

Problem and Alternative Solutions: Impact of Changes in Law concerning Regional Government on the Law of the National Sea

Khomsin¹

¹Geomatics Engineering Department, Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

Received: 2020-04-11

Accepted: 2022-07-16

Keywords:

vertical references; management authority; archipelagic provinces; regional governance

Correspondent email:

khomsin95@yahoo.com

Abstract As one of the largest archipelagic countries in the world, Indonesia has an area of inland waters of 3.11 million km² and a territorial sea area of 290,000 km². Indonesia also has 17,504 islands, 34 provinces, and 514 cities/districts. For orderly administration, the government and parliament established Law No. 32/2004 amended by Law No. 23/2014 concerning regional governance. In both laws, there is little regulation on the management of marine areas in the provinces and districts/cities. Since the Law No. 32 of 2004 on amendments became Law No. 23 of 2014, some problems arose, namely vertical references, management authority, and archipelagic provinces or districts/cities. This paper describes the problems and alternative solutions to address the problems caused by the amendments to Law no. 32/2004 into Law no. 23/2014. The method used is to compare the vertical references used by Law no. 32/2004 namely LWL with Law. No. 23/2014 namely HWL. The results of this study recommend that to return to the vertical reference used, it must return to HWL by UNCLOS 1982. In addition, the authority for managing marine areas must also be returned to the district and city governments and there is recognition of districts/cities and archipelagic provinces that are not separated by the sea.

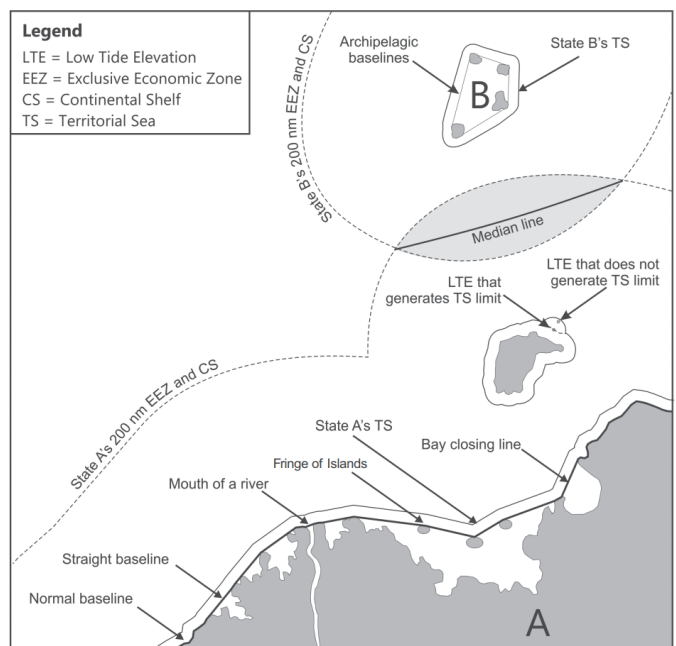
©2022 by the authors. Licensee Indonesian Journal of Geography, Indonesia.
This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY NC) license <https://creativecommons.org/licenses/by-nc/4.0/>.

1. Introduction

Indonesia, as an archipelagic country in the world, recognized by United Nations Conventions on the Law of the Sea (UNCLOS) 1982 has 17,504 islands, with archipelagic and inland waters of 3.11 million km² and territorial sea (12 nautical miles from the coastline) covering an area of 290,000 km². Based on the UNCLOS 1982 (United Nations, 1982), every state must measure territorial sea, contiguous zone, exclusive economic zone, and continental shelf boundary from the baseline: the normal baseline, straight baseline, and archipelagic baseline. Every state depicts the baselines from the lowest water level. Figure 1 (Rothwell et al., 2015) explains the baseline drawing to determine sea boundaries in a country, according to UNCLOS 1982.

Since the reform order (1998) in Indonesia, there have been system changes that were previously centralized to decentralized direction. With this principle, the central government's authority has begun to be handed over to the government regions with the principle of regional autonomy. Regions have the authority to manage their household to be able to develop the potential of the area. This principle opens the region must carry out regional expansion by forming a New Autonomous Region (DOB) (Indrayanti and Rahayu, 2021). Each region requested autonomy in the management of land and sea areas, and the Indonesian government and the Indonesian house of representatives have ratified Law No. 32/2004 (Pemerintah Republik Indonesia, 2004) concerning Regional Government. Part of the contents of this law is that the management of the sea area is handed over to the provincial government

(max 12 nm from the coastline) and the districts/cities as far as one-third of the provincial management. The guideline for implementing this law, especially in the management of the sea, was issued after seven years, namely the Minister of Home Affairs Regulation No. 76 of 2012 (Menteri Dalam Negeri Republik Indonesia, 2012) concerning Guidelines for Asserting Regional Boundaries. After ten years, Law No.



Gambar 1. Batas dan Batas Maritim (Rothwell et al., 2015)

32/2004 was enacted, it was deemed necessary to be revised, and then finally, Law No. 32/2004 was amended by Law No. 23/2014 (Pemerintah Republik Indonesia, 2014) concerning Regional Government. After three years, the rules for implementing this law are regulated by the Minister of Home Affairs Regulation No. 141 of 2017 (Menteri Dalam Negeri Republik Indonesia, 2017) concerning Asserting Regional Boundaries. Therefore, today the law related to the management of marine areas in the provinces, districts, and cities in Indonesia is Law No. 23 of 2014, and the technical rule which explains the law is the Minister of Home Affairs Regulation No. 141 of 2017.

The amendment of Law No. 32/2004 to Law No. 23/2014 raises several problems, especially with the management of sea areas in the provinces and cities/districts. The problem is that there is a change in the vertical reference used, which previously was the lowest water level (LWL) (in Law No. 32/2004) to the highest water level (HWL) (in Law No. 23/2014). Therefore, the use of HWL as a reference for vertical datums in determining maritime boundaries is contradictory to international rules (UNCLOS 1982). Also, there was a change in the authority to manage regional sea areas, which previously had district/city governments and the province had the authority to manage sea areas, but in the year 2014, only the provincial government has authority over the management of sea areas. The city/regency government only gets profit-sharing from the management of the sea area by provinces. The positive side of this change is the regulation of the archipelagic provinces, where 2004 is not yet regulated, and 2014 has accommodated the rules. The Law Now 23/2014 adopted UNCLOS 1982 about archipelagic states to implement in the archipelagic provinces. This paper will discuss the problems that have arisen with the amendment of Law No. 32/2004 to Law No. 23/2014 and provide alternative solutions to overcome these problems.

2. The Methods

This study is a literature review of regulations related to regional sea boundaries in Indonesia. The literature used is UNCLOS 1982, which is an international sea law that has been ratified by 60 countries in the world, where Indonesia is one country that has ratified it. Furthermore, Law No. 32 of 2004 and its explanatory regulations specifically related to the affirmation of land and sea boundaries, namely the Minister of Home Affairs Regulation No. 76 of 2012. In 2014 the Law was amended with Law No. 24 of 2014 and the Minister of Home Affairs Regulation No. 141 of 2017 as an explanation of the affirmation of boundaries on land and at sea. The three regulations (UNCLOS 1982, Law No 32 of 2004, and Law No 23 of 2014) and 2 (two) of the Minister of Home Affairs Regulation (No 76 of 2012 and No 141 of 2017) are examined and compared with each other especially those related to sea boundaries in the region (see Table 1).

The method used in this research is to determine the vertical reference used by Law No. 32/2004 (LWL) and Law No. 23/2014 (HWL) by digitizing the coastline from the Indonesian coastal environmental map (LPI) for LWL and digitizing satellite images for HWL. Furthermore, this coastline serves as a baseline for reference to draw the boundaries of national marine areas (provinces, districts, and cities). Furthermore, the baseline is buffered as far as 12 nautical miles for the provincial marine boundary and the baseline is buffered as far as 1/3 of the provincial marine boundary for the city/district marine boundary (Law No. 32/2004) and buffered as far as 4 nautical miles for profit sharing on the management of the city/district marine area (Law No.23/2014). Overlaying the LWL and HWL coastline

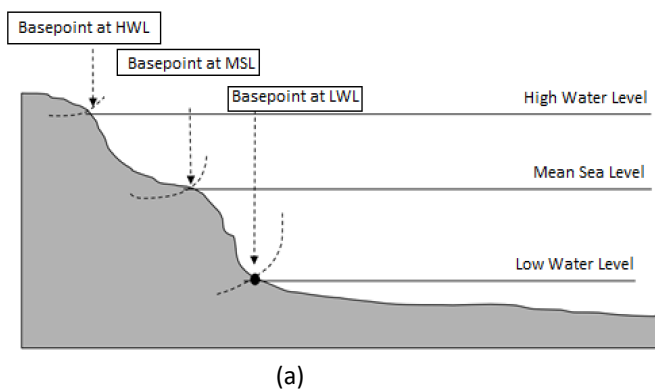


Figure 2. Coastline and Base Point (front of view) (a) and HWL (yellow line) and LWL (brown line) at satellite image (b)

Table 1. List of legal acts of international and national sea law

| Acts | Noted | Year |
|-----------------------------------------------------------|-------------------------------------------------|------|
| UNCLOS (United Nation Conventions of the Law of the Sea) | Internation Law of the Sea | 1982 |
| The Indonesian Law No. 32 | Regional Government | 2004 |
| The Regulation of the Minister of Home Affairs Number 76 | Guidelines For Establishing Regional Boundaries | 2012 |
| The Indonesian Law No 23 | Regional Government | 2014 |
| The Regulation of the Minister of Home Affairs Number 171 | Establishing Regional Boundaries | 2017 |

which will show the differences in the boundaries of the management of regional marine areas.

3. Result and Discussion

Vertical Reference

In Article 13 UNCLOS 1982, the vertical reference used for baseline depictions, both normal and straight baseline, is the lowest water line (LWL). According to Law No. 32 of 2004 (Pemerintah Republik Indonesia, 2004), Article 18 Paragraph 4 states that Provinces, districts, and cities have a sea, and they have the authority to manage their territories of the sea as far as 12 nautical miles for the province and the as far as 1/3 of the provincial authority for the cities/ district's authorities. The provinces, cities, and districts must draw the distances from the coastline. According to the attachment of the Regulation of the Minister of Home Affairs Number 76 of 2012 (Menteri Dalam Negeri Republik Indonesia, 2012) concerning Guideline for Asserting Regional Boundaries, it explains that the coastline used as a reference for measuring regional boundaries is the lowest tide. This guideline is following international regulations the UNCLOS 1982. However, Law No. 23 of 2014 (Pemerintah Republik Indonesia, 2014) which is clarified by the Regulation of the Minister of Home Affairs Number 141 of 2017 (Menteri Dalam Negeri Republik Indonesia, 2017), related to regional sea boundaries, in the explanation of Article 14 states that the coastline is a confluence of meeting boundaries between parts of the sea and land at the time of the highest tide (HWL). Figure 2 (a) illustrates

the difference between High Water Level (HWL) and Low Water Level (LWL) used to determine basepoint at the coastline from a side view and Figure 2 (b) describes the difference between HWL (yellow line) and LWL (orange line) from a top view. In Figure 3, the example of HWL (left) (Khomsin and Ayuningtyas, 2017) and LWL (right) (Khomsin, et al. 2015) coastline delineation at Surabaya City and Bangkalan District.

The change of vertical reference from the lowest water line (LWL) to the highest water level (HWL) raises several problems. First, the base maps used in Indonesia today are the topographic and nautical maps. The vertical reference used on the topographic map is the mean sea level (MSL), and the vertical reference used for the nautical map is the lowest water line (LWL). Thus provincial, district, and city governments have difficulty obtaining coastline data that refers to the highest water level (HWL). This change causes the provincial, district, and city governments to not be able to plan and manage their sea areas properly.

The second problem is that districts and cities have difficulty determining the administrative boundaries of their regions. This problem impacts regional spatial plans (RTRW) and spatial and detailed plans (RDTR). In this problem, there is an area called the intertidal zone, the area between the highest water level and the lowest water level, which the district and city governments cannot manage.

There are several alternative solutions to resolve this problem: The first solution is to amend the explanation the Law Number 23 of 2014 concerning the coastline. The

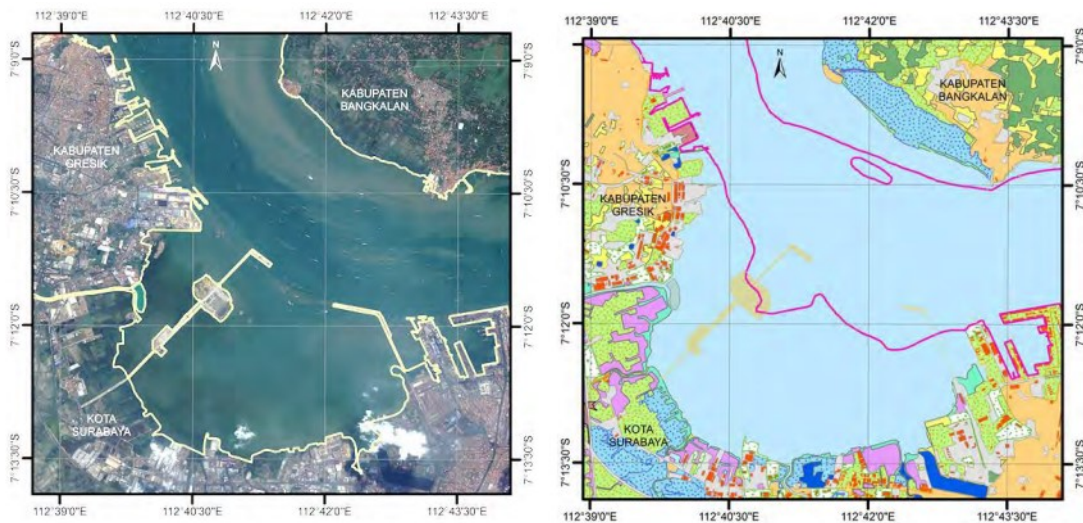


Figure 3. HWL (left-yellow line) (Khomsin and Ayuningtyas, 2017) and LWL (right-red line) (Khomsin, et al., 2015) shoreline delineation



Figure 4. Digitizing of High-Water Level of Coastline in port (building) (left) and dry area (right) (Khomsin and Ayuningtyas, 2017)

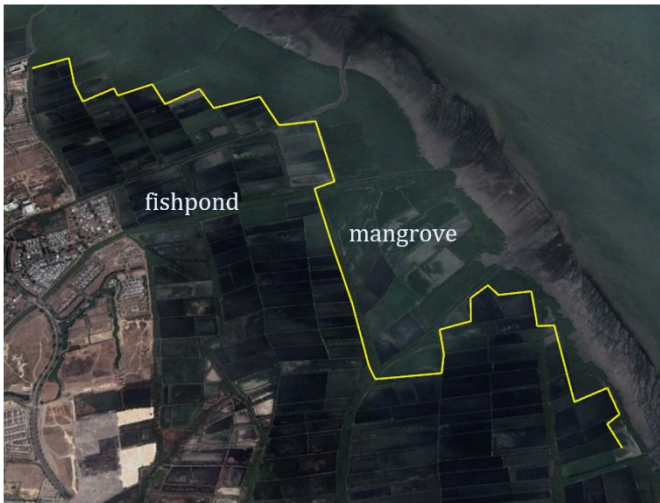


Figure 5. Digitizing of High-Water Level of Coastline at fish-pond and mangrove area (Khomsin 2017)

coastline definition must refer to the lowest water level (LWL) as stated in the UNCLOS 1982 and Law Number 32 of 2004. Changing the definition is not difficult because it does not change all the existing laws but only changes the explanation. Another alternative solution is the interpretation of the orthorectified high-resolution satellite imagery visually (Khomsin and Prayogi, 2019). If the locations are fishponds near the coasts, the interpreters can digitize the outer embankments that can digitize the delineation of the HWL (Khomsin, 2017). These are because the fishpond farmers knew that when the HWL happened, the seawater could not enter their fishponds. For intertidal locations where the area is open, it means no buildings and no fishponds, then the depiction of the HWL can be digitized by a filtering method that separates wet areas from dry areas. Figure 4 and Figure 5 show the process of digitizing using high-resolution satellite imagery.

Authority

Article 18 of Law 32/2004 states that provincial, district, and city governments have the authority to manage their sea areas. Article 18 Paragraph 4 states that the authority to manage resources in the sea area at most 12 (twelve) nautical miles is measured from the coastline towards the high seas or towards archipelagic waters for the province and 1 / 3 (one third) of the province's jurisdiction for districts/cities (Pribadi, et al., 2019). This authority is amended by Law No. 23 of 2014. Article 27 Paragraph 1 states that provincial regions have the authority to manage natural resources at sea in their territory. Article 27 Paragraph 3 states that the provincial has the authority to manage natural resources at sea as referred to in paragraph (1); at most, 12 (twelve) nautical miles are measured from the coastline towards the open sea or towards archipelagic waters (see Figure 6). Article 14 Paragraph 6 states that the district/city governments have sea areas getting marine profit-sharing, calculating 4 (four) miles measured from the coastline towards the open sea or towards archipelagic waters. So, changing from Law No. 32 2014 to Law No. 23 of 2014, there is a change in regional authority to manage its sea area. Only the province can manage the sea area as far as 12 nautical miles from the coastline (Simatupang and Khomsin, 2016); Widayanti, et al. 2019); however, the

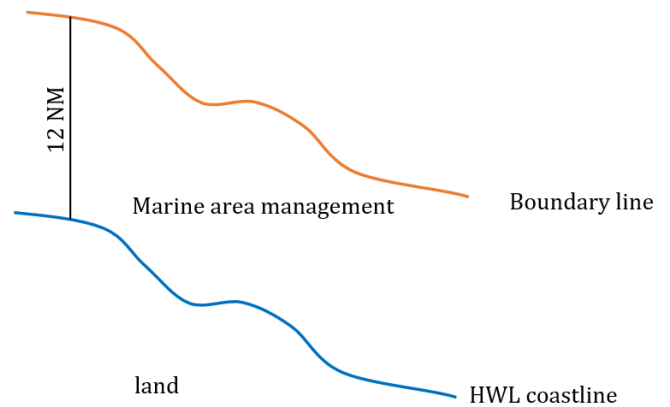


Figure 6. Province Authority to manage seawaters until 12 nautical miles from HWL (adapted from Menteri Dalam Negeri, 2017)

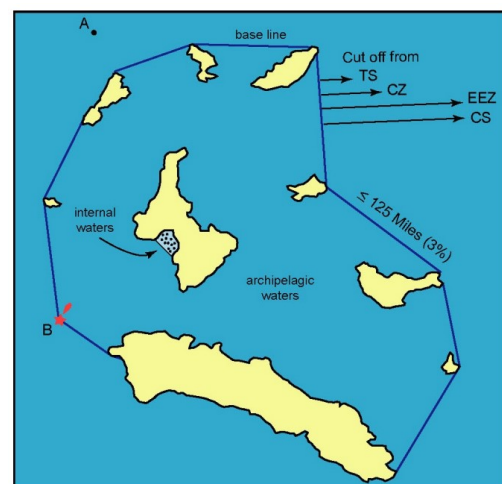


Figure 7. Archipelagic Straight Baselines and Archipelagic waters (International Hydrographic Organization & International Association of Geodesy, 2014)

districts and cities do not have the authority to manage the sea area. In this law, districts and cities only have the right to get their share of the sea from the province. This change has several problems. The first problem is that districts and cities do not include their sea area in their regional planning, such as the RTRW and RDTR. The second problem is whether the provincial government has enough budget to manage the vast sea area in its province as far as 12 nautical miles from its coastline. It means that throughout the provincial government does not manage the sea area, the districts and cities will forever not get the results.

An alternative solution related to the problem above is returning to districts/cities (Supratika, 2015) that have the authority to manage the area as in Law No. 32 of 2004, because of the vastness of the province's sea area, which is the same as the area of Indonesia's territorial, according to UNCLOS 1982. With limited economic and human resource capacity at the provincial level, it is unlikely that the province can manage the existing sea area. If districts/cities' governments have the authority to manage the sea area, then they can plan and manage it, which is adjusted to the RTRW (Rencana Tata Ruang Wilayah / Regional Spatial Planning) and RDTR (Rencana Detail Tata Ruang / Spatial Detail Planning). Therefore, the districts/cities' governments can integrate the management of sea area with its land area (coastal).

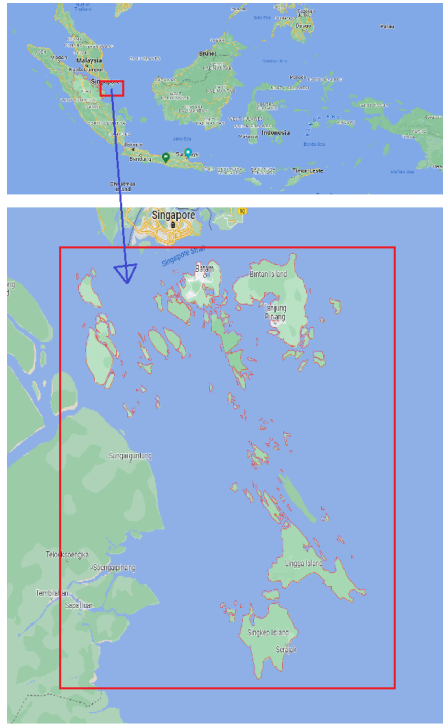


Figure 8. The red line is the boundary of Riau Islands Province (Google Map, 2022)

Archipelagic Region

UNCLOS 1982 regulates the archipelagic states, which a country is referred to as an archipelagic state if the country consists of one or more groups of islands (archipelago) in Article 46 (United Nations, 2019) and its sea area is broader than its land with a ratio between 1 to 1 and 9 to 1 in Article 47. Figure 7 illustrates archipelagic baselines and archipelagic states; refer to TALOS (International Hydrographic Organization & International Association of Geodesy, 2014).

Based on this rule, Indonesia is an archipelagic state where the ratio of the area of the Indonesian ocean and the land is 2:1. Law No. 32/2004 does not yet regulate archipelagic regions at the provincial and district/city levels. At the insistence of regions characterized by archipelago, Law No. 23/2014 amend with Law No. 32/2004, whereby Chapter V regulates the Authorities of the Province in the Sea and the Archipelagic Province. There are several problems with this rule. The problem that arises is that the regency/city of the archipelago is not yet recognized. Another problem is that no clear rules state the definition of an archipelagic province. In UNCLOS 1982, with the existence of an archipelagic state, the country has full authority in the archipelagic waters. In Indonesia, the Indonesian archipelagic waters are known as *Wawasan Nusantara*. However, in Law No. 23/2014, this archipelagic province does not have full authority to manage the province's archipelagic waters (see Figure 8).

The Home Affairs Minister Regulation Number 141 of 2017 states that if the distance between islands in a province is more than 24 nautical miles, then the two islands in the province are not a single entity that relates to the waters of the archipelago but is separated by the waters of the sea (see Figure 9). Indeed, this rule makes it difficult for the province to manage its maritime sea area.

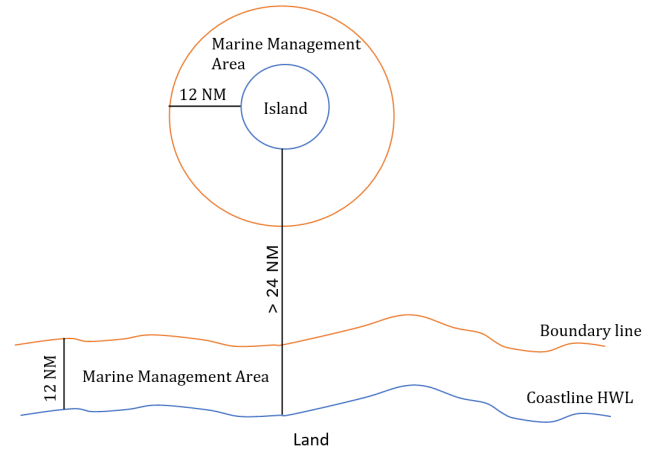


Figure 9. Illustration of archipelagic region in the same Province (adapted from Menteri Dalam Negeri, 2017)

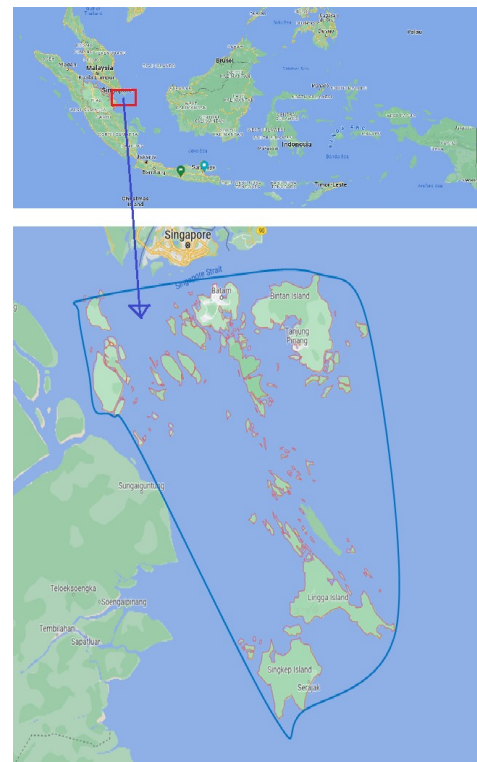


Figure 10. Illustration of integrated area of archipelagic region (blue line as boundary) as proposed by Riau Islands Province (desktop study) (adapted from Sari, et al., 2002 dan Google Map, 2022)

The most accessible solution to overcome the problem above is to redefine the archipelagic provinces in the Regulation of Home Ministry Affair Number 141 in 2017. This change is more accessible than amending Law No. 23 of 2014. The definition of the archipelagic should follow the definition in UNCLOS 1982, which is stated to be an archipelagic province, district, or city area if the area consists of one or more island groups with a ratio of the ocean and land between 1: 1 and 9: 1. Also, the definition of the archipelago adopts the concept of *Wawasan Nusantara*, where the archipelago region is a unified territory that is integrated between one island and another island and connected with its waters in one province, regency, and city (Dewan Perwakilan Daerah Republik Indonesia, 2017). Thus, a province, district, or city has the spirit to develop and manage its seawaters, such as proposed by the Riau Islands

Province (see Figure 10) (Sari, et al., 2022) and Bangka Belitung Province (Khomsin, et al., 2021).

4. Conclusion

Change in vertical references from LWL (Low Water Level) in Law No. 32/2004 to HWL (High Water Level) in the Law No. 23/2014 makes it difficult for local governments to get HWL coastline data. One way that can be used to obtain HWL data is by digitizing orthorectified high-resolution satellite images (HRSI). In addition, the HWL line protrudes further inland compared to the LWL line, which causes some areas in the city/district to have no apparent management authority. Therefore, the sea area management authority should be returned to the municipal district government by Law No. 32 of 2004 because the provincial government cannot financially and have limited human resources to manage such a vast sea area. Wawasan Nusantara (archipelagic states) needs to be applied to the concept of provinces, districts, and cities archipelagic so that the provinces, districts, and cities are integrated with the land area.

References

- Dewan Perwakilan Daerah Republik Indonesia, 2017. Rancangan Undang-Undang Nomor 4 Tahun 2017 Tentang Daerah Kepulauan Komite I Dewan Perwakilan Daerah Republik Indonesia Jakarta
- Google Map. (2022) Riau Islands – <http://google.co.id/maps/place/Riau+Islands/@1.0640568,103.8909882,8.35z> accessed on 8 June 2022
- Indrayanti, A. M., Rahayu, A. Y. S., 2021. Koordinasi Pusat Dan Daerah Dalam Penegasan Batas Kabupaten Merauke Dan Boven Digoel Provinsi Papua. *Jurnal Ilmu Administrasi Media Pengembangan Ilmu dan Praktek Administrasi* Volume 18 | Nomor 2 | Desember 2021
- International Hydrographic Organization & International Association of Geodesy. (2014). *A Manual on Technical Aspects of The United Nations Convention on The Law of The Sea – 1982 (TALOS) Special Publication No. 51 Edition 5.0.0* Published by The International Hydrographic Bureau Monaco
- Khomsin (2017) Analysis of East Surabaya Shoreline Determination Using Tidal Data, Image Satellite and RTK-GNSS Applied Mechanics and Materials ISSN: 1662-7482, Vol. 862, pp 41-45 doi: 10.4028/www.scientific.net/AMM.862.41
- Khomsin, Ayuningtyas, M. (2017). Delineation of maritime management boundary between Surabaya, Gresik and Bangkalan using SPOT 7 2017 IOP Conf. Ser.: Earth Environ. Sci. 54 012078
- Khomsin, Prayogi, S.I.A. 2019. Boundaries Delineation of Marine Management Sharing According to Local Government Law No. 23/2014 (Case Study: Surabaya, Sidoarjo, Bangkalan and Sampang). *IOP Conf. Series: Earth and Environmental Science* 135 (2018) 012019 doi :10.1088/1755-1315/135/1/012019
- Khomsin, Pribadi, C. B., Pratomo, D. G., Nur, B. 2021. Analisis Penentuan Batas Pengelolaan Wilayah Laut Provinsi Bangka Belitung. *Issn 2809 – 1833 Prosiding Fit Isi Vol 1, 2021 (322 – 326) @Ikatan Surveyor Indonesia – Teknik Geodesi Undip*
- Khomsin, Widyastuti, R., Alif, T. F., Artanto, E. 2015. A Determination Analysis of Regional Maritime Boundary Based on Regulation of Home Ministry Affair Number 76 in 2012 (Case Study: Dispute of Galang Island Border between Surabaya and Gresik) *Procedia Earth and Planetary Science* 14 (2015) 83 – 93 *Procedia Earth and Planetary Science* 14 (2015) 83 – 93
- Menteri Dalam Negeri Republik Indonesia. 2012. Peraturan Menteri Dalam Negeri Republik Indonesia Nomor 76 Tahun 2012 Tentang Pedoman Penegasan Batas Daerah
- Menteri Dalam Negeri Republik Indonesia. 2017. Peraturan Menteri Dalam Negeri Republik Indonesia Nomor 141 Tahun 2017 Tentang Penegasan Batas Daerah
- Pemerintah Republik Indonesia. 2004. Undang-Undang Republik Indonesia Nomor 32 Tahun 2004 Tentang Pemerintahan Daerah.
- Pemerintah Republik Indonesia. 2014. Undang-Undang Republik Indonesia Nomor 23 Tahun 2014 Tentang Pemerintahan Daerah
- Pribadi, A.S., Warka, M., Suhartono, S., 2019. Laws of Authority and Uncertain Law on the Beach Reclamation Activities in The Gulf Coast of Jakarta. *International Journal of Scientific and Research Publications*, Volume 9, Issue 12, December 2019 472 ISSN 2250-3153
- Rothwell, D.R., Elferink, A.G.O., Scott, K. N., Stephens, T. (2015). *The Oxford Handbook of The Law of The Sea*. ISBN 978-0-19-871548-1. Oxford University Press
- Sari, A. A., Khomsin, Pribadi, C. B., 2022. Penentuan Batas Pengelolaan Wilayah Laut antara Provinsi Kepulauan Riau dan Provinsi Kalimantan Barat Menurut Undang-Undang Nomor 23 Tahun 2014 *Geoid Journal of Geodesy and Geomatics*. Vol. 17, No. 2, 2022, (254-259) P-ISSN: 1858-2281; E-ISSN: 2442-3998
- Simatupang, R. S., Khomsin. 2016. Penentuan Batas Pengelolaan Wilayah Laut Antara Provinsi Jawa Timur dan Provinsi Bali Berdasarkan Undang-Undang Republik Indonesia Nomor 23 Tahun 2014. *Jurnal Teknik ITS* Vol. 5, No. 2, (2016) ISSN: 2337-3539 (2301-9271 Print)
- Supratika, H., 2015. Pengkajian Hukum Tentang Pembagian Kewenangan Pusat Dan Daerah Dalam Pengelolaan Laut Laporan Akhir Pusat Penelitian Dan Pengembangan Sistem Hukum Nasional Badan Pembinaan Hukum Nasional Kementerian Hukum Dan Hak Asasi Manusia R.I.
- United Nations. (1982). *United Nations Convention on The Law of The Sea 1982*. Nova Science Publishers, Inc. New York
- Widayanti, A., Djunarsjah, E., Nugroho, A.P., 2019. Penentuan Batas Pengelolaan Wilayah Laut Antara Provinsi Sulawesi Tengah Dan Provinsi Maluku Utara Berdasarkan Undang-Undang Republik Indonesia Nomor 23 Tahun 2014 Tentang Pemerintahan Daerah. *Journal of Science and Applicative Technology* e-ISSN: 2581-0545