' application normally covers state parties' territory. However, some investment treaties also restrict the territorial scope of their application. For a review of the definition and scope of territory in investment treaties, see Markus P. Beham, *The Concept of 'Territory' in BITs of Disputing Sovereigns*, *in* INVESTMENTS IN CONFLICT ZONES: THE ROLE OF INTERNATIONAL INVESTMENT LAW IN ARMED CONFLICTS, DISPUTED TERRITORIES, AND 'FROZEN' CONFLICTS 139, 139–75 (Tobias Ackermann & Sebastian Wuschka eds., 2020).

34. These provisions are considered essential in the promotion of foreign investments as they can reduce investment risks in a foreign country. Peter Egger & Michael Pfaffermayr, *The impact of bilateral investment treaties on foreign direct investment*, 32 J. COMPAR. ECON. 788, 789–90 (2004).

35. Outer Space Treaty, *supra* note 23, art. II.

36. Moon Agreement, *supra* note 31, art. 11.

37. *Id.* art. 1.

38. Taek-Han Kim, *Thirty Years of the Moon Agreement: its retrospect and prospect*, 55 KOREAN J. INT'L L. 79, 87. *See also* BIN CHENG, STUDIES IN INTERNATIONAL SPACE LAW 386 (1997).

Therefore, while national governments or private enterprises may build habitat units on Mars, they cannot thereby claim territorial sovereignty or property rights over the lands enclosed by those facilities.

To be sure, various proposals have been submitted to establish at least some kind of property rights over the surface of Mars in order to encourage Martian investment.[39] Economic writings, however, suggest that open access to scarce resources may lead to waste, chaos, or even bloodshed, a situation also known as "the tragedy of the commons."[40] The prospect of achieving consensus on "privatizing" Mars would be elusive in the foreseeable future considering the inherent distributive conflicts involved in such a process.[41] Should Martian land, for example, be allocated equally among states or in proportion to country size? If the latter is chosen as the allocation key, what does "size" mean here? Does it refer to population, gross domestic product, or a combination of various factors? The conundrum of distribution may be further compounded by the complex dynamics of international politics on this planet, as manifested in numerous geopolitical conflicts in this era and before. Therefore, it would be reasonable for this Article to take as a basic assumption the absence of property rights over the surface of Mars (as well as other celestial bodies) for the foreseeable future.

It might be challenged that without a system of property rights, discussing Martian urbanization or establishing a significant scale of investment ecosystems on Mars would be pointless. However, as demonstrated in the domestic space law of various spacefaring nations such as those mentioned in Section I.Bb, governments and private entrepreneurs will not wait indefinitely for the conclusion of a proper regime in this regard.[42] To address the issue, some propose to interpret the non-appropriation principle with certain qualifications: while no sovereignty could be claimed over the surface of Mars, resources extracted from there could be privately owned. An analogy is drawn to sea fish, which are *res communis* in the high seas but can be privately sold by fishermen once on the shore.[43] In this context, a few powerful spacefaring nations may gain factual control over access to key resources and the surrounding lands while newcomers would have to "parasitize" in the former's facilities, leading to the emergence of investment ecosystems. To summarize, while the non-appropriation principle does

39. See discussion *supra* Section I.

40. MANKIW & TAYLOR, *supra* note 19, at 196–97.

41. For distributive conflict in contracting for property rights, see GARY D. LIBECAP, CONTRACTING FOR PROPERTY RIGHTS (1993).

42. Radhey Soundarya Gnanesh, *A Tale of Two Planets in International Space Law: Limitations to the Freedom of Exploration and Use*, *in* ASSESSING A MARS AGREEMENT INCLUDING HUMAN SETTLEMENTS 167 (Annette Froehlich ed., 2021).

43. Maria Lucas-Rhimbassen, *On the Province of All Marskind*, *in* ASSESSING A MARS AGREEMENT INCLUDING HUMAN SETTLEMENTS 27 (Annette Froehlich ed., 2021).

not offer a solution to potential investment disputes on Mars, it underscores the relevance of this research.

C. *States' Jurisdiction Over Space Activities*

The current legal framework on states' jurisdiction over space activities, including those on Mars, can be found in the Outer Space Treaty. Article VIII of the Outer Space Treaty requires states to retain jurisdiction and control over objects registered therein including those launched by the state or its nationals. Article VI further requires states to ensure that all activities in outer space, whether conducted by governmental or non-governmental entities, comply with the Outer Space Treaty, and failure to do so can incur international responsibility of the states. According to these rules, habitat units on Mars are subject to the governance of the construction state whereas the parasite investments should be governed by their respective home states (i.e., the nationality state of the investors).

Nevertheless, it might be tempting to think that the construction state's jurisdiction over the habitat unit may automatically extend to the people and projects therein, thereby amounting to a kind of territorial jurisdiction, as suggested by Article VIII of the Outer Space Treaty.[44] As illustrated in Section I.C, such jurisdiction is also necessary for the operation of the units. Accordingly, when the nationality states of the parasite investments are different from the construction state of the habitat unit, such rules will give rise to a conflict of jurisdiction regarding the governance of investments on Mars. Especially when considering that the Outer Space Treaty was concluded at a time when international cooperation on space technology was still underdeveloped. Imagine a person onboard a space laboratory controlled by State A, which is in turn berthed to a larger spacecraft operated by State B. Article VIII provides little guidance as to which state retains jurisdiction over that person.

The uncertainty of jurisdiction over investments on Mars could cause trouble for both the habitat operators to orchestrate the parasite projects from different countries, and for these projects to reconcile with each other. Unfortunately, both Article VI and Article VIII of the Outer Space Treaty seem of limited help in solving the issue. Does the habitat operator have the power to regulate or even confiscate the parasite projects in the first place? Moreover, will investors have a legal remedy against the habitat operators and the underlying construction state? Both questions are left unanswered.

44. *See* discussion *infra* Section III.B.

D. *Rules on Space Liability*

The rules on space liability embody the principles on states' responsibility over space activities, albeit focusing on the issues of liability and dispute resolution. Pursuant to Article VII of the Outer Space Treaty, the launching state assumes international liability for any damage caused to another state party or its persons by the space object it launches. The Liability Convention further develops a more comprehensive liability regime,[45] which encompasses two types of liability: absolute and fault-based. Absolute liability is established in Article II, which mandates that the launching state is absolutely liable for compensating damage caused by its space object on the surface of the Earth or to aircraft in flight. Article III creates fault-based liability of the launching state for damage occurring elsewhere than on the surface of the Earth.[46]

At first glance, the above liability rules concerning space activities, particularly the fault-based liability, seem to offer a straightforward solution to investment disputes on Mars. For example, a habitat unit could cause damage to one of its parasite projects, and vice versa. It appears that the damage, being caused by space objects and occurring in outer space or on celestial bodies, would fall under the purview of the Liability Convention. However, the inadequacy of this liability regime might become apparent through the following hypothetical example.

> After a technical assessment, the operator of a habitat unit determined that one of the parasite projects had the potential to cause significant, though not lethal, damage to the unit's ecosystem. Consequently, the habitat unit made the decision to deny the project access to key resources essential for the latter's proper function.

Two possible types of damage may arise from the example: damage caused by the parasite project to the habitat unit, and damage caused by the habitat unit to the project. However, the application of the liability rules presents challenges in both scenarios.

1. Damage caused by the project to the habitat unit

According to Article I(a) of the Liability Convention, damage is defined as "loss of life, personal injury or other impairment of health; or loss of or damage to property of States or of persons, natural or juridical, or property of international intergovernmental organizations."[47] It

45. Liability Convention, *supra* note 29.

46. Elina Morozova & Alena Laurenava, *International Liability for Commercial Space Activities and Related Issues of Debris*, *in* OXFORD RESEARCH ENCYCLOPEDIA OF PLANETARY SCIENCE (2021), https://doi.org/10.1093/acrefore/9780190647926.013.63 [https://perma.cc/TSF3-ZXLJ].

47. Liability Convention, *supra* note 29.

follows that material loss constitutes the most typical form of reparable damage. For example, a private space company would be entitled to compensation under the Liability Convention if it suffers from the loss of a satellite due to the faulty operation of another space object by an entity from a different country. However, there remains a lack of consensus on whether indirect damage, environmental damage, and loss of profit would be covered by the Convention.[48] The same uncertainty also applies to the potential damage to the habitat unit's ecosystem, as illustrated in the above example.

Moreover, the example suggests that the damage to the habitat unit has not yet materialized at the time of the dispute. It is questionable whether a *potential* victim can seek compensation under the Liability Convention for *perceived* damage that has yet to materialize, although from a practical perspective, waiting until such damage materializes could be too late for the habitat unit.[49]

2. Decision to confiscate the parasite project

The aforementioned challenges regarding the application of the liability rules also extend to this case. First, it is questionable whether a mere decision to confiscate the parasite project would constitute actionable damage or whether the investor must wait until that decision is enforced and damage thus incurred. Second, the denial of access to key resources may only amount to economic loss rather than material damage, potentially falling outside the remit of the Liability Convention. In addition to these concerns, the act of confiscation also raises questions about fault. The example suggests that the habitat operator's decision to expel the parasite project is driven by the perceived damage that may be caused by the project. Does this imply that the confiscation is faultless? While the Liability Convention establishes fault-based compensation for damage in outer space and celestial bodies, it offers little guidance on the definition of fault, unlike investment laws on Earth.

Last but not least, both the Liability Convention and the Outer Space Treaty only recognize states as the bearers of treaty rights and responsibilities, while the private sector has no *locus standi* in the application of these treaties. It follows that if a national of a launching state causes damage to a national of another state, the aggrieved party may only rely on its home state to instigate a diplomatic procedure.[50] However, this procedure has various limitations, such as the requirement to exhaust local remedies and the exclusive right of the home state to

48. Morozova & Laurenava, *supra* note 46, at 14.

49. *Id.* at 13–14.

50. *Id.* at 18; Rochus Moenter, *The International Space Station: Legal Framework and Current Status*, 64 J. AIR L. & COM. 1033, 1043 (1999).

decide whether to initiate the procedure.[51] These limitations highlight the insufficiency of the diplomatic procedure in protecting investments on Mars.

E. *The ISS Agreement*

On January 29, 1998, Russia, Canada, the United States, Japan, and the member states of the European Space Agency signed the ISS Agreement to establish the world's first international orbital space station.[52] The project was initiated by the United States in 1984 when President Reagan announced the intention to build a "permanently inhabited civil space station" in Earth's orbit.[53] While the Soviet Union had already launched its own space station called Mire, the ISS Agreement represented an unprecedented level of technical, managerial, and political complexity.[54] In this sense, the ISS Agreement may be seen as an early model for future Martian settlements.

The ISS Agreement made it clear in Article 2 that the governance of the ISS does not derogate from international law including the Outer Space Treaty, the Rescue Agreement, the Liability Convention, and the Registration Convention. Article 17 of the ISS Agreement further confirms that, subject to one exception, the parties remain liable in accordance with the Liability Convention. Therefore, if, for example, the ISS causes damage to a space object that is not part of the ISS co-operation, regardless of whether it is launched by parties to the ISS Agreement or a third-party state, the ISS partners could be held liable for the damage.[55] However, the exception represents a major divergence between the ISS Agreement and the Liability Convention. Specifically, Article 16 of the ISS Agreement provides that each partner state, along with its cooperating agency and related entities shall waive all claims against another partner state, and its cooperating agency or related entities for damage arising from Protected Space Operations.[56] The same article defines the Protected Space Operations as "all launch vehicle activities, Space Station activities, and payload activities" related to ISS projects. The adoption of this cross-waiver of liability, as stated in Article 16(1), is intended to promote participation in space exploration and exploitation. However, it can be argued that encouraging participation alone cannot fully justify this provision, not least because, on many other occasions,

51. RODRIGO POLANCO, THE RETURN OF THE HOME STATE TO INVESTOR-STATE DISPUTES: BRINGING BACK DIPLOMATIC PROTECTION? 2–3 (2019).

52. A. Yakovenko, *The Intergovernmental Agreement on the International Space Station*, 15 SPACE POL'Y 79, 79 (1999).

53. Moenter, *supra* note 50, at 1033.

54. *Id.* at 1035.

55. Farsaris, *supra* note 27, at 68.

56. *See also id*.

the establishment of an equitable and efficient remedial mechanism is deemed crucial for fostering entrepreneurship. Arguably, Article 16 rather confirms the previous point that for damage and disputes occurring within a spacecraft operated through an international joint venture, the traditional liability rules exemplified by the Liability Convention are at best insufficient and inefficient. For a space station like the ISS, which has modest dimensions of 108.6 meters by 79.9 meters and accommodates only a handful of astronaut-scientists and an insubstantial number of parasite investments,[57] the cross-waiver mechanism may provide an expedient if not entirely satisfactory solution. However, the expediency may diminish quickly when it comes to a Martian settlement, which could be the size of a village or even a town, and may host a complex economic and anthropological ecosystem. In conclusion, while the ISS may serve as a relevant model for Martian settlements, it falls short of establishing an apt precedent for the governance of Martian investments, urbanization, or colonization.

F. *Interim Conclusion*

The analysis above reveals the inadequacy of the current international laws in protecting and governing Martian investments. First of all, the well-established non-appropriation principle makes it challenging, if not impossible, for spacefaring states to extend their investment treaties to respective Martian settlements. Secondly, the jurisdictional rules in respect of space activities beget, rather than solve, jurisdictional disputes between relevant states of the habitat units and parasite investors. Third, the liability rules at best provide an inadequate solution to potential investment disputes on Mars. The drafters of the ISS Agreement somehow acknowledged this insufficiency by introducing the cross-waiver mechanism for damage arising from Protected Space Operations, although this mechanism is hardly satisfactory for handling the complexity of Martian urbanization.

III. HOST STATES WITHOUT SOVEREIGNTY: A PRACTICAL WAY FORWARD

A. *Overview*

As argued in Section II.B, the possibility of establishing sovereignty or property rights on Mars is remote. Neither would there be sufficient momentum for the international community to negotiate a multilateral instrument that is tailored for the governance and protection of investments on the planet considering the wide disparity in the level of spacefaring among different countries and the huge difficulties to reach

57. Moenter, *supra* note 50, at 1036.

consensus in this regard. In this context, a more practical solution is needed to prepare for the prospect of Martian urbanization. This solution should entail minimal involvement in law-making or treaty-negotiation processes, which are inherently time-consuming and politically expensive. It may serve merely as an intermediate or transitional measure before reaching a new multilateral treaty. Nevertheless, it must be reasonable, underpinned by legal reasoning and preferably well-received legal principles and practice. Moreover, even as an intermediate solution, it should pave the way for further development of rules concerning investment governance and investment protection on Mars, which will address issues such as jurisdiction of states, legal grounds, possible dispute resolution mechanisms, and available remedies for damage incurred to Martian investments.

Considering these needs, this section explores the possibility of identifying host states for investments on Mars without claiming territorial sovereignty. This would allow for the identification of states responsible for governing investments and also enable the extension of investment treaties from Earth to cover Martian investments. Specifically, this section will first analyze the construction state's jurisdiction over the habitat units and the parasite projects therein (hereinafter referred to as "habitat jurisdiction"). Based on this habitat jurisdiction, the construction state could be deemed as the host state vis-à-vis the investors and parasite projects from other states (hereinafter referred to as "foreign investors" or "foreign investments") for the purpose of investment governance and protection. While the parasite project may still fall under the control of its launching state (hereinafter referred to as "project jurisdiction"), this jurisdiction should be superseded by the habitat jurisdiction, at least to the extent necessary for the construction state to maintain the function and order of the habitat units. The construction state's control over the host habitat for foreign investments can serve as the basis for extending investment treaties between the construction state and other states on Earth to encompass Martian settlements. If successfully defended, this solution would be both practical and reasonable as it builds upon the existing investment law regime on Earth, requiring only minimal adaptation to the unique circumstances posed by urbanization on Mars, and it also aligns with the basic principles of existing investment treaties that are well accepted by the international community.

The remaining part of this section is structured as follows. Sections III.B to III.D outline the minimal treaty negotiation effort required to support the solution. Specifically, this effort would involve the recognition of the construction state's habitat jurisdiction over the habitat units (Section III.B), the pre-emption of the habitat jurisdiction over the project jurisdiction in relation to parasite projects within the habitat units

(Section III.C), and the identification of the host state status of the construction state based on its habitat jurisdiction (Section III.D). In contrast, Section IV argues that even without any law-making process, there is still the possibility to extend the application of the construction state's investment treaties to its habitat units, based on the *de facto* control exerted by the state over these units.

B. *Habitat Jurisdiction: A Land-Based Jurisdiction Independent from Territorial Sovereignty*

Jurisdiction "concerns the power of the state under international law to regulate or otherwise impact upon people, property and circumstances." [58] It can be based on various grounds. Territorial jurisdiction is arguably the most prominent kind, referring to a state's power to regulate matters occurring within its *territory*, irrespective of the nationality of the individual or legal entities involved. In contrast, nationality jurisdiction relates to a state's authority to regulate people of its *nationality*, regardless of whether they are within the territory or abroad.

Regarding jurisdiction in the field of space law, Article VIII of the Outer Space Treaty establishes that the launching state retains jurisdiction and control over the space object so launched and the personnel onboard while in outer space or on a celestial body. As this Article concludes, the jurisdiction and control over the space object encompass the entire space enclosed by the object. This includes the personnel on board irrespective of their nationality. In a similar vein, the construction state's jurisdiction over the habitat units would naturally extend to people, property, and space within the habitat units, including the parasite projects therein. This habitat jurisdiction can be made analogous to territorial jurisdiction rather than nationality jurisdiction in the sense that they are both *land-based* rather than *people-based*.

Admittedly, the habitat jurisdiction differs from orthodox territorial jurisdiction in the sense that construction states do not have sovereignty over the space enclosed by the habitat units. However, land-based jurisdiction is not necessarily contingent upon territorial sovereignty. For instance, coastal states possess the power to regulate exclusive economic zones and contiguous zones regarding certain affairs without claiming territorial sovereignty over them.

The land-based jurisdiction is further affirmed in the ISS Agreement. Specifically, the second paragraph of Article 21 provides that for intellectual property purposes, an activity occurring in or on an ISS flight element shall be deemed to have taken place only in the territory of the ISS partner state to which that element is registered. This provision

58. MALCOLM N. SHAW, INTERNATIONAL LAW 645 (9th ed. 2021).

enables the partners of the ISS to apply their domestic intellectual property laws to their respective flight elements of the ISS on a quasi-territorial basis.[59]

Accordingly, the recognition of habitat jurisdiction, independent of territorial sovereignty, finds support in space law, broader international law, and relevant legal practice.

C. *Conflict of Jurisdictions and the Priority of Habitat Jurisdiction*

While jurisdiction over a space object, including its internal space, can be derived from space treaties, this jurisdiction may face challenges in handling Martian investment ecosystems, where groups of space objects are embedded within one another. Specifically, where the habitat unit and the parasite project are controlled by different countries, questions may arise as to whether the project should be governed by the law of the launching state (i.e., project jurisdiction), or by the law of the construction state (i.e., habitat jurisdiction), or both? This jurisdictional conflict can hardly find a satisfactory solution in space treaties, of which the drafters likely only foresaw the launch of simple, discrete space objects by various countries, and hence established a straightforward principle that each space object falls under the jurisdiction of its launching state.

On this point, international space law practice seems to support the notion that the habitat jurisdiction prevails over project jurisdiction. Specifically, the Recommendations on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space adopted by the General Assembly (the Recommendations) provide that states "should ascertain national jurisdiction over space activities carried out from territory under its jurisdiction and/or control,"[60] which indicates the jurisdiction of construction states over activities within such units. It also provides for the jurisdiction of nationality states over its investors that states should also "ensure supervision over space activities carried out elsewhere by its citizens and/or legal persons."[61] However, the latter jurisdiction should restrain itself to a certain degree as "if another [s]tate is exercising jurisdiction with respect to such activities, the [s]tate should consider forbearing from duplicative requirements and avoid unnecessary burdens."[62] Notwithstanding, the Recommendations by themselves do not establish a solid foundation for the priority of habitat jurisdiction over habitat units, which would require explicit treaty recognition. As a result, the issue becomes a normative question of whether a treaty amendment should be pursued in that direction.

59. Farsaris, *supra* note 27, at 69.
60. G.A. Res. 68/74, at 2 (Dec. 16, 2013).
61. *Id.*
62. *Id.*

This Article argues for treaty recognition of the priority of habitat jurisdiction, at least in relation to issues concerning the operation of habitat units. In general, there is an inclination in international law for land-based jurisdiction to prevail over person-based jurisdiction in case of overlap. According to Cheng, although the jurisdictions of different states may be concurrent, international law has created a hierarchy between them in case of conflict: territorial jurisdiction would override quasi-territorial and personal jurisdiction, while quasi-territorial jurisdiction would prevail over personal jurisdiction.[63] Here, the quasi-territorial jurisdiction mainly refers to the jurisdiction over ships, aircraft and spacecraft.[64] Admittedly, the primacy of territorial or quasi-territorial jurisdiction is ultimately rooted in the respect for the territorial sovereignty of each state, which is actually not shared by habitat jurisdiction. However, there are still some other common considerations behind the primacy of land-based jurisdiction. In particular, states with land-based jurisdiction, even if they do not have sovereignty over the land, would nevertheless be "responsible for the conduct of law and the maintenance of good order" within certain areas and are usually the best equipped to fulfil such functions.[65]

As envisaged previously, the operators of habitat units would have a natural incentive and *de facto* power to impose restrictions and control over parasite projects within their units. Indeed, the operators may even require the acceptance of their terms of governance as a precondition for foreign investors to access the habitat units.[66] Such governance power is justifiable, at least to the extent of maintaining the safe and orderly operation of the habitat units. After all, it would be the construction states that would bear the consequences of improper activities within the units and be responsible for any necessary restoration. From the perspective of foreign investors, the primacy of habitat jurisdiction is also acceptable or even desirable. After all, the maintenance of the transactional order by the market operator would be an essential common good for most market participants.

D. *"Host States" on Mars: On the Ground of Jurisdiction Instead of Sovereignty*

If the habitat jurisdiction of the construction state, and its prevalence over project jurisdiction can be established as maintained in the above sections, it would be tenable to compare the construction state to the host state on Earth in terms of their impact on foreign investors and their projects. After all, the true rationale for subjecting the host state to the

63. CHENG, *supra* note 38, at 388.
64. *See id.* at 387.
65. SHAW, *supra* note 58, at 653.
66. See discussion *supra* Section 1(c).

investment regime and the state-investor dispute resolution mechanisms does not rely so much on the state's abstract sovereignty as on its "exercise of authority which may alter or create or terminate legal relationships and obligations" vis-à-vis foreign investors.[67] In a similar vein, construction states may also exercise a significant level of governmental authority over their habitat units, thereby affecting parasite projects—both domestic and foreign—within these units. While this quasi-sovereignty authority was previously mentioned, it is still worthwhile to consider the major ways that a construction state may impact foreign investors and their projects in the habitat units.

First and foremost, construction states would have the authority to regulate investors' access to the habitat units in question. While it would be controversial for a construction state to exercise such power solely based on investors' nationality, the restriction on access could be justified for genuine regulatory considerations. For instance, the construction state may reject investments that would harm the environmental system of its habitat unit.

Secondly, the construction state would also have the jurisdiction to regulate certain activities of investors within the habitat unit. In order to ensure the safe and smooth functioning of the unit, the state may enact rules regulating the consumption of essential resources (such as air, water and energy), utilization of public facilities, pollution control, and waste management, among others.

Last but not least, even expulsion of foreign investments could be possible in extreme cases in response to the violation of relevant rules by certain investors, such as their disruption of the life-supporting system within the habitat unit.

It can be seen that the relationship between the construction state and foreign investors parasitizing the habit unit resembles that of a host state vis-à-vis foreign investors on Earth. Admittedly, the powers of construction states might be comparatively limited due to the lack of full sovereignty and the constraints imposed by space treaties.[68] Moreover, the construction state falls outside the conventional definition of a host state in earthly investment treaties. It follows that subsequent treaty amendments may be needed in order for these investment treaties to apply to habitat units. In contrast, the next subsection envisions the extension of the existing investment treaties to habitat units even without treaty amendments.

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67. SHAW, *supra* note 58, at 645.

68. The Outer Space Treaty prohibits States from barring the access of other States to celestial bodies, which can limit the power of the construction State to regulate the access of Martian investments. *See* Outer Space Treaty, *supra* note 23.

E. *Extraterritorial Application of Investment Treaties on Mars*

Most investment treaties and agreements explicitly provide that the scope of their application is limited to the "territory" of the state parties.[69] Even in cases where language to that effect is not explicitly mentioned, this limitation is assumed as a default rule under customary international law.[70] The term "territory" here refers to what a state can claim lawful title to.[71] Therefore, no matter whether states purport to assert sovereignty over their habitat units on Mars, these units cannot be recognized as their territory due to the non-appropriation principle. Consequently, these habitat units are outside the coverage of a state's investment treaties.

That being said, it is possible to envisage extraterritorial application of investment treaties, which is indeed not new in international law practice. As early as 1971, the International Court of Justice considered certain existing multilateral treaties concluded by South Africa, particularly those with a humanitarian character, applicable in Namibia despite South Africa's occupying Namibia without legal title.[72] The approach is followed by the European Court of Human Rights (ECtHR) as well. For instance, in the *Ilascu et al. v. Moldova and Russia* case, the ECtHR ruled that Russia's obligation to secure the rights and freedoms of individuals under the European Convention on Human Rights extends to Transdniestria, where Russia has exercised effective control.[73] In these cases, the application of treaties outside a state's own territory is an exception to the non-recognition principle. Ordinarily, this principle requires states to not recognize factual situations brought about by illegal actions such as illegitimate acquisitions of territory,[74] including not applying or invoking treaties concluded by the occupying state concerning the occupied territory.[75]

There are two reasons that can support this exception. One is the achievement of the objectives and purpose of the treaty. Human rights treaties aim to protect individuals from the improper exercise of governmental power and require governments to fulfil the needs of

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69. Christina Knahr, *Investments 'in the Territory' of the Host State*, *in* INTERNATIONAL INVESTMENT LAW FOR THE 21ST CENTURY: ESSAYS IN HONOUR OF CHRISTOPH SCHREUER 42 (Christina Binder et al. eds., 2009).

70. Vienna Convention on the Law of Treaties art. 29, May 23, 1969, 1155 U.N.T.S. 331.

71. Daniel Costelloe, *Treaty Succession in Annexed Territory*, 65 INT'L & COMPAR. L. Q. 343, 347 (2016).

72. Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa) notwithstanding Security Council Resolution 276 (1970), Advisory Opinion, 1971 I.C.J. 16, 54 (June 21) [hereinafter Namibia Advisory Opinion].

73. Ilascu v. Moldova, App No. 48787/99, ¶¶ 314–16 (July 8, 2004), https://hudoc.echr.coe.int/fre?i=002-4244 [https://perma.cc/C4VR-ND46].

74. SHAW, *supra* note 58, at 398.

75. Namibia Advisory Opinion, *supra* note 72.

individuals.[76] Therefore, the state that exercises power and authority over persons should fulfill the obligation to respect human rights, even outside its national territory.[77] The other rationale concerns the enforcement of treaty-based rights. According to customary international law, states are only responsible for the breaches of their own obligations.[78] Therefore, the extraterritorial application of relevant treaties can avoid the inapplicability of an occupying state's treaty obligations with regard to its conduct over occupied land, which can deprive the people therein of benefits derived from international cooperation.[79] It is worth noting that states can maintain their position of non-recognition towards the illegal acquisition of territory while acknowledging the application of certain treaties to the annexed territory. Thus, the extraterritorial application of certain treaties can be considered a more nuanced and practical approach to the non-recognition principle that takes into account other important considerations.[80]

The extraterritorial application of investment treaties has already been acknowledged in investment arbitration practices. Since March 2014, when Russia signed decrees incorporating Crimea into the Russian Federation, a number of Ukrainian investors have filed investment claims against Russia for its conduct in Crimea that violated investment protection obligations under the bilateral investment treaty between Russia and Ukraine. In the cases that have been decided, the tribunals sidestepped the legality of Russia's occupation and annexation of Crimea, holding that Russia is liable for the mistreatment of Ukrainian investors in Crimea given its establishment of effective control over the land.[81] Similar to human rights treaties, the object and purpose of investment treaties is to protect individual rights and interests[82] by addressing typical risks of investment projects and providing a stable and predictable

76. Orna Ben-Naftali & Yuval Shany, *Living in Denial: The Application of Human Rights in the Occupied Territories*, 37 ISR. L. REV. 17, 61 (2003).

77. Theodor Meron, *Extraterritoriality of Human Rights Treaties*, 89 AM. J. INT'L L. 78, 80–81 (1995).

78. G.A. Res. 56/83 (Jan 28, 2002). *See also Draft articles on Responsibility of States for Internationally Wrongful Acts, with commentaries*, [2001] 2 Y.B. Int'l L. Comm'n 31, 64, U.N. Doc. A/CN.4/SER.A/2001/Add.1.

79. Namibia Advisory Opinion, *supra* note 72.

80. Costelloe, *supra* note 71, at 377–78.

81. Luke Eric Peterson, *In Jurisdiction Ruling, Arbitrators Rule That Russia Is Obliged under BIT to Protect Ukrainian Investors in Crimea Following Annexation*, *Inv. Arb. Rep.* (Mar. 9, 2017), https://icsid.worldbank.org/sites/default/files/parties_publications/C8394/Claimants%27%20documents/CL%20-%20Exhibits/CL-0209.pdf [https://perma.cc/88UU-P93H].

82. Tobias Ackermann, *Investments Under Occupation: The Application of Investment Treaties to Occupied Territory*, *in* INTERNATIONAL INVESTMENT LAW AND THE LAW OF ARMED CONFLICT 67, 67–92 (Katia Fach Gómez et al. eds., 2019).

investment climate for foreign investors.[83] Its achievement requires the authority that establishes the institutional and procedural administrative framework of foreign investments—the state with effective control over the territory—to fulfill investment treaty obligations. Moreover, the defenses under customary international law of state responsibility also apply to investment treaties, and thus the enforcement of investors' rights acquired under the treaties relies on their extraterritorial application to the occupying state's conduct in the occupied territory.[84]

The situation in habitat units on Mars can be considered to some extent analogous to annexed territories by occupying states on Earth. States have no legal title to the land enclosed by the units, but nevertheless exercise effective control over it thanks to their jurisdiction over investors and investments that enable them to regulate and enforce various administrative measures as mentioned above. Therefore, the applicability of states' investment treaties, if any, should also be extended extraterritorially to their habitat units on Mars, so as to effectively enforce the standard of investment treatment guaranteed by investment treaties and to provide investors access to investment arbitration. This approach can better protect and promote investment projects on Mars, as well as further Mars' colonization. Accordingly, it can be argued that extraterritorial application of investment treaties in states' habitat units can benefit the broader population. Attorney De Vriese effectively argues this point, and it is also an important reason supporting extraterritorial application of investment treaties.[85]

IV. PRIVATE MARTIAN SETTLEMENT: A PURELY PRIVATE MATTER?

At surface level, private habitat units on Mars appear to be solely governed by private law and party autonomy. For example, Space X, which is incorporated in California and hence subject to Californian law, recognizes no authority of international or national law on Mars, as stated in the Terms of Service of its Starlink internet project.[86] For instance, the terms say "[d]isputes will be settled through self-governing principles, established in good faith, at the time of Martian settlement."[87] Elon Musk,

83. RUDOLF DOLZER & CHRISTOPHER SCHREUER, PRINCIPLES OF INTERNATIONAL INVESTMENT LAW 22 (2d ed. 2012).

84. Costelloe, *supra* note 71, at 372–73; Kit De Vriese, *The Application of Investment Treaties in Occupied or Annexed Territories and 'Frozen' Conflicts: Tabula Rasa or Occupata?*, *in* INVESTMENTS IN CONFLICT ZONES: THE ROLE OF INTERNATIONAL INVESTMENT LAW IN ARMED CONFLICTS, DISPUTED TERRITORIES, AND 'FROZEN' CONFLICTS 319 (Tobias Ackermann & Sebastian Wuschka eds., 2020).

85. De Vriese, *supra* note 84.

86. Cuthbertson, *supra* note 20.

87. *Id.; Starlink Legal*, STARLINK, https://www.starlink.com/legal [https://perma.cc/MD6M-HKZR].

the founder of Space X, has also expressed a preference for direct democracy in a Mars colony where laws would be repealed.[88]

However, Space X's position is rather questionable in light of the space treaties. Space activities do not occur in legal vacuum, and the non-appropriation principle does not necessarily lead to self-governance as the sole or predominant governing principle of Martian settlements.[89] To say the least, Articles VI and VIII of the Outer Space Treaty would mandate the United States government to retain jurisdiction and control, and accordingly assume responsibility, over the space activities of the company. Furthermore, as mentioned earlier, the space treaties even impose direct liability upon the launching state for any damage caused to another state party or its persons by the space object so launched.[90] In other words, the space treaties attribute liability of space activities, whether carried out by public or private entities, to their respective launching states. This is a stricter position compared with the liability principles on Earth, where states are only responsible for conduct that is sufficiently linked to them (i.e., conduct that can be considered their own).

It has been suggested, mainly in the field of space law unrelated to Mars colonization, that states should be relieved from the aforementioned direct liability concerning private space activities.[91] Imagine a scenario where a satellite registered in Country A wrongfully caused harm to another satellite registered in Country B while orbiting the Earth, and both satellites are owned by private companies. As discussed earlier, the Liability Convention dictates that the victim can only seek recourse through diplomatic channels with the national government of Country A, a solution that is hardly satisfactory from the victim's point of view.[92] Moreover, it would be unfair for taxpayers of Country A to bear the burden of liability resulting from the actions of private spacefaring enterprises.

However, despite the attractiveness of the above argument in the context of traditional space damage, state responsibility for private space activities is desirable for the governance of private Martian settlements. Among others, private colonizers may wield significant power and discretion over the pieces of Martian land they enclose. Indeed, scholars have already expressed their concerns about the risk of severe human

88. Evan Butts, *Yes Elon, There Is Space Law*, PRINDLE INST. (Nov. 12, 2020) https://www.prindleinstitute.org/2020/11/yes-elon-there-is-space-law/ [https://perma.cc/T5H6-7MX6].

89. *See id.*

90. *See* discussion *infra* Section II.D.

91. Morozova & Laurenava, *supra* note 46, at 18.

92. See discussion *infra* Section II.D.

rights violations within private Martian settlements.[93] This may explain why Elon Musk, despite denying the authority of national or international laws for his future Mars colonies, still acknowledges the necessity of governing the colonies through direct democracy rather than his own rule. Accordingly, a private company colonizing Martian land bears resemblance to the chartered corporations created by the British Crown during the seventeenth and eighteenth centuries in American or Indian colonies. Although there is clear distinction, at least in terms of moral standing. [94] Arguably, the regulatory activities of those chartered corporations in relation to the colonized land should be attributed to the monarch.

Admittedly, modern companies are predominantly incorporated through a memorandum of association rather than being chartered by the monarch or central government, and their tie with public authorities is much weaker compared to, for example, the chartered East India Company.[95] Furthermore, contract law and party autonomy are still likely to play a significant role in governing the relationship between private habitat units and their residents. Nevertheless, the quasi-sovereign nature of private Martian settlements presents a compelling argument for increased intervention by their home state. This underpins the earlier point made in this Article that the analysis of states' governance over habitat units and investor-state dispute resolution on Mars may also apply to private settlements on the planet. In such cases, states would have jurisdiction over habitat units built by their private companies, and accordingly, investors could seek recourse from them for damage resulting from their inadequate regulation of those companies.

CONCLUSION

On the surface, this Article represents one of the many attempts to formulate a future-proof law for Mars' colonization, which still seems to be a remote possibility at this stage. However, in conducting this research, the authors of this Article have indeed borne in mind the process of Martian urbanization, which could be a very real or even imminent prospect, regardless of whether there is consensus within the international community on how to partition the surface of Mars. This process will likely give rise to the emergence of investment ecosystems where multitudes of Martian investments are highly integrated. The way these investment ecosystems are governed will shape the future of Martian urbanization (e.g., whether that future would be bright or bleak from investors' perspective). The existing space treaties and relevant

93. *See* Bonilla, *supra* note 7.

94. Butts, *supra* note 88.

95. ROBERT TOMBS, THE ENGLISH AND THEIR HISTORY 542 (2014).

international space law exacerbate rather than solve the governing issues, while the non-appropriation principle presents an obstacle for the existing investment treaty regime on Earth to be applicable on Mars.

If spacefaring states and corporations are not willing to wait until the issues of sovereignty and property rights on Mars are definitively solved, then the legal community should not delay either in considering the optimal approach to governing Martian investments. Moreover, it would be unrealistic to expect a multilateral treaty specialized in the protection of investment on Mars or other celestial bodies to be concluded by nations in the foreseeable future. Rather, a pragmatic approach that entails only minimal treaty renegotiation or amendment would be desirable during this transitional period until sovereignty and property rights are firmly established. In this context, this Article proposes the identification of host states on Mars for the purposes of investment governance and protection—much like host states on Earth—based on habitat jurisdiction rather than sovereignty. This would provide clarity regarding states' responsibility for governing Martian investments and allow existing investment treaties on Earth to be applicable on Mars, at least in terms of fundamental principles concerning investment protection and dispute settlement. This proposal ensures that even in the absence of specific international treaties governing habitat units on Mars, these units can still be governed properly and thus operate appropriately, thereby creating an investment-friendly environment that fosters Mars' urbanization and colonization. Moreover, this proposal also paves the way for future arrangements and rule-making regarding investment governance and protection on Mars, which could be established via newly negotiated treaties.

THE AMALGAMATION OF CORPORATE SOCIAL RESPONSIBILITY IN ENVIRONMENTAL LAWS

Shawon Priya Binu[*]

Abstract

This Article investigates whether Corporate Social Responsibility (CSR) can be incorporated under the realm of Environmental law. It discusses the hazardous business activities by some Bangladeshi and international business enterprises. Further, this Article explores the definition of CSR and approaches taken by certain countries under their respective public policies. This Article unveils international legislation, including the legislation of Bangladesh and how this legislation treats the concept of CSR. This Article focuses on the position of the United Nations (UN), with regard to establishing environmental rights as fundamental ones, and how the UN's approach has affected many countries' views on environmental rights. The position of the World Trade Organization (WTO) regulations and international trade agreements in enforcing CSR are also scrutinized in this Article. This Article conclusively illustrates that the concept of CSR is treated like a business expenditure rather than an obligation to protect the environment. Finally, this Article analyzes several legal hypotheses to determine that environmental legislation has greater scope to enact well designed regulations to obligate corporations to adopt CSR in order to protect the environment.

INTRODUCTION

Generally, there is no international or national legal framework for Corporate Social Responsibility (CSR)—it is based on the voluntary

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undertakings of corporate institutions. This allows said institutions to escape what could be an established accountable system. Macdonald explained accountability as "a moral or institutional relation in which entitlements are accorded to one agent (or group of agents) to question, direct, sanction or constrain the exercise of power by another."[1] For an effective discharge of action, accountability is irreplaceable; one cannot be held liable for their questionable activities if there is no accountable system. Legal responsibilities bring accountability for the protection of environment, and corporations working under the guidance of law is irrefutably beneficial for the environment and for society. Non-sustainable business practices can be a catastrophe for the State, the people, the environment and even the business itself. The purpose of this Article is to scrutinize the scope of CSR under the shade of legislation. An illustration of hazardous business practices by internationally celebrated corporations have been analyzed in this Article because Bangladesh is one of their major manufacturing sources. Many arguments are presented from the perspective of Bangladesh. Non-environmentally friendly business practices in Bangladesh have caused severe environmental damage. This Article discusses the impact of non-sustainable business practices of certain industries and the possibility of holding companies and industries liable for their business practices under the obligation of CSR.

Under the heading of "Comprehending CSR," a detailed discussion of the concept of CSR is given, including whether it has any definition. Although multiple countries have attempted to address CSR related concerns, none have created actual obligations under law. A wide range of systems for CSR are discussed in this section of the Article, from the United States, to the European Union, to Vietnam, and how society, business enterprises and the State perceive these obligations. This Article further focuses on the laws enforced in Bangladesh and India, as well as E.U. directives and the ambit of the WTO regulations and Treaty Agreements. Finally, this Article suggests some recommendations with concrete examples.

I. HAZARDOUS BUSINESS PRACTICES

In a recent study it was found that "[t]he fashion industry produces ten percent of all humanity's carbon emissions and is the second-largest consumer of the world's water supply."[2] According to a WTO report, Bangladesh is the second largest exporter of readymade garments in the

1. Mallika Tamvada, *Corporate social responsibility and accountability: a new theoretical foundation for regulating CSR*, 5 INT'L J. CORP. SOC. RESP. 2, 7 (2020).

2. *These facts show how unsustainable the fashion industry is*, WORLD ECON. F. (Jan. 31, 2020), https://www.weforum.org/agenda/2020/01/fashion-industry-carbon-unsustainable-environment-pollution/ [https://perma.cc/2PMB-XVMK].

world, if the combined export figures of the E.U. are divided by country.[3] Therefore, many companies in the fashion industry are investing in Bangladesh for their business.

Have the laws of Bangladesh been able to hold these companies liable for the pollution it causes in the State? Has there been proper scientific research on how much pollution these companies are responsible for in the State? What kind of CSR obligations do these companies maintain to negate the environmental damages?

It is well acknowledged that the fashion industry has a substantial negative social and environmental footprint, mainly due to high product volume, worker exploitation, and massive use of natural resources and hazardous products.[4] Narayanganj, one of the vibrant cities of Bangladesh, is called an industrial city because of its growing establishment of a textile industry. It was found in a field survey that sixty percent of people are at a health risk because of the usage of the toxic substances in this industry.[5] It is claimed that everyday 120 to 125 tons of waste are generated in this area; however, only the government authority (the Pourashava authority) is responsible for waste management in this area.[6] Additionally, the leather industry is another big player in impacting the environment with their activity. In an environmental impact assessment, it was found that a physic-chemical factor made by the Environmental Impact Value (EIV) was negative.[7] It is claimed that the wastewater is generally discharged with disregard for proper procedure, and it affects the quality of the surface and ground water.[8]

It was reported:

> The air quality is degrading in [sic] an alarming rate.[9] Those who live near the tanneries face severe problem for sound pollution. Fish culture becomes wiped out near the tannery area due to discharge of untreated waste water into the water body. Growth of trees reduces and sometimes the soil loses its fertility.[10]

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3. Sheng Lu, *WTO Reports World Textiles and Apparel Trade in 2019*, FASH455 GLOB. APPAREL & TEXTILE TRADE & SOURCING (Aug. 3, 2020), https://shenglufashion.com/2020/08/03/wto-reports-world-textiles-and-apparel-trade-in-2019/ [https://perma.cc/WV3E-RF62].

4. Mariachiara Colucci et al., *An empirical investigation of the drivers of CSR talk and walk in the fashion industry*, 248 J. CLEANER PROD. 2, 2 (2019).

5. Md. Masud Alom, *Effects on Environment and Health by Garments Factory Waste in Narayanganj City, Dhaka*, 4 AM. J. CIV. ENG'G 81, 4 (2016).

6. *Id.* at 3.

7. Abul Hasnat et al., *Assessment of Environmental Impact for Tannery Industries in Bangladesh*, 4 INT'L J. ENV'T SCI. & DEV. 217, 219 (2013).

8. *Id.*

9. *Id.*

10. *Id.*

The supplying companies of the fashion brand companies play a pivotal part in fulfilling corporate social responsibilities. Often the fashion brand companies can influence the management process, and the role of the supplying companies is comprised of several distinct but interconnected functions and activities. The disclosure of the CSR policies of supplying companies is a deciding factor in shifting the business as a whole towards sustainable business practices.

One of the biggest fashion companies in the market is H&M Group, which states on their company website that China and Bangladesh are their largest production markets for clothing.[11]

The company's "Sustainability Department devised a CSR policy based on the Seven Commitments," which are:[12]

- To provide fashion for conscious customers;
- To choose and reward responsible partners;
- To be ethical;
- To be climate smart;
- To reduce, reuse, recycle;
- To use natural resources responsibly;
- To strengthen communities.[13]

Additionally, the company claims that twenty-seven percent of H&M's electricity comes from renewable resources, and it protects the environment of countries such as Bangladesh. H&M suggests it is replacing polyurethane, known as vegan leather, with a water based substitute that their research and development department is testing the durability of and coming up with solutions to make it longer-lasting.[14] The company also purportedly "contributes to [the] promotion of responsible behavior in the whole industry by co-founding ZDHC (Zero Discharge of Hazardous Chemicals), that is a group of eighteen that work actively to protect the environment and eliminate the use of harmful chemicals in the textile and clothing industry by 2020."[15]

However, all these policies are found to be a paper tiger because there is no mechanism to measure how much damage the company is creating in its manufacturing countries. The supply companies are not obligated to report anything about their environmental damages. It is claimed that they utilize an "Index Code of Conduct," which measures responsible

11. *Supply Chain*, H&M GRP. (Apr. 10, 2020), https://hmgroup.com/sustainability/leading-the-change/supplier-list.html [https://perma.cc/3WEB-YY8W].

12. Paulina Księżak, *The CSR Challenges in the Clothing Industry*, 3 J. CORP. RESP. & L. 51, 60 (2016).

13. *Id.*

14. *Id.*

15. *Id.* at 62.

behavior of the supplying companies. H&M also maintains the Sustainable Impact Partnership Program (SIPP) for training initiatives and for tracking compliance of their suppliers. H&M rewards their suppliers who showcase distinguishable compliance with their sustainability initiatives. However, the suppliers self-report their progress.[16] What is the parameter to measure environmental damages of that country, how would they compensate it?

Another dominating company, Primark, which includes environmental sustainability in its CSR policy, claims that it provides cleaner production and sustainable cotton programs. However, the company does not reveal information about where the cotton comes from and the firm does not buy raw cotton by itself. This makes the policy claims of environmental sustainability questionable.[17]

Apart from the garments industry, the leather industry is also found to have mismanaged corporate social policies. One noteworthy example is the Hazaribagh tannery industry. It was found that the nearest river, which flows into the Buriganga River, was heavily affected by metal; an environmental evaluation concluded that "the mean concentration of the metals in all water samples exceeded the water quality standards."[18] It was claimed that 196 tanneries of Hazaribagh directly discharged hazardous, untreated sewage on a regular basis, corrupting the water of the Buriganga.[19] In one survey, 83.9% of respondents (workers in the tannery industry) responded that large firms are the main source of this waste.[20] The reasons cited for the mismanagement are the unwillingness of the companies to invest, outdated technology, and so on.[21] Since they are not legally bound to do so, no steps were taken by the companies to protect the environment in the vicinity and no protection was given to the workers to safeguard their health from toxic chemicals used in this industry. It was found that,

> 40.2% of respondents mentioned faulty drainage systems as the main cause of disease spread, while 29.5% cited the emission of toxic chemicals. In terms of diseases afflicting

16. Brianna Wren, *Sustainable Supply Chain Management in the Fast Fashion Industry: A Comparative Study of Current Efforts and Best Practices to Address the Climate Crisis*, 4 CLEANER LOGISTICS & SUPPLY CHAIN 1, 5 (2022).

17. Mikhail Aridov et al., *CSR in the Textile Sector: European Fashion Firms and the Bangladesh Safety Accord*, 2 J. EUR. MGMT. & PUB. AFFS. STUDS. 23, 25 (2014).

18. Mohammad Amir Hossain Bhuiyan et al., *Source Apportionment and Pollution Evaluation of Heavy Metals in Water and Sediments of Buriganga River, Bangladesh, Using Multivariate Analysis and Pollution Evaluation Indices*, 187 ENV'T MONITORING & ASSESSMENT 1, 6 (2014).

19. Joydeb Garai, *Environmental Aspects and Health Risks of Leather Tanning Industry: a Study in the Hazaribag Area*, 12 CHINESE J. POPULATION RES. & ENV'T 278, 279 (2014).

20. *Id.* at 280.

21. *Id.* at 282.

> these workers, the findings reveal that 30.3, 22.3, 10.7, and 11.6% of respondents were suffering from skin diseases, jaundice, respiratory infections, and wounds/injuries, respectively.[22]

Although, in 2003, the government of Bangladesh directed the tannery industry to resettle to the Savar area from the Hazaribagh area,[23] several news reporters showed that in the past two decades, nothing much has changed in the waste management system in this industry. The tannery owners opined that "the leather industrial city [in Savar] is 'incomplete' and 'environmentally unfriendly.'"[24] The news report sheds light on the fact that this relocation project to safeguard the environment, including the river water of the Buriganga, has been futile "since no measures have been taken to treat the solid wastes generated by the tanneries," and "the once clean and clear Dhaleshwari River water is now getting polluted—in a similar manner the water of the Buriganga River was polluted by tanneries at Hazaribagh."[25] The pollution has risen to a certain level that the parliamentary standing committee on environment recommended to close the Bangladesh Small and Cottage Industries Corporation Tannery Industrial Estate for the moment.[26] However, the recommendation did not bring about any impactful changes in waste management hence the committee finally insisted on cutting off the energy source of the factories.[27] Despite, these recommendations, no effective measures were taken by the concerned authorities; the environment, biodiversity, and the welfare of the human lives in the vicinity of this industry are left to be taken care of by their destiny.

II. COMPREHENDING CSR

The concept of Corporate Social Responsibility has been developing since the early 1970s, but there is no single, commonly accepted definition of CSR. On the contrary, private, governmental, and civil society organizations have different perceptions of CSR.

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22. *Id.* at 280.

23. Sohel Hossain Patwary, *Hazaribagh tannery-era ends today*, DAILY SUN (Apr. 5, 2017), https://www.daily-sun.com/printversion/details/217549/Hazaribagh-tanneryera-ends-today [https://perma.cc/8CGZ-BNEP].

24. Abul Kashem & Rafiqul Islam, *Savar Tannery Estate: Complete yet incomplete after 19 years*, THE BUS. STANDARD (Feb. 1, 2023), https://www.tbsnews.net/economy/savar-tannery-done-much-be-done-after-19-years-276577 [https://perma.cc/4L24-ATUY].

25. *Id.*

26. Sajidul Haque, *Recommendations to stop pollution by Savar tanneries 'fall on deaf ears'*, BDNEWS24.COM (July 30, 2022), https://bdnews24.com/bangladesh/45fbmm1ygw [https://perma.cc/Y4X3-JT8V].

27. *Id.*

The CSR policies of a company may cover:[28]

a) The operation of the business responsibly in relation to internal stakeholders;
b) The role of the business in relation to the state, locally and nationally, as well as to inter-state institutions or standards;
c) Business performance as a responsible member of the society in which it operates and the global community.

The third perspective concerns different aspects of society, but it may involve the relationship between businesses with the people and the environment. It also concerns both the environment in which businesses operate and to which they export.

The ideology of CSR initially emerged from academic literature,[29] and numerous arguments were presented during the early rise of CSR. Keith Davis viewed it as a distraction from economic goals whereas William C. Frederick believed resources of businesses should be used for another aspect of society.[30] CSR was first defined in the 1970s, and an extensive line was drawn between the definition of CSR and corporate social responsiveness. CSR assumes business entities hold responsibilities towards society and the environment; in contrast, corporate social responsiveness advocated for the responsive posture of society. Certainly, consumer pressure plays a significant role in corporations benevolently using their resources for the prosperity of society, and citizen's perspectives towards CSR is of interest to policy makers and governments. The Belgian President of the European Commission hosted consecutive events promoting CSR in Europe.[31] Simultaneously, the concept of CSR was embraced by other countries, including the United Kingdom. Initially, the U.K. struggled to find common ground between American capitalism and European interventionism.[32] Still, there was encouragement from the Crown to hold corporations responsible to society and the environment. CSR was endorsed by the Government through public policies that helped CSR penetrate all sectors of the British economy.[33] CSR reporting is voluntary in the United States. The environment is the least of corporations' concerns compared to issues like

28. Aridov et al., *supra* note 17, at 26.

29. Archie B. Carroll et al., *The Business Case for Corporate Social Responsibility: A Review of Concepts, Research and Practice*, 12 INT'L J. MGMT. REV. 86, 87 (2010).

30. *Id.*

31. Susan Ariel Aaronson, *How The Europeans Got a Head Start on Policies to Promote Global Corporate Responsibility*, 9 CORP. ENVT'L STRATEGY 356, 359 (2000).

32. *Id.* at 361.

33. *Id.*

community relations, health, and safety.[34] Compared to the E.U., American public policies are affected by different national concerns, from religion to non-governmental organizations' influence, the CSR policies offer different treatment.[35] In consequence, the European Commission's approach to CSR are more robust in nature; a detailed analysis will be put forward in this Article regarding the E.U.'s standpoint on CSR.

Vietnam is one of the distinguished names in international trade, they are the largest export market for the United States, and their export revenue to the United States surged 230% in recent years.[36] Similarly, the E.U. is one of the largest international investors, and Vietnam was the largest trade partner of the E.U. in the Association of Southeast Asian Nations (ASEAN) in 2020.[37] Despite being an important trade country in the world, they are at the dawn of their CSR development.[38] As they are growing in business, the government's goals include not only creating a business friendly ambience but also constructing a legal structure for CSR. However, CSR codification is only limited to labor law and environmental law; there is no distinct CSR legislation.[39] It seems that the local businesses are not actively gathering knowledge of CSR. In a study of the Vietnam Business Council for Sustainable Development, 63% of the respondents did not have any detailed understanding of sustainable development and CSR.[40] Crude oil, textiles and garments, and leather and footwear are the fundamental exporting sectors, and they are vital to the domestic economy, thus the perspective of consumers, and exporting and importing business partners can influence the further development of CSR.[41]

The World Bank proposes (i) mandating, (ii) facilitating, (iii) partnering, and (iv) endorsing are the four activities the government or

34. Veronika Bashtovaya, *CSR reporting in the United States and Russia*, 10 SOC. RESP. J. 68, 71 (2014).

35. Jonathan P. Doh & Terrence R. Guay, *Corporate Social Responsibility, Public Policy, and NGO Activism in Europe and the United States: An Institutional-Stakeholder Perspective*, 43 J. MGMT. STUDS. 48, 50 (2006) (discussing influences on U.S. public policy).

36. *Vietnam-Country Commercial Guide*, INT'L TRADE ADMIN., U.S. DEP'T. COMM. (Apr. 27, 2023), https://www.trade.gov/knowledge-product/exporting-vietnam-market-overview [https://perma.cc/Y6TF-PLFS].

37. *EU trade relations with Vietnam. Facts, figures and latest developments*, EUR. COMM'N (Feb. 27, 2023), https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/vietnam_en [https://perma.cc/F6MW-EMY5].

38. My Nguyen & Minh Truong, *The Effect of Culture on Enterprise's Perception of Corporate Social Responsibility: The Case of Vietnam*, 40 PROCEDIA CIRP 681, 681 (2016).

39. *Id.* at 684.

40. *Id.*

41. NAKIB MUHAMMAD NASRULLAH & MIA MAHMUDUR RAHIM, CSR IN PRIVATE ENTERPRISES IN DEVELOPING COUNTRIES: EVIDENCES FROM THE READY-MADE GARMENTS INDUSTRY IN BANGLADESH 181 (2014).

public sectors can endorse to further CSR although Vietnam's government considers CSR as a public policy area within the protection of labor law and environmental law.[42] Notably there is a definite policy of CSR, the Vietnam Agenda 21, which effectuates public policy goals. It aims to regulate companies which disrespect the Environmental Police and impose certain fees on the emission of polluted wastewater.[43] On the whole, Vietnam's attempt to establish a legal framework has still not turned into a reality as is also the case in many other states. CSR legislation is essential, however, to preventing reckless business activities that might harm society as a whole.

The Australian Parliament also does not define CSR under any legal realm, rather Australia's Corporations and Markets Advisory Committee specified,

> in essence, the focus of the issue of corporate social responsibility is on the way in which the affairs of companies are conducted and the ends to which their activities are directed, with particular reference to the environmental and social impact of their conduct. A responsible company, like a responsible individual, is one that acknowledges and takes responsibility for its actions.[44]

Traditionally, CSR used to be considered a philanthropic act. According to Thomas and Nowak, "a common theme in the Australian literature is the need for corporations to move away from the 'pat-a-poor-person' philanthropic approach to CSR."[45] In contrast, Batten and Birch found that "there is considerable hesitation in funding long-term community involvement."[46] In a Parliamentary committee report, it was found that "despite evidence that Australian companies have shown a greater engagement with the corporate responsibility agenda over the past decade, the committee also heard that by international standards, Australia lags in implementing and reporting on corporate responsibility."[47] The committee viewed that "although it is not appropriate to mandate the consideration of stakeholder interests into directors' duties, or to mandate sustainability reporting, there is a need to seriously consider options to encourage greater uptake and disclosure of corporate responsibility activities."[48] Ursa Golob and Jennifer L. Bartlett have drawn a comparison between the Australian and Slovenian CSR

42. *Id.* at 187–88.

43. *Id.* at 188.

44. Royston Gustavson, *Australia: Practices and Experiences*, *in* GLOBAL PRACTICES OF CORPORATE SOCIAL RESPONSIBILITY 464 (Samuel O. Idowu & Walter Leal Filho eds., 2008).

45. *Id.*

46. *Id.*

47. *Id.* at 465.

48. *Id.*

reporting systems, and according to their research, the Australian CSR reports accommodates ample issues. Some companies have embraced guidelines of GRI (Global Reporting Initiative is an independent international organization aiming to assist the businesses in taking accountability for their impacts) and the World Business Council for Sustainable Development (WBCSD) for CSR reporting.[49] Following their argument, they concluded that the Australian CSR management system is more dependent on meeting social obligations and community partnerships.[50]

The European Commission refers to CSR as "the responsibility of enterprises for their impact on society."[51] The Commission further stressed that companies can become socially responsible by (i) integrating social, environmental, ethical, consumer, and human rights concerns into their business strategy and operations; and (ii) following the law.[52]

It is noteworthy that there are several external factors which generally push the enterprises towards CSR; certainly, these are economical, legal and social. They take shape in different kinds of stakeholders in an enterprise.[53] For instance, economic shareholders include the institutional investors, the banks, customers, and the final consumers. The legal stakeholders include regulators, legislators, citizens, and environmental organizations which claim to seek regulatory mechanisms. Finally, the social stakeholders include the neighbors, the local community, the general people with voting rights.[54] These stakeholders generally provide the license to operate the corporation, although one can argue that in a corporation, the management has control. However, one major aspect that cannot be ignored is that a corporation cannot be operated only by valuing the profit interest of the shareholders. It is indisputable that a company can operate in the community where it is established only as long as the government of the state has accorded them the license to operate. However, as it is the general perception that a company is established with the intention to generate profit for the shareholders, oftentimes many hazardous business activities are ignored.

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49. *See About GRI*, GLOB. REPORTING INITIATIVE (Feb. 26, 2024), https://www.globalreporting.org/about-gri/; *see also* Ursa Golob & Jennifer L. Bartlett, *Communicating About Corporate Social Responsibility: A comparative study of CSR reporting in Australia and Slovenia*, 33 PUB. RELS. REV. 2, 7 (2006).

50. Golob & Bartlett, *supra* note 49, at 4.

51. Kletia Noti et al., Corporate and Social Responsibility (CSR) and Its Implementation into EU Company Law 21 (Policy Dept. for Citizens' Rights and Constitutional Affairs Directorate-General for Internal Policies Nov. 2020).

52. *Id.* at 21–22.

53. Christopher McCrudden, *Corporate Social Responsibility and Public Procurement* (Univ. of Oxford Fac. of L. Legal Stud. Rsch., Working Paper No. 9, 2006), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=899686 [https://perma.cc/5B6V-72FB].

54. *Id.*

It is an excruciating truth that states and their authoritative bodies mostly leave the responsibility of guarding the environment to the voluntary activities of the company. Often in a common law business culture, the companies feel responsible to the market and to customers, and the companies often include sustainable business policies to protect their goodwill in the market. However, as the businesses are not compelled to do so by state regulation, it is easier for them to bend the policies according to their convenience. Terminologies such as "integration of social and environmental concerns into business operations" can be subject to several interpretations depending on the culture in which they are to apply, which causes uncertainty among the companies drafting policies. However, properly drafted legal environmental standards can trigger innovations that lower the total cost of a product or improve its value. Such innovations allow companies to use a range of inputs more productively, from raw materials to energy to labor, thus offsetting the cost of diminishing environmental impact and ending the stalemate.[55]

From the previous discussion, it is evident that both the EU registered companies H&M and Primark[56] have a dominant manufacturing presence in Bangladesh. The CSR definition given by the EU Commission does not provide protection to the countries where products of the companies are being produced. As fashion brand companies, these companies should be compelled to meet obligations to protect the environment and compensate the damages caused by them. The environmental damages caused by the fashion industry have been previously discussed. It is evident that the policies adopted by these companies mostly do not affect the ground reality. The companies must be compelled with an accountable system which could report their corporate social responsibility towards the protection of the environment.

III. INCORPORATION OF CSR IN LAW

Since the gradual shift of government-controlled industries to an era of private corporate industries, it is compelling to have regulation to protect the environment. There are several stages of requisite transformation for environmental regulation. First, state regulation is increasingly concerned with setting overall directions, goals, and environmental performance requirements, leaving details of implementation to be sorted out through *inter alia* co-regulation, negotiated agreements, and informed consumer choice. Second, governments increasingly employ private sector managerial methods and entrepreneurial ethics, and use markets and competition in the provision

55. *Id.*

56. H&M GRP., *supra* note 11, at 23.

of public services. Third, there has been a substantial move toward public transparency and accountability since the late 1980s.[57] Apart from some certain exceptions primarily under international environmental laws, corporations bear no duties. Technically, there is no mechanism to oblige corporations under international laws, and lack of political intention and corporate lobbying is a hindrance to transform this into reality.[58] It is the environmental treaties which binds the signing states to address the natural person or corporations with national legislation to protect the environment.[59] Tseming Yang and Robert V. Percival put it as "elements of national environmental law are uploaded into international agreements and international legal norms are turned downloaded into national and regional systems."[60] CSR is rarely accepted or adopted as a legal regulation throughout the world. Instead, company policy self-regulates the harm they might cause to the environment. The first requisite discussed above requires the state to set a standard protection for the environment of the state.

In Bangladesh, The Bangladesh Environment Conservation Act of 1995 and 1997 (Environment Conservation Act) set the standard for environmental protection in the state. However, the laws do not enforce CSR as a legal obligation for companies. The law requires companies or industries to obtain an Environmental Clearance Certificate, and that would be sufficient for the industries to continue with their work.[61] The law additionally prohibits the usage of certain chemicals and products such as polyethylene.[62] The procedure for obtaining the Clearance Certificate under this Act is questionable, however, as it "[p]rovide[s] that the Director General may, without issuing a Location Clearance Certificate at the first instance, directly issue Environmental Clearance Certificate if he, on the application of an industrial unit or project, considers it appropriate to issue such certificate to the industrial unit or project."[63] This section of the Environment Conservation Act does not provide any specific requirements for the entities to fulfill to obtain the clearance certificate and is solely based on the discretion of the Director General. Clearance Certificates play a pivotal role in allowing industries

57. STEPAN WOOD & BENJAMIN J. RICHARDSON, ENVIRONMENTAL LAW FOR SUSTAINABILITY 7–8 (2006).

58. Karin Buhmann, *Public Regulators and CSR: The 'Social Licence to Operate' in Recent United Nations Instruments on Business and Human Rights and the Juridification of CSR*, 136 J. BUS. ETHICS 699, 772 (2015).

59. Ilias Bantekas, *Corporate Social Responsibility in International Law*, 22 B.U. INT'L L.J. 309, 334 (2004).

60. Tseming Yang & Robert V. Percival, *The Emergence of Global Environmental Law*, 36 ECOLOGY L.Q. 615, 623 (2009).

61. The Bangladesh Environment Conservation Act, 1995, § 12.

62. *Id.* § 6A.

63. The Environment Conservation Rules, 1997, § 7(4) (Bangl.).

to use the chemicals they want and issuance of such important certifications should not be released without having satisfied some set of standard criteria. The legislation further explains some reporting requirements:

> Environmental Impact Assessment report prepared on the basis of terms of reference previously approved by the Department of Environment, along with the Layout Plan (showing location of Effluent Treatment Plant), Process Flow Diagram, design and time schedule of the Effluent Treatment Plant of the unit or project, (these are applicable only for a proposed industrial unit or project).[64]

Generating an Environmental Impact Assessment report should be done in a more practical manner; such an assessment requires field reports and health reports. It is indisputable that the laws are not well designed to prevent industries from using hazardous business practices. Moreover, the law fails to recognize the responsibility of companies towards the environment. The industries are not obliged to consider the damages they may cause to the environment or to consider the breaches of human rights.

Although Bangladesh did not include the right to environmental well-being as a fundamental right, there has been a long debate about the incorporation of environmental rights as human rights. The question is why should environmental rights be treated as human rights? There can be several answers for this, however. In my opinion, the most appropriate reasoning which addresses human rights is the recognition of the environmental impacts that directly influence the life, health, and property of individual humans rather than on other affairs or the environment in general.[65] Considering environmental rights as human rights not only protects the health of individuals, but it will also secure a higher standard of environmental quality.[66] Most importantly, governments will be directly accountable for their failure to regulate and control environmental nuisances, including those caused by corporations, thereby establishing the rule of law. Although in previous years there have been several attempts by the United Nations' Human Rights Committee (HRC) to establish environmental rights as human rights,[67] none of those attempts were successful. However, in March 2021, the HRC adopted a resolution that calls for "a human-rights-based approach

64. *Id.* § 7(6)(d)(ii).

65. Alan Boyle, *Human Rights and the Environment: Where Next?*, 23 EUR. J. INT'L L. 613, 614 (2012).

66. *Id.*

67. *Id.* at 617.

to conserving and restoring natural spaces."[68] Sixty-nine states signed a resolution in support of the recognition of the right to a healthy environment and a commitment to proceed with the process of formalizing this recognition.[69] In July 2022, the General Assembly of the U.N. acknowledged that a clean, healthy, and sustainable environment is a universal human right, and this right has been included in the international legal framework along with other fundamental rights such as "social, economic, cultural, civic and political rights that form the backbone of the United Nations system."[70] Additionally, 150 countries have agreed to recognize this in their national laws.[71] This will leave no space for state authorities to avoid legal responsibilities of protecting a sustainable environment, and it will open the window for more legal claims. This will consequently demand more accountability from business entities. The recognition of environmental rights is not limited to the General Assembly. Other organs of the U.N., such as the Environment Program Finance Initiative, funded a report finding that investing for sustainability impact can coincide with achieving an investor's financial goals.[72] It has been emphasized that investors need to value social and environmental impacts, but the report discusses that it is a lack of proper public policy that prevents business entities from making a beneficial impact on social and environmental responsibilities.[73] The acceptability of a sustainable, clean, and healthy environment as a human right is an indicator that the world understands the importance imposing legal obligations on corporate entities. Consequently, there are already 155 states which recognize some form of a right to a healthy environment.[74] It is evident that the world is marching towards a sustainable era where environmental rights will fundamentally be a right of the people.

With regard to Bangladesh, there is no official body to regulate the usage of these industries' chemicals and no obligations are imposed on

68. Arnold Kreilhuber, *New UN resolution reinforces link between human rights and the environment*, UNITED NATIONS ENV'T PROGRAM (Apr. 8, 2021), https://www.unep.org/news-and-stories/story/new-un-resolution-reinforces-link-between-human-rights-and-environment.

69. *Id.*

70. Katy Thompson & Pradeep Kurukulasuriya, *Historic UN resolution recognizes healthy environment is a human right*, UNITED NATIONS DEV. PROGRAMME (July 28, 2022), https://www.undp.org/blog/historic-un-resolution-recognizes-healthy-environment-human-right.

71. *Id.*

72. *A Legal Framework for Impact A legal framework for the consideration of sustainability impact in investor decision-making*, UNITED NATIONS ENV'T PROGRAM FIN. INITIATIVE (Feb. 2, 2023), https://www.unepfi.org/legal-framework-for-impact/.

73. *Legal Framework for Impact: The rationale for investing for sustainability impact*, UNITED NATIONS ENV'T PROGRAM FIN. INITIATIVE (Mar. 29, 2022), https://www.unepfi.org/industries/investment/legal-framework-for-impact-the-rationale-for-investing-for-sustainability-impact/.

74. Kreilhuber, *supra* note 68.

these industries to manage their waste. As a result, the rivers and public places become a dumping ground for many companies. In a research study, it was posited that domestic companies in countries receiving greater amounts of foreign investment are more likely to be influenced by foreign policies.[75] Relatively, it can soften the approach of governments towards foreign investors. Previously, I described the damage industries are causing to the standard of living for people vis-à-vis the environment, however, the approach of the laws are ignorant towards the strict adaptation of the principle of CSR in Bangladesh**.**

The Indian Parliament incorporated CSR in the Company's Act 2013.[76] The Act views CSR as an expenditure of a company rather than an obligation of a company to maintain and promote sustainable business practices.[77] Section 166(2) of the Companies Act 2013 states that a director of a company shall act "in the best interests of the company, its employees, the shareholders, and the community and for the protection of the environment."[78] The regulation obligates companies to set up a CSR committee so that it can internally monitor and give assurance of compliance with the mandates, and they are compelled to record in the company's annual report information about the company's CSR compliance.[79] The law also requires companies to spend two percent of average net profits made during the three immediately preceding financial years in pursuit of their CSR policies.[80] Initially, Indian companies spent $1.3 billion, and later, between 2017 and 2018, it accelerated to $1.8 billion although it is debated in different studies whether the companies are compensating.[81] While it is important to seek remedy from the companies for damages, it is also important to restrict and regulate them for sustainable business practices. However, in this context, CSR in India is largely concerned with companies contributing a minimum amount of money towards social activities, thereby equating CSR with corporate philanthropy.[82] In addition, to make the most of it, the money collected from companies, the state should build a proper mechanism to utilize it to benefit environmental sustainability.

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75. Wendy Chapple & Jeremy Moon, *CSR in Asia: A Seven Country Study of CSR Web Site Reporting*, 44 BUS. & SOC'Y 415, 420, 438 (2005).

76. The Companies Act, 2013, § 135 (India).

77. Umakanth Varottil, *Analysing the CSR Spending Requirements Under Indian Company Law*, *in* ANALYSING GLOBALISATION OF CORPORATE SOCIAL RESPONSIBILITY AND ITS IMPACT ON CORPORATE GOVERNANCE 231, 238 (Jean J. du Plessis et al. eds., 2018).

78. The Companies Act, 2013, § 166(2) (India).

79. Vikrant Shirodkar & Namita Shete, *The Impact of Domestic CSR on the Internationalisation of Emerging-Market Multinational Enterprises: Evidence from India*, 61 MGMT. INT'L REV. 799, 808 (2021).

80. Varottil, *supra* note 77, at 232.

81. Shirodkar & Shete, *supra* note 79, at 809.

82. Varottil, *supra* note 77, at 232.

The European Commission adopted CSR by implementing Directive 2014/95/EU, which mandates the Commission to produce a set of non-binding guidelines to assist companies in carrying out disclosure of non-financial and diversity information through certain undertakings and groups.[83] It is essentially legislation that places upon such companies certain reporting and transparency obligations. Companies falling within its scope (large public-interest companies with more than 500 employees) are required to include non-financial statements in their annual reports. Specifically, the directive requires companies to disclose their business model, policies (including due diligence processes), outcomes, principal risks and risk management, and Key Performance Indicators (KPIs) relevant to the particular business, in four areas: environment, social and employee matters, respect for human rights, and anti-corruption and bribery. In addition, for some companies (typically listed ones), diversity reports are to be put in place. Companies are advised to follow international laws created by the International Labor Organization (ILO) or Organization for Economic Cooperation and Development (OECD), to set CSR policies. However, the directive does not set a standardized framework.[84] Hence, companies are left to decide their own role in contributing to a greener planet, peace, and prosperity. International bodies such as the European Commission, the U.N., the WTO and others are undoubtedly impactful on companies to implement sustainable policies for businesses. However, as long as there are no direct legal obligations for companies or the state to fulfill, social responsibilities and sustainability will be difficult to achieve.

In 2005, the European Commission implemented the EU Emission Trading System (EU ETS), which encouraged other countries such as China, Canada, and many others to adopt the international carbon market.[85] Although these trading systems are not a direct instruction to companies, nonetheless it is one system to mitigate pollution such as global greenhouse emission. The EU ETS requires "a cap on the carbon emission from energy-intensive sectors within the EU."[86] Despite the participation of the above-mentioned countries, only 20–25% of global greenhouse gas emission is covered.[87]

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83. Council Directive 2014/95, of the European Parliament and of the Council of 22 October 2014 amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups, 2014 O.J. (L 330) 1, 2.

84. Noti et al., *supra* note 51, at 24.

85. *International Carbon Market*, E.U. COMM'N (Feb. 9, 2023), https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/international-carbon-market_en [https://perma.cc/44BW-227C].

86. Christoph Böhringer et al., *Trade in Carbon and Carbon Tariffs*, 78 ENV'T & RES. ECON. 669, 670 (2021).

87. *Id.*

As mentioned above, China is one of the countries which has adopted the carbon market policy,[88] and China is an essential participant because it is one of the biggest manufacturing countries in several sectors such as garments and electronic cars.[89] Therefore, the Chinese government has prepared itself to "comprehensively strengthen the response to climate change that aims to peak carbon dioxide emissions before 2030 and achieve carbon neutrality before 2060,"[90] and consequently, they have created the world's second largest carbon market.[91] Nonetheless, carbon trading is considered to be carbon financing, which is not regulated by any legislation, leading to uncertainty.[92] Trade without considering sustainability is predominantly a short sighted vision both from the perspective of the business and policy makers.

In the WTO, where trade agreements are negotiated, CSR has also been a crucial issue.[93] The WTO principles aim to distinguish between companies which comply with social and environmental standards and those that do not.[94] Social and environmental criteria apply to both domestic and foreign companies.[95] It is noteworthy that the WTO regulations are an obligation for WTO member states only, and business activities of private enterprises are not accountable to the WTO regulations.[96] However, there are cases where the actions of private entities were accountable to WTO measures,[97] for instance, in circumstances where the state had "induce[d] or encourage[d] a private party to act in a certain manner, this action may nonetheless be imputable to the WTO Member concerned."[98] The WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement) is

88. Bo Chen & Rui Wu, *Legal and Policy Pathways of Carbon Finance: Comparative Analysis of the Carbon Market in the EU and China*, 24 EUR. BUS. ORG. L. REV. 41, 44 (2023).

89. STATISTA, Share in World Exports of the Leading Clothing Exporters in 2022, by Country, https://www.statista.com/statistics/1094515/share-of-the-leading-global-textile-clothing-by-country [https://perma.cc/N4RG-3CJR]; STATISTA, Projected Production of Electric Vehicles and Plug-in Hybrid Electric Vehicles in Selected Countries between 2018 and 2023, https://www.statista.com/statistics/270537/forecast-for-electric-car-production-in-selected-countries [https://perma.cc/HLR7-7Y3B].

90. Chen & Wu, *supra* note 88, at 44.

91. *Id.*

92. *Id.*

93. *See* JORIS OLDENZIEL & MYRIAM VANDER STICHELE, TRADE AND THE NEED TO APPLY INTERNATIONAL CORPORATE SOCIAL RESPONSIBILITY (CSR) STANDARDS 1 (2005), https://www.somo.nl/wp-content/uploads/2005/11/Trade-and-the-need-to-apply-CSR-standards.pdf [https://perma.cc/6369-4J5L].

94. *Id.*

95. *Id*.

96. Christian Vidal-Leon, *Corporate Social Responsibility, Human Rights, and the World Trade Organization*, 16 J. INT'L ECON. L. 893, 901 (2013).

97. *Id.* at 901–02.

98. *Id.* at 902.

irrelevant to human rights and labor rights; therefore, it automatically outcast the issues relevant to CSR. Hence, this calls for scrutiny of the Technical Barriers to Trade (TBT) Agreement. Article 2.2 emphasizes health safety, environment, and national security.[99] Article 3 of the TBT Agreement compels the local government bodies and the non-governmental bodies to prepare, adopt and apply technical regulations. Article 3.4 specifies that "parties shall not take measures which have the effect of, directly or indirectly, requiring or encouraging such local government bodies to act in a manner inconsistent with any of the provisions of Article 2."[100] The definition of non-governmental bodies does not coherently mention commercial private bodies, but does not exclude them. Thus, there remains the question of whether WTO regulations can be applied to push the member states to induce private entities to adopt CSR policies. Such approaches bring more ambiguity for corporations as they are neither obliged directly by legislation, nor any definite directions by WTO regulations. On the other hand, it can be established that Article 3 of the TBT does not permit member states to get away with the actions of the private entities. According to Article 3, member states are bound to protect human health and the environment if the activities of any governmental or non-governmental bodies threaten it.

Besides, several countries have been promoting sustainable business practices in their trade agreements. Prima facie, it is noticeable that the countries concentrate on the sustainability of business practices. The Free Trade Agreement between the European Union and Vietnam explicitly mentions the responsibilities of the parties to respect "development in international fora, including the ILO, the Asia-Europe Meeting, the United Nations Environment Programme and under multilateral environmental agreements" in Article 13.14(1a).[101] In Article 13.13 the parties agreed upon joint responsibility to "review, monitor, assess the impact of the implementation of this Agreement on sustainable development through their respective policies, practices, participative processes and institutions."[102] This compels the individual parties to design law and policies which are protective of environment and human health. However, the question remains how effective these promises are? Do they only exist on paper or is there any proper implementation? It was surveyed and found twenty-five Vietnamese firms voluntarily withdrew

99. Agreement on Technical Barriers to Trade art. 2.2, Dec. 4, 1979, 1186 U.N.T.S. 276 [hereinafter TBT].

100. *Id.* art. 3.1.

101. Free Trade Agreement Between the European Union and the Socialist Republic of Viet Nam art. 13.14, E.U.-Viet. Dec. 6, 2020, 2020 O.J. (L 186) 3, 136.

102. *Id.* art. 13.13.

CSR policies.[103] Safeguarding the environment, labor rights, and human rights are generally under the realm of labor rights law and environmental protection, but there is no effective existing CSR legislation in Vietnam to bind the enterprises.[104]

In Article 12.1 of the Free Trade Agreement between the European Union and the Republic of Singapore, the two parties accorded that economic development and environmental protection are interdependent.[105] The parties agreed to address issues related to environmental aspects of trade by respecting the regulations of the WTO, the United Nations Environment Programme and other environmental agreements.[106] In spite of these treaty agreements, it is essential to scrutinize how the companies are executing CSR policies. In a survey, it turned out that 63% of participant companies reported about awareness of CSR while 36.3% expressed that they did not comprehend the concept of CSR.[107] Along with this, it was recognized that the Singaporean companies were less committed towards CSR in comparison to several other countries; for instance, Australia and New Zealand.[108]

The Bilateral Investment Treaties (BIT) on foreign direct investment are often found to be promoting the involved parties to apply rigorous policies.[109] The U.S. Model BIT 2012, Article 12(2) states that

> [t]he Parties recognize that it is inappropriate to encourage investment by weakening or reducing the protections afforded in domestic environmental laws. Accordingly, each Party 'shall' ensure that it does not waive or otherwise derogate from or offer to waive or otherwise derogate from its environmental laws in a manner that weakens or reduces the protections afforded in those laws, or fail to effectively enforce those laws through a sustained or recurring course of action or inaction, as an encouragement for the establishment, acquisition, expansion, or retention of an investment in its territory.[110]

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103. Nguyen & Truong, *supra* note 38, at 685.

104. *See id.* (explaining that although Vietnam does have legal standards for labor rights and environmental protection, enterprises often break and ignore those standards).

105. Free Trade Agreement Between The European Union And The Republic Of Singapore art. 12.1(2), EU-Sing., Apr. 11, 2019, 2019 O.J. (L 294) 3, 98.

106. *Id.* art. 12.1(1).

107. MuiHean Lee, et al., *Bridging the Gap: An Exploratory Study of Corporate Social Responsibility among SMEs in Singapore*, 24 J. PUB. RELS. RES. 299, 304 (2012).

108. Martin Loosemore, et al., *A comparison of corporate social responsibility practices in the Singapore, Australia and New Zealand construction industries*, 190 J. CLEANER PROD. 149, 154 (2018).

109. Tarcisio Gazzini, *Bilateral Investment Treaties and Sustainable Development*, 15 J. WORLD INV. & TRADE 929, 945 (2014).

110. *Id.*

If we scrutinize the previous U.S. Model BIT 2004, it shows that the treaty has been drafted in more stringent language considering that the BIT 2004 impelled "the parties shall strive to ensure" that protection of environmental, human rights, and labor rights are not lowered. In contrast, the language of the 2012 Model BIT is much more strict.

Similarly, Article 11 of the Canadian Model BIT and Article 3 of the BIT between Mexico and Switzerland uphold a quasi-principle in regards to the relation between sustainability and trade. Article 11 of the Canadian Model BIT states that

> [t]he Parties recognize that it is inappropriate to encourage investment by relaxing domestic health, safety or environmental measures. Accordingly, a Party 'should' not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such measures as an encouragement for the establishment, acquisition, expansion or retention in its territory of an investment of an investor.[111]

Article 3 of the BIT between Switzerland and Mexico specifies that

> [t]he Parties recognize that it is inappropriate to encourage investment by relaxing domestic health, safety or environmental measures. Accordingly, neither Party should waive or otherwise derogate from, or offer to waive or derogate, such measures as an encouragement for the establishment, acquisition, expansion or retention in its territory of an investment of an investor. If either Party considers that the other Party has offered such an encouragement, it may request consultations.[112]

Decisively, the WTO regulations discourage activities of business entities which may harm the environment and human health. Nonetheless, these regulations are not directly imposed on companies and companies are not obliged to ensure environmental protection from their hazardous business practices.

The International Labor Organization carried out research work observing approaches taken by states to incorporate CSR as an important factor in the corporate world.[113] The research explained how the European Union and Canada are making CSR policies an integrated part of trade and investment. The growing inclusion of CSR in trade agreements and bilateral treaties is a remarkable indication that there is necessary consideration of CSR. Despite these efforts, the assessment

111. *Id.*

112. *Id.* at 946.

113. Rafael Peels et al., *Corporate Social Responsibility (CSR) in International Trade and Investment Agreements: Implications for States, Business, and Workers*, 8 (Int'l Lab. Off., Working Paper No. 13, 2016).

demonstrates that CSR policies are soft in terms of obligation and precision.[114] It pointed out the significance of the fundamental principle of treaty law, which compels states to be accountable and to act in good faith, so states cannot entirely escape CSR policies. In its penultimate analysis, the implications for the state, corporations, and workers were specified. Finally, it shed light on the role of the ILO. The paper claimed the ILO has considerable involvement in international trade agreements, and the European Union's directions to its business entities to consider CSR regulations when enacting business agreements indicates that the ILO has a powerful impression on private and public businesses.

Emphasis was put on the Accord on Fire and Building Safety in Bangladesh and the ILO Better Factories Cambodia Programme, which asserts, "[t]he distinction between the strictly legal and the purely voluntary seems to be getting blurred, not least as accountability and reporting mechanisms are tightened."[115] This research work of the ILO acknowledged that CSR is a benevolent act of businesses, but it claims that the distance between legal obligations and accountable CSR policies has been decreased with the active involvement of organizations like the ILO as institutions like the European Union Commission directs companies to draft their CSR policies under the guidance of the ILO.

IV. FEASIBILITY OF CSR IN LAW

The above discussed legal framework fails to recognize the impact of sustainable business activity on the environment. In an era of accepting the right to environment as a human right,[116] states are compelled to implement legal frameworks which would impel industries and companies to use sustainable business practices. To ensure sustainable business practices, it is necessary to have screening through Environmental Impact Assessments (EIA), thus making it certain that an authoritative body is aware of the damages caused by the non-environmental business practice. EIAs have been adopted by several countries such as Mexico in its 1988 General Law of Ecological Balance Environmental Protection; and China in its Basic Environmental Protection Law, which enhances its application in its Environmental Impact Assessment 2003.[117] The Rio Declaration on Environment, Principle 17 treated EIAs as a national instrument that a competent national authority would utilize to assess activities which might have

114. *Id.*

115. *Id.* at 24.

116. *Human Rights and the Environment*, ICELAND HUM. RTS. CTR. (Apr. 18, 2021), https://www.humanrights.is/en/human-rights-education-project/human-rights-concepts-ideas-and-fora/human-rights-in-relation-to-other-topics/human-rights-and-the-environment [https://perma.cc/964G-Z4BU].

117. Yang & Percival, *supra* note 60, at 628.

detrimental effects on the environment.[118] Unlike the Indian legal framework which binds companies to pay two percent of their average profit, companies should be compelled to pay the exact amount needed to remedy the damages they cause. In spite of the importance of EIAs, they are less effective compared to environmental laws in general. Therefore, amalgamation of CSR into environmental laws should be an adaptation of general environmental law.

Environmental laws evidently define the duties to compensate the harm. Three questions are to be answered: (i) is there any state liability, (ii) what is the definition of environmental damage, and (iii) what are suitable methods to pay the damages? There are three ways a state can be inflicted with liability: fault (negligence), strict liability (it will be presumed that the state is liable, but they will have defenses), and absolute liability (that is, no defensive argument will be accepted even in the case the damages are caused by an act of God).[119]

With respect to the second question, the definition of environmental damage may vary from state to state, yet environmental damages should be considered under the definition provided by international environmental law.[120] Bowman described damages as "a reduction in the value of an appreciated good."[121] Following this definition, a narrative can be drawn that negative effects on natural resources can constitute damages.[122] Robert Bartz interpreted environmental damage as

> a significant adverse effect on a biotic conservation resource (animal, plant fungi, microorganism) or an abiotic conservation resource (soil, water, climate) that has an impact on (1) the value of the conservation resource in whole or part, (2) on the conservation resource as an ecosystem component, or (3) on the sustainable use of the conservation resource or the ecosystem with which the resource is associated.[123]

Finally, it is essential to consider the definition of restoration or methods of paying to remedy environmental damages. Restoration means "any action (or alternative), or combination of actions (or alternatives), to restore, rehabilitate, replace, or acquire the equivalent of injured

118. *Id.*

119. Max Valverde Soto, *General Principles of International Environmental Law*, 3 ILSA J. INT'L & COMPAR. L. 193, 203 (1996).

120. *Id.* at 204.

121. Robert Bartz et al., *Proposed Definition of Environmental Damage Illustrated by the Cases of Genetically Modified Crops and Invasive Species*, 24 CONSERVATION BIOLOGY 675, 677 (2009).

122. *Id.*

123. *Id.* at 679.

natural resources and services."[124] The Permanent Court of Justice viewed it as

> the essential principle contained in the actual notion of an illegal act . . . is that reparation must, as far as possible, wipe out all the consequence of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed. Restitution in kind, or if it is not possible, payment of a sum, corresponding to the values which a restitution in kind would bear; the award, if need be, of damages for loss sustained which would not be covered by restitution in kind or payment in place of it- such are the principle which should serve to determine the amount of compensation due for an act contrary to environmental law.[125]

Conjugating CSR and environmental laws will not only protect the individual's rights, but it will also create more accountability from corporations to the concerned stakeholders of CSR.

The concept of CSR includes the responsibility of companies to the people; therefore, companies should contribute to scientific research for replacing hazardous chemicals, and establishing a CSR legal framework. All of these should be viewed as a legal duty legislation should incorporate as environmental law instead of considering CSR as a corporate expenditure. An accountable system should be built to supervise the implementation, execution, compliance, and the effectiveness of the legislation.

One of the biggest concerns of any company is its consumers, and it is the consumers' pressure which often leads big companies to be concerned about the social and environmental impact of their business practices. In Bangladesh, the government can introduce programs to raise awareness among the people about consumption of environmentally friendly produced products.

It is evident that the stakeholders discussed above might have different interests to fulfill through an enterprise, which can often drive corporations in different directions. It has been argued that social stakeholders play a big role in corporate social responsibility,[126] and companies could be forced to respect these social demands. For example, the neighbors may complain about an odor, and national and international organizations may demand usage of less hazardous chemicals, which could lead to several informal sanctions if the industries or companies fail

124. Kévine Kindji & Michael Faure, *Assessing Reparation of Environmental Damage by the ICJ: A Lost Opportunity?*, 57 QUESTIONS INT'L L. 5, 16 (2019).

125. Soto, *supra* note 119, at 193.

126. *See* Garai, *supra* note 19, at 282.

to perform. I have previously discussed the life-threatening impacts of hazardous chemicals in Narayanganj, and if the government takes initiative to inform its people about the importance of a healthy environment, a drastic behavioral change will impact the performance of the polluting companies with respect to CSR. It is argued by many scholars that "environmental laws were all designed to operate on the basis of pre-pandemic presumptions about human behavior."[127] Therefore, the government's initiative to create social awareness will be pivotal in forcing companies or industries to focus more sincerely on CSR, and often social actors have a more direct influence on companies or industries as they might be fearful of losing goodwill, which will eventually impact the company's profit. Professor Hooghiemstra viewed it as corporate communication, pointing out that companies can use communication as a model of reporting about CSR activities and illustrating public relations have a substantial relationship with corporate social responsibility.[128] Birkigt and Stadler observed that "the image of a company is a projection of its identity," and this opinion was supported by Van Riel.[129] One significant example is the Australian state of Victoria where the authoritative body introduced an environmental improvement plan by legislation.[130] The legislation requires polluting companies to engage in dialogue with local communities in the shadow of the law. Such development in the law required companies to establish more effective internal management and planning and eventually to target better improved environment.[131] Such initiative under the shadow of law has empowered the communities and given them the role of environmental watchdogs. They act as a surrogate regulator.

Additionally, the legislation can include provisions for corporations to disclose environmental information as the community has a right to information. If the companies are compelled to disclose information about their inventories by legislation, it would effectively force companies to estimate their emission and usage of hazardous substances. This information might be acquired by social actors including communities and non-profit organizations, and evidence shows that communities that are well informed can use information to ensure tight performance even if there is no strict legislation.[132] One can argue that

127. Arden Rowell, *COVID-19 and Environmental Law*, 50 ENV'T L. REP. 1, 1 (2020).

128. Reggy Hooghiemstra, *Corporate Communication and Impression Management – New Perspectives Why Companies Engage in Corporate Social Reporting*, 27 J. BUS. ETHICS 55, 57 (2000).

129. *Id.* at 59.

130. Garai, *supra* note 19, at 8.

131. *Id.*

132. Archon Fung & Dara O'Rourke, *Reinventing Environmental Regulation From the Grassroots Up: Explaining and Expanding the Success of the Toxics Release Inventory*, 25 ENV'T MGMT. 115, 119 (2000).

inserting a legal obligation into the above-discussed practice between companies and social actors can slow the process; however, I am of the opinion that lack of legislation and legal obligations for companies to associate with the social actors will create a loophole, which can easily be taken advantage of by powerful industries.

Norman Bowie argued that "corporations ought to seek profit while nevertheless obeying a moral minimum."[133] He further argued that parliamentary legislation has a major role in correcting market failures, and corporations might counter it by using political influence to set the environmental agenda. Bowie argued that business has a special obligation "to avoid intervention in the political process for the purpose of defeating or weakening environmental legislation."[134] Companies can use their power to influence public opinion and try to influence people directly. Therefore, an accountable mechanism should be established to administer the above-mentioned practice between industries and social actors or communities. For instance, public participation can be rooted more deeply by allowing community members to lodge complaints against the hazardous business practice of the industries. Effectively, it will place the burden of responsibility on community members and make them feel more included in the system.

Additionally, many have this dominant view that corporations and the environment are two separate courses for discussion; however, I am of the opinion that environmental protection can increase economic growth of the corporation and eventually can benefit the State. One significant example is China, in which the economic growth and the social sustainability was gravely impacted due to environmental harm.[135] CSR policies and establishing CSR as a duty to protect the environment does bring enterprises and the environment together. In research, it was found that an enterprise which has disclosed its position in CSR to mitigate and to avoid harm has produced a better goodwill for their enterprises.[136]

Maripaz Muñoz Prieto articulated the following four things which motivates the company to be accountable towards the environment.[137]

1) Legal requirements, here the companies are obliged to comply with the existing legislations.

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133. Joe DesJardins, *Corporate Environmental Responsibility*, 17 J. BUS. ETHICS 825, 828 (1998).

134. *Id.*

135. Lopin Kuo et al., *Disclosure of Corporate Social Responsibility and Environmental Management: Evidence from China*, 19 CORP. SOC. RESP. & ENV'T MGMT. 273, 274 (2012).

136. *Id.* at 275.

137. Maripaz Muñoz Prieto, *Legislation, Regulations, and Reflections on Environmental Accounting as a Reflection of the Incorporation of Social Responsibility in Companies*, 9 LAWS 1, 5 (2020).

2) Economic requirements, he explained "the increasing regulations may force managers to control their environmental risks more accurately in the face of the threat of sanctions, fines, or the administrative-criminal process, but also to reduce production costs and possibilities of accessing certain markets."[138]

3) Environmental or internal management reasons: a company designed policies to monitor their environmental management system.[139]

4) Stakeholder or social image demands: maintenance of the goodwill of the company before their consumers, business partners and other stakeholders.[140]

Research was undertaken by Harvard Business School economist and strategy professor Michael Porter, the hypothesis of the research was strict but flexible environmental regulation can enhance business performance.[141] Five reasons were suggested, if properly crafted regulation was implemented.[142]

It was recommended that:[143]

- First, regulation signals companies about likely resource inefficiencies and potential technological improvements.
- Second, regulation focused on information gathering can achieve major benefits by raising corporate awareness.
- Third, regulation reduces the uncertainty that investments to address the environment will be valuable.
- Fourth, regulation creates pressure that motivates innovation and progress.
- Fifth, regulation levels the transitional playing field.

This hypothesis met with great success in political debate and as I have mentioned above, it is a dominating view that environmental protection is always detrimental to economic growth; his idea of enhancing the business performance created an impact in the political debate even in the United States. In previous discussions, I have analyzed that Bangladesh is one of the dominating countries in the world in the fashion industry; the State has facilitated these industries to boost their profit margin; while these companies increase their profit margin by

138. *Id.*

139. *Id.*

140. *Id.*

141. Stefan Ambec et al., *The Porter Hypothesis at 20: Can Environmental Regulation Enhance Innovation and Competitiveness?* 3 (Res. for Future Discussion Paper No. 11-01, 2011), https://media.rff.org/documents/RFF-DP-11-01.pdf [https://perma.cc/U3CP-BZS3].

142. *Id.* at 6.

143. *Id.* at 3.

exploiting the environment and the community, the regulators have showed less interest in restricting them under strict environmental regulation.

Considering the approach taken by Professor Michael Porter, his hypothesis was able to persuade the business community to accept environmental regulations to benefit different members of the company.[144] It was strongly established that well-designed regulation will lead to a 'win-win' situation. He suggested that environmental regulations will not only protect the environment but also increase the profits and competitiveness through improvements of the products, improving the production process or by improving the product quality.[145] One can argue, whether environmental regulations have a better position to hold in a corporation compared to its managers? How does it directly influence the growth of the profit in a business? The research work argued that environmental regulation can help firms to identify inefficiency of costly resources. However, Porter and van der Linde insisted that innovation does not just mean technological change and innovation can take place in various forms which includes "a product's or service's design, the segments it serves, how it is produced, how it is marketed and how it is supported."[146] I am of the opinion that the State should encourage better environmental regulations, which includes the CSR, not only to protect the environment from the hazardous business practice, but also to accelerate the business of the corporate industries which will eventually boost the economy of the country in a more sustainable manner.

CONCLUSION

This Article has discussed the environmental impacts of the hazardous business practices of companies with regard to the environment. First, the research work discussed scientific evidence available to conclude that business practices of some industries are causing substantial damage to the environment, including facts about the ineffectual company policies of some international enterprises to safeguard the environments of exporting countries. The companies have no control over their supplying companies, and they can produce products by polluting the environment while international companies choose to purchase products from them. It is evident from the discussion that although these renowned companies purport to be environmentally friendly, they do not have full control of the policies of the supplying companies in countries like Bangladesh.

144. *Id.*
145. *Id.* at 10.
146. *Id.*

Along with this, this Article examined the available definitions of CSR in the European Union, Vietnam, United States, and United Kingdom and how these countries encourage and advocate for CSR in public policy. Regardless of these efforts, people in general, many employees, and other stakeholders of the companies still do not have accurate knowledge of CSR. Globally, CSR is treated as a benevolent activity, thus there is no definition of it and each state is designing their policies as is convenient to them.

The later part of this research examined the position of Bangladesh's environmental legislation, the position of CSR in Indian law, and European CSR policies. It discussed the Indian Company's Act 2013 and its approach towards CSR. The European Union's approach to CSR was also reviewed to determine its position in conserving the environment from hazardous business practices. The research work confronted the debate of environmental rights as a form of human rights, and it was found that many countries have positively adopted the principle of environmental rights as a fundamental right. One cannot ignore the significance of international trade and trade agreements for this reason. This Article explored the WTO regulations and articles of treaty agreements between Singapore and the European Union and between Vietnam and the European Union. These agreements solicit sustainable business practices although due to a lack of executive policies, the outcome is not fruitful. Additionally, the existing WTO regulations may not advocate for CSR since it is the states who are held accountable by the regulations while private corporations are not liable under the WTO regulations. This piece further examined the possibility of WTO regulations holding private companies liable.

Finally, it discusses the necessary steps to be taken by authoritative governmental bodies to incorporate CSR in their environmental laws with Bangladesh's circumstances as an example. These recommendations are applicable to any jurisdiction. Case studies of China and Australia were included to showcase the prosperity in sustainable business practices. The hypothesis of Professor Potter was offered to help and boost the corporations in regards to profit maximization. I also scrutinized the role of social actors in pressing corporate enterprises to fulfill corporate social responsibilities. Conclusively, I argue that environmental protection and profitable businesses can exist in tandem.