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# The role of the state in providing public services for the utilization of marine resources

[Purba, Marlina Br<sup>a, b</sup>](#); [Rebala, Lazarus Tri Setyawanta<sup>a</sup>](#); [Trihastuti, Nanik<sup>a</sup>](#)
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**Abstract**

This paper aims to describe the role of the state in carrying out its public services for the utilization of natural resources by using the outlook of Indonesian philosophical insight of Pancasila in managing archipelagic state. This paper was conducted by using normative juridical approach to describe national management of marine resources. The management of marine resources is carried out through a legal framework to provide legal certainty and benefits for all communities as an archipelagic country characterized by an archipelago. The findings highlight that policies to maintain and manage marine natural resources, which will then be written about marine resources, must provide legal certainty and benefit value. The main contribution of this research is to explain the intersection of interests between uses within the national scope and at the same time containing the interests of use within the scope for the international community. This paper qualitatively examines the role of state as the main public service provider in administering institutions, corporations, independent institutions established by law for public service activities, and other legal entities established solely for public service activities in the context of utilization of marine resource. Empirical relationship between public sector performance and marine resource utilization was not tested in this study. The results encourage the state to maintain the integration of the nation and state both ideologically and territorially by realizing reliable public service through the improvement of utilizing marine resource as a means of increasing people welfare, especially in an archipelagic state such as Indonesia. The description is in relation to the role of the state in implementing public services in the utilization of marine resources in an archipelagic country based on national insight. © 2021 by authors, all rights reserved.

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# The Role of the State in Providing Public Services for the Utilization of Marine Resources

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**Abstract** This paper aims to describe the role of the state in carrying out its public services for the utilization of natural resources by using the outlook of Indonesian philosophical insight of Pancasila in managing archipelagic state. This paper was conducted by using normative juridical approach to describe national management of marine resources. The management of marine resources is carried out through a legal framework to provide legal certainty and benefits for all communities as an archipelagic country characterized by an archipelago. The findings highlight that policies to maintain and manage marine natural resources, which will then be written about marine resources, must provide legal certainty and benefit value. The main contribution of this research is to explain the intersection of interests between uses within the national scope and at the same time containing the interests of use within the scope for the international community. This paper qualitatively examines the role of state as the main public service provider in administering institutions, corporations, independent institutions established by law for public service activities, and other legal entities established solely for public service activities in the context of utilization of marine resource. Empirical relationship between public sector performance and marine resource utilization was not tested in this study. The results encourage the state to maintain the integration of the nation and state both ideologically and territorially by realizing reliable public service through the improvement of utilizing marine resource as a means of increasing people

welfare, especially in an archipelagic state such as Indonesia. The description is in relation to the role of the state in implementing public services in the utilization of marine resources in an archipelagic country based on national insight.

**Keywords** Public Service, State Role, Marine Resource, Pancasila, Indonesia

## 1. Introduction

The state which is commonly identified with the government is also equated with the nation (*natie*), society, tax authorities or state treasury. In the study of international law, Mochtar & Agoes [1] explained that the state is a subject of international law in a classical sense. There is still an opinion that international law is essentially the law between countries even though it is not only the state as a subject of international law. The subjects of international law include states, the holy throne, the international Red Cross, international organizations, individuals in a limited sense, rebels and disputing parties.

Realizing the state's goals of Indonesia is an obligation based on the five foundations of the state, namely Pancasila. As a nation's philosophical basis, Pancasila has a relationship of conformity with the state it is based on

# A Review of Hazardous Compounds Present in Construction Waste Materials

**Elamaran Manoharan\***, Norazli Othman, Roslina Mohammad, Shreeshivadasan Chelliapan, Siti Uzairiah Mohd Tobi

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**Abstract** Construction industry around the world is well-known as a massive contributor of waste materials and environmental impacts. Among the types of waste materials generated by this industry are concrete, plastic, wood, ceramic, and asbestos. These waste materials, in general, are chemically fused through various manufacturing processes before being transported for the construction usage. Addition of chemical compounds such as arsenic, copper, cyanide, nickel, chromium, lead, sulphate, and zinc are mainly for enhancing the mechanical and physical properties of the materials so that the materials could last longer, perform well and withstand external forces. However, construction materials that are made up of these chemical compounds are threatening the nature and human beings once the materials are used up and the leftover from the construction industry are thrown away without proper waste management practice. The aim of the study was to review hazardous compounds presented in construction waste materials and suggest ways to manage it effectively. The methodology is literature review, data collection from published articles, and data analysis. Findings from this study showed that concrete, plastic, wood, ceramic, and asbestos are among the waste materials that are made up of hazardous compounds, which impact the environment and mankind living today. As a mitigation measure, a proper waste management practice is necessary among the construction practitioners to protect humans and

biological factors, save some landfill spaces, preserve some natural resources, prevent soil and underground water channel contamination, avoiding illegal dumping activities, and promotes sustainability factors. Obeying the enforced rules and regulations, utilisation of various waste management technologies, on-site waste segregation and proper storage, waste substitutions, and making use of well-structured framework developed by researchers and construction consultancy are among the methods that can be adopted in polishing the current waste management practice.

**Keywords** Concrete, Ceramic, Wood, Plastic, Asbestos

## 1. Introduction

Over the past few decades, Malaysian economy was facing rapid development and ranked 18th globally competitive country in 2015 [1]. As one of the key players to the development of Malaysian economy, the construction industry was granted with numerous projects worth up to RM 138 billion in 2017 to achieve the demands of the population [2]. However, the extreme urbanisation that was involved by this industry significantly changed the lifestyle of the population and



# The Level of Ecological and Hydrobiological Indicators in the Cheboksary Reservoir

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**Abstract** The paper assesses the ecological state of the Cheboksary reservoir based on the criteria of the total abundance, biomass, and species diversity of phytoplankton, zooplankton, and benthos. During the study period, no significant changes in the indicators of the development of algal communities, their distribution over the water area of the reservoir were noted. The average phytoplankton biomass for the reservoir turned out to be in the dynamic norm, the trophic status was assessed as eutrophic; The revealed ratios of the leading systematic groups of planktonic algae and the composition of cenoformative species had also been in the previous years of the study. According to the level of the saprobity index, all sampling stations belong to class III (moderately polluted waters). The benthos of the reservoir was also characterized by sufficient diversity with the dominance of mollusks and chironomid larvae in the taxonomic composition. Thus, despite the presence of a certain anthropogenic impact on the water area of the Cheboksary reservoir, its hydrobiological state remains satisfactory, which is determined by a wide buffer limit to the level of pollution of the water body.

**Keywords** Artificial Reservoir, Hydrobiological Properties, Ecological State of a Water Body

## 1. Introduction

Due to the uneven location of rivers, lakes, and other hydrological objects on the Earth's surface, artificial reservoirs have become a common planetary phenomenon. These include various ponds, canals, reservoirs, filtration reservoirs, and other objects that have any unique economic and/or biospheric importance. The main purpose of creating reservoirs is to accumulate water with its subsequent use. In addition, the reservoir, as an artificially created water body, has a strategically significant function in the national economic sectors and the ecological biosphere plan [1].

The construction of regulating reservoirs provides an opportunity to partially or completely eliminate the conditions for the occurrence of such adverse events as floods and high water. At the same time, in addition to reducing direct damage from them, the costs of construction and reconstruction of capital objects in various sectors of the economy are also reduced due to the reduction of flood control costs. The creation of reservoirs solves the problem of water shortage in certain regions and also solves the reclamation problem of water supply following the most optimal timing of irrigation for crops. Reservoirs are ubiquitous sites for organizing fisheries. Commercial fish species (bream, pike perch, etc.) are often grown in artificial reservoirs. Besides, initiatives are taken