LETTER OF ADVICE

The Prime Minister, Mr. W. Marlin
The Minister of Public Housing, Spatial Planning, Environment and Infrastructure, Mr. C. Emmanuel
The Minister of Public Health, Social Development and Labor, Mr. E. Lee
The Acting Minister of Tourism, Economic Affairs, Traffic and Telecommunication, Mr. Rafael Boasman

Our reference: SER /16/GR/080

Re: Letter of advice: “Better Waste Management for Sint Maarten”

Honorable Ministers,

This letter of advice entitled “Better Waste Management for Sint Maarten” is an unsolicited advice for the Prime-Minister and Minister of General Affairs, W. Marlin, Minister of Public Housing, Spatial Planning, Environment and Infrastructure, C. Emmanuel, the Minister of Public Health, Social Development and Labor E. Lee and the Acting Minister of Tourism, Economic Affairs, Traffic and Telecommunication, R. Boasman.

This advice serves to further contribute to the ongoing discussions concerning the Pond Island landfill. Furthermore, the Social Economic Council (SER) wishes to highlight that the present challenges of the Pond Island landfill are critical and urgent. These problems go beyond party politics, and should not be attributed to the past, present and/or future government(s).

Background

Residents and visitors (tourists) on Sint Maarten create waste, and the manner in which waste is currently handled, stored and collected poses risks to the environment and to public health. The main problem our country faces in waste management has to do with the poor state of the Pond Island landfill due to the increasing volume and the fact that no separation of garbage takes place. In addition, the Pond Island landfill has become an eyesore which can have an impact on tourism. This ineffective disposal of waste causes health hazards, air pollution, and water and soil contamination. See paragraph 1 “present” for further details.

In January 2015, the SER decided to compile an advice concerning waste management on Sint Maarten. The SER is of the opinion that the concerns mentioned in the previous paragraph are grave concerns shared by residents, visitors and environmental organizations. The landfill at Pond Island was created in 1970’s and has been the official depository for all the waste produced on Sint Maarten. Due to the passing of various hurricanes in the 1990’s (e.g. Luis 1995, Jose, Lenny 1999) there was an increase in waste, the clean-up and reconstruction phase generated a great amount of garbage mainly after hurricane Luis. Another contributing factor is the great amount of sand which is used to cover the garbage. All these factors resulted in limited space at the Pond Island landfill. The estimated life span of
the Pond Island Landfill was 10 years\(^1\). Additionally, the growth of the cruise and hotel (tourist) industry and the construction boom of 2000's mainly the large infrastructure projects (e.g. the expansion of the A.C. Wathey Cruise Port Facilities, Princess Juliana International Airport, Blue Mall and the Westin Hotel), have all brought an increase in most of the waste streams (e.g. commercial waste, construction and demolition).

This contributed to the landfill reaching its maximum holding capacity in 2008\(^2\). The disposal of garbage has historically been occurring with limited control and management. In addition to the estimated life span, various studies\(^3\) have shown that in light of maintaining a minimum water retention capacity in the pond for its buffer function during heavy rains and hurricane season, the landfill should not be expanded.

**Summary**

This unsolicited advice on waste management serves to further contribute to the ongoing discussions and offers some solutions concerning the Pond Island landfill.

The SER is concerned about the impact the various illnesses might have on the population due to the on and off fires coming from the landfill. It is important to know which groups are at risk because of high sensitivity and/or high exposures. From the figures received from the STAT department, most attention is needed for the children, which by now form a substantial part of our population (35%).

In addition, a survey carried out in May 2016 by the Nature Foundation revealed that 40% of the 500 responders seek medical assistance because of health complications arising from the fumes caused by the landfill. An Environmental Sustainability ranking the Caribbean in 2014, established that as a Caribbean country, an alarming rate of waste is generated on the island. Research has shown that Sint Maarten has the highest municipal solid waste of the Caribbean that is generated in kilograms per capita per day which is: 9.7 kilograms.

The MARPOL convention is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes. Sint Maarten has ratified annex I (oil pollution) and II (pollution by noxious liquid substances in bulk). The most relevant annex IV (pollution from garbage) for Sint Maarten was never ratified. SER is of the opinion that government must ratify annex IV taking into consideration that the A.C. Wathey Cruise Port Facilities is considered to be the leading port for cruise destination in the North-Eastern Caribbean.

The unique social, economic and environmental characteristics of the Small Island Development States, such as high population density, relative isolation, limited availability of land space, limits the range of possible options for the sound management of waste. Aruba, St. Kitts & Nevis, Curacao and Saint Martin all have different systems to manage their waste despite their unique environmental similarities.

Sint Maarten can learn from their experiences and avoid pitfalls. Cooperation between French and Dutch Saint Martin/Sint Maarten should be high on government's priority list. An effective Integrated Solid Waste Management System considers how to prevent, recycle, and manage solid waste in ways that most effectively protect human health and the environment. This approach seems to be in the best interest of the population and environment of Sint Maarten.

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\(^2\) "Waste-to-energy plant MOU being drafted" The Daily Herald, May 12\(^\text{th}\), 2016.

\(^3\) Lievense consulting engineers report dated February 2\(^\text{nd}\), 2009.
Advice

The SER unanimously advises the government of Sint Maarten:

1. To resume cooperation with the French side and to adopt an integrated waste management system similar to Saint Martin, focusing on waste minimization, re-use, recycling and covering issues related to the health and ecology of the landfill.

2. To start with immediate effect separating the various waste streams on the landfill with the aim to sell various waste streams products. This includes the efficient sorting of the garbage such as the removal of recyclable and toxic material. Management plans should ideally encompass operational requirements with appropriate guidelines/standards, including capacity building and regular monitoring against fires.

3. To start a public awareness campaign to promote reduction of waste at house-hold and community levels. Waste reduction should include use of clean technologies, reuse, separation and recycling.

4. To immediately resume and renew the cooperation between the municipality of Amsterdam and Sint Maarten. Mainly the exchange of knowledge and experience in the areas of waste management and environment. This agreement expires on October 16th, 2017. The city of Amsterdam based on its working relationship with Sint Maarten, officially offered to dispose at least 50% of the present landfill. This offer would significantly aid the government of Sint Maarten with regard to the disposal of existing waste.

5. To update legal framework for waste management in line with international standards and to place more focus on enforcement measures. In addition, government should incorporate best practices from the Dutch Kingdom and adopt EU/international standards in waste management. By doing so, the locally separated products are compatible with these markets.

6. Not to pursue the waste-to-energy facility for Sint Maarten. In 2010 the media reported that government plans to construct waste-to-energy facility for USD 115 million.

Should you require any additional information after reading the above, please feel free to contact us at your earliest convenience.

Respectfully,

Dwight D. Williams
Vice-Chairman

Gerard M.C. Richardson
Secretary-General

Attached: - SER letter dated June 3rd 2015
- SER letter dated August 18th 2015
- SER letter dated December 10th 2015
- Reference Code: ref SER/DCB/019
- ref SER/GR/042
- ref SER/GR/092

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5 Press release “Waste Plant related contracts approved “The Daily Herald of Tuesday, May 11, 2010
Elucidation

1. Present

The original company that drafted the Landfill plan made some structural changes in 1998 on the landfill to create space. At that time the calculated estimated life span was ten years. Starting from the early 2000’s government outsourced the management of the landfill at Pond Island. Despite government’s efforts to outsource the day to day management of the landfill, our community is regularly confronted with fires at the landfill. In the past the Nature Foundation and Sint Maarten Pride Foundation have both expressed their concerns to government and in the media.

In May 2016, the Nature Foundation conducted a survey. The responders were asked specifically which district they were from, the effects they have experienced from the smoke caused by the fire and if they ever had to seek medical attention due to the fires. Some 500 people responded to the survey with the breakdown of answers being as follows:

<table>
<thead>
<tr>
<th>%</th>
<th>Effects of the landfill</th>
</tr>
</thead>
<tbody>
<tr>
<td>35%</td>
<td>frequently experience negative effects throughout the year from fumes coming from the landfill</td>
</tr>
<tr>
<td>50%</td>
<td>of all respondents complained about trouble breathing due to the fumes coming from the landfill</td>
</tr>
<tr>
<td>73%</td>
<td>of all respondents mentioned burning in their eyes, nose or throat</td>
</tr>
<tr>
<td>50%</td>
<td>experienced burning, watering eyes because of the toxic fumes</td>
</tr>
<tr>
<td>30%</td>
<td>experienced nausea combined with vomiting</td>
</tr>
<tr>
<td>50%</td>
<td>experienced uncontrolled coughing</td>
</tr>
<tr>
<td>40%</td>
<td>medical assistance because of health complications arising from the fumes caused by the landfill</td>
</tr>
</tbody>
</table>

On Wednesday August 3rd, 2016 residents woke up to a thick cloud of black smoke coming out of the landfill. Government issued a statement in which it was reported “this latest fire is believed to have been caused by unknown persons burning old rubber tires”. Air emissions from open tire fires have been shown to be more toxic (e.g., mutagenic) than those of a combustor, regardless of the fuel. Open tire fire emissions include "criteria" pollutants, such as particulates, carbon monoxide (CO), sulfur oxides (SO2), oxides of nitrogen (NOx), and volatile organic compounds (VOCs). They also include "non-criteria" hazardous air pollutants (HAPs), such as polynuclear aromatic hydrocarbons (PAHs), dioxins, furans, hydrogen chloride, benzene, polychlorinated biphenyls (PCBs); and metals such as arsenic, cadmium, nickel, zinc, mercury, chromium, and vanadium. Both criteria and HAP emissions from an open tire fire can represent significant acute (short-term) and chronic (long-term) health hazards to firefighters and nearby residents. Depending on the length and degree of exposure, these health effects could include irritation of the skin, eyes, respiratory effects, central nervous system depression, and cancer.

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7 [https://www.elaw.org/content/health-impacts-open-burning-used-scrap-tires-and-potential-solutions-science-memo](https://www.elaw.org/content/health-impacts-open-burning-used-scrap-tires-and-potential-solutions-science-memo)
The SER is concerned about the type of impact the various illnesses might have on the population. Mainly which groups are at risk because of high sensitivity and/or high exposures. Highly sensitive groups to air pollution are children and chronically ill people. Most attention is needed for the children, which by now form a substantial part of our population (STAT department: ≤35% under 20 yr in 2016). In addition to the survey carried out by the Nature Foundation, the SER consulted with the department of Collective Prevention Services to gain a better understanding of the various effects of the landfill.

Persons in communities near the landfill are often concerned about odors emitted from landfill. These persons stated that these odors are a source of undesirable health effects or symptoms, such as headaches and nausea. At low-level concentrations typically associated with landfill gas, it is unclear whether it is the constituent itself or its odors that trigger a response. Typically, these effects fade when the odor can no longer be detected. Although landfill odors may not be associated with long-term adverse health effects or illness for most people, the added disruption and stress of day-to-day activities can greatly impact quality of life. The impact of landfill gas odors on sensitive populations such as people with pre-existing respiratory illnesses is not well documented or understood on Sint Maarten.

Additionally, the “Environmental Health Position Paper” describes the following:

“Health care experts were interviewed for their professional opinion on the environmental contribution to local health problems. The majority of the interviewees (physicians) highly suspected a health consequence to the environmental status of the island with disease burdens being related to the living and occupational environment of the patient (personal communication). Many local environmental health complaints, as provided by the General Practitioners (GP’s) interviewed, were: respiratory problems/disease (i.e. COPD, asthmatic conditions, allergies, etc.), bacterial and viral infections, skin diseases, gastrointestinal diseases, dengue and skin & lung cancer.

The question if there was a likely correlation between residential neighborhoods and diseases or conditions was agreed upon by most GP’s interviewed. It was especially a concern in the low income, crowded areas, with poor living conditions and infrastructure. As well as the neighborhoods under the smoke of the dump fires and with major sewage problems. With vulnerable groups such as children being more affected by these problems. When asked if the environmental situation persisted as it was at the moment, if this would have an effect on the public’s health by decreasing their general health status, all GP’s agreed”.

Below the results of the recent health survey “How healthy is Sint Maarten/Saint Martin -health survey 2015”. During the interviews a total of 1715 persons suffered health effects from environmental pollution. Of the 1715 respondents 37.5 % had respiratory problems and 16% complained about allergies.

Environmental Health position paper page 10, 2012. Department of Public Health
<table>
<thead>
<tr>
<th>Category</th>
<th>Sint Maarten</th>
<th>Saint-Martin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory problems</td>
<td>37.5 %</td>
<td>38.1 %</td>
</tr>
<tr>
<td>Skin problems e.g. rashes, infections</td>
<td>6.3 %</td>
<td>4.8 %</td>
</tr>
<tr>
<td>Allergies</td>
<td>15.6 %</td>
<td>33.3 %</td>
</tr>
<tr>
<td>Headaches/Migraines</td>
<td>9.4 %</td>
<td>4.8 %</td>
</tr>
<tr>
<td>Ear, nose and throat problems</td>
<td>3.1 %</td>
<td>9.5 %</td>
</tr>
<tr>
<td>Eye problems</td>
<td>3.1 %</td>
<td>0.0 %</td>
</tr>
<tr>
<td>Psychological stress</td>
<td>12.5 %</td>
<td>0.0 %</td>
</tr>
<tr>
<td>Other</td>
<td>12.5</td>
<td>9.5 %</td>
</tr>
</tbody>
</table>

Source: How healthy is Sint Maarten/Saint-Martin health survey 2015

Environmental burden

Waste management is an increasing environmental burden on Sint Maarten. As a Caribbean country, an alarming rate of waste is generated mainly by population growth⁹ and rapid economic development resulting in shanty towns in some areas. In addition to the rapid economic development, government did not strategically plan to combat the increase of waste generated by the population. In 2005, the United Nations Environmental program (UNEP) declared that Environmental Sustainability, of which waste management is a component, is also linked to changes in population size, rate of growth that have a far-reaching impact on the environment. Sint Maarten is lagging behind in poverty eradication and environment. The report of May 25th, 2015 from the department of Interior and Kingdom relations indicated that in 2015 Sint Maarten is still lagging behind with the Millennium Development Goals. The environmental burden continues to be a major pressing issue threatening the environment and health of the people. Unless environmental measures are introduced and effectively enforced, continuing burdens of (solid) waste management will be inevitable.

Below an overview of the amount of waste generation in the Small Island Development States. Waste generation is the total municipal solid waste that is generated in kilograms per capita per day.

<table>
<thead>
<tr>
<th>Country</th>
<th>Waste generation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aruba</td>
<td>2.34</td>
<td>Serilmar Aruba 2013</td>
</tr>
<tr>
<td>Bonaire</td>
<td>2.76</td>
<td>Selibon Bonaire 2014</td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>2.72</td>
<td>Department of environmental health</td>
</tr>
<tr>
<td>Curacao</td>
<td>0.44</td>
<td>Selikor 2013</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>1.8</td>
<td>Solid Waste Authority 2013</td>
</tr>
<tr>
<td>St. Kitts &amp; Nevis</td>
<td>1.7</td>
<td>Solid Waste Management Corporation 2014</td>
</tr>
<tr>
<td>Trinidad &amp; Tobago</td>
<td>3.26</td>
<td>Solid Waste Management Corporation 2010</td>
</tr>
<tr>
<td><strong>Sint Maarten</strong></td>
<td><strong>9.7</strong></td>
<td><strong>VROMI 2014</strong></td>
</tr>
</tbody>
</table>

Source: PricewaterhouseCoopers Aruba Environmental Sustainability ranking Caribbean 2014

2. Waste Management in the Caribbean

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⁹ Data from the Civil Registry Office shows that the population grew rapidly from around 7000 persons in 1970 to more than 30,000 in 1995. As of January 2016, the total population of Sint Maarten increased to 39,410 residents who are registered. Source: Department of statistics.

In order to have a better understanding of the waste management problem, in February 2015 a delegation of the SER visited the Waste Management facility "Verde Environment SXM" (Verde SXM) on Saint Martin better known as the French side. In addition, in July 2015 a delegation of the SER visited Curacao and Aruba. During the work visits to Curacao and Aruba valuable information was obtained, with regard to waste management. The neighboring island of St. Kitts & Nevis were also reviewed taking into consideration its similarity in size and population to Sint Maarten. The work visits were constructive, taking into consideration that those islands have similar social, economic and environmental characteristics as Sint Maarten. Below a brief synopsis of our findings.

2.1 Waste Management on Saint-Martin

In the late 2000's Saint Martin's garbage system was in a deplorable state and the Préfète at that time (the state representative of France) instructed the territorial council to tackle the waste management problem. As an overseas collectivité of France in the Caribbean, France set strict European Union (EU) requirements with regard to the future waste management facility of the collectivité of Saint Martin. The company Verde SXM became operational in 2008 and manages all waste from the French part of the island. The facility is located at Hope Estate, French side. The facility consists of two sections: the Waste Storage Facility, and Eco site for Recycling Valuation Verde SXM. On February 6th 2015, a delegation of the SER together with representatives of Environmental Protection in the Caribbean (EPIC) received a tour from the director of the company. He explained that Verde SXM works with an Integrated Solid Waste Management (ISWM).

An ISWM is a comprehensive waste prevention, recycling, composting, and disposal program. An effective ISWM system considers how to prevent, recycle, and manage solid waste in ways that most effectively protect human health and the environment. ISWM involves evaluating local needs and conditions, and then selecting and combining the most appropriate waste management activities for those conditions. The major ISWM activities are waste prevention, recycling and composting, combustion and disposal in a properly designed, constructed, and managed landfill.

In 2009 the former Executive Council held exploratory talks with their French counterparts to implement a joint waste disposal system. Unfortunately, the meetings between both sides never resulted in further concrete plans. The SER is of the opinion that the government of Sint Maarten should seek and/or resume cooperation with the French authorities with regard to waste management.

As stipulated in the "Saint-Martin / Sint Maarten European territorial cooperation Program 2014-2020" The policy document gives a description of the operational program strategy to contribute to the delivery of the Europe 2020 strategy and to the achievement of economic, social and territorial cohesion.

Taking into consideration that Saint Martin has a waste facility that’s been operational for the past ten years, it would be in the best interest of the population to seek cooperation with the French side.

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11 United States Environmental Protection Agency, report Solid Waste Management: A Local Challenge with Global Impacts.
2.2 Waste Management on Aruba

Parkietenbos Landfill and Container Park Facility has been Aruba's official landfill site since the 1960's. The landfill has undergone several important structural changes during the recent years. The facility is structured in two main deposit sections, the Container park and the Landfill. The two main sections are subdivided according to specially designated waste materials sections for recycling and environmental purposes. Residents dispose their waste at the container park. Companies, non-profit organizations, hotels etc., are to dispose of their waste at the landfill.

In March 2002 the Government of Aruba introduced the Emergency Action Plan (EAP) for their landfill "Parkietenbos & Container Park facility". The EAP was created to address their growing landfill and waste management problems. In 2004 the Government of Aruba started the public bidding process of the future waste management facility. Companies were requested to submit plans to design and build a modern waste management facility and upgrade the landfill.

The financing of the future waste management facility was done through Fondo Desaroyo Arubano\textsuperscript{12} (partially funded by the Aruban government and Dutch development aid) The American company Bouldin Corporation of McMinnville won the bid in 2005 for $ 15.5 million. Its subsidiary WastAway Services, which specializes in recycling, constructed their first international WastAway system in the Caribbean. The Aruban project, which included design, manufacture, construction, and start-up, took two years to complete. An additional benefit of the WastAway technology is that residents of Aruba do not have to sort their garbage, as the WastAway process eliminates the need for costly and time-consuming garbage segregation. The company recycles approximately 50% of Aruba solid waste stream instead of sending it to landfills, this does not include commercial waste.

In 2004 the government Aruba started the process to privatize its waste management company SERILMAR. The main priorities of the semi government owned waste management company are, to keep the community clean and healthy. By ensuring a responsible, service-oriented and efficient way to implement activities in the field of waste collection, prevention and processing waste.

2.3 Waste Management on Curacao

In 1974 the government of Curacao established an independent government agency named "Servisio di Limpiesa Kòrsou (SELIKOR). Curacao had two landfills, Koraal specht which became operational in 1974, and the Malpais landfill which was opened in 1985. The Koraal specht landfill was closed in 1989. The following year, the government of Curacao opened the "Koraal specht waste transfer station", which is used as an intermediary waste depot. At the transfer station, there are two storage towers located and two compactors. When the storage towers and the compactors are full they are transported to and emptied at the landfill. The main purpose of this transfer station is to save time in transportation and to function more efficiently.

Besides landfilling waste, Curâçao makes use of an Incinerator. The Curacao Incinerator Company (CIC) destroys special and hazardous waste in a specially designed incinerator. One of the benefits of waste

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\textsuperscript{12} On May 15, 2000, the Government of Aruba and the Netherlands, signed a protocol for the development cooperation beginning in the year 2000. Source Department of Economic Affairs, Commerce and Industry of Aruba.
incineration is that potential soil and groundwater contamination is avoided, subsequently preserving public health. Incineration also reduces the amount of waste filled land.

In 1996 the SELIKOR was privatized. Through the years SELIKOR NV has grown from a government waste collection agency to the largest and most experienced waste management company on the island of Curaçao, using some of the most modern equipment and facilities in the Caribbean.

2.4 Waste management on St. Kitts & Nevis

St. Kitts and Nevis is an independent federation within the British Commonwealth. St. Kitts and Nevis are both large islands (68 and 36 square miles, respectively). The combined population of the federation is estimated at 46,111 with 34,930 in St. Kitts and 11,181 in Nevis. The overall management of solid waste in St. Kitts is controlled by the St. Kitts and Nevis Solid Waste Management Corporation (SWMC).

The per capita waste generation rate for St. Kitts is 2.08 kg/person/day\(^3\). For Nevis, the per capita rate is 1.52 kg/person/day. The slightly higher rate in St. Kitts may be due to the greater influence of long-term tourism. Solid waste collection and disposal services cover essentially 100% of the population on both islands. Private collection services account for approximately 75% of industrial, commercial and institutional (ICI) waste collection services in St. Kitts. The rest is handled by the public collection system.

In 2014 the government of Nevis signed off on a project that will see a waste to energy (gasification) facility constructed for USD 20 million on the island in partnership with Baltimore, Maryland based renewable energy firm, Omni-Alpha. The partnership will also see the construction of a solar energy farm by Omni-Alpha to support the waste to energy plant and ensure the constant delivery of some 2.250 Megawatt hours (MWh) of power per year to the electricity grid on Nevis. Prior to the start of the project Omni-Alpha conducted several extensive studies on the waste data from 2011 up to 2013, they concluded that there is a sufficient amount of waste to support a one megawatt generator which is roughly 25 tons per day.

3. Cooperation with the municipality of Amsterdam

The municipality of Amsterdam and Sint Maarten have work agreement dating back to 2004 and have continued their cooperation since 2010, when Sint Maarten attained the status of a separate country within the Kingdom of the Netherlands. The final cooperation agreement was signed in 2013 and runs until 2017. The cooperation between Amsterdam and St Maarten focuses on: Human resource, Public housing, Waste management and Environment, Labor, Education and Renewable energy. The Netherlands and Austria, have the best waste management program in Europe\(^4\). The report graded the 27 EU Member States against 18 criteria such as total waste recycled, pricing of waste disposal, and violations of European legislation. These countries all have comprehensive waste collection systems, landfill less than 5 percent of their waste, have well developed recycling systems, sufficient treatment capacity, and they perform well with biodegradable waste.

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\(^3\) Pan American Health Organization.

\(^4\) European commission report “screening of waste management performance of EU member states” 2012.
4. The International Convention for the Prevention of Pollution from Ships (MARPOL)

Taking into consideration that Sint Maarten relies much on (cruise) tourism, the SER reviewed the impact of the MARPOL convention\textsuperscript{15}. MARPOL is the main international convention covering prevention of pollution of the marine environment by ships from operational or accidental causes.

The Convention includes regulations mainly six technical Annexes. Special Areas with strict controls on operational discharges are included in most Annexes. Sint Maarten has ratified annex I and II\textsuperscript{16}.

- Annex I regulates the prevention of pollution by oil (established on 2\textsuperscript{nd} October 1983).
- Annex II regulates the control of pollution by noxious liquid substances in Bulk (established on 2\textsuperscript{nd} October 1983).
- Annex IV prevention of pollution by garbage from ships (established on 31\textsuperscript{st} December 1988) strict detailed pollution standards are applied to the discharge from ships in Special Areas. Annex IV of the convention specifically addresses the discharge of solid waste.

Sint Maarten has regulated the collection of waste from the cruise ships through a concession agreement which was mandated by government. The harbor selects the contractor to execute the services and dumps the garbage on the Pond island landfill. A total of one truck is allowed per vessel.


Small Island Developing States (SIDS) are a distinct group of developing countries with very specific social, economic and environmental vulnerabilities such as high population density, relative isolation, limited availability of land space and lack of human and financial resources. This limits the range of possible options for the sound management of waste. Waste management is a serious environmental problem for SIDS, more significant than for many other countries.

Islands such as Dominican Republic, Jamaica, Barbados, the Bahamas, Belize, Trinidad and Tobago, Dominica, Guyana, Grenada, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines, Suriname and Antigua and Barbuda are classified as SIDS.

Below is an overview of waste management characteristics of the SIDS.

\textsuperscript{15} \url{http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx}

\textsuperscript{16} Government department of Civil Aviation, Shipping and Maritime Affairs
• Uncontrolled scavenging.
• Regular burning being an integral part of disposal site management as limited cover material was used. (Sometimes due to poor compaction and presence of bulky items placed on the disposal site, internal combustion resulted and fires burned over long periods of time causing a public hazard);
• Dumps are poorly located around the country.
• Weak legal and regulatory framework. (few strategies or policies in place).
• Inadequate management of hazardous waste.
• Low public awareness of waste management issues.

The Dutch Caribbean Overseas Countries and Territories (OCT’s) Curacao, Sint Maarten, Aruba and Bonaire, Saba and Sint Eustatius as ‘special’ municipalities of the Netherlands can also be considered SIDS.

The waste management systems in the French OCT’s Saint-Barthelemy, Saint Martin, Martinique and Guadeloupe are in good condition. They are maintained to the high EU standards which they are required to follow by law.

6. Cooperation with other ministries.

In order to carry out a comprehensive advice, the SER requested cooperation from several stakeholders in the waste management sector. The Ministry of Public Health Social Development and Labor, mainly the department of Collective Prevention Services and Public Health department, the Ministry of Tourism, Economic Affairs, Traffic and Telecommunication, the department of Civil Aviation, Shipping and Maritime Affairs and the Ministry of General Affairs, the department of Interior and Kingdom Relations were very cooperative and assisted the SER to the best of their ability.

The SER is of the opinion that a collaboration with The Ministry of Public Housing, Spatial Planning and Environment (VROMI) during the research phase could have been more successful. The SER did receive the answers to its questions, however the board is of the opinion that vital information was still missing. For example, (e.g. Terms of reference of the future waste-to-energy facility, feasibility study, recent engineering studies, environment impact studies etc. on waste management. Taking into consideration that valuable information (data) is lacking to compile a more elaborate advice, see hereunder based on the abovementioned a solution of the waste management problem on Sint Maarten.

Conclusion

The SER compiled this advice based on the findings mentioned above and information received, the SER took the following into consideration:

• Saint Martin has an exemplary Integrated Solid Waste Management system. The focus is on waste prevention, recycling and composting, combustion and disposal in a properly designed, constructed, and managed landfill.
• The islands of Curacao, Aruba, and St. Kitts & Nevis all have made waste management a priority and are on the right path in dealing with the challenges in waste management.
• As is the case in the SIDS, the collection, transport and proper disposal of waste remains a challenge, due to lack of standards inadequate skilled manpower implementation of waste
management activities have been constrained; for e.g. the operation of the landfill has been hampered by insufficient trained manpower.

- Various surveys show that the effects of landfill fires have a negative impact on the health of the residents on the entire island.
- Sint Maarten has a signed agreement with the city of Amsterdam and should resume cooperation in the area of waste management.
- Sint Maarten has the highest municipal solid waste that is generated in kilograms per capita per day: 9.7 kilograms.
- Sint Maarten has limited land space to create a new or second landfill location.
- Various types of waste streams are dumped on the landfill. There is no segregation of waste and the waste is covered with sand.
- With the exception of the year 2015, the government spends an average of Naf 2,400,000 on the management of the Pond island landfill.

<table>
<thead>
<tr>
<th>Budget year</th>
<th>Cost Management Landfill (Beheer stortplaats) (NAf)</th>
<th>budget country Sint Maarten 2013 -2016</th>
</tr>
</thead>
<tbody>
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<td>2013</td>
<td>2,351,880</td>
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Source: budget country Sint Maarten 2013 -2016
To the Ad Interim Minister of Public Housing, Spatial Planning, Environment and Infrastructure
The Prime Minister
Mr. Marcel F.A. Gumbs
Government Administration Building
Clem Labega Square
Philipsburg, June 3rd, 2015

Our reference: SER/15/DCB/019

Subject: Request information VROMI

Honorable Prime-Minister Gumbs,

We kindly request your attention for the following:

The Social Economic Council (SER) is currently drafting an unsolicited advice for the
Government of Sint Maarten on waste management.

In order to carry out a comprehensive advice, the SER wishes to collaborate with the Ministry of
Public Housing, Spatial Planning and Environment (hereafter: VROMI) on above-mentioned
advice.

Despite our efforts to meet with VROMI, we were informed that the meeting could not be held
due to the confidential nature of this topic. We were requested to direct all questions on waste
management to the Minister. As Prime Minister and Ad Interim Minister of VROMI, we kindly
request your office to accommodate the SER’s request in setting a date for a meeting with our
Council and providing the SER with all relevant information in connection with the advice that is
being prepared on waste management.

We have attached a list of eight questions, which we believe, if answered, will give the SER
better insight in the topic. In anticipation of our meeting with VROMI, the questions were sent to
the department.

Kindly bear in mind that we base this request on article 20 of the SER National Ordinance¹.

We trust to have informed you sufficiently herewith and thank you in advance for your kind
cooperation.

Sincerely,

Oldine V. Bryson- Pantophlet
Chairwoman

Gerard M.C. Richardson
Secretary-General

¹ Article 20 National ordinance Social Economic Council “the government shall provide the Council with all information
required by the Council in connection with its advice, unless, in the view of the government, this is contrary to the national
interest”
SER questions in connection with the proposed new waste management facility for Sint Maarten.

1. Have any other locations been considered as a second location for a landfill?

2. Can you provide an update on any past or future plans concerning the construction of solid waste management facility?

3. Which studies were performed with regard the pollution created by the landfill and the health of the population? Can the SER receive copies of these reports?

4. The landfill is situated in the middle of the Salt Pond, what are the consequences for the Salt Pond?

5. Has any research been performed / are there any reports that indicate any (feasible) alternatives to a landfill?

6. What costs are associated with the alternative to the landfill be?

7. Is export of waste a likely solution and what would be the economics of waste export?

8. Has the government of St. Maarten met with the French Side to discuss a potential partnership/collaboration on waste management?
To the Ad Interim Minister of Public Housing, Spatial Planning, Environment and Infrastructure
The Prime Minister
Mr. Marcel F.A. Gumbs
Government Administration Building
Clem Labega Square

Phillipsburg, August 18th, 2015

Our reference: SER/15/GR/042

Subject: Reminder for request of information VROM!

Honorable Prime-Minister Gumbs,

We kindly request your attention for the following:

As you may know the Social Economic Council (SER) is currently drafting an unsolicited advice for the Government of Sint Maarten on waste management.

On June 3rd, 2015, we submitted a letter to your office attached with a list of eight questions. Unfortunately we never received a response to our letter.

For the sake of convenience we have attached our letter dated June 3rd, 2015 and the list of questions. We look forward to your response at your earliest convenience.

We trust to have informed you sufficiently herewith and thank you in advance for your kind cooperation.

Sincerely,

Oldine V. Bryson- Pantophlet
Chairwoman

Gerard M.C. Richardson
Secretary-General
To the Minister of Public Housing, Spatial Planning, Environment and Infrastructure
Mr. Angel Meyers
Government Administration Building
Clem Labega Square
Philipsburg, December 10th, 2015

Our reference: SER/15/GRI/092

Subject: Request information VROMI

Honorable Minister Meyers,

We kindly request your attention for the following:

The Social Economic Council (SER) is currently drafting an unsolicited advice for the Government of Sint Maarten on waste management.

In order to carry out a comprehensive advice, the SER wishes to collaborate with the Ministry of Public Housing, Spatial Planning and Environment (hereafter: VROMI) on above-mentioned advice.

In the past few months our efforts to meet with VROMI were unsuccessful, we were informed that the meeting could not be held due to the confidential nature of this topic. We were requested to direct all questions on waste management to your predecessor. Our questions were sent to the Prime Minister and Ad Interim Minister of VROMI, requesting his office at the time to accommodate the SER’s request in setting a date for a meeting with our Council and providing the SER with all relevant information in connection with the advice that is being prepared on waste management.

For the sake of convenience we have attached our previous letters dated June 3rd, August 16th, September 24th, 2015 and the list of questions. The list of questions we believe, if answered, will give the SER better insight in the topic. In anticipation of our meeting with VROMI, the questions were sent to the department.

Kindly bear in mind that we base this request on article 20 of the SER National Ordinance.

We trust to have informed you sufficiently herewith and thank you in advance for your kind cooperation.

Sincerely,

Dwight Williams
Vice Chairman

Gerard M.C. Richardson
Secretary-General

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1 Article 20 National ordinance Social Economic Council "the government shall provide the Council with all information required by the Council in connection with its advice, unless, in the view of the government, this is contrary to the national interest"
Enclosed: - SER letter dated June 3rd 2015 ref SER/DCB/019  
- SER letter dated August 18th 2015 ref SER/GR/042  
- SER letter dated September 24th 2015 ref SER/GR/049

SER questions in connection with the proposed new waste management facility for Sint Maarten.

1. Have any other locations been considered as a second location for a landfill?

2. Can you provide an update on any past or future plans concerning the construction of solid waste management facility?

3. Which studies were performed with regard the pollution created by the landfill and the health of the population? Can the SER receive copies of these reports?

4. The landfill is situated in the middle of the Salt Pond, what are the consequences for the Salt Pond?

5. Has any research been performed / are there any reports that indicate any (feasible) alternatives to a landfill?

6. What costs are associated with the alternative to the landfill be?

7. Is export of waste a likely solution and what would be the economics of waste export?

8. Has the government of St. Maarten met with the French Side to discuss a potential partnership/collaboration on waste management?