

## **Submarine Telecommunication Cable Infrastructure Regime in India: An Analysis on the Indian Legal and Regulatory Regime**

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### **ABSTRACT**

*Submarine cable infrastructure is the backbone and key to global telecommunications and the internet vis-à-vis the security and economy of every country. India's growing population and its dependency on cable networks create an exigency to require one of the largest subsea networks to meet the growing demand in the economy. India's strategic and geographic position in the Indian Ocean region must be exploited to meet its ambition in becoming one of the world's few cyber superpowers. However, India's complex and unwieldy legal and regulatory regime in lieu of its inconsistency within domestic laws makes India a potential target for damage. Cable-related issues are regulated by measures that are found scattered in different laws, notifications, orders etc. and that are dealt with by different authorities that run across several Ministries. This article articulates India's position as presently unsupported by an efficient permit regime in the light of the domestic legal framework. The article embarks on the present-day challenges in the Indian regulatory system and furnishes recommendations for better coordination and compliance to improve India's position in global telecommunications.*

**Keywords- Submarine Cable, Legal Regime, Regulatory Regime, UNCLOS, Cables, Vessel**

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## Introduction

Submarine cables inhabit a critical position within the globally interconnected networks by carrying about 99% of international communications traffic, with demand projecting to double every two years for the foreseeable future.<sup>1</sup> This rocket growth in demand for data, fuelled by bandwidth-intensive applications, continued exposure to mobile device usage, and proliferation of cloud-based services, has driven towards a considerable growth and rise in the global submarine deployments.<sup>2</sup> Over The Top Service providers only continue to showcase strong earnings reports at a rapid pace indicative of bandwidth demand, not expected to weather off any soon.<sup>3</sup> This exponential growth in the Submarine Telecom development industry turns towards India's fast-growing technology sector, which makes this region prime for growth.<sup>4</sup> The backbone of the global telecommunication network that facilitates the growth of independent economies induces dependency on submarine cables over its economy and security. Further, this growth is coupled with associated challenges in the submarine cable infrastructure, which is responsible for financial transactions up to \$10 trillion daily, closely raveled with India's potential to emerge as a global cyber superpower.<sup>5</sup> *The United Nations Convention on the Laws of the Sea, 1982 (UNCLOS)*<sup>6</sup> and the domestic laws of a country sought to regulate activities relating to submarine cables. However, this regime of submarine cables is often overlapped by India's conflicting interests of other maritime uses. At the domestic level, the Indian framework is inadequate in ensuring the protection of cables within its jurisdiction due to a lack of specialized domestic laws and policy, thereby undermining the criticality of submarine cables to its economy.

With freedom of movement being an issue post-Covid-19 pandemic, it was observed that there has been a shift in India more predominantly accessing the internet via mobile devices, with the latest statistic depicting 90% market accessing the internet in an above-mentioned manner.<sup>7</sup> India, being the second most populated region in the world, just need one of the largest subsea networks, which would be driven by the increasing demand and a growing digital economy. However, the vested interests, policies and bureaucracy prevailing in the country have held back its development in the sector, making it a far-reaching goal to meet similar demand levels for itself.<sup>8</sup> Currently, there are about 18 subsea cables landing in 15 cable landing stations across four cities in India. Out of 18 subsea cables, around 7 subsea cables terminate in India.<sup>9</sup> Submarine cables meet one of

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<sup>1</sup> Wayne Nielsen et al, *Submarine Telecoms Industry Report*, (7th Ed Submarine Telecoms Forum, 2019), 12. <https://subtelforum.com/products/submarine-telecoms-industry-report/> ; see also, Douglas Main, "Undersea Cables Transport 99 Percent of International Data" *Newsweek*, April 2015. <https://www.newsweek.com/undersea-cables-transport-99percent-international-communications-319072>.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> Submarine Telecommunication Forum Magazine, May 1, 2020. [https://issuu.com/subtelforum/docs/subtel\\_forum\\_issue\\_112](https://issuu.com/subtelforum/docs/subtel_forum_issue_112).

<sup>5</sup> Ronald J. Rapp et al. 2012. India's Critical Role in the Resilience of the Global Undersea Communications Cable Infrastructure, 3 Strategic Analysis, *Taylor and Francis Group* , 375-383 (2012), <https://doi.org/10.1080/09700161.2012.670444>.

<sup>6</sup> United Nations Convention on the Law of the Sea, 1982.

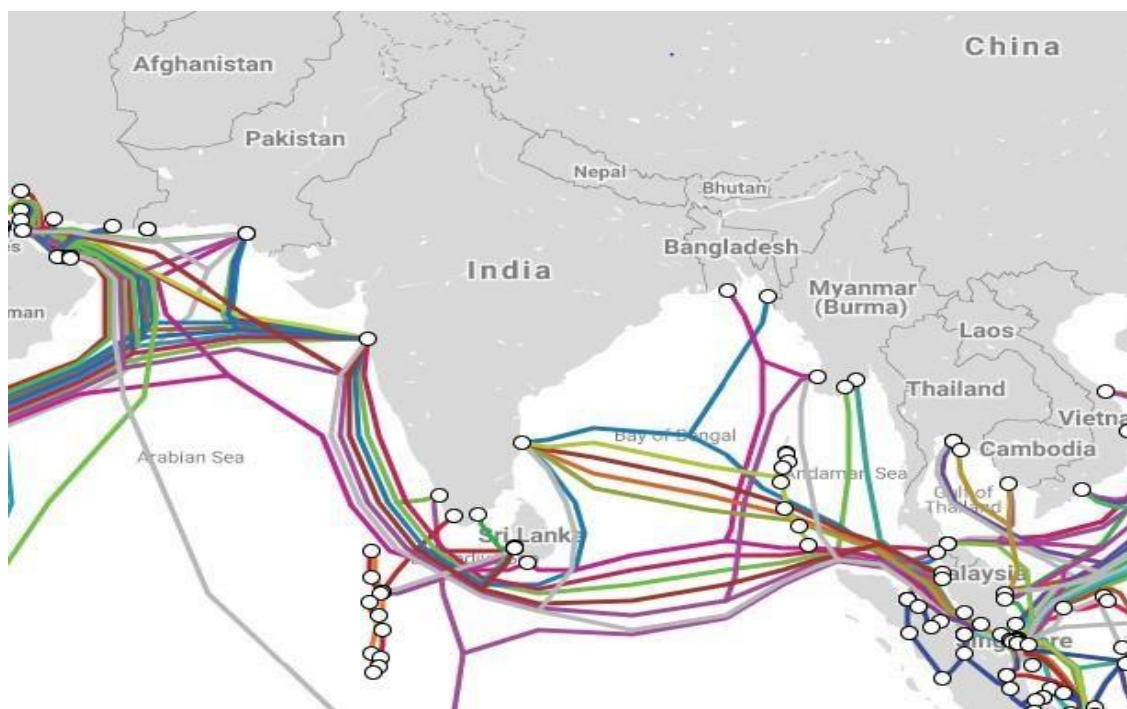
<sup>7</sup> Eric Handa and Sean Bergin. The Impact of Covid-19 on Telecommunications and the Future, *Submarine Telecommunication Forum Magazine*, May 18,2020 [https://issuu.com/subtelforum/docs/subtel\\_forum\\_issue\\_112](https://issuu.com/subtelforum/docs/subtel_forum_issue_112).

<sup>8</sup> John Tibbles. Subsea Cable Demand Post Covid-19, *Submarine Telecommunication Forum Magazine*, May 17, 2020. [https://issuu.com/subtelforum/docs/subtel\\_forum\\_issue\\_112](https://issuu.com/subtelforum/docs/subtel_forum_issue_112).

<sup>9</sup> Suvesh Chattopadhyaya, Is India's subsea cable infrastructure sufficient to support next-gen business,

the most complex regulatory challenges with respect to ocean governance.<sup>10</sup> States are yet to acknowledge the importance and challenges of the submarine system.<sup>11</sup> Challenges in relation to cable operation mechanism and its protection/repair continue to exist without changes made in the current regime.

Figure 1<sup>12</sup>: India's submarine cables and maritime zones. (Source: Submarine Cable Map, TeleGeography.)



Disturbance in the cable system that affects multiple jurisdictions in one place extends to other jurisdictions as well.<sup>13</sup> Any form of interruption in the functioning of subsea cables may become detrimental to a nation's economy and security. India's cable system stability rests upon the collective supportive system across borders, hence, as a result, an integrated submarine cable management approach would prove to be an effective measure. In 2008, the vent of multiple cable cuts in the Mediterranean and Persian Gulf region had caused widespread loss of internet connectivity through the Middle East and South Asian region. India had lost 60 percent of traffic.<sup>14</sup> In another event, in 2013, BSNL, the prime bandwidth provider, lost 21% of traffic.<sup>15</sup> Paramount Communication Limited

2008 <https://www.submarinenetworks.com/en/insights/is-india-a-subsea-cable-infrastructure-sufficient-to-support-next-gen-business>.

<sup>10</sup> Douglas R. Burnett et al eds., *Submarine Cables: The Handbook of Law and Policy* (Martinus: Nijhoff, 2014).

<sup>11</sup> Beckman, *Submarine Cables-A Critically Important but Neglected Area of the Law of the Sea*(paper presented at the 7th International Conference of the International Society of International Law on Legal Regimes of Sea, Air, Space and Antarctica, New Delhi, 15-17 January 2010, <https://cil.nus.edu.sg/wp-content/uploads/2010/01/Beckman-PDF-ISIL-Submarine-Cables-rev-8-Jan-10.pdf>).

<sup>12</sup> <<https://www.submarinecablemap.com/>>

<sup>13</sup> Coffen-Smout, Scott, and Glen J. Herbert, *Submarine cables: a challenge for ocean management*, 24(6) *Marine Policy* 448-448 (2000).

<sup>14</sup> Karl Frederick Rauscher. *Reliability of Global Undersea Communications Cable Infrastructure 300 (ROGUCCI)*, August 11, 2020, <https://www.ieee-rogucci.org/files/The%20ROGUCCI%20Report.pdf>

<sup>15</sup> Bobbie Johnson, *how one clumsy ship cut off the web for 75 million people*, *The Guardian*, February 1, 2008. <https://www.theguardian.com/business/2008/feb/01/internationalpersonalfinancebusiness.internet>.

became the only first Indian company to work on repairs to work on Bharat Lanka Undersea Cable System (BCLS) since the year 2006.<sup>16</sup>

The Indian policy and regulatory regime do not support the facilitation of submarine cable operations and repair within its Maritime Zones due to several permits that are required to be obtained before commencing the operations. Cable-related issues are regulated by measures scattered in different laws, notifications, orders, etc. and, that are dealt by different authorities that run across several ministries. Having said this, the cable shipping companies end up spending several months and losing millions of dollars in the course of procuring these permits. These factors make India a chokepoint affecting not only the Indian telecommunication industry but also, every other state that is connected by the damaged cable.<sup>17</sup> The submarine cable infrastructure challenged by an inadequate protection regime *in lieu* of the inconsistency within domestic laws would pose a consolidated threat to submarine infrastructure.

This paper will examine the broad issue of the legal and regulatory regimes on establishing cable network and repair operations that govern the submarine cable infrastructure and operations in India's maritime zones. Further, the article will articulate the existing legal regime within national and international laws and the resultant challenges associated with it. The first segment of the article will outline the international legal regime governing subsea cables, followed by India's legal regime relating to submarine cable operations in the territorial sea and the exclusive economic zone. The second segment examines the regulatory/permit regime on cable operations coupled with setting out recommendations and potential changes in the subsea cable system. The article embarks on the present-day challenges in the Indian regulatory system and furnishes recommendations for better coordination and compliance to improve India's position in global telecommunications.

### **Part I: International Legal Regime on Submarine Cables**

The first international instrument that provided obligations for breaking telegraph cables in the High Sea was prescribed under the Cable Convention, 1884.<sup>18</sup> However, this age-old convention was limited only to a few states which were signatories to it.<sup>19</sup> It was only after more than half a century that the global community made deliberations on the law of the sea to include subsea cables. Thereafter, 'Freedom of Laying Submarine Cables' was codified and recognized by the *Geneva Convention on Continental Shelf*<sup>20</sup>. Further, in following the path of its predecessor (*Cable Convention, 1884*), it also adopted provisions in relation to the protection of submarine cables.<sup>21</sup> Later, all these provisions

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<sup>16</sup> Deepak Kumar Jha. Optical fiber company repairs undersea net cable facility to SL, *The Pioneer*, September 9, 2019, <https://www.dailypioneer.com/2019/india/optical-fibre-company-repairs-undersea-net-cable-facility-to-sl.html>.

<sup>17</sup> Anjali Sugadev, India's Critical Position in the Global Submarine Cable Network: An Analysis of Indian Law and Practice on Cable Repairs, 56 *Indian Journal of International Law*, 173-200 (2016). <https://link.springer.com/article/10.1007/s40901-017-0050-y>.

<sup>18</sup> Convention for the Protection of Submarine Telegraph Cables, opened for signature March 14, 1884, Australian Treaty Series 1901 no. 1, <https://cil.nus.edu.sg/wp-content/uploads/formidable/18/1884-Convention-for-the-Protection-of-Submarine-Telegraph-Cables.pdf>

<sup>19</sup> Beckman, *supra* note 12, at 3.

<sup>20</sup> Convention on the Continental Shelf, opened for signature April 29, 1958, United Nations, Treaty Series, vol. 499, p. 311

<sup>21</sup> Beckman, *supra* note 12, at 3.

were included *ad verbatim* in The United Nations Convention on the Law of the Sea (“UNCLOS”), 1982, which became the primary international law on submarine cables.

Under the UNCLOS, the coastal states have sovereignty over territorial waters for up to 12 nautical miles.<sup>22</sup> As a result, the national law of territorial waters becomes applicable on submarine cables. On several coasts, there are either minimal or no legal measures to reduce the potential threat to submarine cables from indiscriminate maritime activities, like deep-sea mining, bottom trawling for fishing etc. Further, UNCLOS does not lay an obligation upon the states to adopt laws for submarine cable in the event of cable damage. The same would not be prohibited.<sup>23</sup>

The rights in relation to the sea bed and subsoil are related to the continental shelf regime. Notably, a combined reading of Article 87<sup>24</sup>, that is, freedom of high seas includes laying of subsea cables and, Article 58(2)<sup>25</sup> makes it clear that freedom of laying subsea cables applies to the EEZ as well. Articles 58 and 59 further reassures other state’s right to lay submarine cables in the EEZ of the coastal states. However, the same must be in compliance with the convention and domestic laws of the state. Further, notably, subsea cables are predominantly owned by private companies and not by states.<sup>26</sup> Articles 77 & 78<sup>27</sup> provide limitations upon the coastal states to facilitate submarine cable operations. Article 79 (2) provides that the laws of the coastal state in the continental shelf and EEZ must be reasonable. Further, Article 79(5)<sup>28</sup> poses a restriction upon a coastal state to refrain from adopting measures or enacting legislations that may affect the contingent needs for the repair of cables already laid.

The two major issues that contribute as an area of concern in the protection of submarine cable infrastructure in the continental shelf and EEZ are *firstly*, the protection of cable ships and *secondly*, the protection of submarine cables themselves, in this region. There may arise a conflict in the other marine uses and repair of cables that might cause problems. For instance, the vessels engaged in fishing activities cause interference to cable ships involved in cable operations.<sup>29</sup> This may affect the immediate cable repair and may lead to interference in urgent telecommunications. The Cable Convention, in this regard, provides for maintaining a minimum distance between vessels by giving prior notice to the local guards in the areas of operation. Further, the *CLOREGES, 1972*, requires cable ships to demonstrate signal and sound in the operation area to keep other fishing vessels away.<sup>30</sup> However, these above-mentioned measures find no mention

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<sup>22</sup> United Nations Convention on the Law of the Sea opened for signature December 10, 1982, United Nations, Treaty Series, vol. 1833, p. 396.

<sup>23</sup> Utpal Kumar Raha and Raju K.D., Submarine Telecommunication Cable Infrastructure in South Asia Under International Law: Opportunity for Sri Lanka and India, 26 Sri Lanka J. Int’l L. 79, (2018).

<sup>24</sup> United Nations Convention on the Law of the Sea, *Article 87*.

<sup>25</sup> United Nations Convention on the Law of the Sea, *Article 58 (2)*.

<sup>26</sup> Myron Nordquist et al. (eds). The United Nations Convention on the Law of the Sea 1982: A Commentary,” (Martinus Nijhoff Publishers, Leiden 1993).

<sup>27</sup> United Nations Convention on the Law of the Sea, *Article 77 & 78*.

<sup>28</sup> United Nations Convention on the Law of the Sea, *Article 79(5)*.

<sup>29</sup> Ninety-Four Consortium Cable Owners v Eleven Named French Fishermen, Tribunal de Grande Instance de Boulogne Sur Mer (1st Chamber), August 28, 2009.

<sup>30</sup> Douglas R. Burnett, The 1884 International Convention for Protection Of Submarine Cables Provisions Not In UNCLOS Deserve Attention Now, *Squire Sanders and Dempsey*, 5 (2011), [https://cil.nus.edu.sg/wp-content/uploads/2011/04/Douglas-Burnett\\_1884\\_International\\_Convention\\_for\\_Protection\\_of\\_Submarine\\_Cables\\_Provisions\\_Not\\_in\\_UNCLOS\\_De1.pdf](https://cil.nus.edu.sg/wp-content/uploads/2011/04/Douglas-Burnett_1884_International_Convention_for_Protection_of_Submarine_Cables_Provisions_Not_in_UNCLOS_De1.pdf)

within the UNCLOS. For this reason, the coastal states often neglect to implement these mandates during the cable repair operation.<sup>31</sup>

Further, submarine cable infrastructure is enormously challenged by inadequate protection, along with the substandard implementation of the existing regime. This inconsistency in international law and domestic law poses a threat to potential growth and creates a chokepoint for laying subsea cables in the region.

## Part II: National Legal Regime on Submarine Cables

In September 2017, the undersea communication link that establishes a link connected between South East Asia-Middle East-Western Europe (“SEA-ME-WE-3”), the world’s longest undersea cable, was damaged during repair being carried out by the Kerala Water Authority in Kundannoor. Over 92 telecom companies from across the globe were key stakeholders in the venture and the cable had a total of 39 landing points. The cable services remained disrupted for six-and-a-half hours and in the places wherein the stakeholder did not have a backup, they suffered total internet blackout, and in other cases, the internet connectivity had been very slow. Notably, this wasn’t the first time it had been damaged.<sup>32</sup> In the future, similar such instances might occur if the regulations on a potential site of failure are not improved. The extremity of regulations in India inclusive of laws on cable ships within Indian waters and permits/requests to install monitoring equipment for terminating bandwidth coupled with the factor of being prohibitively expensive make India a chokepoint for the carriers to conduct business.<sup>33</sup>

The primary legislation and provision that deals with the law of the sea in the Indian coastal maritime zones are the Territorial Waters, Continental Shelf, Exclusive Economic Zone and Other Maritime Zones Act, 1976 (“Territorial Waters Act”).<sup>34</sup> As stated earlier, Article 21 of UNCLOS allows the coastal states to adopt laws and regulations with respect to the protection of submarine cables. Section 4(3) of the Territorial Waters Act, empowers the Central Government to regulate the entry of foreign ships (including cable ships) if it is satisfied that it is necessary to do so in the interest of India’s peace and security.<sup>35</sup> Section 6 and 7 of the Territorial Waters Act<sup>36</sup> are provisions dealing with maritime zones beyond 12 nautical miles, that is, rights in the EEZ and the Continental Shelf where the coastal state has no sovereignty in terms of territoriality or dominium but possesses sovereign rights over the ocean’s resources in the form of exploration, exploitation, management and conservation of natural resources.<sup>37</sup> The Territorial Waters Act explicitly addresses provisions in relation to submarine cables only under Section 6(7) and Section 7(8). Section 6(7) provides that the Central Government shall not impede the laying of submarine cables or pipelines by foreign vessels in the continental

<sup>31</sup> Burnett. D., *supra* note 11 at, 3.

<sup>32</sup> Swarajya Staff, Kerala: World’s Longest Undersea Cable Damaged During Repair Works, *Swarajya*, September 20, 2018. <https://swarajyamag.com/insta/kerala-worlds-longest-undersea-cable-damaged-during-repair-works>.

<sup>33</sup> Nicole Starosielski, *Strangling the Internet Limn*, (2020). <https://limn.it/articles/strangling-the-internet/>

<sup>34</sup> The Maritime Zones of India (Regulation of Fishing By Foreign Vessels) Act, 1981, No. 42, Acts of Parliament, 1981 (India).

<sup>35</sup> The Maritime Zones of India (Regulation Of Fishing By Foreign Vessels) Act, 1981 § 4(3), Acts of Parliament, 1981 (India).

<sup>36</sup> The Maritime Zones of India Act, (Regulation Of Fishing By Foreign Vessels) Act, 1981, § 6 & 7, . Acts of Parliament, 1981 (India).

<sup>37</sup> *Aban Loyd Chiles Offshore Ltd. & Anr. v Union of India & Ors.*, (2008) 11 S.C.C. 439 (India). See also; *Republic of Italy & Ors. v Union of India & Ors.*, 4 S.C.C. 721(2013)

shelf subject to the measures necessary for protecting the interests of India. Section 7(8) provides for provisions similar to that of Section 6(7) in the EEZ.

The regulatory regime on submarine cables in India exists in the form of several notifications, circulars and regulations issued by different Ministries that spreads across seven Ministerial Governmental departments, i.e., Ministry of Home Affairs (“MOHA”), Ministry of Defence (“MOD”), Directorate General of Shipping, Flag Officer, Offshore Defence Advisory Group, Indian Customs department, Indian National Shipowners’ Association and Port authorities. Although it may appear a sound submarine cable regime, however, this institutional framework represents a rather cumbersome cable regulatory and infrastructural regime which may not produce a potential outcome to its effect.<sup>38</sup> In the jurisdictions wherein there occur one or more cable faults in a year, India takes the second-highest average mean time to commence repair of submarine cables extending up to 50 days.<sup>39</sup> This delay in subsea cable faults in India is predominantly due to the requirement of several permits at the time of default. These lengthy delays relating to cable infrastructure and repair operation results in laying a high financial burden upon the cable operators coupled with additional standby costs.

### **Part III: Permit Regulatory Regime for Establishing Submarine Cable Network**

Network operators work in accordance with the regulatory regime prevailing in the country. Often project implementations in India are heavily impacted due to cumbersome regulatory framework to facilitate system implementation and maintenance. This segment would portray the complexities in project planning coupled with unwieldy requirements and an undefined approval system. This process involves permit requirements from different government and ministerial departments.

***Permits necessary to install a system with a landing point:*** The primary permit for a regulator to establish a network is the ‘Cable Station Landing License’ that is issued by the Ministry of Communications and IT/Department of Telecommunications. This involves a process in which

approval from the Coastal Zone Management Authority, Department of Environment is required. The same is required to assess the impact on the environment of the project that is within the coastal regulation zone. Thereafter, approval from the Ministry of Environment and Forests is granted on the basis of its recommendation. Further, an agreement including the provisions for the network regulator to pay annual fees relating to the occupancy of the seabed is to be signed with the Maritime Board of the concerned state/UT.

***Operational permits to undertake survey or installation operations in India with a foreign vessel:*** The Director-General of Shipping provides a ‘Specified Period License’ permitting the vessel to undertake operations in India. This process thereafter involves approval from the National Ship Owners Association.<sup>40</sup> No Objection Certificate for operation from the Ministry of Defence.<sup>41</sup> The Ministry of Home Affairs is then required

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<sup>38</sup> Anjali Sugadev, *supra* note 17, at 4.

<sup>39</sup> Source: Verizon, for the International Cable Protection Committee. Copyright International Cable Protection Ltd.

<sup>40</sup> Guidelines for Chartering a Foreign Flag Vessel, *Indian National Shipowners’ Association*, March 27, 2000. <http://insa.in/content/81/guidelines-for-chartering-a-foreign-flag-vessel>

<sup>41</sup> Guidelines for E&P Operators for MOD Clearance in Respect of Vessel Deployment / Engagement and

to give a Security Clearance to all foreign nationals on the vessel board out of the applications forwarded by the Ministry of Communications submitted to them by the network operators. Further, for the vessel to be imported in India, the company must hold a valid Importer Exporter Code that would act as an Importer of Record. Final Naval Security Clearance from the Flag Officer Defence Advisory group is granted following an inspection of the vessel and the crew prior to its operations in India's EEZ. Similarly, at the end of the operations, the vessel would again undergo an inspection before leaving India.<sup>42</sup> Further, with regards to the vessel imported into India, this vessel has to go through customs clearance.

The table below shows the average time expected from a ministry and/or authority to provide clearances in relation to actual delay that is incurred on installation projects on account of the complex permit requirement systems.<sup>43</sup>

No	Permit Requirements	Expected Durations	Extended Permitting Durations
1.	Ministry of Defence	2 Months	12 Months
2.	MOHA Security Clearance	3 Months	6 Months
3.	Customs Clearance of or Import/Export of Cable Ship	1-2 Weeks	5 Weeks

The outcome of such an operational regime is that, in effect, it becomes impossible for a cable system to pass through India's EEZ without the sponsorship of a company that is holding an Indian telecom operators license. Additionally, this is followed by the requirement that all crew members must hold MOHA clearance, which can be obtained only by an entity that is holding an Indian telecom license.

Although complex permit regimes involve a process of considerable management effort, however, in situations wherein the timescale of permit approval is undefined or uncertain, it becomes difficult to mitigate effective implementation of the project. One such issue is custom clearance for vessel importation for the purpose of marine installation by an operator. The vessel and the crew are held on standby during the time the authorities complete their assessment. There have been instances wherein the vessels are delayed at the port due to uncertainty of officials regarding the custom duties and application of service tax for vessels that lie beyond 12nm but within 200nm in EEZ.<sup>44</sup>

Data. Directorate General of Hydrocarbons, Ministry of Petroleum & Natural Gas, Government of India, <http://www.dghindia.gov.in/assets/downloads/570ce280a688a1003.pdf>.

<sup>42</sup> Douglas Burnett, "Submarine Cables on the Continental Shelf," in *The Regulation of Continental Shelf Development: Rethinking International Standards*, edited by Myron H. Nordquist, John Norton Moore, Aldo Chircop, Ronán Long, 53–70 (Martinus Nijhoff, Leiden/Boston, 2013).

<sup>43</sup> Nick Smith et al, *Emerging Subsea Networks Regulatory Challenges of Project Implementation – India Case Study, Sub Optic*, (2016). <https://businessdocbox.com/Government/108253394-Emerging-subsea-networks.html>. (Confirm this link after comparing with old doc)

<sup>44</sup> Smith, *supra* note 43, at 10. *Emerging Subsea Networks Regulatory Challenges of Project*



## Part IV: Permit Regulatory Regime on Cable Repairs

Due to the essential nature of submarine cables, cable ships are required to be on standby at their regional depot to attend to the cable repair at the time of damage and/or breakage. On account of this, to shorten the period required to obtain permits for carrying the repairs, applications are made well in advance from the *MOHA and MOD*. Any cable vessel that is commissioned to engage in cable repair operation in the territorial sea or EEZ is required to seek an MOHA Clearance. The application for clearance is to be submitted by the cable operators to the Department of Telecommunications (DOT) before its expiry, which is thereafter sent to the MOHA for approval. The same is to be obtained on a yearly basis.<sup>45</sup>

MOD Clearance is required under the Ministry of Defence Guidelines for cable repair in the Indian territorial sea and the EEZ, 1996.<sup>46</sup> The application for clearance is submitted to the DOT along with the Research Survey, Exploration and Exploitation of Resources (RSEE) Form, which provides the details of the ship and crew members, thereafter, it is forwarded to the MOD. These applications are submitted at the time when the vessel reaches the port before repair. The entire processing time takes about 7-14 days.<sup>47</sup>

Further, the MOD clearance is granted under a condition that the vessel shall undergo a Naval Security Clearance before deployment. The clearance is terminated once the vessel leaves the India waters post, which a fresh clearance would be required in the future.<sup>48</sup> The requirement of physical security clearance inspection is directed under the 'Apprehension of Vessels Violating Provisions of MZI Act 1976 and MOD Guidelines, 2006'.

*Indian National Ship Owners Association Clearance* is another permit requirement that is applicable in the territorial sea and the EEZ to determine if the Indian flagships hold the capability of performing cable repairs before a foreign vessel is deployed for the repair operations.<sup>49</sup> The permit time to undertake this process takes 3-4 days. Further, this requirement is inconsistent with the UNCLOS.<sup>50</sup> Notably, there are currently no existing Indian ships that have the adequate infrastructure and technology to execute cable repairs. The Indian cable operators are under single-owner private arrangements or are members of multi-owner consortia through which by entering into a maintenance agreement, the cable ship companies ensure the availability of appropriate equipments at the time of cable fault.

Post the INSA Clearance, the vessel applies for SPL; *Specified period License*. This process takes 3-5 days. Thereafter, permits are required at the port at the time of repair. As per the Indian customs regulation, a cable ship is a foreign vessel, and hence, it is

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### Implementation.

<sup>45</sup> Anjali Sugadev, *supra* note 17, at 4.

<sup>46</sup> Guidelines for E&P Operators for MOD Clearance in Respect of Vessel Deployment / Engagement and Data.

<http://www.dghindia.gov.in/assets/downloads/570ce280a688a1003.pdf>.

<sup>47</sup> Kalyan Parbat, Security Nods for Foreign Staff at Telecoms on Hold on Technical Grounds, *Economic Times Bureau*, November 12, 2014 <https://economictimes.indiatimes.com/industry/telecom/security-nods-for-foreign-staff-at-telecoms-on-hold-on-technical-grounds/articleshow/45124253.cms?from=mdr>.

<sup>48</sup> Parbat, *Security Nods for Foreign Staff at Telecoms on Hold on Technical Grounds*.

<sup>49</sup> Guidelines for Chartering a Foreign Flag Vessel, *Indian National Shipowners' Association*.

<sup>50</sup> Anjali Sugadev, *supra* note 17, at 4. *India's Critical Position in the Global Submarine Cable Network*.

imported to India and has to undergo *Customs Clearance*. At the time of importation, the cable operator has to provide a bond against the vessel. Post the repair operations, the bond is cancelled and the ship is exported. This process takes an average of 30 days. The cable operators often face financial hardships due to bonds being withheld against them for non-compliance with custom requirements. Additionally, there exists a difference in practice at different ports in India which leads to ambiguity and uncertainty.<sup>51</sup> In addition to this, since cable ships conduct coastal trade in the territorial sea, before commencing operations they are required to be converted from foreign to coastal running. However, this practice of conversions differs in different ports.

When all the above-mentioned permits are fulfilled and obtained, the cable ship may request clearance to depart the port and commence repairing operations. After the cable is repaired, the vessel is required to return to the Indian port. Customs clearance would be required for the cables used thereafter which the cable operator would obtain bond cancellation along with duty drawback application. Finally, Outward Clearance and Immigration Clearance would be granted by the port authorities to the vessel thereafter which, the vessel could return to its base port.<sup>52</sup>

The table below shows the average time involved in clearing permit requirements by each department/ministry.

No.	Ministry/Government Authority Involved	Permit Requirement In Territorial Sea/EEZ	Time Taken (Working Days)
1.	Ministry of Home Affairs; Through the Ministry of Communication	MOHA Pre-Clearance	90-120
2.	Ministry of Defence; Through Ministry of Communication	MOD Pre-Clearance	7-14
3.	Indian Naval Ship Owners Association	Indian Naval Ship Owners Association Clearance	3-4
4.	Directorate General of Shipping	Specified Period License	3-5
5.	Customs Department	Customs Clearance	14
6.	Flag Officer, Offshore Defence Advisory Group	Naval Inspection and Security Clearance	1-5
7.	Post Authorities	Post Clearance	1
8.	Port Authorities	Port Clearance	10-20

<sup>51</sup> Anjali Sugadev, *supra* note 17, at 4.

<sup>52</sup> Anjali Sugadev, *supra* note 17, at 4.

The above table depicts a rather complex compliance regime that takes several days and undue delays, for undertaking operational and repair activities. There is therefore a critical need to undertake a consistent and conscious effort in improving the regime on the protection of submarine cables in order to protect the financial health and security concerns in India. The parent legislation must be rationalized by aligning its laws that are consistent and in parlance with the international regime. The MOHA Pre-clearance procedure is unique to India and is not followed by any country. Also, the MOD guidelines 2006, does not apply to subsea cables. Hence, it would be ideal to remove MOHA and MOD permit requirements. The DOT must maintain a database of crew members and cable ships that are involved in regular cable operations. This would reduce time involved in the verification process. The requirement for an INSA Clearance is inessential since it involves a redundant process of obtaining confirmation on the non-availability of an Indian cable ship thereby causing undue delay.

Another notably prominent issue that causes hardships to the cable operators is the submission of bond. Cable operational activities in the territorial sea and the EEZ shall be allowed duty-free. Further, the naval inspection before the repair operations shall be done on a priority basis without any delay keeping in view the criticality of the damage to the subsea cables. With regards to India's concern relating to the safety of navigation and interference with other maritime activities, a notification by the lead agency intimating repair plan activities could be intimated to other vessels, fishing ships etc. In addition, to avoid a collision at sea, provisions from the Convention on the International Regulations for Preventing Collisions at Sea 1972<sup>53</sup> shall be followed by using signals and sounds to prompt other vessels of subsea activities<sup>54</sup>.

## **PART V: Perspective for the Future**

The damage to any submarine cable is time-sensitive and requires the quick deployment of cable repair ships to start the repairing operations. In 2017, the Sri Lankan Government laid the foundation for building a submarine cable depot in Port Galle.<sup>55</sup> It was the first of its kind in South Asia. The question is how ambitious is India in becoming a host country that would play a lead in offering a common platform wherein the stakeholders would have the opportunity to form cooperative measures to address their respective concerns underpinning the submarine cable operations to establish growth and advancement in international communications. With India's potential to become a global cyber superpower, its engagement and role in the field of submarine cable operations become crucial not only for itself but also for countries in the South Asian region and beyond.

The submarine cable regime by far remains one of the most neglected agendas - in both international and domestic policy and legislative debate.<sup>56</sup> In the absence of a lead

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<sup>53</sup> The Convention on the International Regulations for Preventing Collisions at Sea (COLREG), opened for signature October 17, United Nations, Treaty Series, Vol. 1050 pg. 16. <https://treaties.un.org/doc/Publication/UNTS/Volume%201050/volume-1050-I-15824-English.pdf>.

<sup>54</sup> The Convention on the International Regulations for Preventing Collisions at Sea, 1972, *Rule 27 and Rule 3(g)(i)*.

<sup>55</sup> P. D. de Shilva, SLT opens SEA-ME-WE-5 Submarine Cable' Daily FT, *Daily FT*, October 4, 2017. <http://www.ft.lk/front-page/SLT-opens-SEA-ME-WE-5-Submarine-Cable/44-640887>.

<sup>56</sup> Utpal Kumar Raha, *supra* note 23, at 6. *Submarine Telecommunication Cable Infrastructure in South Asia*.

agency, supervisions and review of submarine cables would, to a greater extent, remain poor. There is a critical need to improve the practice of permits in India by making a consistent effort in recognizing the need for a pragmatic cable repair system. A legal regime that is unique to operations, protection and repair of submarine cables must be enacted such that a specific set of regulations and procedures are adopted and agreed upon by the central and the local authorities, being distinct from India's other marine interests.

It is reasonable that India being a coastal state is sensitive about the presence of a foreign vessel including cable ships in its territorial waters and the EEZ that might indulge in exploitation and exploration activities and the same would raise a matter of security concern and a threat to its coastal and national interests. However, it is imperative that such measures be addressed through a cooperative and integrative approach, through the formulation of a common supervisory mechanism. India must exploit its strategic position in the Indian Ocean Region by establishing a regional cable committee unique to subsea cables to assess and associate by facilitating expedite the process in permit requirements from coastal states. Hence, a common platform to address instruments of law and practice by extending cooperation through. Consultation would provide both the government as well as the cable companies an integrated method to look into associated challenges.

## **Conclusion**

Global connectivity largely depends upon international communications, which is facilitated by underground submarine cables. Presently, the regime on submarine cables in the territorial sea and the EEZ is grossly neglected by both International and National laws. The breadth and value of the Indian economy created a sizable demand for bandwidth and submarine cables. However, its cumbersome and complex regulatory regime discourages cable operators to install and repair subsea cables in the coast of India.

Therefore, a deliberate and conscious effort must be made in improving the procedural compliance regime for cable repairs and installation mechanisms. Accordingly, the regime on cable operations, repair and infrastructure requires close analysis on the issue. This can be achieved by seeking uniformity in regulatory practices by establishing a regional committee that looks into the cooperation and consultation of both the cable operators and the government authorities/ regulators. This uniformity would establish a supportive mechanism under which the operations and activities related to submarine cables would run smoothly. Hence, with India's capability to become a potential global superpower, it is important that India recognizes the need for a submarine cable infrastructure and take measures necessary in pursuit of the same. It must take heed of the regional and strategic privilege of being located in the Indian Ocean and must become a host country to generate a common platform for the stakeholders in the submarine cable industry. Hence, planned and prudent mechanisms would help India fulfil its ambitions in the field of global telecommunication.

