



V . R . O . M . I

Ministerie van Volkshuisvesting, Ruimtelijke Ordening, Milieu & Infrastructuur
Ministry of Public Housing, Spatial Planning, Environment & Infrastructure

Waste Forum

No time to waste

Moderated by: Mr. Jan Beaujon



REPORT



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Summary Forum “No time to Waste”

May 31, 2018

Introduction

On May 31, 2018 the Ministry of VROMI organized a forum with stakeholders to inform and discuss one of the main issues that need an urgent solution after hurricane Irma. The waste situation has been a burden for several decades, but now there is consensus that this is the right moment to solve the waste issue in a sustainable way. The Ministry of VROMI prefers to share several ideas and approaches with stakeholders, thus, numerous key entities were invited so all parties can work together in reaching a sustainable short-and long-term solution.

The honorable Minister of VROMI, Mr. Miklos Giterson, welcomed all attendees by expressing the need for cooperation and finding creative ideas to solve the waste issues.

The SG of VROMI, Mr. Louis Brown, made the introduction to the forum and it was moderated by Mr. Jan Beaujon. The forum consisted of several presentations made by professionals in the area of waste management or related areas, which was followed by questions and answers and some discussion on the topics presented. It should be noted, that all the presentations were made to illustrate points of view and possibilities for solutions in the respective areas, and were from the account of the presenters, to stimulate discussion on the topics presented during the forum. The contents of the presentations do not reflect any position taken by the Government of Sint Maarten or the Ministry of VROMI.

A. PRESENTATIONS

The following persons made presentations:

- Mr. Claudius (Toontje) Buncamper, head of the department of Infrastructure Management - VROMI.
- Mr. John Morton, waste expert from World Bank (USA)
- Mr. Jeroen Kuipers and Jeroen Steenbrink, Office of the Public Prosecutor
- Mr. Roel van de Loo, consultant from SPPS Consultants (NL)
- Ms. Candia Joseph, Country Manager SOAB

1. Mr. Claudius (Toontje) Buncamper

Mr. Buncamper gave an overview of the history and the initiatives of the landfill over the last decades. His main conclusion is that the government over the years has failed to give enough attention and means to deal with the waste problem. To spend only 0,5% of the government budget on management of the landfill is simply not enough for a professional and sustainable waste disposal solution. In addition, the introduction of a levy was thus far, politically not feasible. Therefore, it was never possible to obtain adequate equipment, enough soil covering material and professional management. The result is the challenges we face today and the consequences are alarming. Hurricane Irma made it very clear that some drastic measures are necessary.

Mr. Buncamper has identified various directions for a solid waste disposal solution:

1. Close the present landfill, place a final cover on it with gas discharging pipes and start a **new landfill** in for example the old quarry at Hope Estate with proper regulations and introduce legislation for such.
2. Execute a Waste to Energy Plant with participation of **GEBE** and **Government**.
3. Sort, reduce, reuse and recycle everything either in partnership or as government alone and ship all remaining residues and recycled products and materials **off island** so that there will be no more landfill.
4. Work with the **French side** to accept all our waste so we have no more landfill.



All options have multiple benefits and a combination of these options is possible.

After explaining these options, Mr. Buncamper ended his presentation with the following recommendations:

- Invite the company Envirogreen to present its Waste to Energy proposal.
- Set up a Waste Authority
- Establish a (new) Waste Ordinance
- Start a waste segregation process and limit access to the landfill with registration.
- Start recycling at the curb with the assistance of the Netherlands with special bins and vehicle donation and St. Maarten Recycling NV. Use shredders to reduce volume.
- Make budget amendments to handle the landfill until a new tender can be carried out
- Review the usage of air burners to be provided by local contractors
- Start awareness programs
- Execute programs to give incentives to residents and businesses.

2. Mr. John Morton

Mr. Morton gave an overview of the Debris Removal Project, "Debris Management and Cash for Work." The Debris Removal Project (short term) has already been decided upon and has been prepared for execution in the last few weeks. The World Bank is close to signing the grant agreement with St. Maarten government for management of the 'Irma debris'. Technical assistance is being mobilized to provide the background studies to help prepare a long-term solution that would subsequently be proposed for financing to the steering committee (and potentially be leveraged with other financing).

The main objective of the project is to support Sint Maarten's recovery through clearance and management of debris, temporary employment of vulnerable populations and improved planning for recovery after natural disasters. The goal is also to reduce the number of incidents on the landfill and ship out recovery and salvaging. The project costs are roughly € 15 million. The execution will start right after approval of the Steering Committee (scheduled for June 12, 2018).

The project contains:

- Debris collection-hauling (past contracts-retroactive financing);
- Debris collection-hauling (new): establish new technical specifications with separation and safety enhancements; finance collection contracts;
- Debris clearance: through similar mechanism as cash for work program; through awareness; incorporates vector control;
- Ship out recovery and salvaging: finance recovery and breakdown of ships; establish improved procedures and rules for the future;
- Processing and final treatment-disposal of debris;
- Infrastructure and equipment: for onsite processing, treatment and disposal where possible;
- Service contracts: for processing using temporary facilities or for off island processing, treatment or disposal;
- Reorganization and upgrading of disposal site;
- Project management

For the long-term solution, Mr. Morton informed the attendees about a general model with key elements the WB uses in similar cases. The model is based on the following steps:

1. Legal framework
2. Planning
3. Regulation
4. Financing



5. Outreach

All components are interconnected to each other, so it is important to analyze what administrative, contractual, technical and financial model is best suitable for Sint Maarten. Obviously, awareness is a key factor for success in every model.

Mr. Morton concluded his presentation by expressing the need for continuation of the discussion with stakeholders as done in this first forum.

3. Mr. Jeroen Kuipers and Mr. Jeroen Steenbrink

The Prosecutor's Office presented their findings in "the Integral approach". According to the analyses, the dump is decades beyond its expiry date and emits constant emissions of toxic gasses that lead to constant damage to people's health. Measurements have already proved the presence of toxic gasses like methane, dioxins, heavy metals and PAC's as early as 2007. There is severe danger from non-stop chemical processes within the dump's core. The frequent fire incidents total 18 so far in 2018 and have a serious impact on society. These incidents result in an extreme health hazard for emergency personnel and workers on the dump. Besides these health issues, the situation portrays an appearance of organized crime. The waste contractor continuously fails to meet the Terms of Reference (contractual obligations) causing risk of explosions and possibilities of landslides or caving in of the landfill. In short, the situation is deteriorated.

The prosecutor's office described the following goals:

- Stop the damage-crime the dump incurs on people's health;
- Stop the damage-crime the dump incurs on the environment;
- Stop the (undermining) criminal activities relating to the dump;
- Increase awareness with regard to waste;
- Contribute to a sustainable solution for the waste problem on the island.

The idea is to start a process in two steps:

1. Investigation into the facts, followed by a criminal investigation so the facts prove that criminal offences have possibly occurred. The first phase contains identifying all waste streams and separating fact from fiction. Start with finding out cold, hard, facts, to learn what exactly is going on at the dump. An assessment of the legal roles and responsibilities are part of the fact-finding process. By establishing internationally acknowledged emission standards, they idea is to draw a red line in to what is acceptable and what is not.
2. The final step is to assess possible criminal liabilities. The analyses will be done in cooperation with Police, Fire department, inspection VSA, inspection VROMI and stakeholders in society. The results will be shared as well. The final goal is to organize pressure to reach real change.

4. Mr. Roel van de Loo

Mr. Van de Loo presented the results of the Waste Situation Quick Scan conducted on Sint Maarten, Saba, Sint Eustatius and the French side of the island. The goals of the Quick Scan are to analyze the waste situation on Sint Maarten, determine the proper direction for a sustainable solution and identify the possibilities for cooperation with Statia, Saba and the French side. The Quick Scan was financed by the Dutch Ministry of Infrastructure and Water Management (I&W) upon request of Ministry BZK.

The main conclusions of the Quick Scan are that:





- The situation on Sint Maarten is severe and out of control;
- The landfill on Saint Martin is under control and can continue the regular operations;
- The islands of Saba and Statia are interested in a future cooperation.

The Quick Scan describes the main causes that have hindered a solution thus far:

- Strong belief in a solution at no additional public costs;
- Respected international companies that could join the tender process consider the conditions (100% financing, mining) and the timeframe (25 years) as a very high-risk investment;
- Thus far, solutions always require huge capital investment;
- Thus far, no political will to introduce levy;
- Unacceptable high electricity rates for GEBE.

The Quick Scan gives the following recommendations to change the approach and follow a path that will lead to a sustainable solution:

- 1- Waste management comes with a price tag. It is impossible to find a solid solution at no costs, considering the fact that Sint Maarten is an island and transportation of any product, or waste, is costly;
- 2- Waste and Energy are two different issues. However, energy production can be part of waste solution.
- 3- Consistent governance is the key; it is in essence not a technical problem;
- 4- Cooperation between other islands and/or entities seems feasible;
- 5- Starting point: Recycling. This means that some waste streams can be relatively easy to recycle on the island (for example yard waste);
- 6- For any long-term solution it is important to comply with EU regulations;
- 7- Introduce a waste levy.

The Quick Scan recommends working in three phases: ultra-short term activities, short-term activities and long-term activities. The advice is to start with these phases at the same time.

Ultra short-term activities are (between now + 9 months)

- Appoint Project Manager
- Start sorting and measuring at the dump
- Improve quality of data
- Access control and security dump
- Purchase equipment for shredding and handling
- Install bins in districts for 3 categories
- Removal debris off island

Most of the mentioned activities are covered by the World Bank proposal, so that is an excellent start.

Short-term activities (between now + 12 months) are:

- Renew landfill contract
- Waste legislation implemented
- Install water pumps
- Install eNoses for monitoring Air Quality
- Start recycling facility
- SWOT analyses of previous solutions
- Awareness program

The long-term activities are (between tomorrow + 48 months):



- Establish a waste authority;
- Final solution is most probably a sober Waste-to-energy facility, with an acceptable tariff for GEBE. Check if the removal of the existing dump is feasible; if not: make final cover plan;
- Only proven technology and transparent (procurement) process;
- Determine non-profitable portion that could be covered by Dutch recovery Fund and/or low interest loan;
- For the cooperation between other islands and French side: establish a steering and working group, resulting in a Letter of Intent. The final goal is a cooperation agreement between the parties that wish to cooperate;
- Start tender process for the Waste to Energy Plant;
- Implement waste levy at the right moment.

Many of these recommendations are mentioned in other presentations as well, but there are a few differences in approach.

5. Ms. Candia Joseph, SOAB

The presentation of Ms. Joseph endorses the previous presentations about the seriousness of the situation. The research that SOAB has done focuses of the organizational aspects of waste management and advises to have the following vision:

- Establish a Waste Authority and implement a Waste Fee to contribute to the costs of waste management;
- Take waste management on St. Maarten to another level by further professionalizing and coordinating it. It is proposed to achieve this by:
 - organizing waste management more independently in a limited liability organization with a sole focus on waste management;
 - ensuring that waste management is properly funded, where the producer of waste actively contributes to its management; and
 - establishing partnerships with various entities to deal with the various phases of waste management;
- More professional, progressive, service-oriented, focused and coordinated approach to all phases of waste management in St. Maarten. A unified appearance with qualitative services.

The benefits of an independent organization are:

- More independent decision-making that is economically, socially and environmentally beneficial to St. Maarten;
- More accountable and transparent approach, where roles, responsibilities, rules and targets can be clearly defined;
- Sustainable financing mechanism for waste management:
 - Funds collected will go directly to waste management initiatives and operations → financial independence for the Waste Authority
 - Waste fee can result in cost-savings for the government → will not (directly) burden the government's budget
 - Can eventually contribute to the government coffers through concession and/or dividend;
- Opportunities for collaboration with other waste management entities and public-private partnerships;
- Opportunity to define and distinguish between the roles of the policy developer, the regulator and the operators.

SOAB made a comparison between the situation on Sint Maarten and on Curacao. On Curacao, an independent government company Selikor is handling the waste situation professionally and cost effectively. The start of Selikor in 1996 was not easy, but became more successful over the years. The inhabitants of Curacao also pay the levy implemented by the government and not Selikor directly. A key issue was the collection of fees; this needs more attention.

Mrs. Joseph advises to start a transition process to change the organization on Sint Maarten. The island should consider the option to establish a separate waste authority that gradually takes over a few tasks that are currently under VROMI-management.

The waste authority can have the following responsibilities and tasks:

- Solid Waste Collection
- Solid Waste Treatment and Disposal (e.g. *Sorting, Recycling, MRF, Landfill, Incineration, etc.*)
- District Cleaning
- Sewage Collection
- Sewage Treatment and Disposal
- Waste Management Awareness & Education
- Infrastructure (?)
- Waste Management Policy, Legislation & Regulation (?)
- Monitoring & Enforcement (?)



The stakeholders of the waste authority are Government (Ministry of VROMI, Ministry of VSA, and Ministry of Finance), GEBE NV for invoicing and collection, Contractors for outsourced services, Environmental groups, Private sector initiatives and International Waste Management Authorities and Entities.

In order to reach the goal of establishing a waste authority the next steps are necessary:

- Establish a National Waste Management Policy & Plan;
- Determine true costs of waste management activities in order to establish fees;
- Adapt or introduce legislation to align with policy and include fees;
- Establish Authority, determine roles and responsibilities of all stakeholders involved, clearly assign, and mandate.

The key success factors are to focus on a holistic approach underwritten by policy, legislation and institutional framework. Obviously, enough expertise, knowledge, technology and a sustainable financing mechanism are essential.

B. CONCLUSIONS

CONSENSUS

1. There is a strong consensus that Sint Maarten should change the narrative towards waste management and develop a new narrative (perhaps a mix of various narratives) to identify the vision forward. This was also strongly supported by the Dutch Ministry of BZK and the SER.
2. Separation and recycling of waste should find its start, and it should start at the household level in order to be better managed once it reaches the landfill. This should reduce toxins and fires and eventually lead to recycling. All attendees of the Forum understand and support that sorting and recycling is the starting point for the sustainable solution of the waste issue. This will entail possibly 60% of the total waste stream, which means that we have to find a solution for 40% mixed household- and businesses waste (and hazardous streams). In time, this 40% can become lower with more separation at the source, based on broad community and business support.
3. Legislation needs to be drafted in order to encourage waste reduction. The focus can start with legislation on single use plastics and foam (there are many positive outlets from a legislative perspective).
4. There were no comments made on the introduction of the waste levy.
5. Education activities need to be implemented via education entities and public awareness campaigns to change the mindset and behavior of the waste producers. We have no time to waste!
6. Identify the financial aspects tied to the low lying fruit solutions or methods of approach in order to determine what is most immediately feasible or be able to measure whether an activity is to be considered short, medium or long term. In principle, all attendees agree that this is a crucial moment



to solve the issue; don't waste a crisis. The matter is urgent, the funds are available, and so it comes down to dedicated governance.

7. There is a need for data collection and management
8. Way forward: All attendees wish to join any follow-up meeting regarding this issue.

POINTS OF DISCUSSION

1. One of the presenters suggested continuing with an existing proposal (Envirogreen), because this plan is ready and can be implemented immediately. Another presenter suggested starting over with a different starting point (maximum recycling and possibly a "sober" waste to energy plant capacity). A lot of information is available, so a waste strategy and necessary actions, combined in a Waste Implementation Plan (WIP), could be published within a couple of months.
2. Long-term solution for the 40% mixed waste: some attendees have strong negative feelings about an incineration treatment facility that treats waste as a source of energy. They are concerned of pollution and toxic fumes.
3. Some participants are concerned with the idea to import waste from other entities or countries. They are of the opinion that our waste problem is so great that we should not import waste from other areas.
4. Some participants are concerned with the proposed location, in the event of a thermal combustion (incinerator and Waste to energy) on Pond Island. Pond Island should be redeveloped as a beautiful location that can attract tourism and beautify Philipsburg.
5. Export of waste to other countries, instead of importing it, should also be investigated.
6. It is essential that stakeholders are aware of the scientific facts about the environmental and health impact of landfills and state of the art treatment facilities.
7. There is also discussion and doubts about the possibility of landfill mining at the current landfill. It is suggested that the caloric value of the buried garbage may be depleted because of the years of continuous burning that has already occurred and furthermore question if the mining will be financially feasible or cost effective. It might be better to simply remediate the dumpsite and place a final cover, and create a park (or something of that nature) rather than mining the waste at cost.

OTHER SUGGESTIONS

1. EPIC will start with an organic program for compost or other reuse of organic biomass. Any support is more that welcome.
2. GEBE emphasized that they will contribute to a solution, if the solution is in the line with the general vision and goals of GEBE.
3. The representative from the Dutch Ministry of BZK supports the process that has been started by this forum and suggests to continue in this direction. The Dutch Ministry is committed to contribute to any solution that is based on the principle of, "Build Back Better."
4. Similar waste forums moving forward should be an integral part of, and provide input into the technical assistance to prepare the long term solution.

