



Green Diplomacy: Indonesia -Netherlands Cooperation (Port of Rotterdam) to Realize the Green Port Concept in Indonesia

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ABSTRACT

This research explores the concept of green diplomacy through the lens of the Indonesia-Netherlands cooperation on port development. Specifically, it focuses on the partnership between Indonesian ports and the Port of Rotterdam, a global leader in sustainable port operations. The study examines how the two nations are collaborating to implement green port concepts in Indonesia, with a particular emphasis on environmental sustainability, technological innovation, and economic growth. Key aspects of the cooperation include knowledge sharing, capacity building, and investment in green technologies. The paper argues that this partnership serves as a model for international collaboration in addressing climate change and promoting sustainable development in the maritime sector. By adopting green port practices, Indonesia aims to reduce its carbon footprint, enhance port efficiency, and attract foreign investment. Furthermore, the paper discusses the challenges and opportunities associated with implementing green port concepts in Indonesia, including policy frameworks, financial constraints, and technological limitations. Ultimately, this research highlights the significance of green diplomacy in fostering sustainable maritime trade and contributing to global efforts to combat climate change.

Keywords: *Indonesia, Netherlands, Port of Rotterdam, Green Diplomacy, Maritime Cooperation*

INTRODUCTION

The global maritime industry plays a crucial role in international trade and economic development. However, it also faces significant challenges, including environmental pollution, climate change, and congestion. To address these issues, a growing number of countries and organizations are adopting green port concepts. Green ports are characterized by their commitment to environmental sustainability, energy efficiency, and technological innovation. They aim to reduce their carbon footprint, minimize pollution, and enhance port operations. The escalating global climate crisis has underscored the imperative for nations to transition towards more sustainable practices. Maritime transportation, a linchpin of global trade, is a significant contributor to greenhouse gas emissions. Consequently, the development of green ports has emerged as a critical strategy to mitigate environmental impacts and foster economic growth.

Indonesia, as a maritime nation with extensive coastlines, and the Netherlands, a global leader in port management and sustainability, possess unique strengths that can be harnessed to drive the green port agenda. The Port of Rotterdam, renowned for its innovative approaches to port operations and its commitment to sustainability, offers a valuable model for Indonesia as it seeks to develop environmentally friendly ports.



Indonesia and the Netherlands share a deep-rooted historical connection, marked by centuries of colonial ties and post-colonial interactions. While the nature of this relationship has evolved over time, the two nations continue to maintain robust bilateral relations. In recent years, both countries have demonstrated a strong commitment to sustainable development and climate action, making cooperation in the field of green technology and infrastructure a natural progression. This paper explores the potential for Indonesia and the Netherlands to collaborate in realizing the green port concept in Indonesia, using the Port of Rotterdam as a model. The Port of Rotterdam, a global leader in sustainable port operations, has been at the forefront of efforts to decarbonize maritime transport and logistics. This paper investigates the feasibility of a strategic partnership between Indonesia and the Netherlands, centered around the Port of Rotterdam, to accelerate the development of green ports in Indonesia. The escalating global climate crisis demands urgent and concerted action from all nations. As major maritime nations, Indonesia and the Netherlands are particularly vulnerable to the impacts of climate change.

METHODS

This study employs a qualitative research design to explore the Indonesia-Netherlands cooperation in realizing the green port concept in Indonesia. A case study approach will be utilized to delve deeply into the specific context of this collaboration. A comprehensive analysis of relevant documents will be conducted. These documents may include policy papers, reports, project proposals, news articles, and other materials related to the Indonesia-Netherlands cooperation and the green port concept. This study is subject to certain limitations. The case study approach may limit the generalizability of the findings to other contexts. Additionally, the researcher's own biases may influence the interpretation of the data.

RESULT AND DISCUSSION

Green Theory

Green theory, broadly speaking, is a framework that examines the relationship between humans and the natural environment. It emphasizes the importance of sustainable development, environmental protection, and social equity. In the context of your paper, Green Theory provides a foundational lens through which to analyze the Indonesia-Netherlands cooperation on the Green Port Concept in Rotterdam. Green theory helps us to understand this in terms of long-term ecological values rather than short-term human interests. These interests are generally pursued by states through investments in technology, but there is no easy technical solution to human-induced climate change. From the perspective of green theory, this technical impasse requires a change in human values and behaviour and therefore presents an opportunity for political innovation or even a transformative shift in global politics. International Relations theory can explain why climate change is a difficult problem for states to solve because of economic competition and disincentives to cooperation. However, it



cannot provide an alternative framework to explain how this might be addressed. International Relations remains overly focused on states and their national interests rather than other actors that may be more cooperative, such as cities and communities or non-governmental organisations and green social movements.

Green Diplomacy and Maritime Cooperation: An Indonesia-Netherlands Perspective

Green diplomacy is a foreign policy approach that prioritizes environmental issues and sustainable development. It involves using diplomatic tools to promote cooperation on environmental challenges and to advance a country's environmental goals. In the context of maritime cooperation between Indonesia and the Netherlands, green diplomacy offers a framework for addressing shared challenges such as climate change, marine pollution, and overfishing. The maritime sector is a cornerstone of both the Indonesian and Dutch economies. Indonesia, with its thousands of islands and extensive coastlines, is heavily dependent on the ocean for transportation, fisheries, and tourism. The Netherlands, a small, densely populated country, has a long history of maritime activities and is a global leader in maritime technology and services.

The intersection of green diplomacy and maritime cooperation between Indonesia and the Netherlands is evident in several areas:

- **Climate change mitigation and adaptation:** Both countries are vulnerable to the impacts of climate change, including sea-level rise and more frequent and intense extreme weather events. Green diplomacy can facilitate cooperation on initiatives to reduce greenhouse gas emissions from shipping and to develop resilient coastal communities.
- **Marine conservation:** Indonesia and the Netherlands have a shared interest in protecting marine biodiversity and ecosystem services. Green diplomacy can support efforts to establish marine protected areas, combat illegal, unreported, and unregulated fishing, and reduce marine pollution.
- **Sustainable fisheries:** Overfishing is a significant threat to marine ecosystems in both countries. Green diplomacy can promote sustainable fisheries management practices, such as the use of science-based catch limits and the reduction of bycatch.
- **Maritime technology and innovation:** The Netherlands is a world leader in maritime technology, while Indonesia has vast maritime resources. Green diplomacy can foster cooperation on research and development of clean and efficient maritime technologies, such as renewable energy for ships and advanced monitoring systems for marine pollution.

Pelindo and Port of Rotterdam Collaboration: Towards a Green Port

The collaboration between Indonesia Port Corporation (Pelindo) and the Port of Rotterdam represents a strategic step towards realizing Indonesia's vision of having sustainable and environmentally friendly ports. The Port of Rotterdam, as one of the busiest and most innovative ports in the world, possesses extensive experience in



managing ports efficiently and sustainably. The Port of Rotterdam is the largest and one of the oldest ports in the world, with a history spanning 731 years. Economically, the Port of Rotterdam is considered an important distribution center in Europe and is surrounded by highly populated countries such as Germany, Paris, and London. Despite its age, the port, which is considered a gateway to the world, has been able to maintain its performance to this day. This is evident in the fact that the port can still accommodate 450 million tons of cargo per year and serve more than 350 million customers in Europe.

Focusing on maritime and port sectors, the Netherlands has contributed to the development of one of Indonesia's national ports, namely Kuala Tanjung Port. The bilateral relationship between Indonesia and the Netherlands in the development of Kuala Tanjung Port is outlined in a Memorandum of Understanding signed in The Hague on April 22, 2016, represented by Indonesian Foreign Minister Retno L.P Marsudi and Dutch Minister of Infrastructure and Environment Melanie Schultz van Haegen. A Public-Private Partnership (PPP) scheme was chosen for the construction and management of Kuala Tanjung Port, which will be carried out jointly by PT Pelindo 1 from Indonesia and the Port of Rotterdam Authority from the Netherlands, which is also trusted to be a consultant in the construction of this port. The cooperation in the development of Kuala Tanjung Port is expected to maximize business activities and create a port that meets international standards.

The Indonesian government supports Pelindo 1's commitment to accelerating the development of ports and industrial zones in Kuala Tanjung in collaboration with the Port of Rotterdam and Zhejiang. Kuala Tanjung is one of 24 strategic commercial ports being developed under President Joko Widodo's maritime vision. Located in North Sumatra Province, the Malacca Strait, this port will eventually be integrated with nearby ports and special economic zones. A joint team from Pelindo 1 and the Port of Rotterdam Authority has been entrusted with preparing investment decisions. Additionally, a Dutch engineering team and project management consultant, Royal Haskoning DHV, have signed two contracts with Pelindo 1 for the development of Kuala Tanjung Port, which includes engineering services and industrial gateway consultancy for Kuala Tanjung Port. The Port of Rotterdam Authority has also signed a Memorandum of Understanding (MoU) with Pelindo 2 and Jakpro, a land development company in Jakarta. All three parties have agreed to direct and support the preparation of feasibility studies for the future expansion of Jakarta's port. This agreement marks a significant step forward for port activities in Indonesia. Prime Minister Rutte also expressed hope that Indonesia-Netherlands cooperation would increase as there are still many opportunities for joint partnerships. The collaboration between Pelindo (Indonesia Port Corporation) and the Port of Rotterdam has been ongoing since 2017, with a focus on developing the Kuala Tanjung Port in North Sumatra into a green and sustainable port. This partnership was initiated as part of Indonesia's broader vision to modernize its port infrastructure and promote sustainable development.

Opportunities and Challenges of Implementing Green Port Concept In Indonesia



The concept of a greenport, a port that prioritizes environmental sustainability and efficiency, has gained significant traction worldwide. Indonesia, with its vast coastline and growing maritime industry, is increasingly exploring the potential of greenport development. The collaboration between Indonesia and the Port of Rotterdam, a global leader in sustainable port operations, offers a valuable opportunity to learn from best practices and address the challenges associated with greenport implementation.

- **Challenges of Greenport Implementation in Indonesia**

- 1) Regulatory Framework and Policy Coherence:
 - a. Lack of comprehensive and harmonized regulations at national and local levels can hinder the implementation of greenport initiatives.
 - b. Ensuring policy coherence across different government agencies is crucial for creating a conducive environment for sustainable port development.
- 2) Infrastructure and Technological Limitations:
 - a. Indonesia's existing port infrastructure may require significant upgrades to meet greenport standards.
 - b. Investing in advanced technologies such as renewable energy systems, energy-efficient equipment, and waste management solutions can be costly.
- 3) Financial Constraints:
 - a. The initial capital investment for greenport projects can be substantial, and securing adequate funding can be challenging.
 - b. Developing sustainable financing mechanisms, such as green bonds or public-private partnerships, is essential to support greenport initiatives.
- 4) Human Resource Capacity:
 - a. A skilled workforce with expertise in green technologies and sustainable port operations is crucial for successful implementation.
 - b. Investing in training and capacity building programs is necessary to develop the necessary human capital.
- 5) Community Engagement and Stakeholder Buy-in:
 - a. Gaining support from local communities, port users, and other stakeholders is essential for the long-term success of greenport projects.
 - b. Effective communication and engagement strategies are necessary to address concerns and build trust.
- 6) Environmental Impacts and Risk Assessment:
 - a. Greenport development must be carefully planned to minimize negative environmental impacts.
 - b. Conducting thorough environmental impact assessments and risk assessments is crucial to identify potential challenges and develop mitigation measures.

- **Opportunities from the Indonesia-Rotterdam Collaboration**

- 1) Knowledge Sharing and Best Practices:
 - a. The collaboration provides a platform for Indonesia to learn from the Port of Rotterdam's extensive experience in greenport development.



- b. Sharing best practices in areas such as energy efficiency, waste management, and sustainable supply chain management can accelerate progress in Indonesia.
- 2) Technology Transfer and Innovation:
 - a. The collaboration can facilitate the transfer of advanced technologies and innovative solutions from Rotterdam to Indonesia.
 - b. This can help Indonesia adopt more sustainable and efficient port operations.
- 3) Joint Research and Development:
 - a. Collaborative research projects can be conducted to address specific challenges and develop tailored solutions for the Indonesian context.
 - b. This can contribute to the development of innovative greenport technologies and practices.
- 4) Investment and Financing:
 - a. The collaboration can attract investment and financing for greenport projects in Indonesia.
 - b. The Port of Rotterdam's reputation and global network can help mobilize resources and support sustainable development.
- 5) Capacity Building and Training:
 - a. The collaboration can provide opportunities for capacity building and training for Indonesian port professionals.
 - b. This can help develop the necessary skills and expertise to implement greenport initiatives effectively.
- 6) Global Leadership and Influence:
 - a. By successfully implementing greenport concepts, Indonesia can position itself as a global leader in sustainable port development.
 - b. This can enhance the country's reputation and attract international investment and trade.

CONCLUSIONS

The collaboration between Indonesia and the Netherlands in the realm of green diplomacy and maritime cooperation presents a promising avenue for addressing shared environmental challenges and promoting sustainable development in the maritime sector. By leveraging their respective strengths and expertise, both countries can contribute to the global effort to protect marine ecosystems, mitigate climate change, and foster sustainable economic growth.

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