



SINT EUSTATIUS
CARIBISCH NEDERLAND
Directorate of Economy, Nature & Infrastructure



INVENTORY IAB COMPANIES SINT EUSTATIUS

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SUMMARY

The Ministry of Infrastructure and Water Management is preparing the introduction of a new environmental legislative framework on Bonaire, Sint Eustatius and Saba (hereafter: the BES-islands). Part of the framework is to establish general binding rules for companies with a moderate environmental impact (type II companies). Companies with a higher environmental impact due to their activities have an obligation to apply for a permit to operate (type III or type IV). These regulations are defined in the so called "*Inrichtingen en Activiteitenbesluit BES*" (Establishments and Activities Decree, IAB-BES). The IAB-BES makes it possible for the individual Islands to set specific general binding rules in an Island Ordinance. Every Island is different, and the Island can define their own specific environmental standards within the general framework of the IAB-BES.

The goal is to have the IAB-BES and the Island Ordinance enter into force in the second quarter of 2022. The IAB (and Island Ordinance) will impose requirements on the businesses that may require investments. Prior to this moment, Sint Eustatius has decided to execute a baseline study to assess the consequences of the introduction of the new regulatory framework for type II companies.

SPPS Consultants, in cooperation with Unit Licenses, Supervision and Enforcement, has executed this study. This report clarifies what the "gaps" are between the existing situation and the new regulations and determine the costs for the companies in order to comply with the requirements of the IAB. This baseline study also suggests an implementation timeframe and an advice for the organization and other conditions for a successful implementation.

Results

- The inventory makes clear that on Sint Eustatius 91 companies Type II are operational.
- Most companies have one or more non-compliances, based on the new IAB-BES, for mainly air emissions, fire safety and wastewater treatment.
- The total investment to make the companies compliant with the new regulations is estimated at \$ 1.089.150. This figure includes improvement of the wastewater situation by installing septic systems according to the regulations.
- The main investments are necessary at:
 - Construction companies (7x): \$ 254.250 (average of \$ 36.321);
 - Car workshops (18x): \$ 363.850 (average of \$ 20.214);
 - Gasoline stations (2x): \$ 66.200 (average of \$ 33.100).
- All other companies need to invest an average of roughly \$ 6.000 to comply with IAB and Island Ordinance regulations.

The report also contains a few advises about the following issues:

- Adjustments of the draft regulations (IAB and Island Ordinance)
- Timeframe for implementation of the measures.
- The content of the Implementation Plan.

1. INTRODUCTION

The Ministry of Infrastructure and Water Management is preparing the introduction of a new environmental legislative framework on Bonaire, Sint Eustatius and Saba (hereafter: the BES-islands). Part of the framework is to establish general binding rules for companies with a moderate environmental impact (type II companies). Companies with a higher environmental impact due to their activities have an obligation to apply for a permit to operate (type III or type IV). These regulations are defined in the so called "*Inrichtingen en Activiteitenbesluit BES*" (Establishments and Activities Decree, IAB-BES). The IAB-BES makes it possible for the individual Islands to set specific general binding rules in an Island Ordinance. Every Island is different, and the Island can define their own specific environmental standards within the general framework of the IAB-BES.

A Type I company has very limited impact to the environment. Type II can have an environmental impact and needs to notify the activities to the Island ("*melding*"). Only for Type III a permit is necessary. This means that 95% of the companies do not need to apply for an environmental permit, but only need to comply with the IAB-BES and the Island Ordinance. This regulatory system replaces the current Hindrance Ordinance.

The goal is to have the IAB-BES and the Island Ordinance enter into force in the second quarter of 2022. Prior to this moment, Sint Eustatius has decided to execute a baseline study to assess the consequences of the introduction of the new regulatory framework. The IAB (and Island Ordinance) will impose requirements on the businesses and may require investments. A so-called baseline measurement is needed to map the current level of protection of the companies and to see which facilities and implementation timeframe can reasonably be required of the companies.

Goal of the study

Carrying out the IAB baseline inventory for Type II companies in cooperation with the Unit Licenses, Supervision and Enforcement. The study clarifies the "gaps" between the existing situation and the new regulations and determine the costs for the companies in order to comply with the requirements of the IAB. For this study, the Licenses, Supervision and Enforcement Unit (part of the Directorate of Economy, Nature and Infrastructure), has drawn up a list of companies.

Results

A research report with the following content:

- the current level of facilities of the Type II companies;
- the level of ambition that must be considered achievable for the companies with reference to the regulations as defined in the IAB;
- the basic protection level that can be included in the Island Ordinance;
- the costs for businesses to be able to comply with the level of protection as defined in the IAB and (draft) Island Ordinance;
- proposal for the timeframe(s) in which the companies must comply with IAB.
- The researchers have added an advice for the content of the Implantation Plan.

All company visits are recorded in the “Digital Checklisten” system. A complete Digital checklist database is part of the inventory and has been achieved within the set timeframe.

This report contains three separate appendices:

- Financial model (excel sheet)
- Database companies from DC (in system)
- Advice for adjustments of requirements to be included in the first draft of the Island Ordinance (document). Both draft Island Ordinance and the advice on the draft in this report will be discussed with OLE soon.

The inventory was executed from the end of August until the end of September 2021 on Sint Eustatius.

2. APPROACH AND METHODOLOGY

The following methodology was used to execute the study:

1- *Determine list of companies*

- The existing list of companies provided by the Chamber of Commerce, adjusted by the Unit, was used and updated during the visits. Some companies on the list do not have any environmental impact (f.e. offices) and are marked in the Digitale Checklists as "Type I company" or removed from the list because they cannot be considered as a company with environmental impact as defined in the IAB-BES.
- The visits were executed per category/sector, to insure that alle companies were assessed equally with comparable results.

2- *Define relevant issues per type of company.*

- The relevant environmental issues per type of company based on the applicable regulations in the IAB and draft Island Ordinance are described. These regulations were used as input for the Digital Checklists. Since this regulatory framework is not implemented yet, it is necessary to adjust the checklists once the framework is legally into force.

3- *Visit companies*

- During the visits, the research team has visually checked every company.
- The relevant data of every visit were manually processed in the digital checklist within two days after the visit.

4- *Analyses of main non-compliances per type of company and estimations of costs involved per "gap"*

- The estimation of costs involved to solve the non-compliances was based on key figures of the installment of certain equipment and other necessary adjustments. The research team has made certain assumptions of the expected costs (see chapter 3).

5- *Report of the study*

- The report of the study contains all results as previously described.
- An up-to-date database is provided to OLE, the Ministry of I&W and Rijkswaterstaat (RWS).
- The report contains advices for the reasonable timeframe (per type of company) suggestions for adjustments of the draft Island Ordinance and the content of the Implementation Plan.

3. RESULTS AND FIGURES

This chapter contains the overall figures, general observations and a summary of the main “gaps” per type of company at an aggregated level.

3.1 Total figures and analyses

- The original Chamber of Commerce/Unit database contained 166 companies.
- Roughly 50% of the construction companies do not have a workspace. These companies are registered as Type I company in the Digital Checklists database.
- Roughly 80% of the home-rental companies only rent-out apartments or houses (therefore without the presence of a reception and/or a pool and/or restaurant/bar/kitchen). These companies are registered as Type I company in the Digital Checklists database.
- The companies with zero impact to the environment (f.e. nursery for plants) are registered as Type I companies.
- The list was completed with 8 companies that were not registered and/or operating illegally, based on the following definition for a business: activity with environmental impact with financial transfer from clients to the company.

3.2 Total number of companies and general observations

The inventory results in the following figures per category of company Type II (according to IAB-BES) for Sint Eustatius:

	Type II category companies operating	#
A	Super/mini market	11
B	Bar & Restaurant & snack bar	29
C	Car repair shops and car wash	18
D	Construction	7
E	Hotel	7
F	Laboratory	2
G	Chicken farm	4
H	Laundry	1
I	Hardware	4
J	Gas station + propane filling station	2
K	Diving school	2
L	Closed gas stations	2
M	Bakeries	2
	TOTAL	91

Notes

- Some restaurants and hotels were closed. It was not possible to visit these companies but are still listed in the Digital Checklists database.
- Not-registered (illegal) companies are also included.

- Some companies have two activities and were originally recorded as two separate companies. In this inventory these companies are combined to two activities within the same company.

General observations

- Wastewater is mostly treated with a soak away. 95% of the companies use this. There are three companies that use a truck or have a biofilter system (helophyte). Costs for improvement of the soak away system towards a three-trap system is also estimated. The Ministry of Infrastructure and Water Management has initiated a separate project, within the framework of the implementation agenda of the Nature and Environment Policy Plan (NEPP) to establish efficient and effective waste water treatment for households and companies combined and will use the data from this study as input.
- Although the technical requirements for electrical installations are not included in the IAB-Island Ordinance, the costs for improvement of the electrical systems are estimated and used as input for the overall estimation of costs.
- In general signs and warnings are missing. This is not incorporated in the calculations due to very limited investments in order to comply with the regulations.
- Good housekeeping is used in the calculations as a onetime disposal fee in cases with lots of waste at the premises.
- Costs for soil cleaning in cases with contamination are estimated, but not part of the overall calculations since it is not a requirement within the IAB-BES and Island Ordinance legislative framework.
- Costs for government tasks are not calculated but will be substantial in terms of number of inspections, enforcement and communications for the implementation of the IAB.

3.3 General "gap" analyses per type of company

A. Supermarkets

- Fire extinguishers are present, but sometimes old and not checked (sticker not present).
- Good housekeeping is an issue in some cases.
- A few supermarkets have a kitchen available for personal use, not always clear.
- *Investments: limited.*

B. Bar & Restaurants

- Exhaust is without heat extractor and in most cases horizontal directly outside. This is not compliant with the draft regulations. It is unclear how these regulations work out in the monumental area upper town; this issue needs special attention in the Implementation Plan.
- Fire extinguishers are present, but sometimes old and not checked (sticker not present).

- Wastewater treatment only in few cases with a grease-trap.
- Wastewater in most cases soak away only.
- One restaurant with truck offload of septic (recently installed).
- Some soak away facilities do not function (blocked/full).
- Waste cooking oil is collected by a dedicated collector in 98% of the companies.
- Good housekeeping outside and inside is an issue in 50% of the cases.
- Noise might be an issue in some cases.
- Safety stickers absent.
- Electricity connections in 30% of the cases not compliant.

- *Investments: mainly septic facilities and heat extractors.*

C. Car repair shops and car wash

- Fire extinguishers are present, but sometimes old and not checked (sticker not present).
- Wastewater only in a few cases with a grease-trap, in most cases soak away only.
- Good housekeeping outside and inside is an issue in 100% of the cases.
- Electricity connections in most cases not compliant.
- Activities above non liquid proof floor.
- No liquid proof sealed floor.
- Open air spraying without facilities (2 exemptions).
- Waste oil storage and fuel storage without leak and soil protection, not fire resistant.
- Storage of hazardous goods in containers or inside the property not according to the draft regulations for soil protection, ventilation and safety.
- Soil pollution in most cases.

- *Investments: substantial investments in all environmental issues. Mainly soil cleanup, investments in liquid proof floors, safe storage, fuel tanks, roofs, filters and major cleanup of all the areas.*

D. Construction companies

- Fire extinguishers are present, but sometimes old and not checked (sticker not present).
- Septic only in few cases with grease-trap, in most cases soak away only.
- Good housekeeping outside and inside is an issue in 100% of the cases.
- Electricity connections in most cases not compliant.
- Activities above non liquid proof floor.
- No liquid proof sealed floor.
- Waste oil storage and fuel storage without leak and soil protection, not fire resistant.
- Storage of hazardous goods in containers or inside property.
- Soil pollution in most cases.

- *Investments: substantial investments in all environmental issues. Mainly soil cleanup, investments in liquid proof floors, safe storage, fuel tanks, roofs and cleanup of all areas.*

E. Hotels

- One hotel is compliant.
- One hotel has a direct effluent to the sea (from laundry).
- Two hotels have an unclear wastewater situation.
- Wastewater soak away in most cases.
- There is one hotel with 5 septic tanks with truck offload.
- Grease traps installed in two cases.
- Swimming pools are frequently monitored by the companies (couple of times a week). The Inspection department also checks the water quality with regular samples.
- *Investments: mainly septic facilities.*

F. Laboratories

- One laboratory according to the regulations, one laboratory has an issue with waste treatment, waste storage and waste removal.
- Good housekeeping is an issue at one company.
- Storage of hazardous materials without leak facility.
- Soil pollution in one case.
- *Investments: for waste removal, soil pollution and storage.*

G. Chicken farms

- Number of animals is limited and far below the number of animals as mentioned in the IAB-BES.
- No environmental issues.
- *Investments: limited.*

H. Laundry

- No dry-cleaning, so only wastewater issue with soak-away.
- No environmental issues.
- *Investments: limited.*

I. Hardware stores

- Inside and outside storage of materials.
- Fire warnings and signs not present.

- No environmental issues.
- *Investments: limited.*

J. Gas station + propane filling station

- Fire extinguishers are present, but sometimes old and not checked (sticker not present).
- Septic only soak away, no oil-grease traps installed.
- Good housekeeping outside and inside is an issue in one case.
- Electricity connections in most cases not compliant.
- Activities above non liquid proof floor.
- No liquid proof sealed floor.
- Waste oil storage and fuel storage without leak and soil protection, not fire resistant.
- Soil pollution.
- Installation and pipes not according to specs.
- Emergency stops not present.
- *Investments: substantial investments in all environmental issues. Mainly soil cleanup, investments in liquid proof floors, installation, emergency stops and cleanup of the area.*

K. Diving schools

- In general, according to regulations.
- *Investments: limited.*

L. Closed gas stations

- Two not-operating gasoline stations with underground tanks and installation.
- *Investments: substantial for removal or dismantle tanks and installation.*

M. Bakeries

- Exhausts not compliant.
- One case with wastewater overflow of soak away facility.
- In general, according to regulations.
- *Investments: limited.*

4. FINANCIAL IMPACT

The financial impact of the implementation of the IAB-BES legislation is based on the following assumptions:

- A. Every non-compliance is registered in the Digital Checklist database;
- B. Estimated unit prices for certain measures (local rates);
- C. M² prices for certain measures;
- D. Issues like good housekeeping at costs for the companies but estimated with two figures (regular cleanup at zero costs, substantial cleanup for \$ 2.000 or \$ 10.000);
- E. Costs for collecting and treatment at costs for government.

Estimates are made for the costs of all the necessary investment on Sint Eustatius. Some investments are calculated by using the costs of similar investments in the Netherlands, added with 100% (for shipment, organizing and higher costs for installment). Obviously, the actual amount per case can vary and depends on the current status and size of the company.

A. Unit prices for certain measures

- Exhaust/heat extractor: \$ 2.000.
- Septic (incl replacement for soak away): \$ 5.000.
- Grease trap: \$ 500.
- Fire extinguishers: \$ 100 x 6 = \$ 600.
- Fire checks: \$ 100 annually (needs to be organized by government).
- Leak preventing measures: \$ 500.
- Electric system upgrading: \$ 1.000.

B. M² prices for certain measures

- Repair liquid proof floor: \$ 50 per m².
- Install liquid proof floor: \$ 200 per m².
- Soil cleaning: \$ 200 per m³

C. Specific measures

- Install spray room, pressure control system and filters: \$ 10.000.
- Install emergency stop: \$ 10.000.
- Ventilation storage rooms: \$ 500.
- Storage chemicals floor: \$ 1.000.
- Storage rooms fire resistant: \$ 2.500.
- Piping improvements: \$ 5.000.
- Filling equipment: \$ 2.500.
- Overfill protection: \$ 5.000.

D. Issues like housekeeping at costs for companies

- General cleaning of premises (at zero costs).
- Removal of wrecks, tires, etc (\$ 2.000 for car workshop or \$ 10.000 for construction companies).

E. Costs for collecting and treatment at costs for government.

- Removal of wrecks, tires, etc.
- Collection and treatment of waste from companies.

These estimations of the costs are used as input in the attached excel sheet. These calculations can be adjusted when more accurate figures are available.

The total investment is estimated at **\$ 1.089.150**. This figure includes improvement of the wastewater situation by installing septic systems according to the regulations.

The investments for soil cleaning at the locations of the construction companies, car repair shops and laboratories are estimated at **\$ 1.084.050**.

The main investments are necessary at:

- Construction companies (7x): \$ 254.250 (average of \$ 36.321)
- Car workshops (18x): \$ 363.850 (average of \$ 20.214)
- Gasoline stations (2x): \$ 66.200 (average of \$ 33.100).

All other companies need to invest an average of roughly \$ 6.000 to comply with IAB and Island Ordinance regulations (draft).

To implement the IAB the government needs to invest in extra capacity for drawing up an Implementation Plan, inspections, enforcement and a communication program. These costs are not part of the financial analyses but will be substantial. The Ministry of I&W will support this Implementation Plan with extra capacity and knowledge.

5. ADVICE TIMEFRAME

The advice for a timeframe for Sint Eustatius is compared with the agreed timeframe in Bonaire (see table).

Measure	BON timeframe	Suggested EUX timeframe
Septic tank	< 5 years	< 5 years
Liquid proof Floor	< 2 years	< 2 years
Greasetraps Bars and restaurants	Immediately	< 1 year
Storage hazardous materials	Immediately	< 6 months
Avoid dust and odour bars and restaurants	Immediately	Immediately
Install exhaust	-	< 1 year
Noise from compressors	Immediately	Immediately
Waste separation	< 3 years	Immediately
Fire equipment and checks	Immediately	Immediately
Oil separators at gasoline stations, car repair and construction	< 2 years	< 2 years
Energy saving	< 2 years	NA

Compared to Bonaire there are a few minor differences with the situation on Sint Eustatius. It is for example already possible to separate waste in different categories, since this collection system is already operational.

6. ADVICE DRAFT ISLAND ORDINANCE

A separate document contains suggestions for adjustments of the draft Island Ordinance for Sint Eustatius.

The main points of advice are related to the following issues:

- Add proper installed electricity in the regulations (NEN) or make clear in which Degree or Ordinance these regulations are defined.
- Store non-working vehicles only inside a building or on a liquid proof floor.
- Spraying only allowed in a dedicated room for companies and residents.
- Less general regulations for spraying: make it a *maatwerkbesluit*. It is only relevant for two to four companies.
- Liquid proof floors should be according to BRL 7700 standard or similar.
- Add an enforcement strategy when non-compliances are not solved within a limited timeframe with pre-defined penalties.
- Large scale bakeries are not present on the island. No specific regulations necessary.
- Avoid regulations that need laboratory research to check compliance (f.e. water quality tests).

7. ADVICE CONTENT IMPLEMENTATION PLAN

Based on the results of this study it is recommended to make an Implementation Plan to define the activities for the next couple of years.

The implementation Plan should contain different elements that reflect an integrated approach. All elements should be in place to guarantee an efficient and effective implementation of the new regulations.

Elements of the Implementation Plan:

- A. Legislation
- B. Planning
- C. Personnel
- D. ICT support
- E. Training and support
- F. Communication
- G. Monitoring
- H. Finances

Explanation per element

A. Legislation

- IAB and the Island Ordinance are published, both officially in Dutch and English.
- The process should involve the stakeholders in an early phase via direct meetings. To only organize an internet consultancy is not enough.
- Make a flyer for the stakeholders that explains - in an understandable language - what is required and what the planning is.

B. Planning

- Address all illegal companies and other illegal activities that new regulations will be implemented soon. These companies must decide: register as a company or dismantle the illegal activities. This will be inspected.
- Make a plan per category and start with the most complicated categories. These categories will also take a lot of time, but it avoids the impression that the main polluters are excluded.
- Visit all companies with the goal to make an individual plan. Give a clear guidance per company in writing when the company should comply with (part of) the regulations. Execute inspections every time a deadline passes.
- Organize clean-up capacity for the companies with housekeeping issues, can be part of the guidance per company.
- Make sure that the necessary environmental products are available on the Islands.

C. Personnel

- It is recommended to, at least temporarily, expand the inspection capacity to at least two FTE. This makes it possible to execute the Implementation Plan and

continue regular environmental inspection-work. SPPS suggests a minimum of two years, so that a “quick start” is possible. New regulations have to “settle” in the community, especially because there was not much attention for the basic environmental issues in the last decades.

- The legal capacity needs to be sufficient. However, much depends on good communications at the start of the project, so that legal procedures will be avoided as much as possible.

D. ICT support

- The Digital Checklist database is a useful tool for planning, registration and monitoring. As soon as it is possible to use the tool in the field (with 3G/4G connection to internet or an offline application) it is possible to work accurate and efficient. It can generate automated reports and letters. This will need some finetuning with the supplier.

E. Training and support

- On technical details for the environmental measures that are compliant with the regulations. This can be organized with long distance support from the Netherlands.
- A technical training for the inspectors in the Netherlands is recommended so they can see and feel what compliance with the regulations looks like in reality.

F. Communication

- An integrated communication plan in different phases is crucial for a successful implementation. It starts with general communications about the new regulations and timeframe and more specific later in the process.
- An up-to-date website with all relevant information, application forms and the possibility to bring in (anonymous) complaints.

G. Monitoring

- Twice a year a brief progress-report of the Implementation Plan will be published and sent to the Island Counsel Members and the Ministry.

H. Finances

- For extra inspection capacity.
- Training and (long distance) support.
- Membership Digital Checklists and support.
- Suggested training in the Netherlands for inspectors.
- Practical suggestion to get rid of the many car wrecks: start the next car wreck removal program 2.0: a company receives \$ 500 per wreck for a period of 3 months, \$ 250 after 3 months and after 6 months the company needs to pay \$ 100 for removal. Maybe the legal definition of “wreck” needs to be re-defined. With an estimation of 200 remaining wrecks the costs are \$ 100.000, but it saves a lot of work for the inspectors and legal procedures.

COLOFON

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