SHIPBREAKING AND RECYCLING INDUSTRY POLICY: AN ADVOCACY COALITION FRAMEWORK (ACF) APPROACH

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CHAPTER 1: INTRODUCTION

1.1 Overview of the Shipbreaking and Recycling Industry of Bangladesh

In Bangladesh, shipbreaking has become a significant industry, drawing global and local attentiondue to its adverse environmental and human rights impacts. Media, civil society, and human rightsorganizations have expressed concerns about human rights violations in shipbreaking yards. Since1998, Greenpeace has published reports highlighting the poor conditions in shipbreaking yards.

In 1999, the International Labor Organization (ILO) released a report describing unsafe working conditions, lack of safety measures, and environmental hazards in Bangladeshi shipbreaking. The report revealed a lack of safety equipment for laborers and the absence of gas-free procedures, leading to casualties and pollution (Hossian & Islam, 2006).

In 2000, Morton Ronning's report, "Stuck in Mud," detailed the harsh working conditions, low wages, and lack of security and accommodation for shipbreaking workers, as well as the negative environmental impact. The same year, DET NORSKE VERITAS (DNV) of Norway conducted anon-site assessment, analyzing pollutants in the Chittagong shipbreaking area and recommending best practices.

The Bangladesh Environmental Lawyers Association (BELA) has been at the forefront of legal actions against shipyard owners and government agencies involved in shipbreaking. In 2003, BELA filed a writ petition, urging compliance with environmental laws, gas-free certificates, and the Basel Convention for ship imports. The High Court Division issued a Rule Nisi, directing compliance with environmental clearance, safety measures under the Factories Act, and gas-free certificates (Alam & Faruque , 2014).

In 2005, the Young Power in Social Action (YPSA) conducted a baseline survey on shipbreakingworkers' socioeconomic conditions. Coastal Association for Social Transformation Trust and BELA published reports highlighting the social, economic, and environmental impacts of shipbreaking in Bangladesh.

In the case of BELA vs. Bangladesh in 2006, a writ petition was filed by BELA to challenge the legality of the vessel MT Alfaship, which was listed as one of the 50 dangerous ships by Greenpeace, entering Bangladesh's territorial waters for scrapping purposes. During the pending hearing, the Court directed the relevant authorities not to allow the vessel to proceed further into Bangladesh's internal waters for the next two months. In response, the government halted the vessel's entry. In the final judgment, the High Court Division ruled that the government should establish appropriate rules to regulate the shipbreaking industry.

In 2008, BELA filed a writ petition to address worker safety and compensation issues in shipbreaking yards. The case revolved around the import of the vessel M.T. Enterprise, which wason Greenpeace's list of hazardous vessels and had been imported without clearance from the Department of Environment of Bangladesh. In response, the Court issued a Rule Nisi, calling upon the respondents to explain why they should not be directed to take measures to protect shipbreakingworkers and adequately compensate the families of those injured or deceased due to explosions orother incidents in the yards.

In March 2009, the Supreme Court of Bangladesh implemented stringent regulations on the shipbreaking industry. It ordered the closure of 36 shipbreaking yards operating without environmental clearance and imposed restrictions on the import of ships listed as hazardous by Greenpeace. The Court also mandated pre-cleaning of ships either at their origin or before enteringBangladesh. A committee was established to oversee the enforcement of these regulations. Theserules were preceded by similar ones in 2005 and 2007, requiring importers to obtain an Environmentally Clean Certificate (ECC) from the Department of Environment to bring ships intoBangladesh for breaking. Violations were considered contempt of court.

In 2010, the Ship-breaking and Hazardous Waste Management Rules were introduced, aligning with the Environment Conservation Act, the Basel Convention, the Factories Act, and the Labor Act. These rules prescribed punishment for violations and aimed to ban the import of ships containing hazardous materials. Importers, breakers, and industrialists were required to obtain certificates from the environment ministry verifying the absence of dangerous chemicals or hazardous waste.

In 2011, the government introduced the Ship Breaking and Recycling Rules which faced opposition for permitting the import of unclean ships, contrary to the Basel Convention. Environmental groups protested, leading to a temporary shutdown of shipbreaking activities. TheHazardous Wastes and Shipbreaking Waste Management Rules of 2011 aimed to manage the toxicmaterials found in decommissioned ships. Applicants for clearance were required to disclose information about hazardous materials and waste management processes.

In 2018, Bangladesh passed the Bangladesh Ship Reprocessing Act, aligning with the Hong KongInternational Convention for safe and environmentally sound ship recycling. It established a ShipRecycling Board, prescribed penalties for unauthorized shipbreaking yards, and mandated the creation of a Treatment Storage and Disposal Facility for waste management.

1.2 Justification of the Study

Shipbreaking, the process of dismantling old ships primarily to extract their steel, began its development in Bangladesh during the 1960s. This burgeoning industry strategically leveraged factors such as inexpensive labor, a favorable geographical location, suitable weather conditions, and cost-effective operations (Kutub, Falgunee, Nawfee, & Rabby , 2017).

Although working in Shipbreaking industry is very difficult, risky and hazardous, this industry generates huge employment opportunities for workers and contribute a lot to the economy of Bangladesh. However, the profit motive driving the industry, has, however, been controversial inBangladesh because of the severe violation of environmental and human rights that shipbreaking often involves. The International Labour Organisation (ILO), a branch of the

United Nations, hasclassified shipbreaking as one of the world's most perilous industries, largely due to the risks involved in handling hazardous materials present in ships at the end of their operational lives. In response to this, the International Maritime Organisation (IMO) in 2009 adopted the Convention for the Safe and Environmentally Sound Recycling of Ships and that is known as Hong Kong Convention.

Considering this global context, the government of Bangladesh has been actively working to amend laws to enhance the international reputation of the country's shipbreaking industry. After sustained dialogues with the government and various stakeholders, Bangladesh adopted Ship Breaking and Recycling Rules, 2011 and The Hazardous Wastes and Shipbreaking Waste Management Rules, 2011. Interestingly, these rules remained unaccompanied by a parent legislation until 2018. In 2018, the Bangladesh Ship Reprocessing Act was passed in Parliament, introducing new provisions that address workers' rights, occupational safety and health, injury compensation, minimum wages, and working hours, among other critical aspects of the industry.

Bangladesh stands as one of the world's major players in shipbreaking, but the industry faces pressing issues related to environmental sustainability, worker safety, and community well-being. By applying the Advocacy Coalition Framework, this study seeks to unravel the intricate web of stakeholders, their beliefs, and their policy influence within this industry. This study is focused onto enhance the understanding of the policy dynamics governing shipbreaking in Bangladesh.

CHAPTER 2: LITERATURE REVIEW

2.1 Advocacy Coalition Framework

The Advocacy Coalition Framework (ACF) is a widely well-known theoretical framework in the field of policy analysis and political science. Developed by Paul Sabatier and Hank Jenkins-Smith, the ACF offers a comprehensive viewpoint on how policies are formulated and implemented in complex and dynamic political settings.

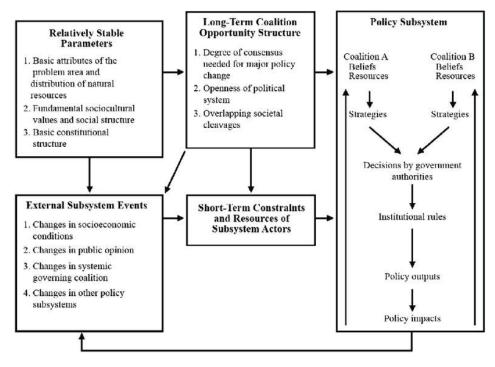


Figure 2.1.1: Flow diagram of Advocacy Coalition Framework

At its core, the ACF posits that policy processes are shaped by the interactions of several advocacycoalitions, which consist of interest groups, policymakers, and experts who share similar beliefs and goals regarding a particular policy issue. These coalitions involve in ongoing debates, negotiations, and strategic actions to influence policy decisions

(Zhou, Li, Song, Kon, & Lu, 2001). The ACF emphasizes the role of belief systems, learning, and policy feedback loops in shaping the evolving nature of policy subsystems over time. This framework specifies valuable insights into understanding the complexities of policymaking and how different actors engage in the policy process to foster their interests and values.

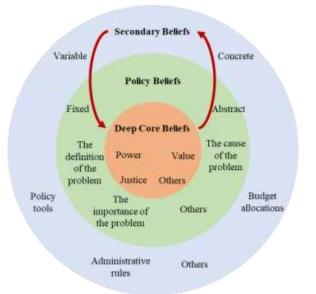


Figure 2.1.2: Structure of policy belief systems

2.2 Reviews on Previous Works Related to the Study

In 2022, Mohammad Zulfikar was, and Prafula Pearce conducted research entitled Shipbreaking in India and Bangladesh: A Comparative Legal Analysis of International Law, Judicial Decisionsand Legislation and this study was published by Australian Journal of Asian Law. The central focus of this study is to conduct a comparative legal analysis of shipbreaking laws, regulations, and judicial decisions in India and Bangladesh. It delves into a recent significant ruling in a Bangladeshi court regarding the handling of onboard waste and inbuilt waste. Ultimately, the article culminates in offering recommendations on how India can enhance its global standing and appeal to responsible players in the shipping industry. By doing so, India can augment its share of the global shipbreaking market and reaffirm its position as a responsible steward in the ship recycling sector.

In 2017, authors Md. Juel Rana Kutub, Nishat Falgunee, Shahreen Muntaha Nawfee and Yasin Wahid Rabby conducted research entitled Ship Breaking Industries and their Impacts on the LocalPeople and Environment of Coastal Areas of Bangladesh and this study was published by EdituraUniversitatii Alexandru Ioan Cuza din Iasi. This study focuses on the challenges and negative aspects of the shipbreaking industry. Sitakunda, a coastal environment heavily impacted by shipbreaking activities, grapples with severe contamination stemming from various processes associated with ship dismantling. Furthermore, the labor force engaged in this industry confronts an exceptionally hazardous and toxic work environment, exposing them to physical and psychological health risks, as well as the ever-present threat of accidents and injuries. Remarkably,despite the daunting risks involved, these workers accept meager wages, with the lion's share of profits flowing into the coffers of already affluent business magnates.

In 2021, authors Xiaoping Zhou, Xiaotian Li, Wei Song, Xiangbin Kong and Xiao Lu conducted research entitled Farmland Transitions in China: An Advocacy Coalition Approach and this studypublished by MDPI journals. This study analyzes the changes in China's farmland area from 1950to 2017 by using linear regression method in order to understand the reasons of abrupt transition points of China's farmland. This study conducted in-depth examination utilizing data spanning from 1950 to 2017, specifically focusing on China's agricultural land. Specially sought to discernthe underlying characteristics and triggers responsible for the alterations in agricultural land through the application of linear regression analysis. Furthermore, this study adopted the AdvocacyCoalition Framework to shed

light on the internal mechanisms steering these transitions.

CHAPTER 3: ADVOCACY COALITION FRAMEWORK APPLICATION

3.1 Relatively Stable Parameter

In the context of the study, the shipbreaking and recycling industry of Bangladesh is concentratedalong the elongated sea beach of Sitakunda in Chittagong and the basic attribute of coastal area ismost ecologically productive and it contains a rich biodiversity which includes various species thatare prevalent only to this area. The coastal environment of Sitakunda has been drastically impacted by various shipbreaking-related processes. These processes encompass the inappropriate disposalof toxic wastes into the sea, deforestation to accommodate the expansion of shipbreaking yards, alterations in land-use patterns, and the release of harmful substances into the soil. Consequently, the environmental integrity of Sitakunda's coastline has been seriously compromised. Shipbreaking and recycling industry of Bangladesh holds utmost significance for the country's macro and micro economies level but there is negative impact of this industry is having on coastalenvironment and the conditions of the workers.

Ships in Sitakunda are dismantled on the intertidal zone with low lying beach which discharges liquid, gaseous and solid pollutants (Hossain & Islam, An EIA Case Study on the Abundance andSpecies Composition of Fish Species in and Around Ship Breaking Area in the Coastal Area of Chittagong, Bangladesh, 2004). Almost all types of flammable substances and hazardous wastes are found in the breaking yards in Chittagong with the oils, chemicals, gas but toxic hazardous substances the main environmental concerns. The coastal soil, water and biodiversity are substantially degraded caused by the unregulated ship breaking activities. On the other hand, workers of this industry are exposed to an extremely risky and toxic working environment whichmakes them susceptible to both physical and psychological disorder as well as to accidental deathsand injury.

In the shipbreaking industry in Bangladesh, numerous government ministries and departments areinvolved in the dismantling and recycling of ships. The Ministry of Ports, Shipping, and Inland Water Transport Authority, along with the Ministry of Industries and Commerce, holds authorityover the import and beaching of ships. The Department of Inspection for Factories & Establishment, under the Ministry of Labour and Employment, is tasked with registering the shipbreaking yards as factories. Additionally, this department carries the responsibility of ensuring occupational health and safety, safe working conditions, working hours, leave with pay, and holidays for shipbreaking workers. The Department of Labour is dedicated to promoting workers'welfare, safeguarding trade union rights, and managing industrial relations. Both the Ministry of Labour and Employment and its subordinate officers are accountable for enforcing labor laws andensuring the well-being of workers.

Specifically, the Department of Inspection is charged with overseeing the implementation of the Provisions of the Factories Act of 1965 and the corresponding regulations. However, it's worth noting that the enforcement of the Factories Act and Labor Laws in the shipbreaking sector is currently deemed unsatisfactory. However, despite the industry's significant size and its inherently dangerous and polluting nature, there is no centralized government institution or specific structureto coordinate the various authorities' jurisdictions.

3.2 Advocacy Coalitions

There were two advocacy coalitions identified regarding the passing of the Bangladesh Ship Reprocessing Act 2018. The first coalition was in favor of the passing of the Act. This coalition consists of Bangladesh Environmental Lawyers Association, with the support of other NGOs suchas Young Power in Social Action (YPSA). The coalition also includes the labor workers employedby the shipbreaking industry who are concerned about their safety and wish for the provision of safety gear and better working conditions.

The second coalition is the coalition that may face economic losses from the passing of the Recycling Act. This coalition consists of the shipyard owners in Sitakund, for whom the passing of the Act will mean increased costs incurred for safety measures and potentially fewer clients and ships to be broken down as they may no longer meet the international safety standards that are to be met under this Act. The coalition also includes the Ministry of Shipping, which also benefits from the large market share Bangladesh enjoys in the shipbreaking industry.

3.3 Policy Subsystem

In the policy subsystems, territorial boundary, a substantive topic and involvement of participantsfrom all levels are identified and afterward the coalition that these participants constructed was determined (Weible & Sabatier , 2007). The policy belief structures within these coalitions were analyzed, and the interactions among these coalitions were identified to form policy outputs. Finally, these policy outputs formed the policy of shipbreaking industry of Bangladesh.

For the shipbreaking industry of Bangladesh policy subsystem, the geographic boundary is enclosed by the Sitakunda coastal area shipbreaking industry of Bangladesh and substantively bounded by conservation of coastal area environment and labour rights of shipbreaking industry. The shipbreaking industry of Bangladesh policy involves several policy participants to influence to establish legislation regulating the shipbreaking industry. The policy participants include the Ministry of industry, Ministry of Environment and Forest, Ministry of Shipping, Bangladesh Environmental Lawyers Association, Greenpeace, Young Power in Social Action, Shipbreaking association, M.T. Enterprise.

3.3.1 Policy Beliefs

3.3.1.1 Deep Core Beliefs

Deep core beliefs are the philosophies held by the coalitions that shape their stance on the issue athand. Deep core beliefs are rarely susceptible to change and are the fundamental normative beliefs of the coalition.

For the first coalition which pushed for the passing of the Act, their deep core beliefs can be deduced to be from an environmental and social standpoint. The shipbreaking industry not meeting certain standard will have harmful effects on the environment and to the labor workers who are exposed to harmful chemicals and dangerous working conditions. The core belief coming into playhere is from a humanitarian perspective that strives for safer and cleaner industry practices.

The deep core belief of the second coalition consisting of the shipyard owners and the Ministry ismore economic. Bangladesh has a substantial market share in the global shipbreaking market, which means there is a significant revenue coming from this sector. The revenue from this sectoris beneficial to the shipyard owners and helps maintain a large industry in the country.

3.3.1.2 Policy Core Beliefs

Policy core beliefs comprise the policy stance of the coalitions for achieving their goals according to their deep core beliefs. Policy core beliefs are more susceptible to change over time.

The policy core belief for BELA and the NGO coalition is to advocate for the passing of the Act. The Bangladesh Ship Reprocessing Act, 2018 mandates the formation of a board that will overseethe recycling process and ensure that safety procedures are followed. Life insurance for labor workers is made mandatory under this Act and ships are to be broken down in only a few restricted cones. Such policies will help move towards the coalition's environmentalist stance on the issue. The passing of the Act may potentially limit the economic opportunities of the shipbreaking industry as the inability to break down ships in some zones or the inability of a ship to achieve proper clearance to be broken down can mean lower revenues for the industry. The policy core belief of the shipbreaking industry is against the categorization of the industry as harmful, and therefore not requiring extensive safety measures which will likely facilitate the industry getting clientele.

3.3.1.3 Secondary Beliefs

Secondary beliefs are aspects of the policy stance that are based on what will enable the coalition move towards their policy goal. Secondary beliefs are prone to change moderately easily and depending on the context of the situation.

The secondary belief of the BELA coalition is their settlement for safety precautions to be placed on the shipbreaking industry. As the country benefits from the revenue gained from the sector, it is not practical for the coalition to campaign for a complete abandonment of the industry as seen in some developed countries. Instead, the secondary beliefs adopted for this case are safety precautions and regulatory efforts to minimize the risk posed by the shipbreaking industry.

For the shipbreaking coalition, the secondary beliefs are those that support the economic performance of the industry. The Norwegian Ship Owners' Association have declared that they will not supply ships to Bangladesh unless their practices in accordance with international safety standards. The passing of the Act paired with the changing demands of potential clients led to someshipyard owners improving safety conditions in their yards. This is a measure taken in line with their core policy belief of the economic success of the shipbreaking industry.

3.4 Policy Brokers

Policy brokers act as intermediaries between the two parties and help the competing coalitions reach a solution. In the case of the Bangladesh Ship Reprocessing Act 2018, the policy brokers are international organizations such as the International Labor Organization (ILO), the International Maritime Organization (IMO) and the Basel Convention of UNEP, which provided guidelines to address the safety issues and the environmental concerns relating to the shipbreaking industry. Another policy breaker is the World Bank which has funded projects to improve the social and environmental conditions of the shipbreaking industry in Bangladesh (Documents and Reports, World Bank, 2023) and the Norwegian Ship Owners' Association (NSA), which has offered to train labor workers and shipyard owners about safe disposal of waste in shipbreaking.

These organizations attempted to bridge the gap between the two competing coalitions byproviding solutions that both meet the international safety standards of the Hong Kong International Convention and allow the Bangladeshi industry to maintain a competitive advantageas a market leader in the shipbreaking industry.

3.5 Resources

In the shipbreaking industry of Bangladesh, important resources were several published reports that contains the information of environmental degradation of coastal area and labours health.

3.6 Venues

In the shipbreaking industry of Bangladesh, the two coalitions have sought to achieve their objectives in several venues. These venues include the High Court, Supreme Court, Appellate Division, shipyard and the media.

3.7 External Events

In 2009, the International Maritime Organization (IMO) formally adopted the Hong Kong Convention, which sets guidelines for the safe and environmentally sound recycling of ships. Considering this global context, the government of Bangladesh has been actively working to amend laws to enhance the international reputation of the country's shipbreaking industry (Ali & Pearce, 2022).

There are also concerns stemming from potential suppliers, notably the Norwegian Ship Owners' Association (NSA), who have expressed their reluctance to permit ship recycling in Bangladesh unless it aligns with the environmentally responsible standards outlined in the Hong Kong International Convention. This Norwegian stance appears to benefit additional support from reports of the European Union's intention to potentially ban the export of scrap ships to Bangladesh and a few neighboring countries. The European Union accounts for 20 percent of the global tradein scrap vessel sales (Ahmed , 2023). These two external events influence Bangladesh Governmentand shipbreaking association beliefs and shipbreaking and recycling industry policy.

3.8 Belief and Policy Change

In the context of shipbreaking and recycling industry policy, there are several minor and three major policy changes that occurred in beliefs and policy that illustrate the Advocacy coalition Framework's three mechanism of change.

The first major policy change in shipbreaking and recycling occurred in 2011 with the introduction of new policies such as Ship Breaking and Recycling Rules, 2011 and The Hazardous Wastes and Shipbreaking Waste Management Rules, 2011. In the response of global context, Hong Kong International convention 2009, Bangladesh government has been actively working to enhance the international reputation of the country's shipbreaking industry. On the other hand, Norwegian Ship Owners' Association (NSA) is hesitant to allow ship recycling in Bangladesh unless it adheres to environmentally responsible standards outlined in the Hong Kong International Convention. This stance is bolstered by the European Union's potential plan to ban scrap ship exports to Bangladeshand nearby nations, given that the EU represents 20 percent of global scrap vessel sales. These external events influenced decision makers to do sustained dialogues with the various stakeholders and Bangladesh adopted the Ship Breaking and Recycling Rules, 2011 and The Hazardous Wastes and Shipbreaking Waste Management Rules, 2011.

The Second major change in shipbreaking and recycling industry policy came in 2018 when government of Bangladesh introduced new policy known as the Bangladesh Ship Reprocessing Act, 2018. The two competing advocacy coalitions were experiencing a "hurting stalemate" aftergovernment of Bangladesh introduced new policy known as the Bangladesh Ship Recycling Act, 2018. Since both coalitions identified the status quo as unacceptable and ran out of venues to achieve their goals, a compromise was feasible. The World Bank offered to train labor workers and shipyard owners about safe disposal of waste in shipbreaking.

Lastly, the third major change was shift in beliefs regarding the coastal environment of Sitakundais severely contaminated by various processes related to shipbreaking and this industry are exposed to a very risky and toxic working environment for workers. The policy participants learned from reports published by several non-government organizations and environmentalist groups about the degradation of coastal environment and workers of the industry due to the shipbreaking and recycling industry. The Shipbreakers Association has taken the initiative to ensure the safe workingenvironment of the shipbreaking yards as well as for skill enhancement of workers.

| Sl. No. | ACF Component | Shipbreaking and Recycling IndustriesApplication |
|------------|---|--|
| 110. | | |
| 1 | Relatively Stable Parameters | |
| | Basic attribute of the problem area | Ecologically productive and rich coastal biodiversity |
| | Fundamental cultural values and social structures | Conservation of environment and labour rights |
| | Basic Constitutional Structure | Fragmented governance including severalministries and department |
| 2 | Advocacy Coalition | Conservation of Environment and human rights vs Economic Benefits |
| 3 | Policy Subsystem | |
| | Territorial Scope | Shipbreaking and Recycling Industries |
| | Substantive Scope | Shipbreaking and Recycling Industries policy |
| | Policy Participants | Ministry of Industry, Ministry of Environment and Forest, Ministry of Shipping, Bangladesh Environmental Lawyers Association, Greenpeace, Young Power in Social Action, Shipbreaking association, M.T. Enterprise |
| 4 | Belief Systems | |
| | Deep Core Beliefs | Conservation of Environment and human rights |
| | Policy Core Beliefs | Economic Benefits |
| | Secondary Beliefs | Specific policy proposals regardingShipbreaking and Recycling Industries |
| 5 | Policy Broker | World Bank |
| 6 | Resources | Published Reports |
| 7 | Venues | High Court, Supreme Court, Appellate Division, shipyard and the media |

 Table 3.8.1: Summary of application of the ACF applied to the Shipbreaking and Recycling Industry

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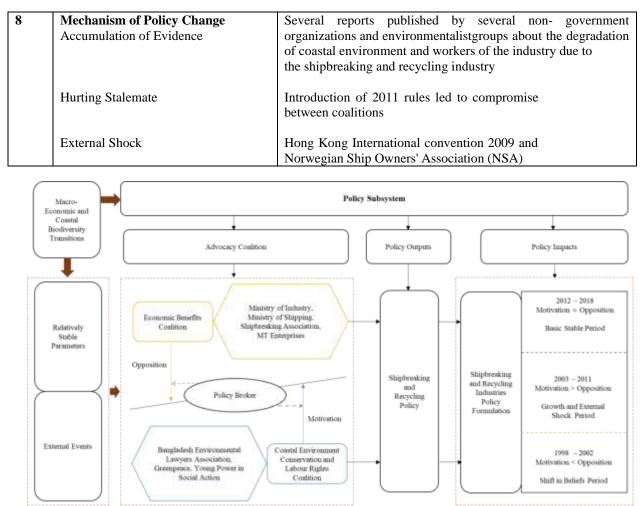


Figure 3.8.1: Shipbreaking and Recycling Industry Policy Formulation from the perspective of Advocacy **Coalition Framework.**

CHAPTER 4: CONCLUSION

The application of the Advocacy Coalition Framework (ACF) approach to the shipbreaking and recycling industry of Bangladesh has provided valuable insights into the intricate policymaking landscape of this critical sector. This study discovered the formation of diverse advocacy coalitions representing various stakeholders, each with its own set of beliefs, interests, and strategies. These coalitions have played a significant role in shaping policies related to environmental sustainability, worker safety, and community well-being in the shipbreaking industry. Through a systematic examination of coalition interactions and policy outcomes, this study has gained a deeper understanding of the policy challenges and opportunities within this industry and provides a structured way to understand how different actors and their beliefs shaped the development and evolution of the Ship Breaking and Recycling policy in Bangladesh.

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