

# **ENVIRONMENTAL AUDIT OF THE THILAFUSHI RECLAMATION PROJECT**

## **I. INTRODUCTION**

1. ADB Safeguard Policy Statement (SPS) requires that for projects involving facilities and/or business activities that already exist or are under construction, the borrower/client will undertake an environment compliance audit, including on-site assessment, to identify past or present concerns related to impacts on the environment. The objective of the compliance audit is to determine whether actions were in accordance with ADB's safeguard principles and requirements for borrowers/clients and to identify and plan appropriate measures to address outstanding compliance issues.

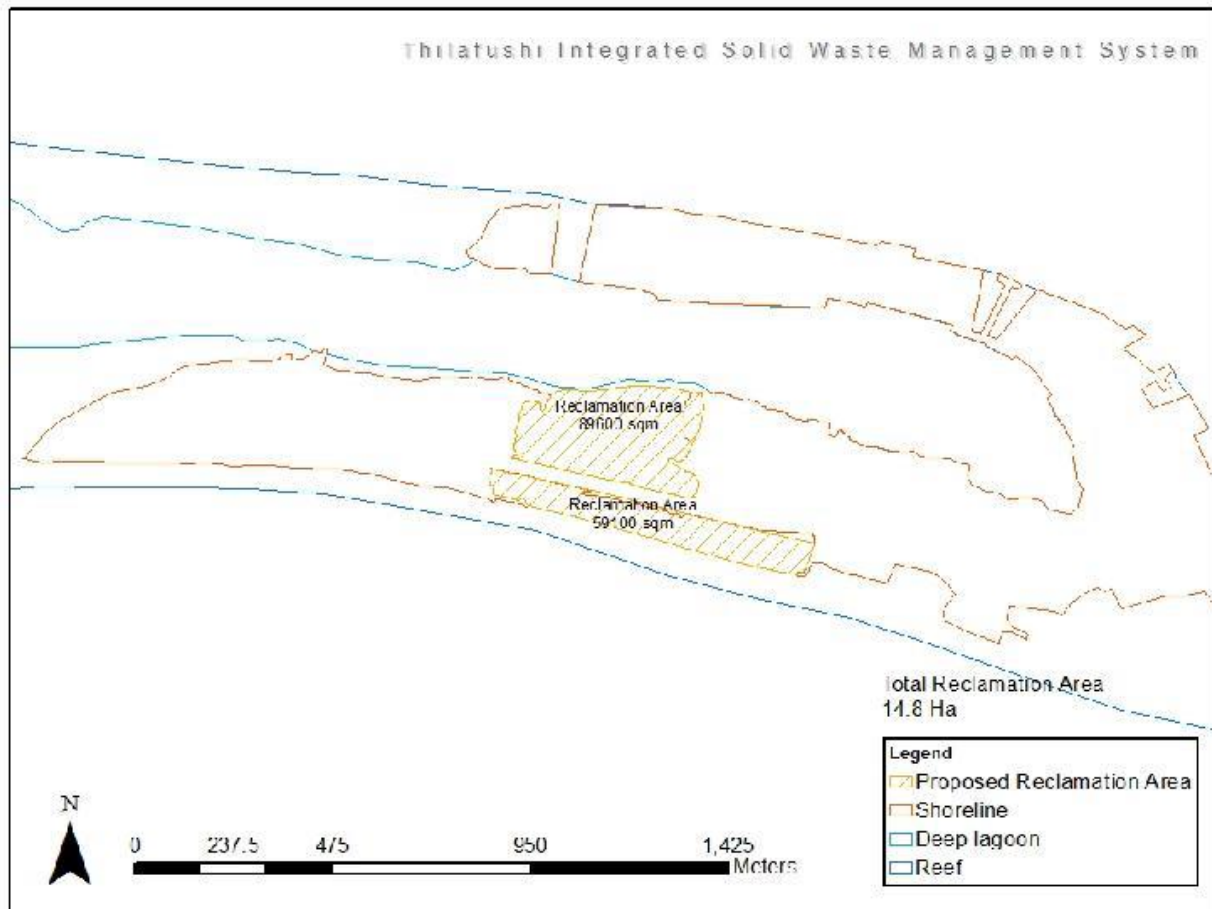
2. The proposed Waste-to-Energy (WTE) Facility Project at the island of Thilafushi in Maldives will be financed by ADB together with Asian Infrastructure Investment Bank (AIIB). This WTE Facility Project is part of Phase 2 of the Government of Maldives initiative to set up an integrated Regional Waste Management Facility (RWMF) for Zone 3. As part of the environmental impact assessment (EIA) of the WTE Facility Project, all past and present projects associated with the RWMF have been assessed if any of these is/are considered existing or associated facility/ies per definition of ADB SPS. Evaluation showed that the RWMF project component named as "Reclamation of 15 hectares of land at Thilafushi for development of the Regional Waste Management Facility (RWMF) for Zone 3" (Reclamation Project) has been identified as an existing facility relative to the WTE Facility Project. Therefore, an environmental audit is required.

3. As such, an environmental audit has been carried out for the Reclamation Project. Since the Reclamation Project has been completed, the methodology adopted for this audit is documentary review in nature. The environmental safeguard documents of the project were reviewed to identify if it has complied with the relevant national laws, rules and regulations, and to determine if there were issues identified during the implementation of the project that remained outstanding or relevant to the present. The audit was also supplemented by visit to the completed project site (the reclaimed land) and interviews with the people who have been involved in the project implementation.

## **II. DESCRIPTION OF THE LAND RECLAMATION PROJECT**

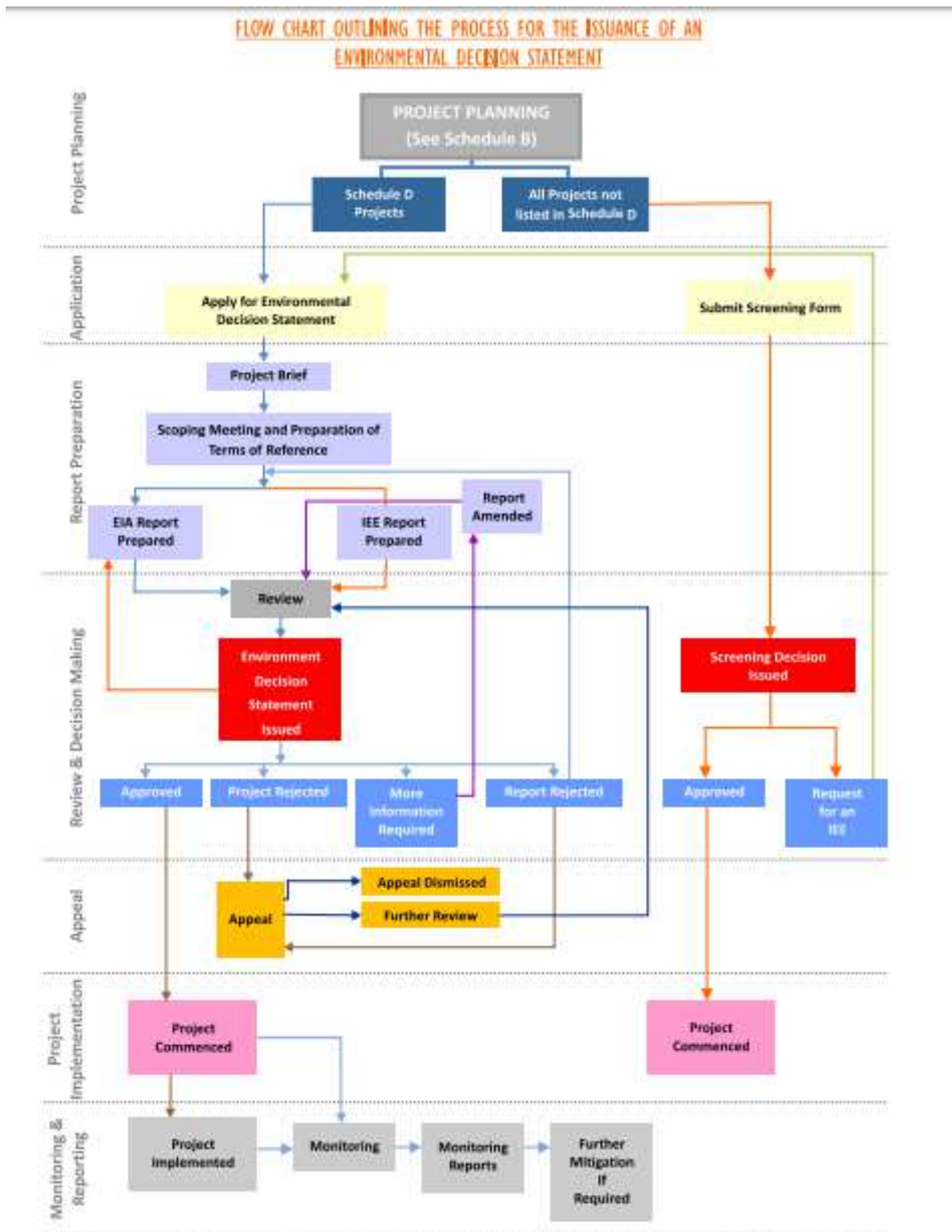
4. The Reclamation Project involved a dredging and a reclamation component to create the additional land in Thilafushi Island. The reclaimed land is planned as additional site for the various components of the RWMF, including the WTE Facility Project, which this environmental audit has been carried out for.

5. The material for the reclamation was obtained from dredging in the deep seas around Thilafushi Island. The project was designed to reclaim a total area of 15 hectares with an estimated volume of 525,000 cubic meters of dredged materials. The project was also designed to elevate the reclaimed land to a height of +2.0m from mean sea level. The design of the Reclamation Project also included a coastal protection component to protect the created land from erosion. The coastal protection was built by building a revetment using geo-textile containers. Geo-textiles, bags and tubes were filled with sand and placed on the boundary of the reclaimed land as a revetment. The revetment was constructed to a height of +2.5 m from mean sea level. Figure below shows the area that was reclaimed.



### III. ENVIRONMENTAL COMPLIANCE OF THE PROJECT

6. **Environmental Impact Assessment.** In 2017, an environmental impact assessment (EIA) was undertaken for the project. The EIA process was based on the requirements of EIA Regulation (2012/R-27), the Government of Maldives governing EIA regulation for all projects in the country. This regulation provides the detailed guidelines outlining the EIA process, including the roles and responsibilities of proponent (in this case the Ministry of Environment) and consultant undertaking the EIA. In summary, the project took all the necessary steps in order to finish the EIA and secure approval from the Maldives Environmental Protection Agency (EPA). The following illustration depicts the steps followed:



7. As a result, an EIA report was prepared and submitted to the Maldives EPA. A copy of the EIA report is available to public through the Maldives EPA website. The EIA report is also available from the Ministry of Environment. The front cover of this EIA report is attached as Annex 1 to this audit document.

8. On 17 December 2017, the Maldives EPA issued an approval of the EIA through Environmental Decision Statement No. 203-EIARES/438/2017/180. A copy of this approval document is attached as Annex 2 of this audit document.

9. On 21 February 2018, the contract for the project was awarded to Maldives Transport and Contracting Company Plc. After the award, significant development happened when the proposed methodology under the project was changed due to economic and technical issues. In particular, the initial plan to use Cutter Suction Dredger (CSD) was changed to use of Trailing Suction Hopper Dredger (TSHD). Accordingly, among many other reasons, use of TSHD was deemed more economical compared to use of CSD due to reduced reclamation time. Consequently, the reduction of reclamation time was also deemed as tantamount to having lesser environmental impacts arising from the activities. In view of this, an addendum to the EIA was prepared and submitted to Maldives EPA for approval.

10. On 07 May 2018, the Maldives EPA issued an approval of the First Addendum to the EIA through Environmental Decision Statement No. 203-EIARES/438/2018/87. Accordingly, the mitigation measures proposed in the initial EIA were sufficient for the project. The front cover of the Addendum to the EIA is attached as Annex 3 of this audit document. Also, a copy of the approval document of the First Addendum to the EIA is attached as Annex 4 of this audit document.

11. **Compliance with the conditions of the EIA.** The Environmental Decision Statement provides the conditions with which the proponent should comply with during the implementation of the Reclamation Project. Below is a summary of these conditions and the corresponding compliance by the proponent:

Conditions	Status of Compliance
1. In the event the project activity has not commenced within one (1) year from the date of issue, or if the duration of this Environmental Decision Statement has not been extended, this Environmental Decision Statement shall be considered null and void. In order to extend the duration of this Environmental Decision Statement, the Proponent shall write to the Minister for an extension according to Clause 14 of the 2 <sup>nd</sup> Amendment to the Environmental Impact Assessment Regulations 2012.	Complied. The project has been completed prior to the expiry of the Environmental Decision Statement.
2. In the event the project activities have been delayed for more than one (1) year due to unforeseen circumstances, the Ministry shall have the discretion to extend the duration of the Environmental Decision Statement, or to terminate it. In such circumstances the proponent shall write to the Minister for an extension clearly stating out the reasons for the delay.	Complied. The project has been completed prior to the expiry of the Environmental Decision Statement.
3. The Minister, or his designate, may issue a cessation order requiring persons working on	Complied.

<p>a Development Proposal to cease working until the order is withdrawn, if:</p> <p>(a) This Environmental Decision Statement has been withdrawn or;</p> <p>(b) There has been a breach of the conditions of this Environmental Decision Statement.</p>	
<p>4. It is the Developer's responsibility to undertake all project activities in accordance with the relevant laws and regulations of the Maldives.</p>	<p>Complied. The Developer has not been issued any notices or violation (or similar forms) and the project was completed without any breach of relevant laws and regulations.</p>
<p>5. The Developer shall submit environmental monitoring report as outlined in Paragraph viii of this Environmental Decision Statement. Failure to submit the requisite monitoring report may result in the suspension or revocation of the permit under this Decision Statement.</p>	<p>Complied. One Environmental Monitoring Report have been submitted and reviewed as part of this audit. The monitoring report confirmed that overall the environmental performance of the project is acceptable and further monitoring was recommended.</p>
<p>6. The Developer is aware that under the National Environment Protection Act (Law No. 4/93) and the Environmental Impact Assessment Regulations the Ministry reserves the right to terminate any activity without compensation if found that such an activity has caused significant, irreversible impacts on the environment.</p>	<p>Complied. No termination of activities happened.</p>
<p>7. All mitigation measures proposed in the EIA report for all the phases of the project shall be fully implemented.</p>	<p>Complied. No termination of activities happened. It is viewed that all mitigation measures have been implemented.</p>
<p>8. The environmental monitoring program outlined in the Environmental Impact Assessment Report shall be undertaken and implemented and summary environmental monitoring reports shall be submitted to the Ministry.</p>	<p>Complied. Environmental Monitoring Reports and Physical Progress Reports have been prepared and submitted to the Ministry.</p>
<p>9. The date of expiry stated in this Environmental Decision Statement is the duration given to commence the project activities approved under this Environmental Decision Statement.</p>	<p>Complied. The project was accomplished within the duration of the Environmental Decision Statement.</p>
<p>10. Once the project activities have started, the Proponent must inform the Environmental Protection Agency, the date of commencement of project activities.</p>	<p>Complied. Accordingly, this activity was monitored closely by the Maldives EPA.</p>

#### IV. CONCLUSION

12. The Reclamation Project has long been accomplished prior to this environmental audit. No actual dredging activities was observed as part of this audit. However, based on all documents and records reviewed, statutory requirements were complied with and that the necessary

environmental impact assessment was undertaken and approved by the government. There is an indication that the environmental performance of the reclamation project was satisfactory, and that the development activities did not cause any significant adverse impacts to the environment.

## **ENVIRONMENTAL IMPACT ASSESSMENT**

Reclamation of 15 hectares of land at Thilafushi for development of  
the Regional Waste Management Facility for Zone 3

**DRAFT**

June 2017

Proposed by  
Ministry of Environment and Energy

Prepared by  
Ahmed Jameel (EIA P07/2017)  
Ibrahim Faiz (EIA P05/2017)  
Akeed Ahmed (EIA T/2017)

For Water Solutions Pvt. Ltd



## Annex 2





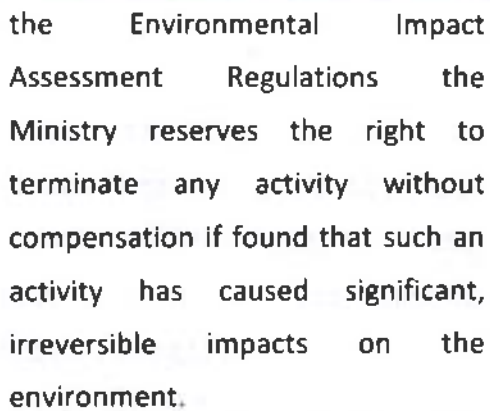


2. The decision has been made by the Ministry on the following conditions:
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- i. In the event the project activity has not commenced within one (1) year from the date of issue, or if the duration of this Environmental Decision Statement has not been extended, this Environmental Decision Statement shall be considered null and void. In order to extend the duration of this Environmental Decision Statement, the Proponent shall write to the Minister for an extension according to Clause 14 of the 2nd Amendment to the Environmental Impact Assessment Regulations 2012.
- ii. In the event the project activities has been delayed for more than one (1) year due to unforeseen circumstances, the Ministry shall have the discretion to extend the duration of the Environmental Decision Statement, or to terminate it. In such circumstances the proponent shall write to the Minister for an extension clearly stating out the reasons for the





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**FIRST EIA ADDENDUM TO**  
**Reclamation of 15 hectares of land at Thilafushi for development of**  
**the regional waste management facility for zone 3, Kaafu Atoll,**  
**Maldives**

**PROPONENT**  
**MINISTRY OF**  
**ENVIRONMENT**  
**AND ENERGY**

**Prepared By:**  
Firdous Hussain: EIA  
P21/ 2016  
Maldives Transport and  
Contracting Company Plc

April 2018

## Annex 4

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## APPROVAL OF ENVIRONMENTAL IMPACT ASSESSMENT

**Number:** 203-EIARES/438/2017/180 **شماره پرونده:**

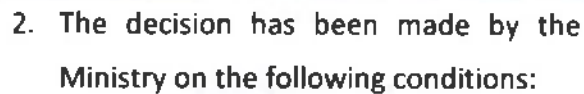
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*This Environmental Decision Statement is issued for the purpose of communicating the decision regarding the Environmental Impact Assessment for **Reclamation of 15 hectares of Land for Development of Regional Waste Management Facility at Thilafushi ( Zone III), Kaafu Atoll**, which was submitted for evaluation on **20<sup>th</sup> November 2017** by **Ministry of Environment and Energy**. The EIA consultants of this project are **Mr. Ahmed Jameel (EIAP07/2017)** and **Mr. Ibrahim Faiz ( EIA P05/2017)**.*

1. This Environmental Decision Statement has been issued on behalf of the Environmental Protection Agency (hereinafter referred to as the Ministry) pursuant to the Environmental Impact Assessment Regulations 2012 (2012/R-27) to advise that the Ministry has decided that the proposed Development Proposal can proceed according to the Environmental Impact Assessment Report.

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1. In the event the project activity has not commenced within one (1) year from the date of issue, or if the duration of this Environmental Decision Statement has not been extended, this Environmental Decision Statement shall be considered null and void. In order to extend the duration of this Environmental Decision Statement, the Proponent shall write to the Minister for an extension according to Clause 14 of the 2nd Amendment to the Environmental Impact Assessment Regulations 2012.

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- ii. In the event the project activities has been delayed for more than one (1) year due to unforeseen circumstances, the Ministry shall have the discretion to extend the duration of the Environmental Decision Statement, or to terminate it. In such circumstances the proponent shall write to the Minister for an extension clearly stating out the reasons for the

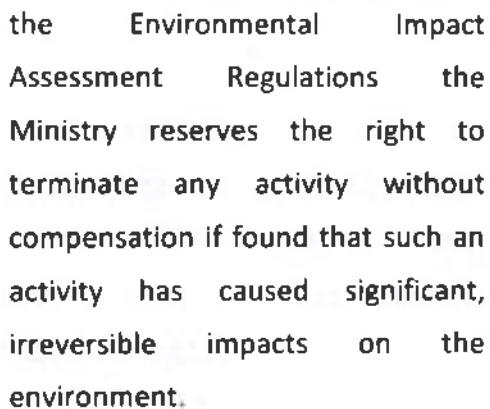
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- iii. The Minister, or his designate, may issue a cessation order requiring persons working on a Development Proposal to cease working until the order is withdrawn, if:
    - a) This Environmental Decision Statement has been withdrawn or;
    - b) There has been a breach of the conditions of this Environmental Decision Statement.
  - iv. It is the Developer's responsibility to undertake all project activities in accordance with the relevant laws and regulations of the Maldives.
  - v. The Developer shall submit environmental monitoring report as outlined in Paragraph viii of this Environmental Decision Statement. Failure to submit the requisite monitoring report may result in the suspension or revocation of the permit under this Decision Statement.
  - vi. The Developer is aware that under the National Environment Protection Act (Law no. 4/93) and

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- vii. All mitigation measures proposed in the EIA report for all the phases of the project shall be fully implemented.

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- viii. The environmental monitoring program outlined in the Environmental Impact Assessment Report shall be undertaken and implemented and summary environmental monitoring reports shall be submitted to the Ministry.

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- ix. The date of expiry stated in this Environmental Decision Statement is the duration given to commence the project activities approved under this Environmental Decision Statement.

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Annex 5

Google Earth Photo Over Thilafushi Island

