BURNING THE FUTURE:

Policy inconsistencies in Maldives' climate and resource management

LOSS AND DAMAGE SERIES

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ZERO WASTE MALDIVES

BURNING THE FUTURE: POLICY INCONSISTENCIES IN MALDIVES' CLIMATE AND RESOURCE MANAGEMENT

This report has been greatly strengthened by the supervision of Afrah Ismail. The report has benefited from the invaluable editorial inputs from Mayang Azurin, Sherma Benosa, and Yobel Putra, as well as from the production support from Robi Kate Miranda.

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GAIA is a global network of more than 800 grassroots groups, networks, NGOs, and individuals. We envision a just, Zero Waste world built on respect for ecological limits and community rights, where people are free from the burden of toxic pollution, and resources are sustainably conserved, not burned or dumped. We work to catalyze a global shift towards ecological and environmental justice by strengthening grassroots social movements that advance solutions to waste and pollution.

Zero Waste Maldives was established in December 2018 with the aim of promoting a Zero Waste Low Impact Lifestyle in the Maldives, and to enable individuals, businesses, communities, and governments to send nothing to the oceans, landfills, or incinerators.

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1.0 History of waste management in Maldives

Historically, waste management in Maldives was a relatively simple issue. The majority of waste produced consisted of organic material like fruit peels, fish innards, and easily disposable materials discarded in shallow lagoons (organic fish waste). According to the International Union for Conservation of Nature (IUCN), up until the mid-80s, most household garbage was organic and would decompose when discarded[1]. All other waste was dumped in a designated landfill near the beach.

As a resilient community dealing with food shortage, traditional Maldivian methods of utilizing food surplus and waste are practiced in clever ways. Anecdotal and historical evidence shows that leftover rice would be sun dried and candied with locally made palm sugar, a common delicacy eaten as an evening snack. Leftover boiled fish from garudhiya (Maldivian fish soup) would be sundried and preserved, in some cases with salt, to become valhoamas, the famed Maldivian smoked fish. If there was enough leftover garudhiya, it would be boiled until it became rihaakuru, with thick fish sauce that could last for months.

With the introduction of modern transportation and logistics, the waste profile of the communities shifted from decomposable waste to large quantities of non-biodegradable waste. A waste stream once dominated by paper and burned weekly or biweekly was transformed almost overnight. Single-use plastics became the mainstay of island landfills, accumulating as disposable but non-perishable waste that soon overflowed onto beaches and into the sea.

Most islands, only having access to, if any at all, a tiny local budget, were left to deal with a waste management situation that they had not been warned about and for which they had no proper guidance or equipment. As the non-perishable garbage piled up, open-burning of waste increased in the islands.

In Malé, the country's capital, now home to an ever-growing population, it was even worse. According to Malé Municipality, the city's population was estimated to have increased to 65,000 people by the 1990s. In 1987, the tidal waves and coastal flooding in Malé wreaked havoc as flooding in the landfill in south Malé washed years and years of collected waste across the city, leading to concerns about the spread of diseases due to the waste. This led to the designation of a 85,000 square foot landfill with high walls. However, this did not help improve the situation as waste disposal was still unaddressed and the landfill was already exceeding capacity.[2]

The government started burying waste in the southern side of the City, but this practice was stopped after concerns about possible environmental impacts. As an alternative, the government purchased an incinerator in 1987 and started burning waste in Malé which was upgraded to a bigger incinerator. This practice was also stopped after complaints about the health impacts of the incinerator smoke which engulfed Malé in a thick fog.[3]

In 1991, the government explored using a smokeless incinerator with support from the Norway government. However, this project was abandoned due to the cost of burning and the prolonged time it took to burn waste.

The government also started and then abandoned plans to bury waste in Hulhulé, where the international airport is located at, before settling in for a project that will reclaim land in south Thilafalhu.

Thilafalhu (now Thilafushi) was a shallow lagoon west of Villigili. The project initially launched with support from the Japanese government, reclaimed part of the lagoon and created 50x100 foot and 15 foot deep holes as a burial ground for the 1.84 kilograms of waste produced per capita per day in Malé.[4]

The government also purchased a landing craft with the capacity to carry four trucks of waste from Malé to Thilafushi per trip and started transferring waste to the newly reclaimed island in March 1992. By December, seven of the abovementioned holes had already been filled with waste.[5]

The landing craft made as many as five trips to Thilafushi every day, transferring up to 20 trucks filled with waste, which was then buried in the reclaimed island. By November, 2,156 trucks worth of waste had already been dumped in Thilafushi[6]. The establishment of these waste management activities in Malé were conducted with the support of the United Nation Development Programme (UNDP), and the German, Australian, and Japanese governments.

At the time, the shift of practice to "transfer and bury waste" in Thilafushi was hailed as good environmental practice, as it helped to deal with the waste situation of Malé. Thilafushi and Thilafalhu was perceived to have enough capacity for all waste generated in Malé[7] and as such was seen as a long-term solution.

It is likely that policymakers did not account for the exponential growth of the tourism sector which would slowly start to generate more waste than urban or island communities in the country.

According to a 2013 assessment by the Ministry of Tourism, 860 tonnes of waste was produced daily across the Maldives. The report estimated that 2.8 kilograms of waste per capita per day were produced in Malé, and 0.66 kilograms of waste per capita per day in the rest of the islands. In tourist resorts, the number increased nearly threefolds to 7.2 kilograms of waste per guest[8].

Even though tourist resorts are required to have the necessary waste disposal and management system, a lot of the high-end resorts around the Malé atoll are known to transfer their waste to Thilafushi.

As the waste produced in the country increased every day, it became impossible to bury waste at the Thilafushi site, and a small mountain of garbage started piling up. According to the International Federation of Red Cross and Red Crescent Societies (IFRC), by 2005, 31,000 truckloads of garbage were transferred to Thilafushi[9] annually.

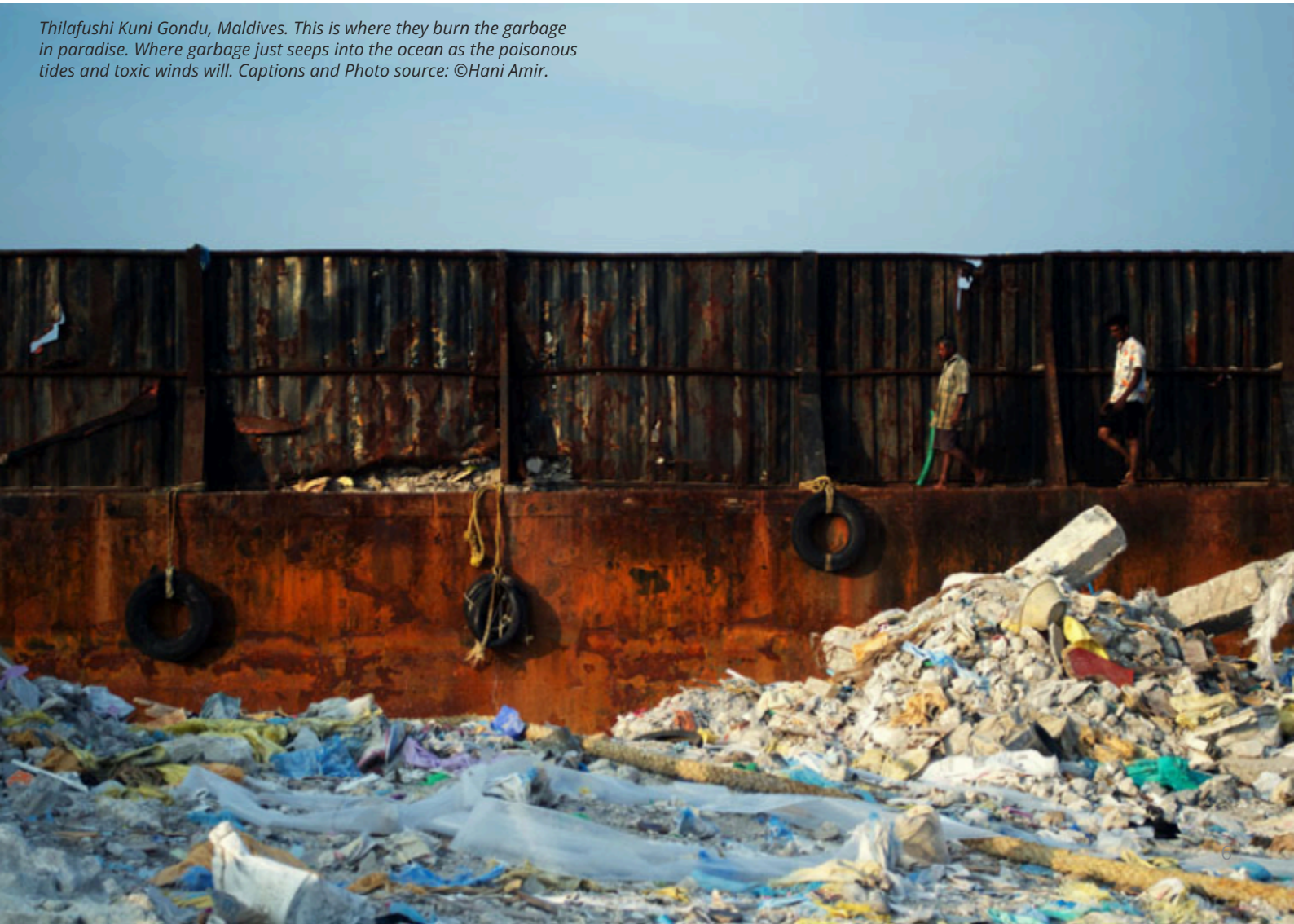
In 2011, garbage spillovers started to become increasingly common. The spillover of waste into the Thilafushi open

lagoon led to a decision by the Malé City Council to temporarily close down the island for cleanup.

In the same year, the government signed an initial agreement with India-based Tatva Global Renewable Energy as part of a plan to generate energy by recycling waste gathered in the Malé area[10]. However, before Tatva was able to fully start on this new waste management venture, the government terminated the contract in 2014[11].

At the time, the Anti-Corruption Commission was investigating the USD 3.1 million deal with Tatva including complaints that a requirement to offer a 2,000,000 square feet area, both in land and sea, for the waste management work for a period of 20 years, will lead to a loss of USD 64.8 million for the state[12].

Before the Tatwa deal, the government had explored options to form a state-owned waste management company and formed the Waste Management Corporation (WAMCO) in 2009. WAMCO was revived in 2015 by the government with a mandate to manage waste across the country and began providing a range of services including waste collection, waste transfer, disposal, and the management of the Thilafushi landfill in 2016[13].



Thilafushi Kuni Gondu, Maldives. This is where they burn the garbage in paradise. Where garbage just seeps into the ocean as the poisonous tides and toxic winds will. Captions and Photo source: ©Hani Amir.

2.0 Thilafushi WTE incineration project

The Asian Development Bank (ADB) is a multilateral development bank that aims to alleviate poverty in the Asia and Pacific region. ADB primarily supports public sector projects through loans, grants, and technical assistance in the following core areas: infrastructure, environment, regional cooperation and integration, finance sector development, and education. For several years, ADB has supported and financed projects and programs in different countries with the aim of achieving its purpose and vision in Asia Pacific.

ADB recognizes that **sound environmental management is critical to sustainable development and poverty reduction in Asia and the Pacific**. Consequently, ADB adopted environmental safeguards that aim to ensure the environmental soundness and sustainability of projects, and to support the integration of environmental considerations into the project decision-making process.[14]

The applicable safeguards policy remains to be the old **Safeguard Policy Statement (SPS)** 2009 that requires borrowers to identify project impacts and assess their significance; examine alternatives; and prepare, implement, and monitor environmental management plans.[15] These requirements apply to all ADB-financed and/or ADB-administered sovereign and non-sovereign projects and their components regardless of the source of financing, including investment projects funded by a loan, and/or a grant, and/or other means, such as equity and/or guarantees.

In 2021, it was widely reported that the ADB continued to support **Waste-to-Energy (WtE)** projects, noting their potential to help develop a recycling industry for valuable waste materials while enhancing the livability of communities and reducing the need for landfills.[16] This is despite various condemnations from over fifty (50) environmental and human rights groups across the world, who have called out ADB to divest from WtE projects that use incinerators.[17]

WtE technology is an energy recovery process that converts chemicals from waste into practical forms of energy like electricity, heat, or steam. Currently, there are various methods to process waste, either through thermal, mechanical and thermal, thermo-chemical, or biochemical means, as shown in the figure below.[18]

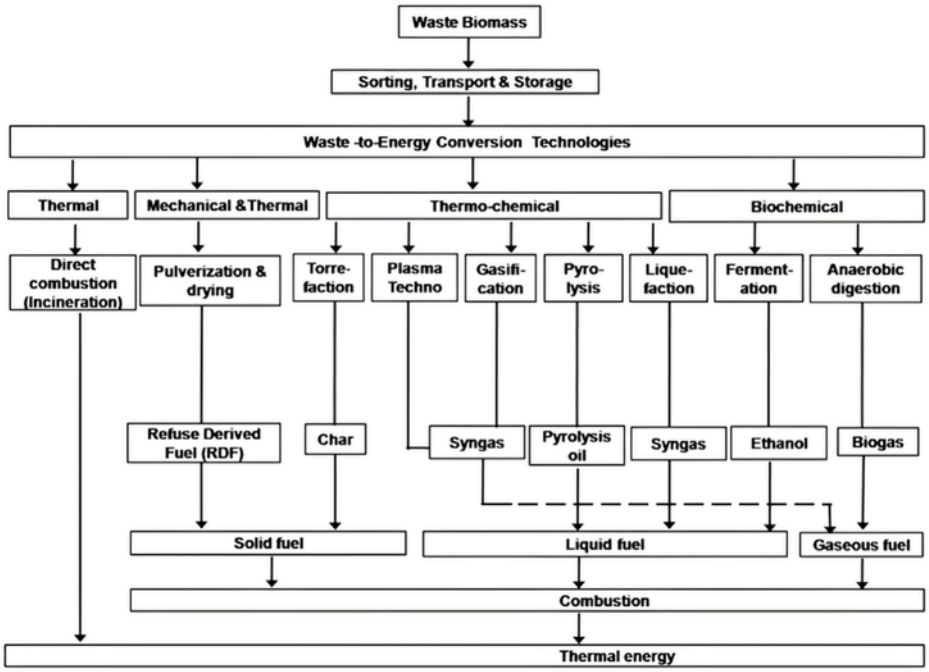


Figure 1: Waste Processing Methods (Gumisiriza R et al., 2017)

In 2020, the Government of Maldives (GoM) received financial support for a WTE incineration project to establish a sustainable regional solid waste management (SWM) system for the Greater Male region and 32 nearby islands. Sustainable financing, including efforts to protect ocean health through blue economy finance[19] primarily through loans and grants from the Asian Development Bank (ADB) financed the project.[20] The project also received loans and grants from the Asian Infrastructure Investment Bank, Japan Fund for the Joint Crediting Mechanism, and the Islamic Development Bank with GoM providing a counterpart fund for the project. (*See Table below*)

Total Financing Received for the Thilafushi WTE Plant as of 2025	
Modality and Resources	**Amount (USD Million)**
Asian Development Bank	
Grant 0732-MLD: Greater Male Waste-to-Energy Project: Asian Development Fund	35.18
Concessional Ordinary Capital Resources Loan 3954-MLD: Greater Male Waste-to-Energy Project	38.21
Japan Fund for the Joint Crediting Mechanism, Grant 0733-MLD: Greater Male Waste-to-Energy Project	10
Technical Assistance Special Assistance Fund, TA 6548-MLD: Supporting Capacity for Sustainable Waste-to-Energy Service Delivery	0.50
Asian Infrastructure Investment Bank, Project Loan	40.00
Islamic Development Bank (IsDB), Project Loan	10.00
Government of the Maldives from the Maldives Green Fund	27.74
Total	161.63
Notes: 1. TA 6548-MLD: Supporting Capacity for Sustainable Waste-to-Energy Service Delivery was an attached assistance. 2. Loan from the IsDB was added later.	

Home to 86 tourist resorts, Male is suffering from inadequate waste collection and uncontrolled dumping in Thilafushi Island's 10-hectare open dumpsite, 8 kilometers from the city center.

Thilafushi receives 836 tonnes per day of solid waste from Greater Male and surrounding islands. At least 80%[21] combustible municipal and commercial solid waste in Thilafushi landfill is targeted to be burnt in the 13MW WtE plant with a capacity of 500 tonnes of waste per day. An estimate of combustible waste is difficult to ascertain as waste is not segregated and details remain undisclosed as the Ministry of Environment (ME) refuses to disclose any key details of the projects despite multiple requests.

Urbaser, the Spain-based global environmental management company, was awarded a contract worth 265 million euros to design, construct, and operate a WTE plant for 15 years under a Design, Build, and Operate (DBO) contract management agreement with the GoM.[22]

Residents of Male, the capital of the Maldives, unload trash that will be put on a boat that ferries the refuse from the the capital to nearby Thilafushi Island on September 8, 2013. Photo credit: AFP / Adam Plowright via Phys.org

3.0 Key Issues in the WTE incineration project

Waste-to-Energy (WtE) incineration is misaligned with the national resource management and climate policies which emphasizes waste reduction, reuse, and recycling. Because WtE plants require a steady supply of waste as feedstock, their operation can discourage efforts to minimize waste generation and promote circular practices.

Moreover, WtE incineration requires high calorific value feedstock to function efficiently and effectively. As in most South Asian countries, the waste composition in the Maldives is mostly organic wet waste, thus creating technical mismatch. . For the Maldives, this means that there is a large requirement of high calorific value materials such as plastics to be collected and burnt as feedstock. This reliance not only undermines waste reduction goals but also highlights the core policy conflict between WtE development and national sustainability priorities.

Waste as Resource is one of the key policy directions highlighted in the government's Strategic Action Plan 2019-2023. During the 74th Meeting of the United Nation General Assembly (UNGA), the President of the Maldives[23] announced a target to phase out the importation, production, and use of single-use plastics (SUP) in the country by 2023[24]. There are other actions listed such as facilitating the establishment of organic fertilizer production, rollout of household-level segregation schemes, identification of ways to expand plastic interception in the capital, and the conduct of research to identify technologies for converting waste to wealth that is cost effective for the Maldivian context.[25]

While the Waste as Resource political pledge has brought promising directions, it also has its dangers. Driven by the World Bank's Waste to Wealth framework, the 17.5 million dollar Maldives Clean Environment Project aims to transform waste into valuable commodities through structured recycling systems and resource recovery initiatives. Profit as the overriding objective brings dangerous and costly waste technologies from abroad including trading in waste for revenues instead of more upstream priorities including redesign, reduce, reuse before recycling. Interventions would then have to make sure they are profitable rather than ensuring the system produces, trades, and consumes based on needs and planetary limits.

The government has also recently announced a new target to be Net Zero by 2030.[26] [27] This replaces the old target to be carbon neutral by 2020[28], which it was not able to meet due to a myriad of reasons.

3.1 Violation of national safeguards and policy directions on resource management and climate action

The country safeguard system of the Maldives, to a certain extent, addresses the environmental issues associated with development projects that have taken place and are ongoing. However, the system lacks important legal and policy instruments as well as institutional capacity to address and regulate the extensive environmental and social issues anticipated with the project of this nature and scale.

Even though the constitution of the Maldives requires the state to guarantee all citizens a healthy and ecologically balanced environment, there exists a considerable gap in the regulatory framework to address the various aspects of environmental protection—for instance, air pollution from the proposed project activities. The following highlights the current legal instruments that govern the environmental sector.

Constitution of Maldives. The Constitution guarantees all citizens a healthy and ecologically balanced environment. Article 22 of the constitution stipulates that:

> *The state has a fundamental duty to protect and preserve the natural environment, biodiversity, resources, and beauty of the country for the benefit of present and future generations. The State shall undertake and promote desirable economic and social goals through ecologically balanced sustainable development and shall take measures necessary to foster conservation, prevent pollution, the extinction of any species and ecological degradation from any such goals.*
>
> -Article 22, Constitution of Maldives

The Environmental Protection and Preservation Act Law No. 4/93). This policy instrument serves as the umbrella law for environmental protection. It consists of obligations to provide guidance, formulation of policies, rules, and regulation for environmental conservation and establishment of natural reserves and protected areas, and requires the need for environmental clearance for implementation of developmental projects.

The law requires government authorities to provide guidelines for the steps that have to be taken for the protection and preservation of the Maldivian environment in accordance with the prevailing conditions and the needs of the country (Article 2). However, at present, the country lacks national air quality policies or a national ambient air quality standards or emission standards that can regulate the potential air quality issues anticipated from the WtE facility operations or for waste incineration.

Table 1. Applicable Ambient Air Quality Standards for the Project					
Parameter	Maldives Ambient Air Quality Standard (µg/m3) a	Averaging Time WHO Air Quality Guidelines (µg/m3) a	Applicable Per ADB SPS 2009 c (µg/m3) [29]	WHO Air Quality Guidelines 2021 (µg/m3)[30] Global Update 2021 [31]	New Annual Limit (µg/m3) Directive (EU) 2024/2881 [32]
PM10, µg/m3		24 hour	50	45	45
PM10, µg/m3	-	1 year	20	15	20
PM2.5, µg/m3	-	24 hour	25	15	25
PM2.5, µg/m3	-	1 year	10	5	10
SO2, µg/m3	-	10 mins	500	-	-
SO2, µg/m3	-	24 hour	20	40	50
NO2, µg/m3	-	1 hour	200	-	200
NO2, µg/m3	-	1 year	40	10	20
Ozone (O3), µg/m3		8 hours	100	100	-

Article 7 of the law which directly addresses the waste issue states that "if waste or any other substance that may have harmful effect on human health and the environment is to be incinerated, appropriate precautions should be taken to avoid any harm to the health of the population." There are challenges to ensure this as there are limited legal and regulatory instruments to standardize and regulate impacts to environment and human health from waste incineration. No emissions guidelines have been set for any precautions to abide by. In the absence of country-level regulations, the ADB SPS 2009 could serve as an important policy to ensure that communities and the environment are protected but it is extremely outdated (See Table on Air Quality Emissions).

While parliament rallied to develop a new waste management rule, it did not set air quality emissions standards to protect communities and the environment for waste facilities including WtE incineration that the GoM has proposed in several parts of Maldives.

The law also gives directions to the management of hazardous waste. Article 8 states that waste that is harmful to human health and the environment shall not be disposed of anywhere within the territory of the country. Permission should be obtained from the relevant authority in advance of any transboundary movement of such wastes through the territory of the Maldives. With regards to incineration, fly ash is often regarded as hazardous depending on the type of waste incinerated and other factors. Fly ash from the combustion of plastics and metals are generally known to contain hazardous materials although Maldivian law is vague on what constitutes hazardous waste. It is however clear that hazardous wastes would not be allowed to be disposed of within its territory. As a signatory to the Basel Convention[33], the transport of hazardous waste should not be allowed, however, recent shifts in global and national waste policies have allowed for domestic waste to be exported and imported after permission has been obtained from the Ministry of Transport and Shipping.[34]

Two years after ADB's approval of the project in 2020, the Maldives' parliament approved the new Waste Management Act (no. 24/2022) that introduced new requirements for waste management with a stated objective of decreasing waste-related environmental pollution and health risks to the general public, minimizing waste, and promoting recycling and reuse. However, it has also institutionalized the import and export of waste, thus defining waste as a commodity resource, and allowing private parties to engage in the sale and resale of waste materials.

There is no mention of waste incineration, guidelines for incineration emissions, or regulations for treating any waste produced by it. As with the environment protection and preservation act (Law No.4/93), there is ambiguity regarding the definition of toxic waste. This enables a loophole by which incineration by-products can be discarded or reused into construction materials without contingencies or proper treatment.

The Single-use Plastic Ban. The government of Maldives has recently announced the phaseout of single-use plastic by 2023. That timeline has now passed and efforts are reportedly underway to update it but there have been no official communications or stakeholder consultations with relevant civil society organizations have taken place as of yet. The phaseout plan included strategies which bans and restricts most of the commonly used single-use plastic items. Since plastics are considered to be of high calorific value to process in WtE plants, such policies would reduce certain waste streams, which will challenge the efficiency and sustainability of WtE operations. Hence, the WtE project is in conflict with such national policies.

The phaseout plan could potentially divert major fractions of the plastic feedstock from incineration to either recycling or circular economy-related waste-to-wealth activities, potentially making it impractical to incinerate without adding additional fuel to offset the decrease in caloric value.

Though this particular issue has been raised at a stakeholder consultation, no answer was provided nor has there been any calculations done to assess the potential risk of technical infeasibility.

Commitment to GHG emissions reduction. With a conditional pledge to reduce emissions by 26% and reach Net Zero by 2030 (under a Business-as-Usual or BAU scenario) i, funding a WtE facility is another major policy conflict. Building and operating WtE facilities that have been proven to be highly carbon intensive is counterintuitive to climate change mitigation and decarbonization.

According to UNEP, depending on the waste composition, waste incineration emits 200-600 kilograms of carbon dioxide per tonne of waste incinerated. This is comparable to the carbon intensity of burning coal for power.[35] In Europe, they have found that for each tonne of municipal solid waste incinerated, between 0.7 and 1.7 tonnes of CO2 is released depending on the composition of the waste, with the so-called residual municipal solid waste producing more amounts of CO2[36]. The US Environmental Protection Agency has likewise found that carbon emissions from incinerators emit more carbon dioxide per megawatt-hour than coal, natural gas, or oil-fired power plants.[37] With this data, this WtE plant targeted to burn 500 tonnes of waste per day would be yielding between 127,750 to 310,250 tonnes of CO2 per year.

The European Union (EU) has excluded WtE incineration from their list of activities that are worthy of sustainable financing as it harms efforts to achieve a circular economy.[38] WtE is also excluded from other EU funds such as the Regional Development and Cohesion Fund and the Just Transition Fund.[39] This coming from the EU which has much more stringent environmental regulations than countries in Asia points to the potential harm that incineration has on their waste management systems, aspirations for circular economy, environmental justice, and decarbonization.

Maldives' Waste Reduction Policies. Looking at the conflicts with waste to wealth, 3R, source segregation, and general waste reduction policies, WtE incineration being introduced in the Maldives will derail all efforts to introduce household-level segregation. If the public believes that all the waste collected will be ultimately incinerated , households are far less likely to put in an extra effort to segregate their waste. This will undermine already challenging waste segregation practices-, especially in the capital where segregation even of wet and dry waste has not been practiced.

The final policy mismatch and risk factor for the ADB project is that the tourism sector which generate the most waste[40] in the Maldives are mandated to have incinerators on each operational resort. With the potential for more tariffs to transport and manage waste being imposed on resorts, these establishments may opt to operationalize or invest in inhouse incineration facilities. This will stop waste from being transported to the proposed facility, causing issues with feasibility. Similarly, the Ministry of Tourism and Environment (MoT)[41] sent four small scale incinerators to several inhabited islands which is also counter intuitive when the plan is to consolidate and incinerate waste at a central facility. None of these small scale incinerators are currently operational.

Further to this issue of feedstock competition created by small scale incinerators, the Regulation on the Protection and Conservation of Environment in the Tourism Industry[42] requires all resort islands to be equipped with an incinerator. Though this is a major enforcement of this regulation, this also conflicts with the waste consolidation that has been mentioned before.

3.2 Weak Institutional Capacity to Regulate

Currently, there are two authorities under the Ministry of Tourism and Environment (MOT) that regulate the waste management sector of the country. The Environmental Regulatory Authority (ERA)[43] (formerly Environmental Protection Agency or EPA) is mandated with developing environmental standards required to regulate waste management and pollution control functions. In December of 2020, the Utility Regulatory Authority (URA) was established[44] to regulate waste management as a utility service, mainly mandated to provide licenses to the operators and ensure compliance to service and environmental standards. These regulatory functions previously were under the ERA and now have been divided between two authorities.

However, there is no institutional capacity to regulate a project of this scale. The MOT who project leads the WtE project in Male has authority over the ERA and thus likely to strong-arm the ERA and ease whatever restrictions the regulatory agency would impose. This has been the case previously with key environmental decisions that were taken by ERA being overruled by the Ministry.[45]

Environmental Regulatory Authority. Although this agency has been in existence since 2008, there are huge gaps in the existing technical capacity of the agency. The nature of the work demands very specialized areas of expertise and knowledge and requires increasing the local technical capacity, especially in developing appropriate standards that are applicable to the local context. The agency lacks some essential environmental standards that can regulate the emerging environmental issues from new technologies such as WtE. There are no local standards to regulate air quality and industrial emission levels at the moment including emissions from WtE facilities.
In addition, for the purpose of monitoring the compliance to the existing national and international standards, the agency requires well trained staff and monitoring equipment, and laboratory facilities especially in relation to complex technologies such as waste incineration. Initially, only five staff were regulating the waste management and pollution prevention-related activities of the country. Due to the recent formulation of URA, three staff were transferred from ERA, further reducing its monitoring capacity.

One of the main concerns of the general public surrounding the incineration is the health risks associated with the emissions from the incineration process. ERA does not have the human resources as well as financial and technical capacity to ensure the emission levels are within safe standards. In addition to emissions, incineration also leaves behind fly and bottom ash that needs to be tested before disposal to ensure it is not hazardous. However, neither URA or ERA has a laboratory facility that can test the characteristics of the ash or the waste water resulting from the incineration process.

The Utility Regulatory Authority. The agency was established fairly recently and mirrors all the capacity issues faced by ERA and more. The Authority is mandated to regulate the service provision and monitor the compliance to set standards. There are huge gaps in the availability of required human resources for the regulatory work, together with unavailability of staff with specific technical knowledge that would be required to monitor and regulate the standard issues associated with the new WtE technology. Similar to ERA, the authority is challenged with unavailability of funds, equipment, and trained personnel to properly monitor the incineration operations that will ensure human health and environmental safety.
In the same year that the new waste management policy was being deliberated in parliament, the URA released draft guidelines on general standards and operational requirements for waste management facilities including waste incineration. It was prepared and shared by the Ministry to gather public comments on 2 December 2020. Neither civil society organizations (CSOs) nor the public were consulted by the Ministry and no efforts were undertaken to ensure that the contents of this

guideline was explained to stakeholders. No information is available on any public comments received or any subsequent actions resulting from these comments. This lack of transparency and communication regarding the regulation raises several red flags.

There are reports that a consultant involved in the drafting of this guidelines has been hired as an ADB consultant specifically paid through the special technical fund in the ADB-funded incineration project. This raises concerns about potential conflicts of interest, as the guidelines may be designed with weaker regulatory rigor and limited ability to effectively oversee the DBO responsible for the WtE facility developed under the project.

Further, the public comments had to be sent directly to the project management unit's email address which also raises the question on the role of ERA in regulating environmental sector projects. While enforcement falls on the ERA, it appears they are not the focal point in creating the guideline. This issue is particularly concerning, as the MoT, acting as the proponent of incineration projects in the Maldives, sidelines the regulator in critical functions. This occurs even when such responsibilities clearly fall within the mandate of the EPA rather than the Ministry.

Another point to consider is the applicability of international standards to the local context as the natural environment and socio economic conditions of the Maldives are relatively different than that of the international standards. Hence, without revising the existing regulatory framework, the regulatory authorities would not be able to address the undesirable and complex consequences of incineration.

Technological and Financial Constraints for Emission and Pollution Monitoring.

In addition to conflicted institutional arrangements and staffing concerns, the ERA also does not have any equipment to carry out independent emission monitoring without relying on the Continuous Emission Monitoring System that would have to be installed with the WtE facility. Additionally, there is no continuous ambient air quality monitoring being done in the Maldives, This is a major concern since underreporting is not an unlikely possibility. A recent study by UKWIN (United Kingdom Without Incineration Network), a Zero Waste Europe Member based in the UK, found that in early incinerator adopters like the EU that regulators have underreported emissions during operations of incinerators. The major difference in the Maldives is that there is no institutional capacity to regulate and monitor nor are there strict environmental regulations that can be enforced.

The ERA also does not have the budget to carry out its functions. In 2026, the ERA has been allocated USD 1,435,069, of which USD 1,327,995 go towards recurrent expenses such as wages and administrative costs.[47] These funds have to be used not only to regulate waste, but also to manage water treatments, sewerage, and environmental projects as well as ensure compliance. ERA has the mandate to ensure environmental compliance in almost all major development projects that are ongoing simultaneously in hundreds of locations across the country.

3.3. Questionable Technical Feasibility

The MoT refused to disclose the feasibility study for Thilafushi Waste to Energy Project despite multiple Right to Information requests. The Ministry kept saying that the tendering process was ongoing. However, even with a request to remove parts of the document that would interfere with the tendering process, the Ministry refused to share the document with the public.

The feasibility study was obtained externally as the Ministry has granted access to the document to those who they believed were unlikely to question or challenge its contents

The secrecy that had surrounded this document has created a lot of doubt about the intentions of this project and has violated ADB safeguards requirements on meaningful consultation and community engagement.

Same Framework and Consultants from other failed local Incineration Projects. One of the most glaring issues in the Thilafushi Waste to Energy Project is that it was prepared by the same consultant hired by the Ministry on the Maldives Environmental Management Project (MEMP) to build a Regional Waste Management Facility with a WtE incinerator plant on R. Vhandoo serving Zone 1 (Haa Alif, Haa Dhal, Shaviyani) and Zone 2 (Noonu, Raa, Baa, Lhaviyani). The project, initially funded by the World Bank (WB) in 2008, sought to burn 40 tonnes of waste per day, and is a critical component of the Maldives' strategy to replace open burning of waste with a sustainable, engineered solution was a marked failure sustained with continuous injection of public funds, contributing to the country's indebtedness.

The WB attributed the plant's failure to WAMCO—the state enterprise responsible for waste collection and operation of the R. Vandhoo WtE facility—citing deficiencies in its technical, managerial, and financial capacity. However, this assessment overlooks more fundamental constraints, including the technological mismatch between WTE incineration and the Maldives' predominantly wet, non-combustible waste stream. It also does not take into account broader governance and geographic challenges that render WtE difficult and costly to implement in the country.

And despite this, WB fused a second-generation USD 17.5 million project to operationalize the WTE plant in R. Vandhoo. [48] It is concerning that ADB is funding the replication of a failed waste management model being replicated at 12 times the scale.

Outdated Waste Quantification and Audits. The MoT had not demanded that a thorough waste audit be carried out for a project of this scale. The ADB has relied on outdates waste audits carried out between December 2010 and January 2011 with multiple limitations and was not representative data set even for the northern region. Waste generation in the Maldives as well as composition has changed drastically from when this data was collected. (*see Table below*).

Table 1: General Waste Composition

Waste composition	Household %	Hotel %
Organics	60	74
Garden waste	10	10

[18] Feasibility Study for an Integrated Solid Waste Management System for Zone III (including Greater Male') and Preparation of Engineering Design of the Regional Waste Management Facility at Thilafushi. Ministry of Environment. Maldives. March 2018.

25

Waste composition	Household %	Hotel %
kitchen waste	40	54
other organics	10	10
Paper and cardboard	10	9
Glass	3	5
Plastics	10	5
Metals	4	2
Hazardous waste	3	0.5
Others (inert and dust)	10	4.5
Combustible	39 – 50% (OS)	
Water	18 – 33% (OS)	
Ash	23 – 35% (OS)	

Source: https://www.adb.org/sites/default/files/project-documents/51077/51077-003-eia-en_21.pdf

This ADB study only took a sample size of 20 households to "validate" data from the previously mentioned report. This small sample size is inadequate to validate, let alone make any valid assumptions about the waste generation per household or per capita. Therefore, it is likely that the project will not have sufficient waste feedstock due to this issue.

Future Changes to Waste Composition.

As incineration relies heavily on dry waste with high calorific value such as plastics, the efforts to phase out single-use water bottles by 2023 with the the latest phaseout date to come into effect by 1st June 2028 will likely pose technical challenges to the viability of this project.[49] Even from the feasibility study, it is clear that the major waste fraction is 60% organic and/or wet waste. The UN states that Maldives produces approximately 43,134 tonnes of plastic waste annually, representing about 12% of its total waste[50], five percent of this waste steam is SUP bottles and packaging identified feedstocks for the WtE facility that will no longer be in abundance — once the phaseout of SUP came into effect, the banning of production and importation starting in 2027, and of sale by 2028.

"The feasibility study recommends that the lower calorific value (LCV) of waste must be at least 1,450 kcal/kg (6 MJ/kg) throughout all seasons and the annual average LCV must not be less than 1,700 kcal/kg (7 MJ/ kg)". However, a change in the composition of waste, especially of the plastics fraction, may negatively impact this threshold.

Moreover, in ADB's assessment, the project will generate revenues from tipping fees (resort waste only) and the sale of power, metals, and incineration bottom ash generated from the 500 tpd WTE plant, which the government will own. This economic forecast goes against domestic laws on hazardous waste, and even encourages production of this waste stream for the profitability of the project. Most importantly, this assumption of this model assumes on continued and growing supply of plastic waste as feedstock which is not currently in abundance and supply would be in decline once SUP regulatory targets begin in 2027.

Counter to the desire to cut plastic pollution, ADB still seeks to ensure that the project remains profitable by advising GoM to "establish the required institutional and implementation systems such as having a tipping fee arrangement agreeable to all stakeholders for long-term financial sustainability of the project."

This issue has been raised in public consultations, but it has not been addressed to this day. It is crucial that a thorough assessment be done on this particular issue as the SUP plastic phaseout policy may renders this WtE project technically impractical.

COMPLETED/ONGOING AND PLANNED INVESTMENTS AT VANDHOO REGIONAL WASTE MANAGEMENT FACILITY
By Funding Sources (all values in USD)

TARGET ZONES FOR VANDHOO RWMF:	ZONE I (HA. HDH. SH atoll), ZONE II (N.R.B.LH atoll)

	FUNDING SOURCE	COMPLETED (BY JUNE 2020)	PLANNED (JULY 2020 - 2022)
1	Maldives Environmental Management Project (World Bank)	9,262,640.36	-
2	Maldives Environmental Management Project (Local)	1,839,966.52	-
3	Maldives Clean Environment Project (World Bank)	972,348.09	2,818,189.91
4	Maldives Clean Environment Project (Local)	657,180.06	1,350,000.00
5	IRENA/ADFD	3,483,500.00	2,515,000.00
6	IRENA/ADFD (Local)	235,141.72	340,000.00
7	OFID (Upgrading capacity of Vandhoo for Zone 1 integration)	-	648,508.33
8	OFID - LOCAL (Upgrading capacity of Vandhoo for Zone 1 integration)	-	8,585,565.67
		16,450,776.75	**16,257,263.91**
	TOTAL VALUE OF THE FACILITY:		**32,708,040.66**

3.4 Economic and Financial Risks

In the Maldives, the on-the-ground reality points to the impracticality and infeasibility of WtE incineration and the country has learnt nothing from the failure of incineration projects that it has carried out previously by replicating a similar model for waste management to be funded by ADB.

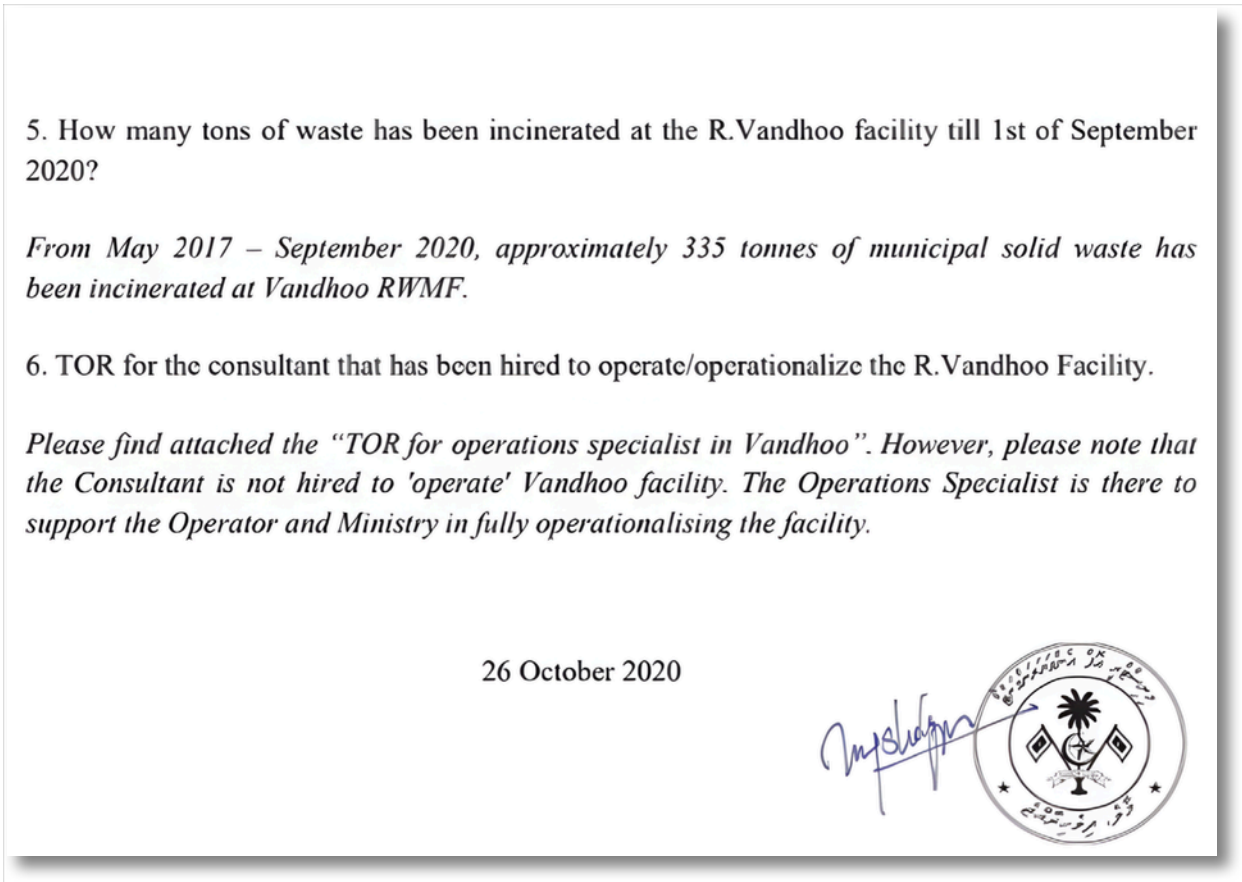
The continuing MEMP WB project estimated that the failed WtE project would be cash flow positive in its second year of operation. The feasibility study also goes on to estimate the capital cost of the project to be around USD 4 Million. [51] [52]

However, these estimates are no longer valid. The project has cost the state a total of USD 16,450,776.75. An additional USD 16,257,263.91 will be spent to try and make the system to a fully operational state. The funding has been collected from various donor agencies and has been topped up by other waste management projects from the World Bank.

It is crucial to note that this project has undergone assessments by the World Bank where they have published a report titled "Implementation Completion and Results Report".[53] This report included a financial simulation of multiple scenarios which does not indicate that the project will be profitable 85% of the time. It further goes on to state that, **"the current financial analysis of the Regional waste management Facility does not support a full cost recovery, or warrant an adequate use of its capacity."**[54]

Further on the financial burden that this project has cost, Waste Management in Zone 2 remains almost at the same level, if not worse than before this project was initiated. The incineration facility established through this project is still not fully operational. The facility has been able to only process 335 tonnes of waste from May 2017 to September 2020; an insignificant amount for a three-year period. In this duration, this facility managed to burn less than 10 days of operations worth of waste.

ADB's Questionable Financial Feasibility. It is important to highlight that the financial feasibility of this project is not publicly available. The MoT has refused to disclose the details though there is a lot of public interest to find out if this project is financially feasible or not.



5. How many tons of waste has been incinerated at the R.Vandhoo facility till 1st of September 2020?

From May 2017 – September 2020, approximately 335 tonnes of municipal solid waste has been incinerated at Vandhoo RWMF.

6. TOR for the consultant that has been hired to operate/operationalize the R.Vandhoo Facility.

Please find attached the "TOR for operations specialist in Vandhoo". However, please note that the Consultant is not hired to 'operate' Vandhoo facility. The Operations Specialist is there to support the Operator and Ministry in fully operationalising the facility.

26 October 2020

One of the main concerns as highlighted in the previous section on political conflicts regarding the financial feasibility of the project is the government's commitment to waste to wealth. However, the project has been formulated in a DBO contract format where a foreign incinerator operator would design, build, and operate the facility. This means that the income from operations as well as the majority of the wages being paid for the workers will be leaving the Maldives. As the spare parts are also not available in the Maldives, most of the procurement will be foreign purchases.

Two project documents give insights on fund utilization, sources, and counterparts: the "Greater Male Waste-to-Energy Project: Economic Analysis"[55] and Greater Male Waste-to-Energy Project: Financial Analysis.

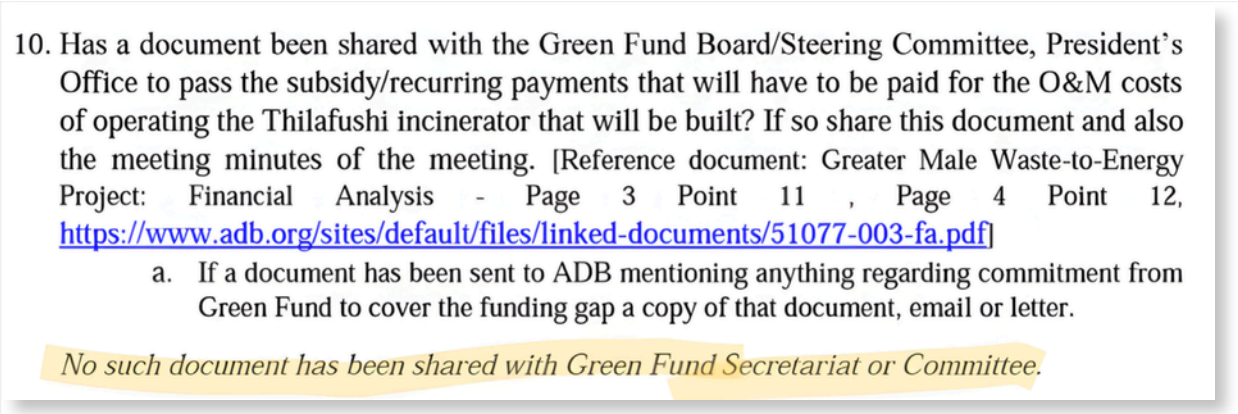
It is known that although the project costs USD 142.8 Million to construct, the government has to cover the operating and maintenance (O&M) cost which amounts to USD 179.4 Million. What is most concerning about this is that these O&M costs are going to be covered by the government's "Green Fund" which is meant to fund projects that are environmentally conscious and sustainable, both technologically as well as economically. This project does not satisfy either qualifications.

The GOM has used loose terminology in their green fund "trust document" to use the green tax collected from the tourism industry to fund projects that do not qualify as a "green" project.

The government has not spent this much money on projects with such heavy recurring costs to date. It only spends on projects that are usually one off payments.

However, in ADB's financial analysis, it states that the cash flow projections show that "the proposed WTE plant could cover only part of O&M costs from 2025 (the first year of operation) to 2035 (when full O&M cost recovery is achieved) which underlines the need for O&M support from the MOE. Potential budget shortfalls to pay any O&M gap pose a substantial financial sustainability risk. To address this risk, the government (i) ensured that it will cover any O&M shortfall either through funds from the Maldives Green Fund (*whose revenues are from a green tax*)....". [56]

Through a Right to Information Request to the MoT, information has been obtained that the Ministry is unaware of any such allocation of funds towards this project. The Green Fund Board was not even consulted prior to making such a large commitment.



10. Has a document been shared with the Green Fund Board/Steering Committee, President's Office to pass the subsidy/recurring payments that will have to be paid for the O&M costs of operating the Thilafushi incinerator that will be built? If so share this document and also the meeting minutes of the meeting. [Reference document: Greater Male Waste-to-Energy Project: Financial Analysis - Page 3 Point 11 , Page 4 Point 12, https://www.adb.org/sites/default/files/linked-documents/51077-003-fa.pdf]
    a. If a document has been sent to ADB mentioning anything regarding commitment from Green Fund to cover the funding gap a copy of that document, email or letter.

No such document has been shared with Green Fund Secretariat or Committee.

These acts again come circling back to the issue of meaningful consultation. It seems that not even the government bodies, let alone the Ministry of Environment as the project proponent has communicated the WtE project's financial costs to committees that work under the direct oversight of the Ministry.

In October 2024, reports were circulating that the private sector DOB partner, Urbaser, had issued a complaint-letter to the Ministry of Environment, Climate Change and Technology for failing to pay for its services and highlighted the absence of budgetary allocations in the annual budget for the project. The government was unable to fund the project because of its debt distress. Yet, reports say ADB is putting in more money that was initially agreed to keep the project moving—a move that will certainly put Maldives at higher risk. Experts say that Maldives would have to put 70 percent of government revenues towards debt payments by 2026.[57]

3.5 Violations of 2009 ADB Safeguards Policy on Required Meaningful Consultation

The ADB Safeguards Policy Statement 2009 states the following about meaningful consultation:

> *In addition, ADB needs to clarify what "meaningful consultation" means. For policy application, it would refer to a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.*[58]

For the ADB project that is being implemented in the Maldives, meaningful consultation was not carried out. The public was not involved in the earlier stages of project discussion before incineration was chosen as the way forward to manage waste which would be critical in avoiding the lessons from the World Bank waste management project in Vandhoo which had failed.

Moreover, key issues raised in the series of meetings with stakeholders are still unaddressed to this date.[59]

It is important to note that major project decisions had already been made at this point. These stakeholder consultations were purely carried out as a formality of the EIA as it has been with all major development projects that have been carried out.

To date, neither the project nor the ministry has met with CSOs that are working on environmental and waste management issues to discuss updates on or progress of the project and see what can be done to address issues posed by the project.

The project remains in conflict with the changes in the political sphere and environmental pledges that have been made by the government, such as waste-to-wealth and NetZero 2030 Commitments in the international stage.

Details of stakeholder consultations in the EIA Process. A reading of the minutes of the stakeholder consultation meetings reveal the following:

1. Meeting 1: Stakeholder meeting for the development of the EIA for the Regional Waste Management Facility at Zone 3 in Thilafushi held on 20th September 2018

- Only six out of 16 attendees were not affiliated with the project.
- The major details shared were very surface level details. The attendees were not even provided details of the feasibility study which had the more comprehensive plans of what the project aimed to do and how they came to how the project would be framed.
- Based on the answers given to questions about waste reduction and segregation, the consultant was very hesitant in adding source segregation as part of waste management. There was a hesitation to realign any of the project components as if everything had been finalized and there was no room for change informed by the consultation.

2. Meeting 2: Greater Male Waste to Energy Project ADB Mission Meetings- Stakeholder Consultation held on 5th August 2019

- 10 out of 19 participants were not affiliated with the project.
- This appear to be the first documented meeting with the presence of at least one councilor from the City Council of the Capital.

3. Meeting 3: Greater Male Waste to Energy Project ADB Mission Meetings - Stakeholder Consultation (Thilafushi) held on 6th August 2019

- 5 out of 14 participants were not affiliated with the project.
- Major stakeholders from Thilafushi were not consulted as part of this consultation including established businesses and businesses closer to the project site.

4. **Meeting 4:** Public Hearing for the EIA for the Regional Waste Management Facility at Zone 3 in Thilafushi, held 4th September 2019

- 4 out of 12 attendees were not affiliated with the project.
- Prior to this meeting, it was requested in public via social media that the draft EIA be released publicly so that the public can be more prepared to ask questions regarding the project. The EIA is over 1,161 pages long in total.[60] The information was not provided at all even as a draft form.
- Key conversations that were slightly confrontational that happened at the meeting have been omitted from the documented meeting minutes.
- The ministry outright refused to disclose the feasibility study in any form.
- The project's safeguards officer and consultants took up 1 hour of the allotted consultation time of 1 hour and 30 minutes, leaving only 30 minutes for concerns to be raised and addressed. The ministry representative rushed through the consultation without adequately addressing concerns and was hostile and dismissive towards almost all concerns and questions raised.[61]
- The concerns of sufficient public consultation were dismissed as completed when raised at the meeting.
- The Ministry mentioned that various CSOs have been engaged in the stakeholder meetings but even in the EIA stakeholder list there are only 2 NGOs mentioned.

Thilafushi relies on undocumented migrant waste workers who endure toxic smoke and a heavily polluted environment. Photo credit: Transparency Maldives (transparency.mv)

5. Focus Group Discussions

- Focus Groups Discussions (FGD) with expatriate workers were completed within 30 minutes, while with Maldivians it took at least an hour. Considering that foreign labor makes up the majority of the working population on the project-affected site, it apperas that the participants were not provided enough information or it was not thoroughly explained what the project is going to be doing or how they would be impacted.
- All FGDs in Malé were conducted at the same location and time on a Friday, when most expatriate workers are off work and thus not present at the site.
- Focus Group Discussion 8 also notes that the EIA Consultant and Project Safeguards Specialist had claimed that there will be no emissions from the incinerator stack. Similar false and misleading statements could have been made to other FGDs as well.

4. Recommendations

4.1 For government and regulators

1. Align national direction and stop policy contradiction

    a. Amend the Magey Saafu Raajje targets to prevent incineration lock-in. Replace “incinerate 100% residual waste by 2028” with a residual reduction pathway tied to source segregation, material recovery, and composting targets.

    b. Issue a formal moratorium on any expansion of waste incineration capacity until the country meets, at minimum, national targets for separate collection and recycling and proves stable feedstock reduction trends through audits.

3. Make evidence and transparency mandatory

    a. Publish the full feasibility study, financial model, and waste flow assumptions and studies carried out on the feedstock for the Greater Malé WtE project, with redactions limited to narrowly defined procurement-sensitive parts.

    b. Publish all EIA consultation records in full, including attendee lists, questions raised, and how each concern changed project design, operations, and mitigation.

3. Build the national system the policy already commits to

    a. Deliver the National Waste and Resource Management Database and Monitoring System, then make reporting compulsory for councils and service providers with public dashboards.

    b. Conduct a National Waste Audit and repeat it every five years, with independent peer review and open datasets.

    c. Implement island, atoll, and regional waste and resource management plans and enforce minimum service standards across all zones.

4. Regulate emissions, ash, and hazardous streams with enforceable capacity

    a. Establish enforceable standards and compliance protocols for incineration emissions, ash handling, wastewater, and ambient monitoring before commissioning and throughout operations. Tie this to regulator staffing, training, equipment, and independent verification.

    b. Treat fly ash and bottom ash as potentially hazardous until proven otherwise through accredited testing, documented chain of custody, and approved disposal routes.

5. Implement EPR and full cost recovery to fund real solutions

    a. Approve and implement the horizontal EPR framework and expand take-back schemes for priority products.

    b. Implement full-cost accounting and tariff structures that fund collection, segregation, composting, recycling logistics, and safe disposal, with transparent subsidies for affordability.

6. Deliver circular economy actions with measurable outcomes

   a. Establish composting mechanisms in inhabited islands and provide training, then create markets and quality specifications for compost products.

   b. Establish material recovery facilities and second hand markets, then track recovery rates and sales volumes.

4.2 For civil society organisations

1. Use the national policy as the accountability framework. Track delivery against the published strategies, indicators, and timelines, then publish scorecards.

2. Build an evidence program around the policy's audit and database commitments. Push for open datasets, independent audits, and public dashboards.

3. Demand corrective action on consultation failures by requesting full disclosure, verifiable responses to concerns, and repeat consultations where information was withheld.

4. Advocate for policy correction on the residual incineration target and promote a national residual reduction plan anchored in the waste hierarchy and decentralisation principles.

5. Monitor regulator independence and capacity. Track budgets, staffing, equipment, and enforcement actions, then publish gaps and remedies.

4.3 For international financial institutions and donors

1. Align with waste hierarchy as a polity tool for deciding an order of priority in invsseting prioritizing waste reduction, reuse, segregatoin at source and stop treating incineration as the default endpoint Require proof

2. of source segregation performance, recycling markets, composting capacity and established community-based waste management systems before deciding to finance any thermal treatment expanson.

3. Make financing conditional on the national policy system build-out: national database, national waste audit cycle, EPR framework implementation, and full-cost accounting.

4. Require full transparency as a financing covenant: publish feasibility studies, waste flow data, financial models, contract terms, and monitoring reports.

5. Fund regulator capacity as a core safeguard, not an add-on. Finance independent monitoring equipment, lab access, training, and enforcement operations tied to clear performance metrics.

6. Ensure participation of affected communities and local NGOs at the start of project preparation to gather data and cross-validate project risks early. The conduct of consultations should consider existing political climate that allow for free speech without fear of reprisal.

7. Prioritise investments that deliver the policy targets: decentralised systems, separate collection, composting, material recovery facilities, dumpsite closure, and hazardous waste management.

Endnotes

1 Garbage in, garbage out: waste management in the Maldives, IUCN, 2018, https://iucn.org/news/asia/201801/garbage-garbage-out-waste-management-maldives

2 Waste disposal in Malé, Malé Municipality, 1992.

3 Waste disposal in Malé, Malé Municipality, 1992

4 Waste disposal in Malé, Malé Municipality, 1992

5 Waste disposal in Malé, Malé Municipality, 1992

6 Waste disposal in Malé, Malé Municipality, 1992

7 Waste disposal in Malé, Malé Municipality, 1992

8 Assessment of Solid Waste Management Practices and its Vulnerability to Climate Risks in Maldives Tourism Sector, Ministry of Tourism, Arts and Culture, 2013

9 Tsunami leaves garbage problems for atoll nation, IFRC, 2005

10 https://minivannewsarchive.com/environment/thilafushi-closed-for-clean-up-as-garbage-island-overflows-29101

11 https://minivannewsarchive.com/politics/government-terminates-tatva-waste-management-deal-90580

12 https://minivannewsarchive.com/politics/male-city-council-accuses-government-of-sabotaging-tatva-global-waste-management-project-48127

13 https://www.wamco.com.mv/our-company/3

14 https://www.adb.org/site/safeguards/environment

15 Ibid

16 https://www.bworldonline.com/adb-affirms-support-for-waste-to-energy-despite-opposition/

17 https://www.no-burn.org/wp-content/uploads/Sign-on-letter-to-ADB-EDs-ADB-Energy-Policy.pdf

18 Taken from: https://www.prescouter.com/2017/10/waste-to-energy-technologies-available/

19 https://www.adb.org/sites/default/files/publication/731026/adb-blue-bonds.pdf#:~:text=ADB%20will,activities%20that%20impact%20ocean%20health%2C&text=Concept%20design%20for%20Thilafushi%20Facility,Page%203

20 https://www.adb.org/sites/default/files/linked-documents/51077-003-fa.pdf

21 https://www.adb.org/multimedia/partnership-report2024/story-archives/tackling-the-solid-waste-management-challenge-in-maldives/#:~:text=The%20project%20is%20currently%20developing,the%20sustainability%20of%20service%20delivery.

22 https://www.urbaser.com/en/urbaser-in-charge-of-the-construction-and-operation-of-the-maldives-waste-to-energy-plant/

23 https://presidency.gov.mv/Press/Article/22264

24 https://www.environment.gov.mv/v2/wp-content/files/publications/20210425-pub-single-use-plastic-phase-out-plan.pdf

25 https://storage.googleapis.com/presidency.gov.mv/Documents/SAP2019-2023.pdf

26 Update of Nationally Determined Contribution of Maldives Retrieved from: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Maldives%20First/Maldives%20Nationally%20Determined%20Contribution%202020.pdf

27 https://presidency.gov.mv/Press/Article/24110

28 https://www.pri.org/stories/2012-01-28/maldives-working-be-carbon-neutral-2020

29 The ADB SPS was approved in 2009. However, the WHO in 2021 which is more stricter than the 2024 European Union directives for air emissions lays down stricter grounds to protect people and the environment.

30 https://www.who.int/news-room/questions-and-answers/item/who-global-air-quality-guidelines#:~:text=Exposure%20to%20air%20pollutants%20is,the%20Gobi%20Desert%20and%20elsewhere

31 https://www.who.int/news-room/questions-and-answers/item/who-global-air-quality-guidelines#:~:text=Exposure%20to%20air%20pollutants%20is,the%20Gobi%20Desert%20and%20elsewhere.

32 https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L_202401785

33 https://www.google.com/url?q=http://www.basel.int/Countries/StatusofRatifications/PartiesSignatories/tabid/4499/Default.aspx&sa=D&source=docs&ust=1769264153957816&usg=AOvVaw0E08KFi7KNyPdmMzUtQJ

34 https://mymaldiveshome.environment.gov.mv/knowledge_articles/environment-protection-and-preservation-act-eppa-4-93/

35 United Nations Environment Programme. https://www.unep.org/ietc/resources/publication/waste-energy-considerations-informed-decision-making

36 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/869265/Pollution-inventory-reporting-incineration-activities-guidance-note.pdf

37 https://www.colorado.edu/ecenter/sites/default/files/attached-files/stop_trashing_the_climate_-_fullreport_1.pdf

38 The EU Taxonomy Regulation defines activities leading to increase in waste incineration as harmful to the circular economy. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32020R0852

39 https://data.consilium.europa.eu/doc/document/ST-13719-2020-INIT/en/pdf

40 3.5 kg per tourist per bed night, ~94% higher than average waste generation of Maldives' citizen residing in a city (kg/person/day) https://www.worldbank.org/en/news/press-release/2017/06/23/maldives-improve-solid-waste-management

41 The Ministry of Environment and Energy was renamed to Ministry of Environment, Climate Change and Technology to now Ministry of Tourism and Environment as a result of department merges https://presidency.gov.mv/Press/Article/32976

42 Regulation on the Protection and Conservation of Environment in the Tourism Industry, Chapter 5, Waste Management https://www.tourism.gov.mv/dms/document/2d56cd76d0564fa52c9365821bf4ed36.pdf

43 President renames Environmental Protection Agency to Environmental Regulatory Authority https://presidency.gov.mv/Press/Article/34548

44 https://www.ura.gov.mv/v1/news/president-establishes-utility-regulatory-authority/

45 https://ejatlas.org/conflict/noonu-maafaru-airport-expansion-project

46 https://zerowasteeurope.eu/2018/07/revealed-unreported-and-harmful-emissions-from-incinerators-across-england/

47 2026 Budget Book https://www.finance.gov.mv/public/attachments/Vw1NTho8PT7QSLc50cfSQmO7vAS9J8K2jL70JFB.pdf

48 https://documents1.worldbank.org/curated/en/099122124055034536/pdf/P160739-9c47dc43-08a8-473c-a2f3-8266e1e392b7.pdf

49 https://mfr.mv/climate-change-and-environment/president-amends-the-list-of-environmentally-detrimental-single-use-plastics

50 https://www.undp.org/maldives/blog/cleaning-paradise-phasing-out-plastic-maldives

51 NORTH PROVINCE REGIONAL WASTE MANAGEMENT PROJECT, MALDIVES - Best Practicable Environmental Option (BPEO) Report,

52 NORTH PROVINCE REGIONAL WASTE MANAGEMENT PROJECT, MALDIVES - Technical and Financial Feasibility Report

53 maldives - Environmental Management Project (English). Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/520351493996302208/Maldives-Environmental-Management-Project

54 Ibid

55 Greater Malé Waste-to-Energy Project: Economic Analysis
https://www.adb.org/sites/default/files/linked-documents/51077-003-ea.pdf

56 https://www.adb.org/sites/default/files/linked-documents/51077-003-fa.pdf

57 https://maldivesindependent.com/economy/between-government-optimism-and-world-bank-warnings-dissecting-the-2026-budget-9dd5

58 ADB Safeguards Policy 2009, Section 32, Page 10;
https://www.adb.org/sites/default/files/institutional-document/32056/safeguard-policy-statement-june2009.pdf

59 MLD: Greater Malé Waste-to-Energy Project - Waste to Energy Plant (PART B);
https://www.adb.org/sites/default/files/project-documents/51077/51077-003-eia-en_32.pdf

60 https://www.adb.org/projects/documents/mld-51077-003-eia-2

61 First-hand account.

www.no-burn.org