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Penulis : Adrian Nugraha

No	Perihal	Tanggal
1	Bukti Submission	10 Februari 2023
2	Bukti Permintaan Revisi dan Komentar Reviewer A. Komentar dari Reviewer 1 B. Jawaban/ Respon kepada Reviewer 1 C. Jawaban/ Respon kepada Reviewer 2 Sekaligus Perbaikan Berdasarkan Saran Reviewer 1 dan Reviewer 2	23 Oktober 2023- 08 November 2023
3	Bukti Hasil Revisi Telah Dikirim Kembali ke Editor	09 November 2023
4	Bukti Artikel Telah Diterima Untuk Dipublikasikan	10 November 2023

1. BUKTI SUBMISSION



adriannugraha adriannugraha <adriannugraha@fh.unsri.ac.id>

Re: Submission Id: 234202039 #TrackingId:14206432

1 pesan

RAMO-peerreview@journals.tandf.co.uk <RAMO-peerreview@journals.tandf.co.uk> 10 Februari 2023 pukul 11.16
Kepada: adriannugraha@fh.unsri.ac.id

Dear Mr. Adrian Nugraha,

Thank you for your response.

Please be informed that this has been noted and we will proceed your manuscript with submission ID 234202039.

If you have any concern or question, please let me know.

Kind Regards,

Micaela Gail Villaseñor - Journal Editorial Office

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Australian Journal Of Maritime & Ocean Affairs

From: adriannugraha@fh.unsri.ac.id

Sent: 10-02-2023 10:04

To: micaelagail.villaseor@straive.com

Cc:

Subject: Re: Submission Id: 234202039

Dear

Editor of the Australian Journal of Maritime & Ocean Affairs

Thank you for your fast response

I hope you can process my manuscript with submission ID 234202039.

Thank you for your cooperation and coordination

Regards

Adrian Nugraha

Sent from [Mail](#) for Windows

2. BUKTI PERMINTAAN REVISI DAN KOMENTAR REVIEWER

A. Komentar dari Reviewer 1



adriannugraha adriannugraha <adriannugraha@fh.unsri.ac.id>

234202039 (Australian Journal of Maritime & Ocean Affairs) A revise decision has been made on your submission

1 pesan

Australian Journal of Maritime and Ocean Affairs <em@editorialmanager.com> 23 Oktober 2023 pukul 07.37
Balas Ke: Australian Journal of Maritime and Ocean Affairs <marcus.haward@utas.edu.au>
Kepada: Adrian Nugraha <adriannugraha@fh.unsri.ac.id>

Oct 22, 2023

Ref.: Ms. No. RAMO-2023-0008

234202039

Integrated coastal management in the current regional autonomy law regime in Indonesia: Context of community engagement
Australian Journal of Maritime & Ocean Affairs

Dear Nugraha,

Reviewers have now commented on your paper. You will see that they are advising that you revise your manuscript. If you are prepared to undertake the work required, I would be pleased to review a revision.

For your guidance, reviewers' comments are appended below.

Your revision is due by Nov 21, 2023.

To submit a revision, go to %CUSTOM_SP_REVISION_URL_PART1%234202039%CUSTOM_SP_REVISION_URL_PART2%. If you decide to revise the work, please submit a list of changes or a rebuttal against each point which is being raised when you submit the revised manuscript.

If you have any questions or technical issues, please contact the journal's editorial office at %CUSTOM_JEO_EMAIL%.

Yours sincerely

Marcus Haward, PhD
Editor-in-Chief
Australian Journal of Maritime & Ocean Affairs

Comments from the Editors and Reviewers:

Reviewer #1: Please add comments you don't mind the author seeing.

Despite the article offers good topic on ICM. However, the paper has nothing new to offer to enhance the literature on ICM in Indonesia. The paper fails to deliver new challenges faced by Autonomy Law No 23/2014 on marine sector especially the tensions between central, provincial and municipal level on the authority and governance to manage coastal areas.

There is no novelty of this research. There is no strong critiques and arguments on 4 acts that has been used in the paper. It is too descriptive and more based on literature review which is mostly out of date. The paper focus on community engagement context but failed to have primary data on community engagement problem and challenges at local level. No adequate data support and case studies on community engagement. The data of interview with government official is not clearly stated in this article but could not justify community engagement context as it need to be the community as primary sources to be interviewed. No clear recommendation and suggestion

Reviewer #2: I agree that this article is accepted with several improvements as I stated below

In compliance with data protection regulations, you may request that we remove your personal registration details at any time. (Use the following URL: <https://www.editorialmanager.com/ramo/login.asp?a=r>). Please contact the publication office if you have any questions.

<https://mail.google.com/mail/u/1/?ik=04f32ef89c&view-pt&search=all&permthid=thread-f:1780504545517092687&siml-msg-f:17805045455170...> 1/2

8/16/24, 12:11 PM Email Sriwijaya University - 234202039 (Australian Journal of Maritime & Ocean Affairs) A revise decision has been made on ...

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B. Jawaban/ Respon kepada Reviewer 1

Reply To Reviewer #1:

We carefully revised the manuscript according to your suggestions.

Reviewer's comments:

1. The paper has nothing new to offer to enhance the literature on ICM in Indonesia.
2. The paper fails to deliver new challenges faced by Autonomy Law No 23/2014 on marine sector especially the tensions between central, provincial and municipal level on the authority and governance to manage coastal areas.
3. There is no novelty of this research.
4. There is no strong critiques and arguments on 4 acts that has been used in the paper.
5. It is too descriptive and more based on literature review which is mostly out of date.
6. The paper focus on community engagement context but failed to have primary data on community engagement problem and challenges at local level.
7. No adequate data support and case studies on community engagement.
8. The data of interview with government official is not clearly stated in this article but could not justify community engagement context as it need to be the community as primary sources to be interviewed.
9. No clear recommendation and suggestion

Author's Responses:

1. Thank you for the constructive criticism from the reviewer. The author has offered new concepts, which are reflected in section 5, Discussion. The new concepts offered are: **first**, there is a need for institutional development and alterations in the structure of power and capacity-building in the community to actively engage in integrated coastal management. This explanation can be seen in the main manuscript, **Discussion 5.2, line number 459-461**. The **second** concept is sharing responsibility for coastal management through regional autonomy by returning the authority of regional governments, which is currently mostly managed by the central government. This explanation can be seen in

the main manuscript, [Discussion 5.3, line number 464-467](#). The **third** concept is that the government needs to accommodate the aspirations of local communities through bottom-up evolution to integrate or create a legal framework for integrated coastal management. The reviewer can see this description in the main main manuscript, [Discussion 5.3, line number 476-477](#). The **fourth** concept is prioritizing local communities in the decision-making process and seeking consensus with them to realize the potential of regional autonomy in integrating integrated coastal management democratically and sustainably. Reviewers can see this information in the main manuscript, [Discussion 5.3, line number 483-486](#). The concepts offered by the author above can undoubtedly offer new knowledge in legal studies related to ICM in Indonesia.

2. Thank you for the constructive criticism from the reviewer. The author has described the various challenges faced by the government in implementing integrated coastal management in accordance with the Local Government Act No. 23/2014 in the main manuscript, [section 4.2 regarding Current problems affecting the ICM program](#).
3. Thank you for the criticism from the reviewer. The novelty of this research is the four new concepts that the author has described in [response number 1](#) above.
4. Thank you for the criticism from the reviewer. In [section 3.2.](#), the author provides information on various laws that form the legal basis for integrated coastal management in the current regional autonomy law regime. The author has not criticized these laws one by one but has provided general criticism of these pieces of legislation, which can be seen in [section 4.2.1.](#), regarding Regulation and financial problems. For example, firstly, Indonesia has many regulations related to coastal management, which cause problems, including inconsistent interpretations, conflicts between regulations, and overlapping conventions, which create legal loopholes for destructive exploitation in coastal areas (See [line number 306-309](#)). Second, there is the problem of little direction and unclear mandate, for example, regarding the interpretation of fishing methods carried out by small-scale fishermen in The Act of Local Government No. 23/2014. A detailed description can be seen [on line number 313-322](#). Third, the legal regime in Indonesia only focuses on agricultural expansion rather than optimizing natural

resources in marine and coastal areas, so fishermen do not have good technology and do not have the knowledge needed to increase their income. See [Line number 323-327](#), in the main manuscript.

5. Thank you for the constructive criticism from the reviewer. The author has carried out various analyses, which have been comprehensively outlined in the discussion in this manuscript. The author has tried to find various literature regarding legal studies related to ICM in Indonesia, most of which are old. This article was created to update legal studies regarding coastal management in Indonesia. However, the author will consider some of the latest literature if the reviewer suggests the latest references.
6. Thank you for the constructive criticism from the reviewer. This paper has not studied primary data taken directly from coastal communities. However, the reviewer's input to obtain primary data from coastal communities will be considered by the author to carry out further research, which will be written in another article. This research focuses on the engagement of coastal communities in ICM carried out by the Directorate of Coastal and Small Island Utilization, Indonesian Ministry of Marine Affairs and Fisheries (MMAF). The important information obtained is regarding the latest achievements and problems related to ICM and community engagement, as outlined in [section 4.1. regarding Recent accomplishments in Indonesia](#) and [section 4.2. regarding Current problems affecting the ICM program](#).
7. Thank you for the reviewer's input. This research does not take primary data from coastal communities in their engagement in ICM. However, the author will consider this input for further studies regarding community engagement in ICM.
8. Thank you for the reviewer's input. This valuable input will likely be used for further research by interviewing coastal communities directly to obtain primary data. However, as previously mentioned in the author's response in number 6 above, this research focuses on the engagement of coastal communities in ICM carried out by the Government (MMAF).

9. Thank you for the constructive criticism from the reviewer. Recommendations and suggestions have been mentioned in the author's response in number 1 above, especially in section 5 of the main manuscript. These recommendations and suggestions include:
- A. There is a need for institutional development changes in power structures and increasing community capacity to be actively involved in integrated coastal management.
 - B. Sharing responsibility for coastal management through regional autonomy by returning local government authority, which is currently mostly managed by the central government.
 - C. The government needs to accommodate the aspirations of local communities through bottom-up evolution to integrate or create a legal framework for integrated coastal management.
 - D. Prioritizing local communities in the decision-making process and seeking consensus with them to realize the potential of regional autonomy in integrating integrated coastal management in a democratic and sustainable manner.

C. Jawaban/ Respon kepada Reviewer 2 Sekaligus Perbaikan Berdasarkan Saran Reviewer 1 dan Reviewer 2

Australian Journal of Maritime & Ocean Affairs
 Integrated coastal management in the current regional autonomy law regime in Indonesia: Context of community engagement

--Manuscript Draft--

Full Title:	Integrated coastal management in the current regional autonomy law regime in Indonesia: Context of community engagement
Manuscript Number:	RAMO-2023-0008
Article Type:	Original Article
Keywords:	Integrated coastal management; Regional autonomy; Community engagement; Sustainability; Justice
Abstract:	This study reviews integrated coastal management (ICM) practice in Indonesia's regional autonomy law regime, particularly community engagement. It examines several laws on ICM in the current regional autonomy era and discusses various achievements and issues affecting Indonesia's program. This is legal research examines various ICM-related legislation, secondary literature, policy plans, and the interview conducted at the Indonesian Ministry of Marine Affairs and Fisheries. The results show that the ICM program has a legal basis in various legislation, yet it faces various implementation problems. Many legal loopholes in regulation, dependence on funding institutions, environmental pollution, mismanagement, and lack of coordination and collaboration in community engagement should be instantly resolved. Also, the local community, as ecosystem users, are powerless and often ignored. Therefore, the local communities need to be informed, their ability to manage coastal areas be improved, their livelihoods protected, and be more engaged in decision-making, especially in establishing regulations and legislations. Active community engagement in the decision-making process may improve regulatory compliance and achieve a more sustainable and democratic ICM.

Commented [A1]: Reference out of date
 No novelty and critiques and review on 4 act that has been used in the paper
 No case study especially on community engagement (no adequate data to support arguments)
 No clear recommendation to improve the condition
 Too descriptive (no analysis)

Commented [A2R1]: Thank you for the constructive criticism from the reviewer. These comments are the same as the opinion of reviewer 1. The author has responded to these criticisms in the response to the first reviewer form. The author has answered these questions in detail, and reviewers can see them in the response to the first reviewer form.

Commented [A3]: What is the loop holes?

Commented [A4R3]: Thank you for the reviewer's question. The legal loopholes referred to are legal loopholes in regulations governing the management of marine and coastal resources. The management of marine and coastal resources is regulated in various regulations, giving rise to problems, including inconsistent interpretations, conflicts, and overlaps between regulations, which cause legal loopholes for destructive exploitation in coastal areas. This explanation can be seen in detail in the main manuscript, section 4.2.1 regarding Regulation and financial problems on Line number 282-285.

Commented [A5]: It is not clear

Commented [A6R5]: Thank you for the constructive criticism from the reviewer. The meaning of dependence on funding institutions is the dependence of several ICM programs on funding institutions, which shows that the government has not considered the program's sustainability. Generally, funding institutions adhere to time frames and guidelines not involved with programs' sustainability after the money runs out. If the government does not participate, the sustainability of these projects is not guaranteed. A detailed explanation can be seen in section 4.2.1 regarding Regulation and financial problems on Line number 300-303.

Commented [A7]: How?

Commented [A8R7]: Thank you for the reviewer's question. Mismanagement here means a lack of responsibility, leadership, institutional capacity, and financial management in managing ICM in Indonesia. Apart from that, corruption by government officials causes damage to the environment and coastal ecosystems. A detailed explanation can be seen in section 4.2.3 Administrative problems on Line number 323-336.

Integrated coastal management in the current regional autonomy law regime in Indonesia: Context of community engagement

Abstract

This study reviews integrated coastal management (ICM) practice in Indonesia's regional autonomy law regime, particularly community engagement. It examines several laws on ICM in the current regional autonomy era and discusses various achievements and issues affecting Indonesia's program. This is legal research examines various ICM-related legislation, secondary literature, policy plans, and the interview conducted at the Indonesian Ministry of Marine Affairs and Fisheries. The results show that the ICM program has a legal basis in various legislation, yet it faces various implementation problems. Many legal loopholes in regulation, dependence on funding institutions, environmental pollution, mismanagement, and lack of coordination and collaboration in community engagement should be instantly resolved. Also, the local community, as ecosystem users, are powerless and often ignored. Therefore, the local communities need to be informed, their ability to manage coastal areas be improved, their livelihoods protected, and be more engaged in decision-making, especially in establishing regulations and legislations. Active community engagement in the decision-making process may improve regulatory compliance and achieve a more sustainable and democratic ICM.

Keywords Integrated coastal management, Regional autonomy, Community engagement, Sustainability, Justice, Democratization.

1 Introduction

Coastal areas are among the most productive regions globally, offering a wide variety of valuable ecosystem services and habitats that benefits most living things (Avalos & Torero, 2015; Marale, 2013). Their magnificence and wealth have made them favorite habitation zones and prominent business areas, travel destinations, and transit locations. As an archipelagic state with more than 17,000 islands, Indonesia has the second-largest coastline of 80,000 km worldwide (Brotosusilo et al. 2016). However, the dense concentration of community and natural resources exploitation puts tremendous pressure on its coastal ecosystems, leading to biodiversity harm, coastal habitats devastation, pollution, and disputes spatial use. Indonesia's coastal areas are also among the most susceptible zones to global warming and cataclysm. Erosion, flooding, rising sea levels, and extreme weather damage its coastal areas (Cazenave & Cozannet 2013; Zikra, Suntoyo, & Lukijanto 2015).

Integrated Coastal Management (ICM) in Indonesia harmonizes various regulations influencing coastal areas and related activities, such as environmental preservation, fisheries, industry, wind energy, tourism, shipping, mitigation, and adaptation to global warming, among other activities. ICM encompasses the wide circulation of information gathering, designing, decision-making, control, and performance supervision (Basraoui et al. 2011). Stakeholders' involvement in various sectors is essential to ensure comprehensive support for the application of management strategies.

The autocratic legal regime in Indonesia before 1998 was characterized by various problems, including complex bureaucracy, slow decision-making, and authoritarian power (Bunte & Ufen 2009). The distribution of authority from the central to regional governments is the solution to democratization (Lindsey & Butt 2012; Tirtosudarmo 2018). Primarily, the reform movement in 1998 was a new political era that ushered the regional autonomy regime. After two decades of regional autonomy, there have been various alterations, especially coastal management (see Table 1). Prominent principles on regulations about integrated coastal management currently include sustainability, democratization, and community engagement.

Several regulations on coastal areas and small islands, local government, environment, and fishery have recently been enacted to give government institutions legal foundations to establish integrated coastal management. However, there is a need for ICM, particularly at the local levels in Indonesia, after current regional autonomy was obstructed by the sectoral approach from dominating coastal resources (Krott, Dharmawan, & Michael 2016; Nandi 2014). Moreover, the law regime has overlapping and contravention problems of legislation, leading to a confusing and ambiguous mandate of institutions' roles and responsibilities controlling coastal areas. (Muawanah et al., 2018; Nurhidayah, 2011; Siry, 2011). These problems have led to an unsustainable development system in the coastal zone. Accordingly, there is an urgent need for community engagement in making integrated coastal management decisions.

This article discusses ICM in Indonesia's regional autonomy law regime, especially community engagement. The law regime analysis focuses on various legislation on ICM in the

Commented [A9]: References are old.

Commented [A10R9]: Thank you for the input from the reviewer. The author has replaced it with the latest reference according to the reviewer's suggestion. See the main manuscript on Line number 51.

Commented [A11]: Why focusing on community engagement?

Commented [A12R11]: Thank you for the question from the reviewer. This manuscript focuses on community engagement because increasing the capacity of local communities in coastal management has not been optimal, and they are also not actively involved in decision-making on coastal management. This statement is explicitly reflected in part 5. Discussion, in section 5.3 regarding Community engagement in ICM.

current regional autonomy era. Furthermore, the paper determines various achievements and problems in ICM programs in Indonesia. The main discussion focuses on the dynamics of power in the current regional autonomy legal regime affecting community engagement in ICM.

2. **Methods**

This is legal research discusses four principal legislation on ICM in Indonesia's current regional autonomy law regime, including the Act Number 1/2014 concerning Management of Coastal Areas and Small Islands, The Act of Local Government No. 23/2014, the Act Number 32/2009 concerning Protection and Management of the Environment, and the Act Number 45/2005 concerning Fisheries. The paper focuses on the engagement of local communities in the decentralization of ICM. To discover current achievements and problems related to ICM, this research reviews related to secondary literature, policy plans, and the results of interviews. The interviews used a semi-structured questionnaire with 10 participants at the Ministry of Marine Affairs and Fisheries to determine current accomplishments and problems in coastal management and community engagement. All findings were interpreted, analyzed, and presented qualitatively. The scientific significance of this research is to support, inform, and provide legal academic views to policymakers regarding integrated coastal management.

3 The regional autonomy law regime in Indonesia related to ICM

This section discusses the theoretical structure and legislations that establish the study of regional autonomy legal regimes relating to ICM. The elements forming this theoretical framework include regional autonomy, community engagement, and integrated coastal management. Furthermore, this section discusses various relevant legislation to understand the arrangement of ICM and community engagement in the current regional autonomy law regime. The theoretical structure and related legislation form the basis for analyzing legal studies related to integrated coastal management and the context of community engagement in the regional autonomy regime.

3.1. **Theoretical Structure**

During President Suharto's 32 years reign, Indonesia's government system became progressively autocratic and centralized (He 2008; Zainuri 2018). The two elements of government strengthened each other and often neglected the necessities of society and regions. After the collapse of the autocratic regime, the country experienced rapid development in democracy. Democratization requires the central government to share functions and authorities between the central and local governments (Carnegie 2008).

The core of the autonomous regime is to restore "honor" to the region, which was previously (in the autocracy regime) dominated by the central authority. According to (Febrian 2009), the

Commented [A13]: Research method is not adequate for gaining novelty

Commented [A14R13]: Thank you for the reviewer's input. The author attempts to describe and analyze various domestic legislation as well as the results of interviews with the Directorate of Coastal and Small Island Utilization, Indonesian Ministry of Marine Affairs and Fisheries, which are outlined in this manuscript, with the hope that the author's ideas will provide novelty to legal studies related to ICM.

Commented [A15]: This research is focusing on community engagement but the interview only with government officials bot community.

Commented [A16R15]: Thank you for the constructive criticism from the reviewer. The reviewer's input to obtain primary data from coastal communities will be considered by the author to carry out further research, which will be written in another article. This research focuses on the engagement of coastal communities in ICM carried out by the Directorate of Coastal and Small Island Utilization, Indonesian Ministry of Marine Affairs and Fisheries (MMAF). The important information obtained is regarding the latest achievements and problems related to ICM and community engagement, as outlined in [section 4.1. regarding Recent accomplishments in Indonesia](#) and [section 4.2. regarding Current problems affecting the ICM program](#).

Commented [A17]: Need more recent references

Commented [A18R17]: Thank you for the reviewer's input. The author has added the necessary references as suggested by the reviewer.

functions and authority delegated to the regions shall promote and strengthen national consolidation to provide their constituents' necessities and eagerness democratically. The regional government can help regional needs because of the larger social closeness to the community (Ali 2013; Nasution 2016; Schakel & Massetti 2018). However, regional autonomy has various theoretical interpretations and implementation practices. In this paper, regional autonomy refers to the central government's action to formally hand over powers to regional government organizations in the legal hierarchy and territory.

Regional autonomy gives local governments and local communities broad powers to manage coastal areas to increase their welfare (Siry 2011). However, in the practice of ICM in Indonesia, there are still various obstacles such as regulatory and financial issues, the environmental issues, and coordination and collaboration in community engagement. Therefore, ICM practices in Indonesia must be following the objectives of the Local Government Act, namely to improve the welfare of the surrounding community.

Community engagement is an essential element for a successful regional autonomy (Smith 2008; Sutiyo & Maharjan 2017). In general, community engagement is defined as engaging humans to collectively conserve natural resources, where the community takes part in developing and implementing management mechanisms (Kumasi, Obiri-danso, & Ephraim 2010). The key ingredients that must be considered in community engagement in ICM include planning, implementing, monitoring, and evaluating (Struys 2015). Planning includes access to information in the management process, direct involvement, and optimization in the submission of a coastal management plan. Then, the implementation is the process of executing the coastal area management program plan. Monitoring is an activity to see the effectiveness of projects and programs that have been compiled and implemented. Furthermore, evaluation is to provide information on the course of the management process and find out the strengths and weaknesses of the coastal area management plan.

Regional autonomy strategies encourage community engagement in natural resources management 'from below,' to protect communities' livelihood and resource interests and user groups dependent on a specific natural resource base for viability (Setiawan & Hadi 2007). The regional autonomy strategy is the delegation of authority to local government in natural resources and environmental conservation to increase the role of local communities in integrated coastal management. Therefore, ICM needs to displace decision-making methods from central to a regional authority with society as a key participant in regional development (Siry, 2011). Although regional autonomy may increase community engagement, it is always linked to the government system and does not lead to a higher engagement level from non-government stakeholders. International Association for Public Participation (IAP2) suggested five community engagement levels, including Inform - communication in one direction, Consult - communication performed in two directions, Involve - jointly determining, Collaborate - jointly performing and Empower - help the society to be independent (IAP2 2017).

According to Chen (Lihtorng-Chen 2002), Integrated Coastal Management is a perpetual administrative process that protects and conserves coastal areas to preserve biodiversity and

Commented [A19]: This statement is from old references. It is not reflected law No 23/2014. The spirit of Law No 23/2014 is recentralization

Commented [A20R19]: Thank you for the input from the reviewer. The author has replaced it with the latest reference according to the reviewer's suggestion. See the main manuscript on Line number 100.

Commented [A21]: Elaborate more on this

Commented [A22R21]: Thank you for the reviewer's input. The author has elaborated on various problems in ICM practice in Indonesia in Section 4.2 regarding Current problems affecting the ICM program. A detailed explanation regarding regulatory and financial issues can be seen in Section 4.2.1 on Line number 278-303 the main manuscript. Then, an explanation regarding environmental issues can be seen in Section 4.2.2 on Line number 304-321 the main manuscript. Furthermore, problems with coordination and collaboration in community engagement can be seen in Section 4.2.4 on Line number 337-376 the main manuscript.

Commented [A23]: Reference?

Commented [A24R23]: Thank you for the reviewer's input. The author has added references according to the reviewer's suggestions. See the main manuscript on Line numbers 104-105.

sustainable development. Integrated coastal management helps the government in hazard mapping of the national coastline, improving the livelihoods of coastal societies, and preserving coastal ecosystems (Marale 2013). It encompasses several principles, including sustainability, adaptive management, holistic approach, promotion, and engagement of entire pertinent administrative institutions, participatory designing, and representing vicinal characteristics (Clark 1992).

Integrated coastal management is crucial in achieving coastal areas' sustainability goals (Ngoran, Xue, & Ndah 2016; Uehara & Mineo 2016). Integration is needed between institutions and society and across administrative restrictions to ascertain conformable decision-making within the entire coastal environment (Burroughs 2010; Portman et al. 2012). This helps coordinate multidisciplinary expertise and responsibilities (Maze et al. 2017; Tietze, Haughton, & Siar 2006). Ascertaining integration in terms of prominent integration issues of environment, socio-culture, and economics is among the provisions for the sustainability of coastal management (Dronkers & Stojanovic 2016). The general focus on participation, collaboration, management mentality, and distribution of authority between central and regional governments is crucial for achieving community engagement in the integrated coastal management in the current regional autonomy law regime.

3.2. Legislations related to ICM in the current regional autonomy law regime

Political will from the government is needed to actualize sustainable ICM because the government can impose regulations (Campbell et al. 2013; Sale 2014). Through the political will, good legislation helps attain sustainable coastal management (Quesada, Klenke, & Ortiz 2018). This political will is evident in establishing various regulations on environmental protection, particularly on conservation and sustainable coastal zone management by the Indonesian government and Legislative. The crucial goals and law principles behind most current law regimes' regulations include regional autonomy, community engagement, sustainability, and integrated management. Regional autonomy and community engagement essential law principles that help attain an integrated coastal management structure.

Act Number 1/2014 concerning the Amendment to the Act Number 27/2007 on the Management of Coastal Areas and Small Islands is currently the primary legal reference for integrated coastal management (Muawanah et al. 2018; Nagabhatla et al. 2019; Nikijuluw 2017). According to Act Number 1/2014, to administer coastal areas, provincial and district government should have the Coastal and Small Island Strategic, Management, Zoning, and Action Programs (Ferrol-Schulte et al. 2015). This Act encourages community engagement in coastal management to improve integration, consistency, and coordination in program and management. In implementing program and management, pertinent stakeholders should be engaged. The central government needs to approve them in advance. This Act also regulates conservation purposes, including protecting and preserving biodiversity, which is susceptible to external changes.

The regional autonomy era has experienced significant alterations after 1998, especially in the law regime. The Act of Local Government No. 23/2014 delegated wide-ranging decision making

Commented [A25]: Reference?

Commented [A26R25]: Thank you for the reviewer's input. The author has added references according to the reviewer's suggestions. See the main manuscript on **Line numbers 157**.

Commented [A27]: Reference?

Commented [A28R27]: Thank you for the reviewer's input. In this sentence, the author does not include a reference because this sentence is the author's personal opinion.

and control duties to regional authorities (Nugraha, Febrian, & Chen, 2021; Rudy, Hasyimzum, Heryandi, & Khoiriah, 2017). [The Act mandated the provincial government to administer sea natural resources, maximally 12 nautical miles from the coastline to the open sea, or in the direction of the archipelagic waters. Therefore, the regional government is responsible for 1) exploration, exploitation, conservation, and marine resources control outside the oil and gas, 2) administrative control, 3) spatial arrangement, 4) participating in maintaining security in the sea, 5) be involved in maintaining state sovereignty, and 6) empowering coastal communities and small islands. However, Act No. 23/2014 regulates territorial waters beyond twelve nautical miles. Also, the management of national strategic resources, such as oil and gas, is under the central authority domain.

[In the protection and management of the environment, the Indonesian government issued Act No. 32/2009]. This is the legal foundation for every activity related to the environment, especially coastal area management (Nurhidayah 2010). According to this Act, environmental sustainability can be achieved by preserving coastal areas (Sunyowati, Hastuti, & Butar-butur 2016). It regulates environmental protection and management principles based on good governance. In every procedure of formulating and implementing instruments to prevent environmental pollution and law enforcement, there is a need for participation, transparency, accountability, and justice. Through this Act, the central government delegates authority to local governments in conducting environmental protection and management in their respective regions. Also, it regulates community engagement through participatory principles. Importantly, these principles encourage the community to play an active role in the decision-making process and implement environmental protection and management, especially in coastal areas, directly and indirectly.

[For the sustainability of fisheries and coastal resources, the Indonesian government enacted Act No. 45/2009 on Fisheries]. The Act serves as a legal basis for attaining sustainable fisheries and enhancing the well-being of small-scale fishers (Courtney et al. 2017). One of the fundamental principles in this Act is “togetherness,” stating that fisheries management should engage stakeholders' interests to improve the welfare of the community. Act No. 45/2009 also directs management aspects through coordination between agencies related to fisheries. The regional government has also been given the authority to regulate water use and fish cultivation.

Table 1 highlights alterations of regulations attributed to integrated coastal management in the current regional autonomy law regime.

4 Results

4.1. Recent accomplishments in Indonesia

The regional autonomy process under President Joko Widodo has currently equaled the democratization process and the rise of civil society. Regional autonomy in Indonesia specifically refers to force transfer to lower bureaucracy levels by decentralizing authority, informational mechanisms, and financial sharing (Nasution 2016). However, it also leads to a rivalry between

Commented [A29]: There is no critique to this legislation act? Regency level does not have authority to manage coastal areas anymore? There are huge consequences and implication to this changes. Formerly regency level manage 1-4 nautical mile.

Commented [A30R29]: Thank you for the reviewer's input. The author agrees with the reviewer's opinion and has added a critique of the legislation in the main manuscript. See line numbers 180-188 (marked in red).

Commented [A31]: There is no critique in this legislation. It should be criticized particularly on institutional framework and budgeting on managing mangrove

Commented [A32R31]: Thank you for the reviewer's input. In this legislation, the author discusses more about preventing environmental damage and involving the community through participatory principles in environmental protection and management in coastal areas. Regarding mangrove management, it is regulated in detail in Government Regulation No. 73/2012 concerning the National Strategy for Mangrove Ecosystem Management. One of the considerations in this regulation is Act 32/2009. The mangrove institutional framework is regulated in Articles 4 and 5 of Government Regulation No. 73/2012, and the funding required to carry out mangrove ecosystem management is regulated in Article 12 of Government Regulation No. 73/2012.

Commented [A33]: Any critique on this legislation? Especially on adat community marine tenure rights

Commented [A34R33]: Thank you for the reviewer's input. The author agrees with the reviewer's opinion and has added a critique of the legislation in the main manuscript. See line numbers 208-246 (marked in red).

the central and regional governments to strengthen the political position and gain economic benefits. Competing power between the government and legislative institutions at the regional level often calls for 'Masyarakat / community' to legitimize their actions. The contention to manage natural resources had also increased strain among the local elite to control through their jurisdiction. The regional government became a prominent power in Indonesian politics following regional autonomy (Ash Shiddiqy 2017).

Although competition between central and local governments is a characteristic of regional autonomy, it has encouraged community engagement in integrated coastal management (Farhan 2013; Nandi 2014). The Local Government Act No. 23/2014 has supported community engagement-based schemes. In the current regional autonomy regime, projects related to integrated coastal management have been developed. This Act provides substantial authority to the regional government to manage their local natural resources, managing them sustainably. The legislation is also the legal basis for engaging the local community in managing natural resources. The community and stakeholders' engagement in the local public services control is prominent attention in the current regional autonomy. This engagement would also impact the efficiency of public services and civil society empowerment in the region.

The development of integrated coastal management in Indonesia at the regional level was initiated by several international funding agencies. Through a collaborative project with the Coastal Community Development Program-International Fund for Agriculture Development (CCDP-IFAD), the Ministry of Marine Affairs and Fisheries works on the Coastal Community Development program (IFAD 2014). Since 2013, this project has targeted 180 coastal villages in 12 districts/cities, generally located in eastern Indonesia. This project builds and develops the coastal society's economic institution/*Koperasi*. The institution facilitated community groups' necessities by accommodating and marketing the products produced by the coastal community groups. Currently, twelve economic institutions/*Koperasi* have been built in 12 municipal districts.

There also the Coral Reef Rehabilitation and Management Program (COREMAP), an aspect of this collaboration. The purpose of this project is to institutionalize an active, decentralized, and integrated framework approach to managing sustainable coral reef resources (Wong & Elias 2018; World Bank 2019). The project is funded by the ADB, the Global Environment Facility (GEF), Australian Aid, the Japan International Cooperation Agency (JICA), and the World Bank. The Regional Program for Partnership in Environmental Management for Seas of East Asia (PEMSEA) on the Southeastern Coast of Bali was a grant from IMO/GEF/UNDP and took place from 2000-2005. The local government implemented this program in the Province of Bali in collaboration with various domestic and international institutions / non-government organizations, such as the Bremen Overseas Research and Development Association, NGOs from Germany, JICA, and the World Bank. The program was meant to help the regional authority to promote its building capacity in environmental and resource protection and management in the Bali coastal zone (Bapedalda Bali 2004). Various examples of cooperation mentioned shown the accomplishments of integrated coastal management at the regional level.

Commented [A35]: Reference?

Commented [A36R35]: Thank you for the reviewer's input. The author has added references according to the reviewer's suggestions. See the main manuscript on [Line numbers 227](#).

Commented [A37]: Which articles section in this act?

Commented [A38R37]: Thank you for the reviewer's question. Article 354(1) of this legislation provides legal norms that can be interpreted as local governments being given the authority to encourage community engagement. Then, paragraph (3) of the article provides legal norms for community involvement in managing regional assets and/or natural resources. In accordance with the reviewer's instructions to clarify the provisions of the article in the legislation, the author has changed the sentence to "[The Local Government Act no. 23/2014, especially in Article 354 \(1\) and \(4\), has supported community engagement-based schemes](#)". See the main manuscript at [Line numbers 233-234, which are marked in red](#).

Indonesia has also recognized customary law and encouraged the community engagement in the Minister of Marine Affairs Regulation No. 23/2016 on Planning for the Management of Coastal Areas and Small Islands. This regulation is a legal foundation for restoring and institutionalizing customary law in local government with an engagement approach, such as community-based management. Indonesia has an old chronicle and extensive practice of community-based coastal management systems. One of the customary laws still preserved is *Mandarahi Biduk* in West Sumatra Province. This customary is accompanied by a ceremony to ask God to manage the sea and avoid disaster (Haryani & Huda 2018). In Maluku, *Sasi Laut* is a local tradition where several fishing methods are regulated by establishing basic ethics and guidelines for behavior in which this tradition (Novaczek et al. 2001). This culture prohibits the use of poisons or chemicals and fishing gears that damage marine and coastal ecosystems. In West Nusa Tenggara Province, the local society restored a customary law system called *Awig-awig*, based on local instructions that ruled the fisheries (Krishna, Sagala, & Syahbid 2018). *Awig-awig* regulates supervision and sanctions for perpetrators of destruction. The sanctions imposed include fines, returning catches to the sea, and burning fishing equipment. In these areas, local society is involved in monitoring and surveillance activities. It has escalated concerns over coastal and marine resources and contributes to stopping destructive fishing.

4.2. *Current problems affecting the ICM program*

There was no legislation on ICM in Indonesia before enacting Act No. 27/2007, which was later amended by the Act. 1/2014. The ICM in Indonesia was sectoral in approach, and the ICM program is not sustainable and continues. For instance, it does not cover the entire Indonesia coastal zone. Most of Indonesia's integrated coastal management programs are one-off, lacking in guidelines and sustainability (Farhan 2013). Several programs have been funded by international institutions, including IFAD, USAID, ADB, AusAID, JICA, GEF, World Bank, and other institutions. At the end of the funding term, the central government could not preserve the programs' sustainability. Most of them were handed over to regional governments as part of the regional autonomy. It was challenging for local governments because they had generally not been implicated from the commencement and lacked integrated coastal management skills, talented human resources, information, and suitable technology to handle these programs. The fundamental problems and disputes influencing integrated coastal management programs in Indonesia could be classified as follows.

4.2.1. *Regulation and financial problems*

Based on data from the Indonesian Ministry of Marine Affairs, there are currently 8 Ministry of Marine Affairs Regulations related to coastal management. This does not include regulation issued by other ministries, such as the Indonesian Ministry of Environment and Forestry, which is responsible for environmental protection and preservation in coastal areas. The management of

Commented [A39]: Too descriptive

Commented [A40R39]: Thank you for the reviewer's input. Based on this reviewer's input, the author has added an analysis related to customary law in coastal management, as discussed in the previous paragraph. This additional analysis can be seen in the **main manuscript at Line numbers 282-290, marked in red.**

Commented [A41]: Should be place in introduction not result and discussion

Commented [A42R41]: Thank you for the reviewer's input. In the systematics of this paper, the problems that affect the ICM program are indeed one of the results discussed in this paper. This has been narrated in the **"Introduction"** section on **Line numbers 57-61.**

ocean and coastal resources are stipulated in various regulations. This creates problems, including inconsistency in interpretation, conflicts between regulation, and overlapping conventions leading to legal loopholes for destructive exploitation in coastal areas. The current regulations still have many wide and cryptic stipulations with little directions and unclear mandates. For instance, the current Local Government Act in 2014 created vagueness over interpretation fishing methods performed by small-scale fishers in 2014. Under this Act, small-scale fishers are interpreted as traditional Indonesian communities using traditional fishing materials and equipment. They are not subject to a business license and have the freedom to fishing in all Indonesian waters. The definition of 'small-scale fishers' has created ambiguity and legal loophole in its application. For instance, it can exploit large-scale fishing because it does not require a business license, and the area is very large, specifically the entire Indonesian territorial waters. More specific criteria regarding the terminology of 'small-scale fishers' and 'traditional fishing methods permitted are required.

Current Indonesian regulations and policies also focus on agricultural expansion rather than optimizing the natural resources of the marine and coastal zones (Sofiyah 2013). This harms coastal societies, leaving fishers with lousy technology and lacking the knowledge required to increase their revenue. Consequently, fishing societies continue to be poverty-stricken.

Dependence on funding agencies on several ICM programs shows that the government has not considered the program's sustainability. Generally, funding institutions adhere to time frames and guidelines not involved with programs' sustainability after the money runs out. In case the governments do not participate, the sustainability of these projects is not assured.

4.2.2. *Environmental problems*

Environmental problems in Indonesia needs primary attention. The coastal area has also endured environmental pressures. Erosion due to highlands deforestation worsens the issue of siltation downstream and into the ocean. Silt sediments covered and killed once-lively coral reefs, making mangrove shrubs and creating harbor entryway increasingly arduous without massive and sumptuous dredging operations (Sofiyah 2013).

The fishers have faced various environmental problems that threaten the sustainability of their activities. This includes pollution in the coastal and marine areas. Pollution in the coastal area cause troubles to small-scale fishers, such as making fishing difficult. In Jakarta Bay, Indonesia, the drivers of environmental damage include population increases, destructive fishing, hazardous and toxic factory waste disposal, and reclamation projects (Supartono, Haluan, & Sondita 2016).

Most of the Jakarta Bay fishermen were unable to sail and fish for two weeks because of the highly polluted water in 2016. This has caused many fish and shellfish to die and damaged farming in communities around Jakarta Bay. Consequently, there is inadequate fish stocks and reduced living standards of farmers in Jakarta. Therefore, regional governments need to increase public awareness on the need to avoid destructive fishing, make regulations to control the expansion of

Commented [A43]: Reference ? example?

Commented [A44R43]: Thank you for the reviewer's input. The author has added references according to the reviewer's suggestions. See the main manuscript on Line numbers 326-327.

Commented [A45]: references

Commented [A46R45]: Thank you for the reviewer's input. The following explanation is the author's opinion based on the results of an interview with the Directorate of Coastal and Small Island Utilization, Indonesia's MMAF. This has also been explained in [Line numbers 326-327](#) in the main manuscript.

Commented [A47]: example

Commented [A48R47]: Thank you for the reviewer's input. See [Line numbers 296-298](#) in the main manuscript.

industrial estates around the coast, review and update local regulations on domestic and industrial waste, control population growth, and allocate protection areas as pollution buffers.

4.2.3. Administrative problems

Limited administrative competency of central and regional governments in Indonesia has also been a general problem in ICM (Farhan & Lim 2013; Nandi 2014). Although local governments have obtained the mandate to manage coastal areas in the current regime, there is inadequate training in implementing responsible, transparent, and integrated coastal resource management. Also, the lack of leadership, institutional capacity, and financial management is an acute problem that has arisen in protecting and managing coastal areas.

The regional autonomy regime has created a diversity of systems, leading to problems in coastal management. Officials often use poor administrative governance and many legal loopholes in various regulations at the regional level for corruption. According to Mongabay, coastal areas in Southeast Sulawesi have been damaged due to nickel mining, which led to 18 years imprisonment of its Governor (Mongabay 2018). This shows the government's involvement in violating the law and justifying the destruction of coastal resources. Lack of transparency, accountability, and corruption is the root of administrative problems in the current regional autonomy regime and damages the environment and ecosystems in coastal areas.

4.2.4. Problems of coordination and collaboration in community engagement

The current institutional framework of reform and openness has produced a chance to create a community engagement approach. However, active community engagement in ICM has remained low in Indonesia (Fitriana, 2014). The regional autonomy regime empowers local government authorities rather than local communities as users. The top-down method in Marine Protected Areas (MPAs) has led to disputes with local societies and fishers (Nugraha, 2021). For instance, Madura's local communities have rejected the regional government plan to establish a marine protected area in the coastal area of Sepanjang island because it would disturb their fishing grounds.

The significant aspect of marine protected areas design and performance preserves coastal habitats and coral reefs for their biodiversity values and to promote sustainable resource use for the interest of the local community (Wiadnya et al. 2011). Throughout the regional autonomy regime, innumerable MPAs were created in several regions without engaging the community. Marine Conservation Institute assessment classifies merely 5 out of 216 protected areas as effectively managed (Marine Conservation Institute 2012). Many MPAs failed in their implementation because they did not engage the vicinal society in the designing, decision-making, control, supervision, and evaluation processes (White et al. 2014). Additionally, many regional authorities remain confused about the MPAs design, lacking confidence in engaging the local community in management. Furthermore, community engagement is not merely limited to the

Commented [A49]: the impact of regency or municipal level does not have authority anymore on coastal areas does not elaborate more in this autonomy

Commented [A50R49]: Thank you for the reviewer's input. Based on the reviewer's input, the author has added an explanation regarding the impact of eliminating the authority of city and district governments in coastal management in Section 3.2 regarding Legislation related to ICM in the current regional autonomy law regime. See this explanation in the main manuscript in Line numbers 180-188, marked in red.

Commented [A51]: references?

Commented [A52R51]: Thank you for the reviewer's input. The author has added references according to the reviewer's suggestions. See the main manuscript on Line numbers 363, marked in red.

Commented [A53]: No primary data for community engagement

Commented [A54R53]: Thank you for the reviewer's input. In this manuscript, the author focuses on examining the four main legal regulations regarding ICM, which have been mentioned in the methodology section above. Apart from that, to find out the latest achievements and problems related to ICM, this research examines secondary literature, policy plans, and the results of interviews with the Directorate of Coastal and Small Island Utilization, Indonesian MMAF. For more details, reviewers can look at the methodology section.

MPAs but also includes zoning, management of coastal resources, and other issues that require to be addressed and managed in coastal zones (Stocker et al. 2012). This includes wetland protection, coastal erosion management, sea level rise adaptation, land-based pollution, coastal and estuaries water quality, and endangered species protection.

In theory, the ideal framework for achieving environmental sustainability in coastal areas requires coordination and collaboration (Grip 2017; Kay & Alder 1999; Vodden 2015). However, many problems related to integrated coastal management and community engagement are attributed to a lack of coordination and collaboration (Farhan 2013). This led to low public awareness of their engagement in integrated coastal management. Only a few partnership programs in community engagement have been created by implementing institutions and community groups in integrated coastal management (Crawford, Siahainenia, Rotinsulu, & Sukmara 2004). However, legislation changes in the current autonomy regime have increased the number of community-based management systems (Nandi 2014). This is a positive instance of community-based management in Indonesia.

Almost all community-based coastal management programs are dependent on financial problems and implementation, hence community engagement remains low (Glaser et al. 2015). The *Adat*/ customary institutional system in many regions has transformed into open competition through the current regional autonomy law regime, which has led to disputes over marine resources. These caused tensions between local communities and regional governments. Therefore, coordination and collaboration in community engagement in coastal management need to be corrected immediately.

5 Discussion

The practice of ICM in the current regional autonomy law regime still faces various problems. The dynamics of authority in the current regional autonomy law regime influence community engagement in integrated coastal management.

5.1. *Interests and responses of stakeholders*

The vagueness of various regulations reflects the implementation of ICM (Dirhamsyah 2006). Those regulations' performance caused incapable management described by the dispute, gap, and redundancy among the development areas. These regulations can create conflicts of interest among various users, undermining the effort to manage and conserve coastal resources. Political elites at the national and regional levels take advantage of these weaknesses through their covert political agenda (Ferrol-Schulte et al. 2015). Stakeholders have interpreted various regulations and policies based on their interests and priorities. When the central government has passed various legislation associated with ICM, community engagement, and protection of the marine environment, local governments are busier with the political agenda to pursue their financial benefits (Rosyida & Sasaoka 2018).

Commented [A55]: Need more data on conflict between stakeholders.

Commented [A56R55]: Thank you for the reviewer's input. Primary data from stakeholders regarding conflicts between uses of coastal areas will be considered for subsequent research, which will be published in another paper.

The term 'managing authority' in the Regional Autonomy Act is often misinterpreted as 'sovereignty' by several local governments.' Policy in the current regional autonomy law regime is currently prioritizing regional financial interests rather than thinking about community engagement in resource management, especially integrated coastal management (Siry 2011). Various regulations in the current regional autonomy regime prioritize economic development by pursuing financial benefits rather than environmental sustainability and the engagement of local communities (Sutiyo & Maharjan 2017). Elite political interests have ruled out local communities' interests at the central and regional levels.

The regional autonomy regime's current politics is related to different interpretations and responses about educating community engagement. Coastal resource management projects should encourage active community engagement in the ICM through decentralization and strengthening coastal resource planning and management approaches. However, the central and regional governments slightly promote community engagement in integrated coastal management. After two decades of regional autonomy, local governments understood the importance of community engagement in integrated coastal management. However, local communities rarely get their rights to become users of coastal ecosystems.

Lack of knowledge about values, interests, and community engagement responses is a severe problem of integrated coastal management (Ware 2017). The mismanagement conducted by authorities at the regional level has led to coastal management conflicts (A. R. Farhan & Lim 2010). This coastal conflict management has resulted in the community committing misappropriation. An example of misappropriation is the local community logging the mangrove for firewood, hence criminalization. Coastal management conflict continues due to the harmonization of interests between the regional government and the local community. The different interests between the central and regional governments and greed for the financial purpose, the achievement of sustainability goals in integrated coastal management.

5.2. *The dynamics of authority*

The dynamics of authority affect the enforcement of regulations and policies in ICM. The emergence of legal rules comes from society's social, cultural, and economic context (Darian-Smith, 2013; Zartner, 2014). The dynamics of authority and natural resources influence the establishment of legal products. Since regional autonomy has provided opportunities for corruption, it is not surprising that many regional officials have to deal with the law and put into prison. The advantages of regional autonomy have been unsuccessful in actualizing for most of society. In regional autonomy, the rise of regional elites is often associated with the increased dispute and the exclusion of minorities (Duncan 2007; Ulum et al. 2019).

One of the objectives of establishing regional autonomy is to reduce economic inequality in various regions by engaging the community. However, the government has not yet engaged the local community to manage coastal resources independently. Management and exploitation of coastal resources are often committed by businessmen affiliated with officials at the regional level. This increases the opportunities for corruption in the management and exploitation of coastal

Commented [A57]: Could you elaborate more what is by dynamic authority?

Commented [A58R57]: Thank you for the reviewer's question. The dynamics of authority in this manuscript refer to the process of change that occurs within a community group in a coastal area because it is influenced by individuals who have the power to influence the members of that community group. Alterations that occur due to the influence of individuals who have this power should have a positive impact by producing coastal management legal products that can better engage local communities to increase their income and reduce the gap with outsiders. However, this manuscript highlights the reality of the dynamics of authority, which is closer to corrupt practices. In addition, authority owners are more likely to be affiliated with entrepreneurs by not engaging local communities in integrated coastal management.

resources. Therefore, there is a need for institutional development and alterations in the structure of power, and capacity-building in the community to and participative engage in integrated coastal management actively.

5.3. *Community engagement in ICM*

In the case of unclear regulations on responsibility, regional autonomy will only benefit those who have authority. Therefore, the distribution of responsibilities from the central to local governments through regional autonomy is essential. Without local responsibilities that democratically engage the community, regional autonomy can only be a tool to weaken local communities currently marginalized. For this reason, identifying environmental protection, sustainability in central planning, and formulating regulation is not enough. The local community prefers customary law that could be accepted in their groups for law enforcement using national regulations to be ordinarily inadmissible (Purwaka & Sunoto 1999; Siry 2006). As users of coastal ecosystems, local communities have managed the use of coastal resources and excluded outsiders from accessing these resources. Although the Management of Coastal Areas and Small Islands Act prohibits such exemptions, the local community continues to make customary rules to ban outsiders from protecting the coastal areas' environment. Elements of justice and fulfillment of livelihoods are the core priorities of local communities (Ferrol-Schulte et al. 2015; Novriyanto et al. 2012). Therefore, the local community's aspirations should be accommodated through bottom-up evolution to integrate or create a legal framework for integrated coastal management.

National policies and regulations have not been effective in encouraging community engagement in integrated coastal management. However, the cultural approach has been successful in coastal management at the regional level. Community-based approaches through customary law can establish new legal frameworks in integrated coastal management. The institutional system developed with the community's active engagement as users of coastal ecosystems improves compliance with regulations. Therefore, it is vital to prioritize the local community in decision-making processes. Furthermore, consensus with the local community is also necessary to realize the potential of regional autonomy in integrating integrated coastal management democratically and sustainably.

5.4. *The interconnection between ICM, regional autonomy, and community engagement*

This article has discussed three coastal management elements, including the ICM concept, the division of authority in the regional autonomy regime, and community engagement. In Indonesia, the ICM concept and regional autonomy policy include community engagement (Patlis 2005). According to the analysis, community engagement requires proper management decentralization for communities to participate in the decision-making process. ICM needs centralized coordination to unite geographic administration and divergent functions (Taljaard, Slinger, & Van Der Merwe, 2011). This paper's analysis also shows that the regional autonomy law hinders integration

Commented [A59]: Too general

Commented [A60R59]: Thank you for the reviewer's opinion. The author has discussed in detail community engagement in ICM based on the results above.

Commented [A61]: ?

Commented [A62R61]: Thank you for the reviewer's question. As mentioned above in Lines number 265-281, local communities prefer the use of customary law in managing the coast compared to implementing national law.

Commented [A63]: ?

Commented [A64R63]: Thank you for the reviewer's question. As previously discussed (in line numbers 265-281), this explanation shows that the cultural approach through customary law in coastal management still exists in various regions throughout Indonesia. The cultural approach through customary law in coastal management is an important precedent for strengthening integrated coastal management.

between the central and regional governments. For this reason, some decision-making at the regional level is not well coordinated.

The institutional structure's nature is dynamic and cannot be changed quickly (Powell, Cuschmir, & Peiris, 2009). The challenge is to have a fragmented institutional structure and produce integrated management at the practical level (Ballinger 1999). To achieve appropriate ICM, the central government needs to develop local government institutions' capacity, including monitoring, activity evaluation, and coordination. Furthermore, community engagement in every decision-making process is an essential factor in Indonesia's participatory coastal management.

6 Conclusions

This article has analyzed the integrated coastal management of the current regional autonomy law regime in Indonesia in community engagement. The current regional autonomy regime has enacted various regulations, including the Management of Coastal Areas and Small Islands Act No. 1/2014, The Local Government Act No. 23/2014, Protection and Management of the Environment Act. No. 32/2009, and Fishery Act No. No. 45/2009. These legislations constitute the fundamental legal basis currently in force with improvements to previous regulations.

The recent achievements in integrated coastal management include collaborating with international financial institutions in developing community economic activities and environmental management in coastal areas. The government has also issued the regulation to restore and institutionalize customary law to implement community-based management. Apart from the achievements made, integrated coastal management also has various problems, including legislation and financial, environment, administrative, coordination, and community engagement collaboration.

The current regional autonomy regime has given substantial authority to the regional government. However, it has been misinterpreted to pursuing the political agenda of local elites. The authority obtained by local elites to regulate and manage coastal areas has been misused for financial benefits at the expense of local communities' interests and environmental sustainability.

The current regional autonomy has provided opportunities for corruption, with several local elites imprisoned. The benefits of regional autonomy are less felt because the community is still marginalized in integrated coastal management. Regional autonomy is established to reduce poverty by engaging in local communities. However, regional governments are still affiliated with large companies in coastal resource management without engaging the community.

Various regulations made by the government are less adhered to by the community. Local communities adhere to customary laws in their environment and exclude outsiders from managing coastal resources to maintain their livelihoods and protect the environment, though such exclusion is prohibited. Justice and fulfillment of livelihoods are the elements most needed by the local community. For this reason, the aspirations of local people should be considered through a bottom-up evolutionary approach in creating a legal framework that relates to integrated coastal

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Commented [A66R65]: Thank you for the reviewer's question. Integration between central and regional governments is hampered by the regional autonomy law, which, in practice, has encouraged uncoordinated regional decision-making and mismanagement.

Commented [A67]: Give example

Commented [A68R67]: Thank you for the reviewer's input. The author has mentioned an example, namely the mining permit corruption case carried out by the Governor of Southeast Sulawesi Province, who was sentenced to 18 years in prison, and the coastal areas in this Province were damaged. See [main manuscript at line numbers 359-361](#).

management. Active engagement of local communities in the decision-making process improves compliance with regulations to realize a more sustainable integrated and democratic management.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Integrated coastal management in the current regional autonomy law regime in Indonesia: context of community engagement

Adrian Nugraha

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Integrated coastal management in the current regional autonomy law regime in Indonesia: context of community engagement

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ABSTRACT

This study reviews integrated coastal management (ICM) practice in Indonesia's regional autonomy law regime, particularly community engagement. It examines several laws on ICM in the current regional autonomy era and discusses various achievements and issues affecting Indonesia's program. This is legal research examines various ICM-related legislation, secondary literature, policy plans, and the interview conducted at the Indonesian Ministry of Marine Affairs and Fisheries. The results show that the ICM program has a legal basis in various legislation, yet it faces various implementation problems. Many legal loopholes in regulation, dependence on funding institutions, environmental pollution, mismanagement, and lack of coordination and collaboration in community engagement should be instantly resolved. Also, the local community, as ecosystem users, are powerless and often ignored. Therefore, the local communities need to be informed, their ability to manage coastal areas be improved, their livelihoods protected, and be more engaged in decision-making, especially in establishing regulations and legislations. Active community engagement in the decision-making process may improve regulatory compliance and achieve a more sustainable and democratic ICM.

KEYWORDS

Integrated coastal management; Regional autonomy; Community engagement; Sustainability; Justice; Democratization

1. Introduction

Coastal areas are among the most productive regions globally, offering a wide variety of valuable ecosystem services and habitats that benefits most living things (Avalos and Torero 2015; Marale 2013). Their magnificence and wealth have made them favourite habitation zones and prominent business areas, travel destinations, and transit locations. As an archipelagic state with more than 17,000 islands, Indonesia has the second-largest coastline of 80,000 km worldwide (Brotosusilo et al. 2016). However, the dense concentration of community and natural resources exploitation puts tremendous pressure on its coastal ecosystems, leading to biodiversity harm, coastal habitats devastation, pollution, and disputes spatial use. Indonesia's coastal areas are also among the most susceptible zones to global warming and cataclysm. Erosion, flooding, rising sea levels,

and extreme weather damage its coastal areas (Cazenave and Cozannet 2014; Zikra and Suntoyo 2015).

Integrated Coastal Management (ICM) in Indonesia harmonises various regulations influencing coastal areas and related activities, such as environmental preservation, fisheries, industry, wind energy, tourism, shipping, mitigation, and adaptation to global warming, among other activities. ICM encompasses the wide circulation of information gathering, designing, decision-making, control, and performance supervision (Basraoui et al. 2011). Stakeholders' involvement in various sectors is essential to ensure comprehensive support for the application of management strategies.

The autocratic legal regime in Indonesia before 1998 was characterised by various problems, including complex bureaucracy, slow decision-making, and authoritarian power (Bunte and Ufen 2009). The distribution of authority from the central to regional governments is the solution to democratisation (Lindsey and Butt 2012; Tirtosudarmo 2018). Primarily, the reform movement in 1998 was a new political era that ushered the regional autonomy regime. After two decades of regional autonomy, there have been various alterations, especially coastal management (see Table 1). Prominent principles on regulations about integrated coastal management currently include sustainability, democratisation, and community engagement.

Several regulations on coastal areas and small islands, local government, environment, and fishery have recently been enacted to give government institutions legal foundations to establish integrated coastal management. However, there is a need for ICM, particularly at the local levels in Indonesia, after current regional autonomy was obstructed by the sectoral approach from dominating coastal resources (Djunarsjah et al. 2022). Moreover, the law regime has overlapping and contravention problems of legislation, leading to a confusing and ambiguous mandate of institutions' roles and responsibilities controlling coastal areas (Muawanah et al. 2018; Nurhidayah 2011; Siry 2011). These problems have led to an unsustainable development system in the coastal zone. Accordingly, there is an urgent need for community engagement in making integrated coastal management decisions.

This article discusses ICM in Indonesia's regional autonomy law regime, especially community engagement. The law regime analysis focuses on various legislation on ICM in the current regional autonomy era. Furthermore, the paper determines various achievements and problems in ICM programs in Indonesia. The main discussion focuses on the dynamics of power in the current regional autonomy legal regime affecting community engagement in ICM.

2. Methods

This is legal research discusses four principal legislation on ICM in Indonesia's current regional autonomy law regime, including the Act Number 1/2014 concerning the Management of Coastal Areas and Small Islands, The Act of Local Government No. 23/2014, the Act Number 32/2009 concerning Protection and Management of the Environment, and the Act Number 45/2005 concerning Fisheries. The paper focuses on the engagement of local communities in the decentralisation of ICM. To discover current achievements and problems related to ICM, this research reviews related to secondary literature, policy plans, and the results of interviews. The interviews used a semi-structured

Table 1. Alterations of regulations attributed to integrated coastal management.

Titles	Regulations	Alterations
Management of Coastal Areas and Small Islands	<ul style="list-style-type: none"> • Current Act: Number 1/2014. • Previous Act: Number 27/2007. 	<ul style="list-style-type: none"> • The Act 1/2014 more encourages community engagement through various programs including Coastal and Small Island Strategic, Management, Zoning, and Action. Such programs are not implemented yet under the regime of the Act 27/2007. • Due to the lack of management implementation under the Act 27/2007, the Government through Act Number 1/2014 provides management licenses to individuals or communities without reducing the control and supervision of the Government over coastal areas.
Local Government	<ul style="list-style-type: none"> • Current Act: Number 23/2014. • Previous Act: Number 32/2004 and 12/2008. 	<ul style="list-style-type: none"> • Delineation Zone: The Act 23/2014 provides full authority to the Provincial Government up to twelve nautical miles measured from the coastline to the high seas and archipelagic waters to administer marine and coastal resources. This Act removes the authority of the District Government to control marine and coastal resources. • Planning: The Provincial Government has full authority to arrange various programs between zoning, management, strategic plans and action plans within the limits of 12 nautical miles. Whereas in the previous Act the District Government could arrange these programs on the border of 4 nautical miles. • Permit: In the Act 23/2014, the granting of location permit and management permit within the boundary of 0–12 nautical miles is wholly the authority of the province. • Supervision: Integrated coastal supervision and management with a 0–12 nautical mile limit is the authority of the province. However, in the previous Act, it was stipulated that the territory of 0–4 miles was the district authority.
Protection and Management of the Environment	<ul style="list-style-type: none"> • Current Act: Number 32/2009. • Previous Act: Number 23/1997. 	<p>The Act 32/2009 regulates several matters attributed to coastal area management which are not regulated in the Act 23/1997, including:</p> <ul style="list-style-type: none"> • Strengthening instruments for preventing pollution and environmental damage in coastal areas; • There is an obligation to obtain environmental permits before managing the coastal area; • Utilisation of the coastal ecosystem approach; • Strengthening community rights in environmental protection and management in coastal areas; • Strengthening institutional protection and management of the environment in coastal areas that is more effective and responsive; • Strengthening the authority of environmental supervisors and environmental civil servant investigators.
Fishery	<ul style="list-style-type: none"> • Current Act: Number 45/2009. • Previous Act: Number 31/2004 	<ul style="list-style-type: none"> • The Act 31/2004 does not regulate the coordination mechanism between investigative agencies in handling investigations of criminal acts in the fisheries sector, and this process governed in the Act 45/2009. • The Act 45/2009 regulates the expansion of the jurisdiction of fisheries courts so that it covers the entire area of fisheries management in Indonesia. • The Act 45/2009 has provided more protection to traditional fishers in aspects of licensing, the application of provisions regarding fishing vessel monitoring systems, fisheries levies, and the imposition of criminal sanctions.

questionnaire with 10 participants at the Ministry of Marine Affairs and Fisheries to determine current accomplishments and problems in coastal management and community engagement. All findings were interpreted, analysed, and presented qualitatively. The scientific significance of this research is to support, inform, and provide legal academic views to policymakers regarding integrated coastal management.

3. The regional autonomy law regime in Indonesia related to ICM

This section discusses the theoretical structure and legislations that establish the study of regional autonomy legal regimes relating to ICM. The elements forming this theoretical framework include regional autonomy, community engagement, and integrated coastal management. Furthermore, this section discusses various relevant legislation to understand the arrangement of ICM and community engagement in the current regional autonomy law regime. The theoretical structure and related legislation form the basis for analysing legal studies related to integrated coastal management and the context of community engagement in the regional autonomy regime.

3.1. Theoretical structure

During President Suharto's 32 years reign, Indonesia's government system became progressively autocratic and centralised (He 2007; Zainuri 2018). The two elements of government strengthened each other and often neglected the necessities of society and regions. After the collapse of the autocratic regime, the country experienced rapid development in democracy. Democratization requires the central government to share functions and authorities between the central and local governments (Carnegie 2008).

The core of the autonomous regime is to restore 'honor' to the region, which was previously (in the autocracy regime) dominated by the central authority. According to (Febrian 2009), the functions and authority delegated to the regions shall promote and strengthen national consolidation to provide their constituents' necessities and eagerness democratically. The regional government can help regional needs because of the larger social closeness to the community (Ali 2013; Nasution 2016; Schakel and Massetti 2018). However, regional autonomy has various theoretical interpretations and implementation practices. In this paper, regional autonomy refers to the central government's action to formally hand over powers to regional government organisations in the legal hierarchy and territory.

Regional autonomy gives local governments and local communities broad powers to manage coastal areas to increase their welfare (Wahyono and Illiyani 2020). However, in the practice of ICM in Indonesia, there are still various obstacles such as regulatory and financial issues, the environmental issues, and coordination and collaboration in community engagement. Therefore, ICM practices in Indonesia must be following the objectives of the Local Government Act, namely to improve the welfare of the surrounding community (Turisno et al. 2021).

Community engagement is an essential element for a successful regional autonomy (Smith 2008; Sutiyo and Maharjan 2017). In general, community engagement is defined

as engaging humans to collectively conserve natural resources, where the community takes part in developing and implementing management mechanisms (Kumasi, Obiridanso, and Ephraim 2010). The key ingredients that must be considered in community engagement in ICM include planning, implementing, monitoring, and evaluating (Struys 2015). Planning includes access to information in the management process, direct involvement, and optimisation in the submission of a coastal management plan. Then, the implementation is the process of executing the coastal area management program plan. Monitoring is an activity to see the effectiveness of projects and programs that have been compiled and implemented. Furthermore, evaluation is to provide information on the course of the management process and find out the strengths and weaknesses of the coastal area management plan.

Regional autonomy strategies encourage community engagement in natural resources management 'from below', to protect communities' livelihood and resource interests and user groups dependent on a specific natural resource base for viability (Setiawan and Hadi 2007). The regional autonomy strategy is the delegation of authority to local government in natural resources and environmental conservation to increase the role of local communities in integrated coastal management. Therefore, ICM needs to displace decision-making methods from central to a regional authority with society as a key participant in regional development (Siry 2011). Although regional autonomy may increase community engagement, it is always linked to the government system and does not lead to a higher engagement level from non-government stakeholders. The International Association for Public Participation (IAP2) suggested five community engagement levels, including Inform – communication in one direction, Consult – communication performed in two directions, Involve – jointly determining, Collaborate – jointly performing and Empower – help the society to be independent (IAP2 2017).

According to Chen (Lihtorng-Chen 2002), Integrated Coastal Management is a perpetual administrative process that protects and conserves coastal areas to preserve biodiversity and sustainable development. Integrated coastal management helps the government in hazard mapping of the national coastline, improving the livelihoods of coastal societies, and preserving coastal ecosystems (Marale 2013). It encompasses several principles, including sustainability, adaptive management, holistic approach, promotion, and engagement of entire pertinent administrative institutions, participatory designing, and representing vicinal characteristics (Clark 1992).

Integrated coastal management is crucial in achieving coastal areas' sustainability goals (Ngoran, Xue, and Ndah 2016; Uehara and Mineo 2017). Integration is needed between institutions and society and across administrative restrictions to ascertain conformable decision-making within the entire coastal environment (Burroughs 2010; Portman et al. 2012). This helps coordinate multidisciplinary expertise and responsibilities (Maze et al. 2017; Tietze, Haughton, and Siar 2006). Ascertaining integration in terms of prominent integration issues of environment, socio-culture, and economics is among the provisions for the sustainability of coastal management (Dronkers and Stojanovic 2016). The general focus on participation, collaboration, management mentality, and distribution of authority between central and regional governments is crucial for achieving community engagement in the integrated coastal management in the current regional autonomy law regime.

3.2. Legislations related to ICM in the current regional autonomy law regime

Political will from the government is needed to actualise sustainable ICM because the government can impose regulations (Campbell et al. 2013; Sale 2015). Through the political will, good legislation helps attain sustainable coastal management (Quesada, Klenke, and Ortiz 2018). This political will is evident in establishing various regulations on environmental protection, particularly on conservation and sustainable coastal zone management by the Indonesian government and Legislative. The crucial goals and law principles behind most current law regimes' regulations include regional autonomy, community engagement, sustainability, and integrated management (Glaser et al. 2021). Regional autonomy and community engagement essential law principles that help attain an integrated coastal management structure.

Act Number 1/2014 concerning the Amendment to the Act Number 27/2007 on the Management of Coastal Areas and Small Islands is currently the primary legal reference for integrated coastal management (Muawanah et al. 2018; Nagabhatla et al. 2019; Niki-juluw 2017). According to Act Number 1/2014, to administer coastal areas, provincial and district government should have the Coastal and Small Island Strategic, Management, Zoning, and Action Programs (Ferrol-Schulte et al. 2015). This Act encourages community engagement in coastal management to improve integration, consistency, and coordination in program and management. In implementing program and management, pertinent stakeholders should be engaged. The central government needs to approve them in advance. This Act also regulates conservation purposes, including protecting and preserving biodiversity, which is susceptible to external changes.

The regional autonomy era has experienced significant alterations after 1998, especially in the law regime. The Act of Local Government No. 23/2014 delegated wide-ranging decision making and control duties to regional authorities (Nugraha, Febrian, and Chen 2021; Rudy, Heryandi, and Khoiriah 2017). The Act mandated the provincial government to administer sea natural resources, maximally 12 nautical miles from the coastline to the open sea, or in the direction of the archipelagic waters. Therefore, the regional government is responsible for (1) exploration, exploitation, conservation, and marine resources control outside the oil and gas, (2) administrative control, (3) spatial arrangement, (4) participating in maintaining security in the sea, (5) be involved in maintaining state sovereignty, and (6) empowering coastal communities and small islands. However, Act No. 23/2014 regulates territorial waters beyond twelve nautical miles. Also, the management of national strategic resources, such as oil and gas, is under the central authority domain. However, this Act has problems where the legal regime in this legislation has changed the decentralised regime back to autocracy. The management and maintenance of marine resources at a distance of 1–4 nautical miles, which was previously the authority of the Regency/City, has been taken over by the Provincial Government. As a result, supervising coastal areas becomes difficult, especially in monitoring areas far from provincial capitals. Then, the loss of the authority of the City/Regency Government to manage marine/coastal areas has resulted in the closure of all fisheries and marine service offices (Nugraha, Febrian, and Chen 2021). Apart from that, the loss of adequate job opportunities in the fisheries and marine services at the city/district level has resulted in some employees feeling hopeless and confused (Nugraha, Febrian, and Chen 2021).

In the protection and management of the environment, the Indonesian government issued Act No. 32/2009. This is the legal foundation for every activity related to the environment, especially coastal area management (Nurhidayah 2011). According to this Act, environmental sustainability can be achieved by preserving coastal areas. It regulates environmental protection and management principles based on good governance. In every procedure of formulating and implementing instruments to prevent environmental pollution and law enforcement, there is a need for participation, transparency, accountability, and justice. Through this Act, the central government delegates authority to local governments in conducting environmental protection and management in their respective regions. Also, it regulates community engagement through participatory principles. Importantly, these principles encourage the community to play an active role in the decision-making process and implement environmental protection and management, especially in coastal areas, directly and indirectly.

For the sustainability of fisheries and coastal resources, the Indonesian government enacted Act No. 45/2009 on Fisheries. The Act serves as a legal basis for attaining sustainable fisheries and enhancing the well-being of small-scale fishers (Courtney et al. 2017). One of the fundamental principles in this Act is 'togetherness', stating that fisheries management should engage stakeholders' interests to improve the welfare of the community. Act No. 45/2009 also directs management aspects through coordination between agencies related to fisheries. The regional government has also been given the authority to regulate water use and fish cultivation. Nevertheless, this legislation has a problem, namely that there is no explicit recognition of marine tenure rights or recognition of customary tenure systems. This problem weakens protection for communities, so conflicts over the management of marine resources often occur between indigenous communities and outsiders who both access these resources. This Act should provide a clear legal mechanism for indigenous communities to obtain exclusive use rights, such as registration of their territorial claims and defining the roles and responsibilities of community-based marine tenure institutions (Muawanah et al. 2021). Therefore, revision of this Act is needed, especially by clearly defining the concept of marine tenure. This definition will help the Government to revitalise and support marine tenure rights.

Table 1 highlights alterations of regulations attributed to integrated coastal management in the current regional autonomy law regime.

4. Results

4.1. Recent accomplishments in Indonesia

The regional autonomy process under President Joko Widodo has currently equalled the democratisation process and the rise of civil society. Regional autonomy in Indonesia specifically refers to force transfer to lower bureaucracy levels by decentralising authority, informational mechanisms, and financial sharing (Nasution 2016). However, it also leads to a rivalry between the central and regional governments to strengthen the political position and gain economic benefits. Competing power between the government and legislative institutions at the regional level often calls for 'Masyarakat / community' to legitimize' their actions (Mietzner 2020). The contention to manage natural resources had also increased strain among the local elite to control through their jurisdiction. The

regional government became a prominent power in Indonesian politics following regional autonomy (Ash Shiddiqy 2017).

Although competition between central and local governments is a characteristic of regional autonomy, it has encouraged community engagement in integrated coastal management (Farhan 2013; Nandi 2014). The Local Government Act no. 23/2014, especially in Article 354 (1) and (4), has supported community engagement-based schemes. In the current regional autonomy regime, projects related to integrated coastal management have been developed. This Act provides substantial authority to the regional government to manage their local natural resources, managing them sustainably. The legislation is also the legal basis for engaging the local community in managing natural resources. The community and stakeholders' engagement in the local public services control is prominent attention in the current regional autonomy. This engagement would also impact the efficiency of public services and civil society empowerment in the region.

The development of integrated coastal management in Indonesia at the regional level was initiated by several international funding agencies. Through a collaborative project with the Coastal Community Development Program-International Fund for Agriculture Development (CCDP-IFAD), the Ministry of Marine Affairs and Fisheries works on the Coastal Community Development program (IFAD 2014). Since 2013, this project has targeted 180 coastal villages in 12 districts/cities, generally located in eastern Indonesia. This project builds and develops the coastal society's economic institution/*Koperasi*. The institution facilitated community groups' necessities by accommodating and marketing the products produced by the coastal community groups. Currently, twelve economic institutions/ *Koperasi* have been built in 12 municipal districts.

There also the Coral Reef Rehabilitation and Management Program (COREMAP), an aspect of this collaboration. The purpose of this project is to institutionalise an active, decentralised, and integrated framework approach to managing sustainable coral reef resources (Wong and Elias 2018; World Bank 2019). The project is funded by the ADB, the Global Environment Facility (GEF), Australian Aid, the Japan International Cooperation Agency (JICA), and the World Bank. The Regional Program for Partnership in Environmental Management for Seas of East Asia (PEMSEA) on the Southeastern Coast of Bali was a grant from IMO/GEF/UNDP and took place from 2000 to 2005. The local government implemented this program in the Province of Bali in collaboration with various domestic and international institutions / non-government organisations, such as the Bremen Overseas Research and Development Association, NGOs from Germany, JICA, and the World Bank. The program was meant to help the regional authority to promote its building capacity in environmental and resource protection and management in the Bali coastal zone (Bapedalda Bali 2004). Various examples of cooperation mentioned shown the accomplishments of integrated coastal management at the regional level.

Indonesia has also recognised customary law and encouraged the community engagement in the Minister of Marine Affairs Regulation No. 23/2016 on Planning for the Management of Coastal Areas and Small Islands. This regulation is a legal foundation for restoring and institutionalising customary law in local government with an engagement approach, such as community-based management. Indonesia has an old chronicle and extensive practice of community-based coastal management systems. One of the customary laws still preserved is *Mandarahi Biduk* in West Sumatra Province. This customary is

accompanied by a ceremony to ask God to manage the sea and avoid disaster (Haryani and Huda 2018). In Maluku, *Sasi Laut* is a local tradition where several fishing methods are regulated by establishing basic ethics and guidelines for behaviour in which this tradition (Novaczek et al. 2001). This culture prohibits the use of poisons or chemicals and fishing gears that damage marine and coastal ecosystems. In West Nusa Tenggara Province, the local society restored a customary law system called *Awig-awig*, based on local instructions that ruled the fisheries (Krishna, Sagala, and Syahbid 2018). *Awig-awig* regulates supervision and sanctions for perpetrators of destruction. The sanctions imposed include fines, returning catches to the sea, and burning fishing equipment. In these areas, local society is involved in monitoring and surveillance activities. It has escalated concerns over coastal and marine resources and contributes to stopping destructive fishing.

This explanation shows that customary laws in coastal management still exist in various regions spread throughout Indonesia. Customary laws in coastal management have developed from generation to generation, along with changes in the social, legal, and political climate. However, most of these customary laws are relatively weak. This traditional legal system for coastal management was developed for political and economic reasons or to resolve disputes (Oktavia, Salim, and Perdanahardja 2018). Despite these problems, the customary legal system in coastal management remains an important precedent for strengthening integrated coastal management and improving socio-economic and ecological performance in small-scale fisheries in this country (Halim et al. 2020).

4.2. Current problems affecting the ICM program

There was no legislation on ICM in Indonesia before enacting Act No. 27/2007, which was later amended by the Act. 1/2014. The ICM in Indonesia was sectoral in approach, and the ICM program is not sustainable and continues. For instance, it does not cover the entire Indonesia coastal zone. Most of Indonesia's integrated coastal management programs are one-off, lacking in guidelines and sustainability (Farhan 2013). Several programs have been funded by international institutions, including IFAD, USAID, ADB, AusAID, JICA, GEF, World Bank, and other institutions. At the end of the funding term, the central government could not preserve the programs' sustainability. Most of them were handed over to regional governments as part of the regional autonomy. It was challenging for local governments because they had generally not been implicated from the commencement and lacked integrated coastal management skills, talented human resources, information, and suitable technology to handle these programs. The fundamental problems and disputes influencing integrated coastal management programs in Indonesia could be classified as follows.

4.2.1. Regulation and financial problems

Based on data from the Indonesian Ministry of Marine Affairs, there are currently 8 Ministry of Marine Affairs Regulations related to coastal management. This does not include regulation issued by other ministries, such as the Indonesian Ministry of Environment and Forestry, which is responsible for environmental protection and preservation in coastal areas. The management of ocean and coastal resources are stipulated in various

regulations. This creates problems, including inconsistency in interpretation, conflicts between regulation, and overlapping conventions leading to legal loopholes for destructive exploitation in coastal areas. The current regulations still have many wide and cryptic stipulations with little directions and unclear mandates. For instance, the current Local Government Act in 2014 created vagueness over interpretation fishing methods performed by small-scale fishers in 2014. Under this Act, small-scale fishers are interpreted as traditional Indonesian communities using traditional fishing materials and equipment. They are not subject to a business license and have the freedom to fishing in all Indonesian waters. The definition of 'small-scale fishers' has created ambiguity and legal loophole in its application. For instance, it can exploit large-scale fishing because it does not require a business license, and the area is very large, specifically the entire Indonesian territorial waters. More specific criteria regarding the terminology of 'small-scale fishers' and 'traditional fishing methods permitted are required.

Current Indonesian regulations and policies also focus on agricultural expansion rather than optimising the natural resources of the marine and coastal zones. This harms coastal societies, leaving fishers with lousy technology and lacking the knowledge required to increase their revenue. Consequently, fishing societies continue to be poverty-stricken (Aulia Riza Farhan 2013).

Dependence on funding agencies on several ICM programs shows that the government has not considered the program's sustainability. Generally, funding institutions adhere to time frames and guidelines not involved with programs' sustainability after the money runs out. In case the governments do not participate, the sustainability of these projects is not assured.

4.2.2. Environmental problems

Environmental problems in Indonesia needs primary attention. The coastal area has also endured environmental pressures. Erosion due to highlands deforestation worsens the issue of siltation downstream and into the ocean. Silt sediments covered and killed once-lively coral reefs, making mangrove shrubs and creating harbour entryway increasingly arduous without massive and sumptuous dredging operations (Sofiyah 2013).

The fishers have faced various environmental problems that threaten the sustainability of their activities. This includes pollution in the coastal and marine areas. Pollution in the coastal area cause troubles to small-scale fishers, such as making fishing difficult. In Jakarta Bay, Indonesia, the drivers of environmental damage include population increases, destructive fishing, hazardous and toxic factory waste disposal, and reclamation projects (Supartono and Sondita 2016).

Most of the Jakarta Bay fishermen were unable to sail and fish for two weeks because of the highly polluted water in 2016. This has caused many fish and shellfish to die and damaged farming in communities around Jakarta Bay. Consequently, there is inadequate fish stocks and reduced living standards of farmers in Jakarta. Therefore, regional governments need to increase public awareness on the need to avoid destructive fishing, make regulations to control the expansion of industrial estates around the coast, review and update local regulations on domestic and industrial waste, control population growth, and allocate protection areas as pollution buffers.

4.2.3. Administrative problems

Limited administrative competency of central and regional governments in Indonesia has also been a general problem in ICM (Farhan and Lim 2013; Nandi 2014). Although local governments have obtained the mandate to manage coastal areas in the current regime, there is inadequate training in implementing responsible, transparent, and integrated coastal resource management. Also, the lack of leadership, institutional capacity, and financial management is an acute problem that has arisen in protecting and managing coastal areas.

The regional autonomy regime has created a diversity of systems, leading to problems in coastal management. Officials often use poor administrative governance and many legal loopholes in various regulations at the regional level for corruption. According to Mongabay, coastal areas in Southeast Sulawesi have been damaged due to nickel mining, which led to 18 years imprisonment of its Governor (Mongabay 2018). This shows the government's involvement in violating the law and justifying the destruction of coastal resources. Lack of transparency, accountability, and corruption is the root of administrative problems in the current regional autonomy regime and damages the environment and ecosystems in coastal areas (Gumbira and Harsanto 2019).

4.2.4. Problems of coordination and collaboration in community engagement

The current institutional framework of reform and openness has produced a chance to create a community engagement approach. However, active community engagement in ICM has remained low in Indonesia (Fitriana 2014). The regional autonomy regime empowers local government authorities rather than local communities as users. The top-down method in Marine Protected Areas (MPAs) has led to disputes with local societies and fishers (Nugraha 2021). For instance, Madura's local communities have rejected the regional government plan to establish a marine protected area in the coastal area of Sepanjang island because it would disturb their fishing grounds.

The significant aspect of marine protected areas design and performance preserves coastal habitats and coral reefs for their biodiversity values and to promote sustainable resource use for the interest of the local community (Wiadnya et al. 2011). Throughout the regional autonomy regime, innumerable MPAs were created in several regions without engaging the community. Marine Conservation Institute assessment classifies merely 5 out of 216 protected areas as effectively managed (Marine Conservation Institute 2012). Many MPAs failed in their implementation because they did not engage the vicinal society in the designing, decision-making, control, supervision, and evaluation processes (White et al. 2014). Additionally, many regional authorities remain confused about the MPAs design, lacking confidence in engaging the local community in management. Furthermore, community engagement is not merely limited to the MPAs but also includes zoning, management of coastal resources, and other issues that require to be addressed and managed in coastal zones (Stocker et al. 2012). This includes wetland protection, coastal erosion management, sea level rise adaptation, land-based pollution, coastal and estuaries water quality, and endangered species protection.

In theory, the ideal framework for achieving environmental sustainability in coastal areas requires coordination and collaboration (Grip 2017; Kay and Alder 1999; Vodden 2015). However, many problems related to integrated coastal management and

community engagement are attributed to a lack of coordination and collaboration (Farhan 2013). This led to low public awareness of their engagement in integrated coastal management. Only a few partnership programs in community engagement have been created by implementing institutions and community groups in integrated coastal management (Crawford et al. 2004). However, legislation changes in the current autonomy regime have increased the number of community-based management systems (Nandi 2014). This is a positive instance of community-based management in Indonesia.

Almost all community-based coastal management programs are dependent on financial problems and implementation, hence community engagement remains low (Glaser et al. 2015). The *Adat*/ customary institutional system in many regions has transformed into open competition through the current regional autonomy law regime, which has led to disputes over marine resources. These caused tensions between local communities and regional governments. Therefore, coordination and collaboration in community engagement in coastal management need to be corrected immediately.

5. Discussion

The practice of ICM in the current regional autonomy law regime still faces various problems. The dynamics of authority in the current regional autonomy law regime influence community engagement in integrated coastal management.

5.1. Interests and responses of stakeholders

The vagueness of various regulations reflects the implementation of ICM (Dirhamsyah 2006). Those regulations' performance caused incapable management described by the dispute, gap, and redundancy among the development areas. These regulations can create conflicts of interest among various users, undermining the effort to manage and conserve coastal resources. Political elites at the national and regional levels take advantage of these weaknesses through their covert political agenda (Ferrol-Schulte et al. 2015). Stakeholders have interpreted various regulations and policies based on their interests and priorities. When the central government has passed various legislation associated with ICM, community engagement, and protection of the marine environment, local governments are busier with the political agenda to pursue their financial benefits (Rosyida and Sasaoka 2018).

The term 'managing authority' in the Regional Autonomy Act is often misinterpreted as 'sovereignty' by several local governments'. Policy in the current regional autonomy law regime is currently prioritising regional financial interests rather than thinking about community engagement in resource management, especially integrated coastal management (Siry 2011). Various regulations in the current regional autonomy regime prioritise economic development by pursuing financial benefits rather than environmental sustainability and the engagement of local communities (Sutiyo and Maharjan 2017). Elite political interests have ruled out local communities' interests at the central and regional levels.

The regional autonomy regime's current politics is related to different interpretations and responses about educating community engagement. Coastal resource management projects should encourage active community engagement in the ICM through

decentralisation and strengthening coastal resource planning and management approaches. However, the central and regional governments slightly promote community engagement in integrated coastal management. After two decades of regional autonomy, local governments understood the importance of community engagement in integrated coastal management. However, local communities rarely get their rights to become users of coastal ecosystems.

Lack of knowledge about values, interests, and community engagement responses is a severe problem of integrated coastal management (Ware 2017). The mismanagement conducted by authorities at the regional level has led to coastal management conflicts (A. R. Farhan and Lim 2010). This coastal conflict management has resulted in the community committing misappropriation. An example of misappropriation is the local community logging the mangrove for firewood, hence criminalisation. Coastal management conflict continues due to the harmonisation of interests between the regional government and the local community. The different interests between the central and regional governments and greed for the financial purpose, the achievement of sustainability goals in integrated coastal management.

5.2. The dynamics of authority

The dynamics of authority affect the enforcement of regulations and policies in ICM. The emergence of legal rules comes from society's social, cultural, and economic context (Darian-Smith 2013; Zartner 2014). The dynamics of authority and natural resources influence the establishment of legal products. Since regional autonomy has provided opportunities for corruption, it is not surprising that many regional officials have to deal with the law and put into prison. The advantages of regional autonomy have been unsuccessful in actualising for most of society. In regional autonomy, the rise of regional elites is often associated with the increased dispute and the exclusion of minorities (Duncan 2007; Ulum et al. 2019).

One of the objectives of establishing regional autonomy is to reduce economic inequality in various regions by engaging the community. However, the government has not yet engaged the local community to manage coastal resources independently. Management and exploitation of coastal resources are often committed by businessmen affiliated with officials at the regional level. This increases the opportunities for corruption in the management and exploitation of coastal resources. Therefore, there is a need for institutional development and alterations in the structure of power, and capacity-building in the community to and participative engage in integrated coastal management actively.

5.3. Community engagement in ICM

In the case of unclear regulations on responsibility, regional autonomy will only benefit those who have authority. Therefore, the distribution of responsibilities from the central to local governments through regional autonomy is essential. Without local responsibilities that democratically engage the community, regional autonomy can only be a tool to weaken local communities currently marginalised. For this reason, identifying environmental protection, sustainability in central planning, and formulating regulation is not enough. The local community prefers customary law that could be accepted

in their groups for law enforcement using national regulations to be ordinarily inadmissible (Purwaka and Sunoto 1999; Siry 2006). As users of coastal ecosystems, local communities have managed the use of coastal resources and excluded outsiders from accessing these resources. Although the Management of Coastal Areas and Small Islands Act prohibits such exemptions, the local community continues to make customary rules to ban outsiders from protecting the coastal areas' environment. Elements of justice and fulfilment of livelihoods are the core priorities of local communities (Ferrol-Schulte et al. 2015; Novriyanto et al. 2012). Therefore, the local community's aspirations should be accommodated through bottom-up evolution to integrate or create a legal framework for integrated coastal management.

National policies and regulations have not been effective in encouraging community engagement in integrated coastal management. However, the cultural approach has been successful in coastal management at the regional level. Community-based approaches through customary law can establish new legal frameworks in integrated coastal management. The institutional system developed with the community's active engagement as users of coastal ecosystems improves compliance with regulations. Therefore, it is vital to prioritise the local community in decision-making processes. Furthermore, consensus with the local community is also necessary to realise the potential of regional autonomy in integrating integrated coastal management democratically and sustainably.

5.4. The interconnection between ICM, regional autonomy, and community engagement

This article has discussed three coastal management elements, including the ICM concept, the division of authority in the regional autonomy regime, and community engagement. In Indonesia, the ICM concept and regional autonomy policy include community engagement (Patlis 2005). According to the analysis, community engagement requires proper management decentralisation for communities to participate in the decision-making process. ICM needs centralised coordination to unite geographic administration and divergent functions (Taljaard, Slinger, and Van Der Merwe 2011). This paper's analysis also shows that the regional autonomy law hinders integration between the central and regional governments. For this reason, some decision-making at the regional level is not well coordinated.

The institutional structure's nature is dynamic and cannot be changed quickly (Powell, Cuschnir, and Peiris 2009). The challenge is to have a fragmented institutional structure and produce integrated management at the practical level (Ballinger 1999). To achieve appropriate ICM, the central government needs to develop local government institutions' capacity, including monitoring, activity evaluation, and coordination. Furthermore, community engagement in every decision-making process is an essential factor in Indonesia's participatory coastal management.

6. Conclusions

This article has analysed the integrated coastal management of the current regional autonomy law regime in Indonesia in community engagement. The current regional

autonomy regime has enacted various regulations, including the Management of Coastal Areas and Small Islands Act No. 1/2014, The Local Government Act No. 23/2014, Protection and Management of the Environment Act. No. 32/2009, and Fishery Act No. No. 45/2009. These legislations constitute the fundamental legal basis currently in force with improvements to previous regulations.

The recent achievements in integrated coastal management include collaborating with international financial institutions in developing community economic activities and environmental management in coastal areas. The government has also issued the regulation to restore and institutionalise customary law to implement community-based management. Apart from the achievements made, integrated coastal management also has various problems, including legislation and financial, environment, administrative, coordination, and community engagement collaboration.

The current regional autonomy regime has given substantial authority to the regional government. However, it has been misinterpreted to pursuing the political agenda of local elites. The authority obtained by local elites to regulate and manage coastal areas has been misused for financial benefits at the expense of local communities' interests and environmental sustainability.

The current regional autonomy has provided opportunities for corruption, with several local elites imprisoned. The benefits of regional autonomy are less felt because the community is still marginalised in integrated coastal management. Regional autonomy is established to reduce poverty by engaging in local communities. However, regional governments are still affiliated with large companies in coastal resource management without engaging the community.

Various regulations made by the government are less adhered to by the community. Local communities adhere to customary laws in their environment and exclude outsiders from managing coastal resources to maintain their livelihoods and protect the environment, though such exclusion is prohibited. Justice and fulfilment of livelihoods are the elements most needed by the local community. For this reason, the aspirations of local people should be considered through a bottom-up evolutionary approach in creating a legal framework that relates to integrated coastal management. Active engagement of local communities in the decision-making process improves compliance with regulations to realise a more sustainable integrated and democratic management.

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