



A study on indicators to measure enforcement results

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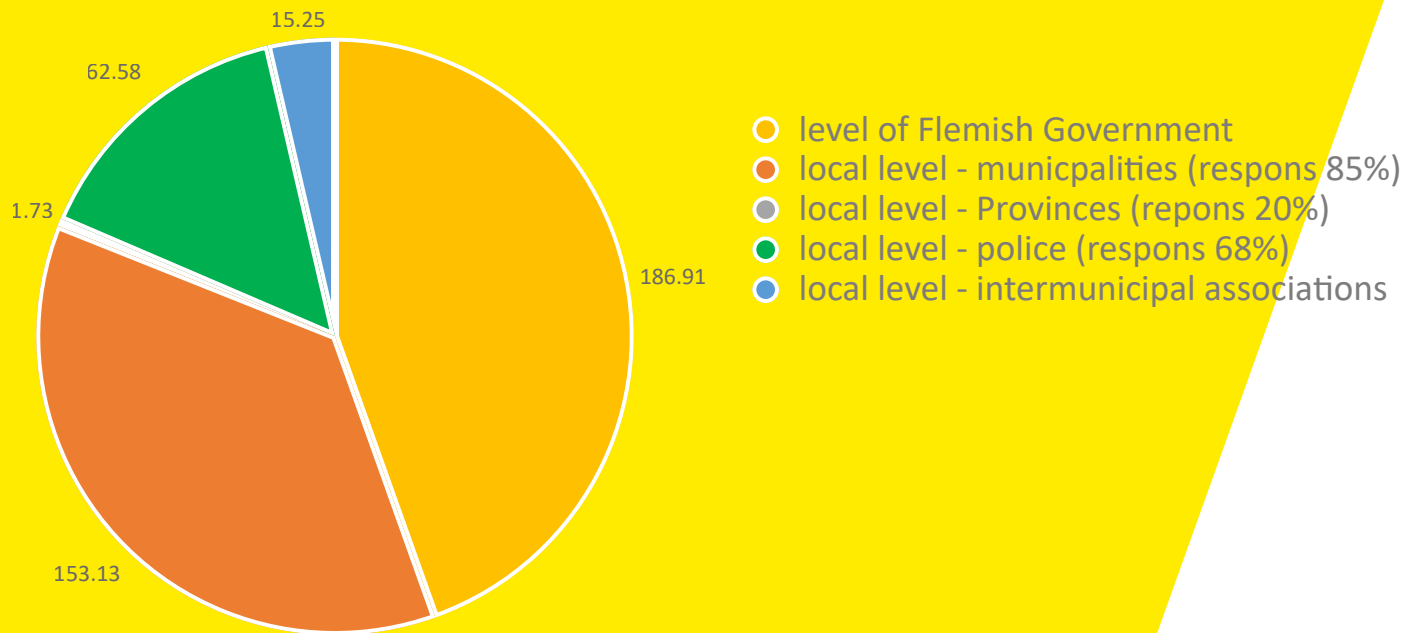
Policy Development and Legal Support Division of the Department of Environment and Spatial Development, Flanders

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**ENVIRONMENT
& SPATIAL
DEVELOPMENT**

4 Networks Conference 'Cooperation in strengthening environmental enforcement' – 28-29 September 2023



Inspection & Enforcement in Flanders



Inspection capacity (FTE) environment and spatial planning 2020

- Merging Environment and Spatial Planning
- Inspection and Enforcement Tasks divided between Regional level (Flemish Government) and Local level (Provinces, Municipalities, Police, Associations of Municipalities)
- Competences are very scattered at the Regional level (12 organisations involved)
- Administrative sanctioning at the Regional level and Criminal sanctioning at the Federal level (Belgian State level)

Regional Integrated Strategic Multiannual Inspection & Enforcement Program



OMGEVINGSHANDHAVINGS-
PROGRAMMA
2023

Vlaamse
overheid

omgeving.vlaanderen.be

Omgevingshandhavingsprogramma (2).pdf

- Established by decision of the Flemish Government – 16 december 2022
- Medium-term Policy guidelines for inspection and enforcement in Flanders
- Binding for the Regional level – Recommendation for the Local level
- Binding by
 1. **Inspection & Enforcement Policy Actions to achieve strategic and operational goals**
 2. **Environmental and Spatial Inspection & Enforcement Priorities related Actions**

1. Inspection & Enforcement Policy actions to achieve Strategic and Operational goals (SG/OG)

SG1: Create a good environment for current and future generations

- OG1: Also determine enforcement priorities from a regional perspective. Optimally align individual enforcement priorities in relation to seven regional enforcement priorities and implement them in an integrated manner
- OG2: Continu working towards an integrated approach to prioritisation at the regional level. To this end, adopt a macro risk analysis aligned with environmental policy objectives
- OG3: Further deploy the various enforcement strategies from a vision of compliance assurance. Deploy more on compliance promotion. Deploy more strategically on compliance monitoring. Commit immediately to remediation and punishment, where appropriate

SG2: Perform enforcement with purpose, effience and results

- OG1: Make operational choices to realize the inspection and enforcement priorities
- OG2: Use the right enforcement instrument in the right place
- OG3: Shorten the time lapse between the violation committed, the finding and termination thereof and the obtaining of recovery
- OG4: Deploy the administrative instruments of supervision, administrative measures and administrative fines
- OG5: Introduce new technological innovations in surveillance and detection

1. Inspection & Enforcement Policy actions to achieve Strategic and Operational goals (SG/OG)

SG3: Strengthening cooperation and commitment to transparency

- OG1: Strengthen integrative cooperation between different inspection services at the Flemish level
- OG2: Commit to cooperation with all actors involved
- **OG3: Adopt a clear vision of inter-governmental cooperation between the Flemish level and the local level**
- OG4: Develop a targeted communication policy on enforcement

SG4: Monitoring and digitalization of environmental and spatial enforcement

- OG1: Evaluate and report on policy through monitoring
- OG2: Commit to digitalization of enforcement

1. Inspection & Enforcement **Policy actions** to achieve Strategic and Operational goals (SG/OG)

29 inspecton & enforcement policy **actions** to achieve these 4 strategic and operational goals

► Example:

SG3: Strengthening cooperation and commitment to transparency

OG3: Adopt a clear vision of inter-governmental cooperation between the Flemish level and the local level

ACTIONS

Decretal adjustments are being implemented so that income from remediation measures flows back to the local government involved, to support local enforcement. Part of the income from administrative fine will be imposed on measures to support stronger local enforcement.

Intermunicipal or regional cooperations that contribute to regional enforcement priorities are facilitated.

The expertise in the Flemish government and practical tools regarding enforcement are made available to local authorities from one single point of contact and via one portal site and by means of training.

Cooperation between all enforcement actors in the field can be further strengthened through decentralized networks.

2. Environmental and Spatial Inspection & Enforcement

Priorities related Actions

1. Maintaining biodiversity
2. Reducing greenhouse gas emissions
3. Addressing nitrogen problems (including combating nutrient losses)
4. Addressing the drought problem
5. Enforcement as a function of sustainable management of material cycles and waste
6. Enforcing emission and quality standards for hazardous and bioaccumulable substances in water, air and soil
7. Preserving and restoring good spatial planning

2. Environmental and Spatial Inspection & Enforcement

Priorities related Actions

Dozens of inspection & enforcement **actions** be deployed under the priorities

Example:

Priority 3:

Addressing Nitrogen Problems (including combating Nitrogen losses)

Goal 3.1.: reducing of illegal Nitrogen emissions to the air

Actions:

- Agriculture: inspection of compliance with regulations regarding the conditions for the construction and operation of biological and chemical air scrubbers, priority listed techniques and housing systems; manure storage; manure application
- Manure processing: check of the operation of manure processing installations
- Industry and energy productions: checks on compliance with the emission limit values for conducted emissions of Nox and NH3 into the air

Indicators for monitoring the result of the Program and its various actions

What indicators do we have?

What indicators to be developed?
=> **study**

Conditions:

- Measuring both types of binding actions
 1. **Inspection & Enforcement Policy Actions to achieve strategic and operational goals**
 2. **Environmental and Spatial Inspection & Enforcement Priorities related Actions**
- Taking into account both indicators oriented to the action itself and its effect
- Taking into account effects on both the environment and the behaviour

Scope of study	Action-oriented indicators	Effect-oriented indicators	Effect on
Inspection&Enforc Policy Actions to achieve SG/OG	To be developed	Not in the scope	
Environment&Spatial Inspection&Enforc Priorities related actions	Existing	To be developed	Environment Behaviour

Study on behalf of the Departement of Environment and Spatial Development, Flemish Government, executed by Idea Consult (January 2022- July 2022) – available on demand



Action-oriented indicators

Monitoring and evaluation based on **INPUT – OUTPUT** indicators:

e.g.

- number of inspectors, FTE inspection capacity
- number of complaints by category, number of inspections by category
- number of initial inspections with findings of violations by category
- number of legal advices, number of exhortations
- number of official reports (administrative, criminal)
- number of administrative measures with and without penalties
- number of safety measures
- state of progress of administrative sanctioning, detailed by type, category, ... and of the appeals

Annual publication of the monitoring results on the website:

[Departement Omgeving | Omgevingshandhavingsrapportage \(vlaanderen.be\)](#)

Twice during every government cycle a more detailed report on the website:

[47164 \(vlaanderen.be\)](#)

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Action-oriented indicators

Example:

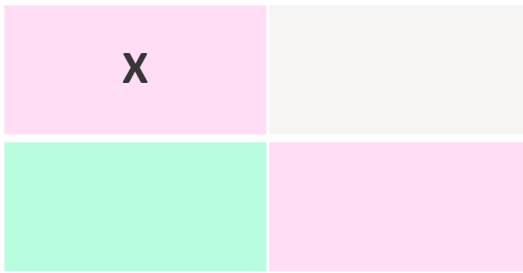
Omgevingshandhaving in 2022 in een notendop

Kies hieronder een weergave van de infographic

Bekijk voor milieuhandhaving

Bekijk voor ruimtelijke ordening



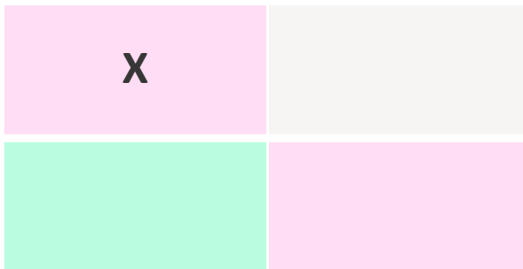


Action-oriented indicators

Monitoring and evaluation to check whether the policy is being implemented by all the actors involved and whether the commitments are being met by all those involved

- **Qualitative Evaluation:** the progress of each action from the start towards the intended realization(s) will be evaluated and reported twice during every government cycle (in the report). The study proposes a scoring system for the measurement:

Score	Evaluation	Explanation
0	Not existing / not started yet	
1	Implementation started	Targeted initiatives / changes done in preparation for implementation
2	Advanced implementation	Implementation initiatives broader and coordinated / structured feedback within the organization
3	Ended / embedded	Ended and embedded. Possible next steps have been determined



Action-oriented indicators

- **Qualitative Evaluation:**

is needed for EACH action and for EACH intended realization of the action (actions are often multilayered)

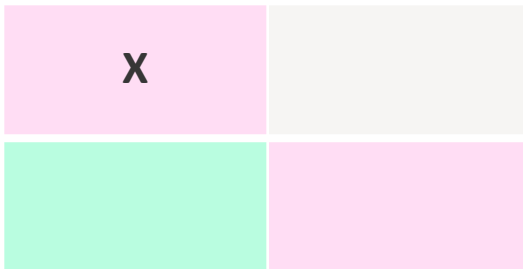
to be done by EACH organization involved (self evaluation)

afterwards a collective self evaluation is executed in order to:

1. refine the qualitative self evaluations and find common ground
2. define a global score for all organizations together, for publication

- **Quantitative Evaluation:** quantitative indicators are defined for some actions

A list of all policy actions of the Program with **intended realizations** +



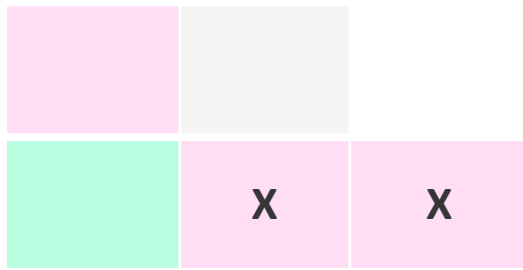
Action-oriented indicators

Example:

SG3: Strengthening cooperation and commitment to transparency

OG3: Adopt a clear vision of inter-governmental cooperation between the Flemish level and the local level

ACTIONS	INTENDED REALIZATIONS	QUANTITATIVE INDICATORS
Decretal adjustments are being implemented so that income from remediation measures flows back to the local government involved, to support local enforcement. Part of the income from administrative fine will be imposed on measures to support stronger local enforcement.	decree adjustments in response to the return of income from recovery to local level are implemented accompanying measures or subsidies to strengthen local enforcement financed with income from fines	
Intermunicipal or regional cooperations that contribute to regional enforcement priorities are facilitated.	Inspection & Enforcement actors at the regional level develop a vision about their relationship and cooperation with local Inspection & Enforcement actors (and include this in their individual plans) Inspection & Enforcement actors actively facilitate intermunicipal or regional collaborations that contribute to regional priorities	Number of joint (pilot) projects initiated for local enforcement of regional priorities, facilitated by regional Inspector & Enforcement actors per year Number of participating municipalities/administrations
The expertise in the Flemish government and practical tools regarding enforcement are made available to local authorities from one single point of contact and via one portal site and by means of training.	The Flemish government sets up structured support to municipal authorities (portal site & training courses) The Flemish government is developing a portal site with information and tools	Number of courses offered and participants (per year) Number of annual visitors
Cooperation between all enforcement actors in the field can be further strengthened through decentralized networks.	Inspection & Enforcement actors actively facilitate the start-up and functioning of decentralized networks for cooperation between all Inspection & Enforcement actors	Number of started by regional Inspection & Enforcement actors / facilitated functioning decentralized networks Number of participants in the networks



Effect-oriented indicators

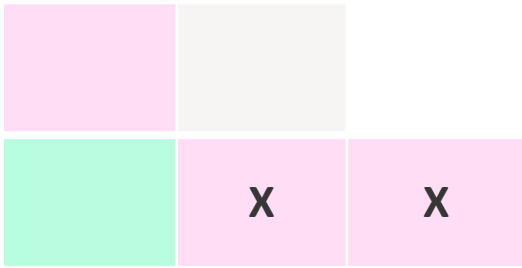
SCOPE of the study: effects on the environment that result DIRECTLY from the actions taken by the organizations

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calculating the **direct contribution** of inspections, awareness-raising actions and remediation measures in relation to the environmental priorities goals

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it is **not about** the broader effect of inspection and enforcement actions on the environment (**OUTCOME**). The state of the environment is monitored regularly. Deterioration and improvement are studied, but as they are the result of the entire policy cycle (a combination of policy & legislative initiatives, permit decisions, inspection & enforcement actions) and of other contextual factors, it is almost impossible to monitor and evaluate the share of inspection and enforcement actions in the observed deterioration or improvement.



Effect-oriented indicators

Approach:

e.g. inspection & enforcement action related to **priority 5: Enforcement as a function of sustainable management of material cycles and waste**

Option 1:

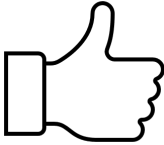
First step: calculate the effect of a specific action in the waste sector on the priority goal e.g. number of kg waste that as a result of this specific action has been processed correctly (instead of illegal)

Second step: do the same for all the separate actions in year 20xx and make the added total for that year

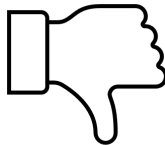
As a result: the effect of these actions by the organization involved, executed in the year 20xx, can be expressed as the number of kg waste that as a result of the organization’s efforts have been processed correctly (instead of illegal)

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 consuming

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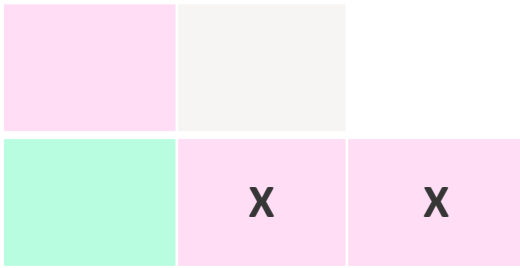


accurate



time

limited



Effect-oriented indicators

Option 2:

First step: calculate the effect of all actions of the organization during year 20xx on the behaviour using intermediate behavioural indicators e.g. compliance rate: the number of inspections with findings of violation compared to the total number of inspections in the waste sector

(intermediate behavioural indicator: # inspections with findings / # inspections)

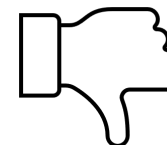
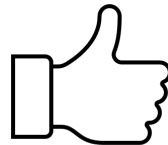
Second step: make an assumption of the average size order of the number of kg waste involved when a violation is found. The assumption should be based on a one-time exercise using a statistical relevant dataset; afterwards multiply the total number of inspection with the intermediate behavioural indicator and the assumed average

*(# inspections * intermediate behavioural indicator * average number of kg waste when violation)*

As a result:

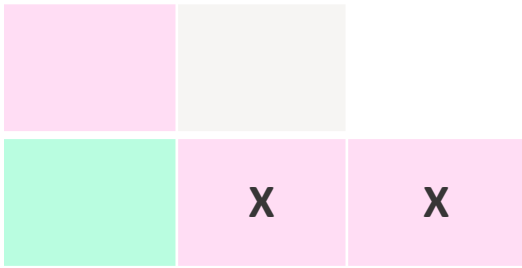
the effect of these actions by the organization involved, executed in the year 20xx, can be expressed as the number of kg waste that as a result of the organization's efforts have been processed correctly (instead of illegal).

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one-time exercise

assumptions



Effect-oriented indicators

Summary Approach

Inspection & enforcement
Action



Effect on the
behaviour



Effect on the
environment



Outcome

Input-Output indicators:

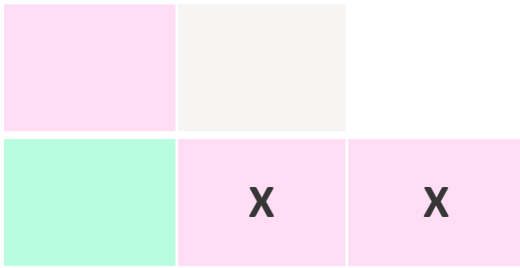
- Number of inspections
- Number of companies inspected
- ...

- Effect-oriented indicators behaviour:
- Compliance rate
 - Remediation rate
 - Sanctioning rate
 - Recidivism rate
 - ...

- Effect-oriented indicators environment:
- **Negative** effect: number of violations * (average) number of kg of waste
 - **Positive** effect: calculation of remediation measures using key figures

Outcome indicators:

- Air quality
- Water quality
- ...



Effect-oriented indicators

Example:

Priority 3:
Addressing Nitrogen
Problems (including
combating Nitrogen losses)

amount of nitrogen (expressed in a relevant unit, e.g. kg) that was removed from the air through enforcement actions

amount of nitrogen (expressed in a relevant unit, e.g. kg) that was removed from the water through enforcement actions

A list of all the priorities related actions of the Program with **effect-oriented indicators for environment + for behaviour** has been published as attachment 6 of the Program: Bijlagen bij het Omgevingshandhavingsprogramma (2).pdf

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Feasibility & Opportunity



Feasibility

Set up of data collection is major criterium for feasibility; this was estimated in the study:

categories + time schedule

- Data available, calculation method known and applicable
- Data and calculation method known but collection and processing still to be set up
- Data not available, collection needs a preparative adaption of the data system
- Not feasible

Opportunity

Opportunity/Priority/Timeline currently estimated as part of an overarching prioritization exercise for all the policy actions of the Program

Thank you for your attention

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TACKLING PFAS POLLUTION

SAVE THE DATE
1 and 2 February 2024
Convention Center Vestar in Antwerp

- Tackling PFAS pollution through a pro-active and systemic approach
- Launch Knowledge Center Innovative Remediation Techniques

EU Presidency 2024