

ASSESSMENT OF THE CHEMICALS ACTION PLANS OF THE BALTIC SEA REGION - FINDINGS AND RECOMMENDATIONS FROM NONHAZCITY AND NONHAZCITY2 PROJECTS

2021



EUROPEAN
REGIONAL
DEVELOPMENT
FUND



NONHAZCITY

Authors:

Ingrīda Brēmere, Baltic Environmental Forum-Latvia
Daina Indriksone, Baltic Environmental Forum-Latvia

With contributions from:

Audrone Alijosiute – Paulauskiene, Baltic Environmental Forum-Lithuania
Eva Kruse, City of Vasteras, Sweden
Fee Widderich, Baltic Environmental Forum – Germany
Heidrun Fammler, Baltic Environmental Forum-Germany
Heli Nommsalu, Baltic Environmental Forum-Estonia
Hannamaria Yliruusi, Turku University of Applied Sciences, Finland
Marve Virunurm, The City of Parnu, Estonia
Malgorzata Macniak, Polish Forum ISO 14000
Normunds Vagalis, Riga City Council, Latvia
Poļina Ļeškoviča, Riga City Council, Latvia
Robert Pochyluk, eko-net.pl, Poland
Susanna Grystad, City of Vasteras, Sweden
Anne Lagerquist, City of Stockholm, Sweden



This document was developed within the frame of the project „Capitalizing key elements of NonHazCity: empowering private and professional users for better risk management and use reduction of chemical products in their cities“ (NonHazCity2, project nr. X006) funded by Interreg Baltic Sea Region Programme 2014-2020.



The content of the this document reflects the authors views and the Managing Authority cannot be held liable for the information published by the project partners.

© Baltic Environmental Forum-Latvia
Antonijas 3-8, LV-1010, Riga, Latvia

© Graphic design: Baltic Environmental Forum-Latvia
Riga, 2021

Contents

List of abbreviations.....	4
Introduction	5
1. Chemical Action Plans: potential to activate and involve stakeholders.....	6
1.1 The Riga CAP	7
1.2 The Parnu CAP	8
1.3 The Vasteras CAP	8
1.4 The Turku CAP	8
1.5 The Gdansk CAP.....	8
2. Benchmarking for the CAP assessments	9
2.1 Assessment results in the frontrunner municipality: Stockholm	9
2.2 Reflection on the CAP activities by stakeholders at the NonHazCity2 municipalities	10
2.3 Highlights from the benchmarking assessment	11
3. Anchoring of CAPs at NonHazCity2 municipalities.....	12
3.1 Monitoring of implementation the CAPs.....	12
3.2 Activities for boosting knowledge on chemicals	12
3.3 Addressing chemicals at municipalities	13
3.4 Campaigns on chemicals.....	13
4. Anchoring of GPP at NonHazCity2 municipalities	14
4.1 Monitoring of implementation of GPP	14
4.2 Green Procurement Guidelines in Hamburg	15
4.3 GPP criteria for furniture in Vasteras and Turku	15
4.4. Guide to the inclusion of environmental criteria in public procurement in St. Petersburg	16
4.5. Obstacles and barriers to fulfil chemical requirements in purchases	16
5. Assessment of CAPs using indicators	17
5.1 NonHazCity2 indicators	17
5.1.1 Institutional framework	18
5.1.2 CAP outreach.....	18
5.1.3 Boosting knowledge on chemicals	19
5.1.4 Imposing chemicals requirements in purchases	20
5.1.5 Assessing the chemical related information	21
5.1.6 Phasing out of harmful chemicals	21
5.1.7 Campaigns related to chemicals.....	22
5.2 Indicator based evaluation of CAPs at the municipalities: Vasteras, Parnu, Riga	23
5.3 Indicator based evaluation of CAP implementation in Riga	23
5.4 Applicability of indicator-based evaluation approach.....	24
6. Recommendations to foster implementation of CAPs and application of GPP at municipalities.....	25
Annex 1. CAP evaluation by indicators	26

List of abbreviations

CAPs	Chemical Action Plans
EU	European Union
FCM	Food contact materials
GPP	Green public procurement
HS	Hazardous substance
NonHazCity	Interreg Baltic Sea Region project “Innovative management solutions for minimizing emissions of hazardous substances from urban areas in the Baltic Sea Region” (2016-2019)
NonHazCity2	Interreg Baltic Sea Region extension project “Capitalizing key elements of NonHazCity: empowering private and professional users for better risk management and use reduction of chemical products in their cities” (2019-2021)
PCB	Polychlorinated biphenyl
PP	Public procurement
PVC	Polyvinyl chloride
SMEs	Small and medium-sized enterprises
SVHC	Substances of very high concern

Introduction

The municipal Chemical Action Plans (CAPs) have been one of the main outputs of the preceding Interreg Baltic Sea Region project “Innovative management solutions for minimizing emissions of hazardous substances from urban areas in the Baltic Sea Region” (NonHazCity) being implemented during 2016-2019. The flagship NonHazCity has developed CAPs for several Baltic Sea region cities, regions, and municipalities, paving the way to a more sustainable management of chemicals in the region.¹ These plans are strategic documents which gather all measures taken in the municipality to derive, justify, compile, and coordinate all municipal activities related to the targeted reduction of hazardous substances.

However, the existence of such a document does not guarantee the implementation of CAPs. Adequate organisational structures must be developed to exert long-term effects. Assessing whether municipalities succeed with the implementation or not was a challenging task assigned for the extension project NonHazCity2 (2019-2021), conducted against the baseline of the elaborated CAPs by the partner cities. Evaluation of results of the information gathering was looked from different perspectives:

- The CAP as a promising tool to reduce the uses of products containing hazardous substances at municipalities
- Assessing the level of recognition of the CAPs and its effectiveness, and its potential to activate and involve stakeholders
- The process of anchoring CAPs and GPP measures into municipal procedures
- Supporting further implementation of the CAPs by assessing obstacles and barriers, finding solutions for typical situations, and making the proposed measures working in a long-term perspective

This publication is developed with contribution from the NonHazCity project partners to the assessment of implementation of the CAPs and application of green public procurement (GPP) procedures at municipalities. Continuous monitoring of the on-going implementation of CAP measures and the use of GPP was performed and reflected by filling the information templates and reporting at the project partners meetings.

¹ EU Strategy for the Baltic Sea Region Action Plan; SWD(2021) 24final, Brussels, 15.2.2021, https://ec.europa.eu/regional_policy/sources/docoffic/official/communic/baltic/action_15022021_en.pdf

1. Chemical Action Plans: potential to activate and involve stakeholders

Chemical Action Plans (CAPs) are recognized as a structured approach for prioritization of measures to reduce hazardous substance (HS) release through progressive actions taken within the municipality organization. These structured efforts are initiated by showcasing of HS problems at municipal operations, e.g., monitoring the substances, mapping their sources, and investigating effects in the environment. Having substantial sources of evidence at hand, the municipality experts have a solid basis to seek for a political support to the problem solving and present the structured plan for practical activities in different focus areas, e.g., increasing the knowledge basis by educating stakeholders and informing the public, providing guidance to municipal entities for HS reduction options and substitution of chemical products, establishing collaboration between departments. Subsequent implementation of CAP activities is aimed to result in achieving the targets on gradual HS elimination at operations by the city (e.g., to achieving an aim on a non-toxic city environment). The process is cyclic by its essence, and periodic evaluation and analysis of success in implementation takes place to prepare a ground for upgrade of an existing CAP and opening new focus areas for actions to take (Figure 1.).

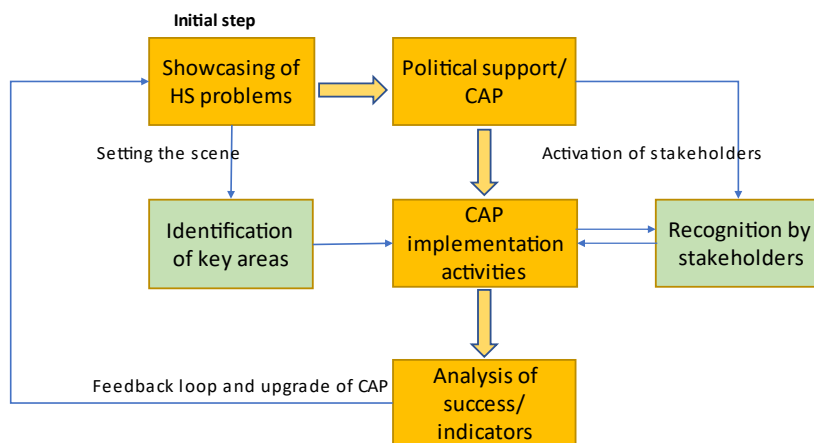


Figure 1: Structured approach to CAPs for actions to reduce HS release at municipalities.

The City of Stockholm is seen among the frontrunner municipalities in contribution to the work towards a non-toxic environment. Building an understanding among stakeholders about the importance of the matter has resulted in a politically accepted and adopted document – CAP, and everyone knows that this is the political will of the city management. A long-term vision and objectives are incorporated and concrete actions for implementation in a shorter time are identified.

Approach by the City of Stockholm was taken as a background to the **NonHazCity project**. The aims were to share experience from Stockholm and to develop CAPs in other municipalities at the Baltic region. The key principle was individual approach to municipalities and no default CAP was made to fit all in terms of strategies and activities in these plans. Each participating municipality has developed its own CAP based on respective environmental status, organization, activities, etc.

Chemical Action Plan (CAP) at the City of Stockholm

The start of the action plan was the vision of the non-toxic Stockholm. It was a local adaptation of a national environmental objective for the non-toxic environment. The first Chemicals Action Plan (2014-2019) was created by the background of development on a national level and targets incorporated in the environment program at the municipality. A set of previous projects at the municipality have developed the knowledge about hazardous substances in Stockholm. The second Chemicals Action Plan (2020-2023) focuses on the environmental objective – a non-toxic environment that has been developing through the years and was used as an inspiration in developing the CAP. There have been several projects to enhance the understanding of important substances locally: the major sources for release of these substances into the environment, and the mitigation options of these emissions.

Focus of the **NonHazCity2 project** was on implementation of the CAPs at municipalities. To succeed in bringing to life the practical setting, one must unfold the potential to activate and involve stakeholders for activities. This can be a challenging task which relates to a set of **framework conditions** supporting or hindering success for implementation of CAP at the municipality. Gaining of political support and acceptance of the document – CAP may take longer time. Thus, the planned activities may be adopted on expert level to incorporate into their daily routine (Figure 2). However, in least favourable conditions the scope of CAP implementation may be limited to certain type of activities only.

Supportive	<ul style="list-style-type: none">• National regulation and/or environmental objectives are boosting the local CAP implementation• Support from local politicians• Coordination and working group on CAP established
Partly supportive	<ul style="list-style-type: none">• CAP is not (yet) made as an administratively binding document• CAP implementation is supported at the departments level• Departments are informed about CAP and its activities
Non-supportive	<ul style="list-style-type: none">• No obligation and/or intention to formalize CAP• CAP used for informative purposes only

Figure 2: The traffic light for the level of recognition of the CAP at a municipality

CAPs at the project partner municipalities have been established within the NonHazCity project and an overview on the Baltic cities Chemical Action Plans is available: (<https://thinkbefore.eu/en/information-materials/>). These plans contain actions within different areas to address the chemicals at municipalities. While long-term strategies were considered, the CAPs have specified concrete activities to implement in shorter time. Scope of the CAPs included municipality's own entities or activities, and on-top there are awareness-raising campaigns among local enterprises and actors envisaged. The NonHazCity2 project initiated a snap-shot evaluation (by November 2019) on status of recognition and activities implementation of the CAPs at municipalities.

1.1 The Riga CAP

In Riga city, the first CAP (2019-2024) has been elaborated within the frame of the NonHazCity project. The objectives and activities are based on the environmental programs related to hazardous substances. Some examples of the areas of planned activities include: (i) use of chemical products in Riga municipality units, (ii) determination of procurement criteria for chemical content when purchasing services, (iii) monitoring of HS presence and enforcement of legislation, (iv) providing citizens and local businesses with information about HS, (v) promoting cooperation between involved institutions.

The NonHazCity2 snap-shot evaluation provided a baseline for the assessment of the CAP implementation in the city. The partly supportive level of recognition was estimated because the CAP was in the process of adoption by the city, although implementation of some activities has been already started at the time. The full-scale implementation of CAP has suffered from the lack of an assignment of a full-time coordinator. It was admitted that allocation of funds is necessary for supporting the CAP activities.

1.2 The Parnu CAP

In Parnu city, the first CAP (2019-2025) has been elaborated within the frame of the NonHazCity project. The plan is aimed to reduce the use of everyday-life products and articles containing HS and, in that way, to reduce the emissions of hazardous substances from the city. The activities are predominantly informational and related to communication, e.g., campaigns and awareness raising events, trainings.

By the NonHazCity2 snap-shot evaluation, the CAP has been incorporated as an annex in the Waste Action Plan of the city. Some activities have been already in process at the time, e.g., campaigns on HS implemented, information placed on a website, trainings on GPP on-going. The need for additional manpower and time allocation was admitted.

1.3 The Vasteras CAP

In Vasteras city, the CAP (2015-2020) is a part of the municipality's central development plan, and a new plan was not developed during the NonHazCity project. By the NonHazCity2 snap-shot evaluation, the full-time coordinator has been assigned and implementation activities were on-going. The CAP was under evaluation and a new CAP (2020-2025) was expected to be launched in 2020 (<https://www.vasteras.se/bygga-bo-och-miljo/kemikalier.html>).

1.4 The Turku CAP

The City of Turku has included their actions to reduce and manage HS into the Baltic Sea Action Plan (which was developed together with the City of Helsinki). The current CAP (2019-2023) is integrated in the Baltic Sea Challenge Action Plan. By the NonHazCity2 snap-shot evaluation, the full-time coordinator has been assigned and cooperation with City of Helsinki on implementation of actions was taking place. At the time implementation activities has started, e.g., training of eco-supporters. Time allocation and financial resources were seen as main obstacles for implementation.

1.5 The Gdansk CAP

The participation of Gdansk municipality in the NonHazCity project has resulted in the CAP (2019-2025) where actions are intended to reduce HS presence and release within the city. By the NonHazCity2 snap-shot evaluation, it was referred that the NonHazCity did not impose an obligation to formalize the CAP as an act of local law. The CAP has been placed on the city's website for information and used by office employees, subordinate units, and residents of the city of Gdansk. Activities, however, are implemented regardless of the existence of the CAP and are based on other urban strategies and programs as well as legal requirements.

2. Benchmarking for the CAP assessments

Establishment of municipal CAPs were aimed to derive, justify, compile, and coordinate all municipal activities related to the targeted reduction of hazardous substances. The NonHazCity2 was looking at the process of anchoring CAP activities into municipal procedures and making them “business as usual” for uptake into the daily operations. The CAP assessments have started with benchmarking.

2.1 Assessment results in the frontrunner municipality: Stockholm

The Stockholm’s approach

The evaluation of Stockholm’s Chemical Action Plan 2014-2019 was performed by a consultant and included both questionnaires and more in-depth interviews, with a selection of the participants in the questionnaires. Some of the interviewed persons also participated in a workshop with the aim to relate and use the answers from interviews and questionnaires to the development of the new Chemical Action Plan 2020-2023 for the city.

Assessing success factors and challenges for implementation of the CAP in Stockholm, the city presented a valuable indication of context factors that supports or hinders the actual realization of activities planned.

During the interviews, it was evident that the competence and support from the Chemical centre was the most important factor for the success in implementation of the CAP. The Chemical centre (with ca. 5 full-time expert positions and one communicator) is a part of the Environment and Health Administration in the municipality. Stockholm city employees have had an opportunity to take advantage of this expertise through trainings and information campaigns provided by the Chemical centre.

Furthermore, support has also been delivered through direct contact to pose questions and receive advice, staff exchange (Chemical centre employees are working part time at other entities within the municipality; the procurement unit and the city development (construction) unit). These opportunities were highlighted as the second most important success factor. The fact that the Chemical centre has resources (staff, funding) was also considered to be a success factor. The Expertise at the Chemical centre has been crucial in the implementation of the CAP.

Key success factors in the implementation of CAP in Stockholm:

- Access to **competence at the Chemical centre** for the Stockholm city employees
- Opportunities to pose questions and receive **advice through the direct contact** with the experts from Chemical centre
- Allocation of **resources** at the Chemical centre to guide the CAP implementation

However, questionnaires and interviews in Stockholm also revealed some challenges that must be addressed by the city. Lack of resources and low level of engagement from the head of the unit were key challenges highlighted on several occasions during the interviews. The most evident obstacles have been identified as lack of resources, both as staff positions and as allocated time and funding. Staff turnover was also a part in the obstacle concerning resources – in case of frequent staff changes it is a challenging task to keep all employees up to date concerning the work according to the CAP.

Most important is that the Head of a unit allocates time and resources for the employees and sees the need for support and allocation of resources within the entities to perform actions in the CAP. If the Heads of the units do not show interest in the issues of hazardous substances and the actions in the CAP, it is hard for the employees within the entities to be engaged. If there is engagement from the head of unit and employees, the support from the Chemical centre can be utilized efficiently to perform the actions stated in the CAP.

As it has been so far, time and resources has been taken from the current time of the employees and it has been hard to fit the work according to the CAP in any useful manner within the usual working hours.

Key challenges in the implementation of CAP in Stockholm:

- Lack of **resources at municipal units/ entities** other than the Chemical centre
- The chemical issues are on **low priority by the Head of the unit** at a municipality
- Organizational challenges, e.g., **time allocation for CAP activities**

2.2 Reflection on the CAP activities by stakeholders at the NonHazCity2 municipalities

The NonHazCity2 approach

Number of stakeholders were interviewed at municipal departments and units/ entities involved or planned to be involved in the implementation of CAP activities. The snapshot evaluation (October – November 2019) had an outreach to stakeholders at the NonHazCity2 partner municipalities – Riga, Parnu, Vasteras, at the associated municipality – Turku, and at the former (in NonHazCity project) partner city – Gdansk. The benchmarking assessment of CAPs at municipalities presents a solid baseline of context factors that affects the realization of activities planned (second assessment of the implemented CAP measures was interrupted by a Covid-19 pandemic outbreak restrictions).

The snapshot evaluation interviews were also aimed to take into consideration assumptions, constrains and driving forces to support an active participation from stakeholders in implementation of the CAP activities at their respective municipality. Summarizing answers from the responding stakeholders we can state that there were no country or municipality specific dominant aspects presented. Instead, the answers were rather grouped according to the typical situations occurring in practice.

Stakeholders have pointed out their needs for taking an active part in implementation of CAP activities. Most important aspects were related to the institutional framework settings, that would point to the maturity of the structure's governance. Although the institutional framework at municipalities aimed to support activities in favour of chemicals management has been somehow established during the CAP development phase, the responding stakeholders felt the need for further strengthening of these preconditions. In addition, stakeholders have pointed out the need for raising knowledge and access to educational materials and tools in all areas related to chemicals.

Key preconditions in the implementation of CAPs at NonHazCity2 municipalities include:

- **The commitment from the city** to implementation of the measures
- **Organizational aspects**, e.g., assignment of responsible person(s) and sufficient time allocation for activities, as well as proper organization of work
- **Funding allocation**, e.g., financial support to staff for fulfilling of extra duties and financial security for implementation of activities
- **Collaboration for implementation** of CAP activities, e.g., cooperation of units involved and between co-workers in different departments of the city administration
- **Boosting knowledge** on chemicals, e.g., educational materials, tools for knowledge raising.

The snapshot evaluation gave an opportunity to early identification of potential obstacles and barriers towards efficient implementation of CAP activities at municipalities. Stakeholders in the NonHazCity2 municipalities were asked to reflect on their (possible) challenges. Forehanded response to these challenges can support further implementation of the CAPs by trying to find solutions for typical situations and thus making the proposed measures working in a longer-term perspective.

Key challenges to address at NonHazCity2 municipalities for implementation of the CAP activities include:

- **Combining of different interests** of many parties, as well harmonization of chemical goals with other implementation and performance goals at the city can be challenging: *“sometimes the chemical goals can conflict with other goals, e.g., replacement of old furniture and toys can be costly and this needs to be accounted to fulfil the budget requirements”*.
- Admitting that measures are practical and could be implemented technically, **availability of funding and money** is pointed out as a restrictive factor. The limited capacity of a city to implement the measures is a challenge.
- **Changing the way of thinking** and educating stakeholders and residents to alternate their behaviour, e.g., reducing the amount of plastic products used, avoiding use of disposable plastic containers, reducing the waste generation.

2.3 Highlights from the benchmarking assessment

The benchmarking assessment of the CAPs at municipalities has highlighted some very important focus areas to consider in the process of anchoring these activity plans for implementation.

The operating Chemicals centre at a municipality having chemicals competence and providing support at municipality departments and entities is of pivotal importance to succeed in the CAP implementation. The NonHazCity2 municipalities may benefit from taking an action to unfold this potential and here the experience from the Stockholm city provides a clear focus².

The thing that our entities most frequently wanted to stress when asked about the implementation of the first CAP was the importance of the support, they get from the Chemicals Centre. Of course, we see that as a confirmation of that the decision to form this Centre was correct and important. There is a continuous need to dig into specific issues related to hazardous substances in specific applications to guide the responsible actors. There is no way to answer all such questions in an action plan and just let everybody start working.

Arne Jamtrot, Head of the Chemicals Centre, Stockholm

Work in a systemic way and more specific advice can be closely linked to understanding of role of chemicals at the municipality. Initially, activities included in CAPs may focus on boosting knowledge on chemicals and collaborate across sectors in communication and cooperation addressing issues related to hazardous substances. The NonHazCity2 municipalities may focus their CAP activities on educating stakeholders and communication activities.

Education and information can be the key at a certain context because activities on chemical management at municipality predominantly reach those who want to act, and they are the ones who are interested. To widen the outreach, the common understanding first must be built that there are hazardous substances, and we are responsible for them.

² NonHazCity (28.06.2021), Chemicals action plan in Stockholm: What have you learned in seven years, <https://thinkbefore.eu/en/chemicals-action-plan-in-stockholm-what-have-you-learned-in-seven-years/>

Changing the way of thinking may take multiple slower steps to reach the level of maturity for selection of most important measures, relevant articles, and products at focus. Linking the CAP measures to the achievement of the city's environmental objectives may foster the targeted specific advice at relevant sectors.

And that may also be the most important thing we learned for the second plan: that we need to work in a systemic way with gradually more and more specific advice to our entities. During the first years we produced guidance documents for sectors like pre-schools and about the use of artificial turf. I think this is how we need to work. I also think we are now a bit more specific and point out the most important measures, the most relevant articles, and products to focus on, rather than only talking about making non-hazardous choices everywhere.

Arne Jamtrot, Head of the Chemicals Centre, Stockholm

The approach by the Stockholm employs knowledge from several earlier projects to enhance the understanding of important substances locally: the major sources for release of these substances into the environment, and the mitigation options of these emissions.

3. Anchoring of CAPs at NonHazCity2 municipalities

3.1 Monitoring of implementation the CAPs

The individual continuous monitoring for the implementation of CAPs at municipalities was on-going within the NonHazCity2 duration. However, the anticipated flow of activities in cities was interrupted due to the Covid-19 pandemic outbreak. Country specific approach was at place to deal with the public safety settings. However, in many countries the reasonable scope of activities was limited to a pre-condition for implementation at a distant or virtual environment.

Implementation of the CAPs at municipalities were predominantly bound to awareness activities, desk-study related studies, trainings, consultations, and supervision in a certain setting, as well as collaboration activities with beneficiaries and organizations outside the municipality. A pilot project at schools and pre-schools, and retirement homes was possible in Vasteras. The CAP related activities were closely linked to the NonHazCity2 project focus on municipalities as key actors for addressing hazardous substance management.

3.2 Activities for boosting knowledge on chemicals

Activities to boost knowledge on chemicals are pivotal to implement the chemical smart procurement at municipalities and to overcome lack of knowledge, increase competencies, and enhance information on the use of the GPP criteria. Different training activities have been carried out at municipalities, i.e., training of the city council stakeholders on hazardous chemicals in Riga, seminar about the requirements on plastic and FCM in Parnu, guiding to the chemical-smart pre-schools in Vasteras, training on chemical smart public procurement and capacity of city eco-supporters in Turku within the CAP implementation frame (during the NonHazCity monitoring period).

Knowledge building activities were enhanced by the NonHazCity2 Training program which provided information in a systematized way and has been assembled into different modules to help users to uptake the information and gain the knowledge. The Training program consist of modules and cover the topics on chemicals escape from products and their effects to our bodies and the environment; SVHC in articles; HS in plastics and in our life; EU and national chemicals legislation; management and reduction measures of HS in the municipal setting; introduction to GPP and chemical smart public procurement tools; as well as avoiding of hazardous chemicals in GPP including examples of product categories. Each module ends with a test quiz to check and verify the knowledge gained. Upon completing of all modules and successfully (score of 60% or more) passing all tests, a personalized certificate will be obtained. The training program is available (after registration) via this link: <https://training.nonhazcity.eu/>

Dissemination, of knowledge and replication of the training program with other municipalities are incorporated as activities in several CAPs. Despite the Covid-19 pandemic situation in 2020/2021, online workshops or trainings were performed during the NonHazCity monitoring period to spread knowledge to a wider range of stakeholders.

3.3 Addressing chemicals at municipalities

Addressing chemicals has been in focus only for some municipalities – Vasteras and Turku within the CAP activities (during the NonHazCity monitoring period).

In the city of Vasteras³ activities were directed to replace certain kitchen utensils that contain hazardous substances. At the start, an inventory of kitchen utensils in use at municipal school restaurant was accomplished. As a result of the inventory, a substitution process has started at the school restaurants to exchange items with hazardous substances to better alternatives: non-sticky frying pans were replaced to cast iron ones, plastic utensils and serving cutlery were exchanged to stainless steel.

Addressing chemicals within the GPP implementation is seen as part of the CAP activities. The city of Turku has received a support from the NonHazCity project to selection of pilot procurements (e.g., chemical-smart furniture procurement), and integrating the issue into the city's strategy. GPP has been incorporated in updated CAP at Vasteras where one of the targets is to have chemical requirements set in all procurements of products and product groups prioritized in the CAP. Moreover, the municipality is planning to create a routine for making follow-ups of the chemical requirements set in purchases.

3.4 Campaigns on chemicals

Activities on organising campaigns on chemicals have been taken on the agenda of CAPs implementation e.g., general awareness raising by providing info materials was implemented in Riga and by event an “Decode the plastic” at a shopping centre in Gdansk. As an out-standing activity was a targeted campaign “NonHazCity Plastic diet campaign” implemented in all project partner municipalities. Information about the campaign is available via this link: <https://thinkbefore.eu/en/plastic-diet/>. Due to large outreach and gained popularity in social media the campaign can be considered as an effective tool for awareness raising on possibilities to reduce hazardous substances in our life.

³ NonHazCity (09.12.2020), Plastic use in school cafeterias in Vasteras <https://thinkbefore.eu/en/plastic-use-in-school-cafeterias-in-vasteras/>

4. Anchoring of GPP at NonHazCity2 municipalities

Municipalities are frequently applying procurement for purchases of goods and services and their decision to apply criteria for environmentally friendly supplies can make difference. Municipalities have incorporated GPP approach in their CAPs. Thus, practical application of GPP procedure can become an important part of the municipal activities in the context of CAP implementation process.

4.1 Monitoring of implementation of GPP

The NonHazCity2 approach

The aim was to deliver a comprehensive analysis of GPP guideline implementation in cities. Typical procurements at municipal entities which can be influenced by chemical smart procurement were searched at the groups of products and services: (i) cleaning products and services, (ii) IT equipment, (iii) catering and event management, (iv) furniture, (v) office and school materials, (vi) construction and finishing materials and services, (vii) gardening equipment and services, (viii) lighting, and (ix) toys.

The baseline monitoring reflected application of criteria for GPP in cities. Groups of criteria were related to national/regional/local regulations applicable and included distinction between mandatory and/or voluntary criteria applied to the selected groups of products and services. The snapshot evaluation (purchases in 2018-first half 2019) included indication of the GPP status, i.e., pre-selection from a catalogue, GPP self-evaluation or no-GPP. Further monitoring (as desk research by collecting information from publicly available sources) was devoted to evaluation of criteria applied, i.e., service-related criteria, environmental criteria (e.g., waste management, transport, energy efficiency), use of specific labels (e.g., Ecolabel), and criteria specifically addressing the hazardous substances.

Evaluation of GPP application has shown different pattern in NonHazCity2 municipalities.

In **Riga** procedure for purchase follows the national legislation where the process of application of GPP is determined by the Cabinet of Ministers Regulation Nr.353 (from 20.06.2017) on Requirements for Green Public Procurement and its application procedure. The GPP criteria are set as mandatory for 7 product groups and voluntary for 15 groups. The GPP criteria are in line with the EU GPP guidelines. Self-declaration on GPP in purchases is common but this does not necessarily reflect application of criteria on hazardous substances. Price remains the main criterion for selection of supplies. Within the NonHazCity2 project implementation expectations are raised from the training program that it will help to raise awareness on GPP and support making smarter choices in procurements.

In **Parnu** GPP is not legally binding although municipality applies green criteria e.g., for purchasing of cleaning services. Often price is combined with environmental criteria. However, there is widespread perception that such products/ services are significantly more expensive. Within the NonHazCity2 project implementation focus was to motivate colleagues at the municipality to make green procurements and they were participating at the events about GPP which were found very useful.

In **Vasteras** a lot of criteria apply in purchases (some stricter than the EU ones). Municipality is elaborating specific GPP criteria for various product groups. GPP targets are incorporated in the CAP by setting e.g., chemical requirements in all procurements of products – a template library will be developed. More efforts on uptake of these criteria in procurements are needed. Measuring environmental impacts is considered as a challenge. CAP includes the follow-up of chemical requirements at purchases by provisions to elaborate a routine procedure (planned to follow-up 20% of purchases in 2022). It is envisaged to increase the number of eco-labelled products in purchases.

In **Turku** no mandatory GPP criteria are in force. There are a lot of pre-made criteria that can ensure HS free products; however, application is the key. To foster the GPP uptake there is a need for scientifically sound, quantitative, national criteria reflecting market conditions in Finland. Within the NonHazCity2 project implementation a support has been given to the City of Turku about chemical smart furniture procurement.

In **Hamburg** detailed and comprehensive criteria for HS in GPP are developed. Model Framework contracts for procurement of certain product groups are elaborated. A monitoring program for application of criteria is under development in the municipality.

In **Kaunas** procedure for purchase follows the national legislation. The core document for GPP is Minister of Environment Order no. D1-508 (2011), that was fundamentally updated in 2017. There are environmental criteria for 30 products groups. The procurement is considered responding to the GPP if it applies all minimum criteria for that category.

In **St. Petersburg**, the Federal legislation allows application of ecological criteria in public procurements. However, there is lack of awareness and knowledge on criteria and possibilities for control of implementation. Within the NonHazCity2 project implementation the Guide “City without hazardous substances” has been developed to promote chemicals smart public procurement.

4.2 Green Procurement Guidelines in Hamburg

It has been a political decision to implement GPP in Hamburg.⁴ Since 2016 there have been guidelines for GPP published by the Environmental Authority. The guidelines were updated in 2019 and are available at <https://www.hamburg.de/contentblob/6789344/b75ca35ac5a3431b375ac5f4cd3e531d/data/d-umweltleitfaden-kurz-englisch.pdf>.

The Green Procurement Guidelines designate specific environmental criteria for 19 product groups. General environmental criteria include handling of ecolabels, packaging, reparability, recycling friendly design, transportation (delivery, carriage), environmental management systems and lifecycle cost analysis. The general criteria can be applied for every product group – not only the product groups that are specifically mentioned in chapter 4 of the guidelines. General criteria can be applied as minimum criteria or award criteria. Not always all criteria are applicable, so that a selection must be made.

4.3 GPP criteria for furniture in Vasteras and Turku

In Vasteras for the school building that applies to the Sweden green building council certification, the procurement of furniture was carried out as a chemical smart public procurement.⁵ Seventeen specific criteria for services, environment, specific labels, and hazardous substances in procurement of furniture for school have been elaborated and applied. The requirements include avoidance of PVC in artificial leather and plastic and avoidance of certain surface treatments among others. Requirement for proof of compliance included mandatory certificates or licences or technical documentation from the manufacturer showing the compliance with requirements.

⁴ NonHazCity2 Webinar (10.01.2020), Sustainable public procurement in Hamburg, presentation by M. Menny, Finanzbehörde Hamburg

⁵ NonHazCity (30.08.2020), Criteria for hazardous substances in school furniture, <https://thinkbefore.eu/en/criteria-for-hazardous-substances-in-school-furniture/>

In Turku the criteria for purchase of furniture have been developed based on the Nordic Swan criteria. The market dialogue and chemical criteria in the City of Turku was used for the procurement of furniture for kindergartens and schools. During this very long process the team did the mapping of the existing GPP criteria (the EU criteria, Swedish National Agency for PP criteria, ecolabel criteria), and used them for the preparation of the questionnaire for the industries. The questionnaire was sent out to furniture suppliers. Then, a workshop about questionnaire results and use of criteria was organized, and the results were then presented publicly. The agreement was made among the procurement offices and municipality about the suitable level of requirements for the kindergarten furniture, and in 2019 the first tender for furniture including chemical criteria was launched. The process took 1.5 years, and it is safe to say that not every municipality would want to undertake such task for every procurement.

4.4. Guide to the inclusion of environmental criteria in public procurement in St. Petersburg

The work on GPP was initiated by a survey with procurers and municipal authorities on what is their knowledge on the subject and their motivation to apply such criteria. Respondents indicated some challenges related to lack of clear definition of environmental criteria and well-known sources of ecological criteria, as well as low political will and legislative support. Low rate of motivation and awareness among procurers (for environmental, ecological criteria) as so far focus is on the level of recyclable materials, energy saving has been observed. Many procurers were concerned, that if they introduce other criteria except for price, they will be fined, or prosecuted by the antimonopoly service (the Federal Antimonopoly Service) for not being fair to other suppliers. Challenges and positive feedback from the NonHazCity2 research were addressed and guidelines for Incorporating Environmental Criteria in Public Procurement developed (based on the Guide for Chemical Smart Public Procurement by Turku University of Applied Sciences).⁶

4.5. Obstacles and barriers to fulfil chemical requirements in purchases

Experience of NonHazCity2 on GPP uptake in municipalities indicates that price still the main criterion for GPP in several municipalities. Highlights on good practice examples shows the price in combination with other criteria and additional options, like the use of environmental criteria (e.g., waste management, pollution prevention) and specific labels. It was also found that there is a specific group of purchase related to furniture where a criterion to avoid HS in the purchase was incorporated.

However, implementation of the GPP at municipalities often is understood by setting criteria towards chemical requirements in purchases. However, strict GPP criteria themselves do not guarantee the successful enforcement of the contract management. Obstacles here can be related to the market readiness to uptake such requirements e.g., several procurers have faced difficulties to find suppliers to apply for GPP. In addition, the compliance to GPP largely depends on capacity of the service providers (often SMEs) to select and purchase appropriate products. Public procurement bodies are facing the fact that there is no “green” supply while businesses complain that there is no demand because of high price. The price could become lower if the demand increases. The market dialogue is necessary to provide the right information and messages for suppliers.

Another obstacle is the lack of application of appropriate monitoring procedure within GPP that would allow for efficient control of implementation from the customers side. Procurers at municipality and product/service receivers frequently lack capacity to perform sufficient monitoring of compliance with GPP criteria. In-house capacity building on GPP and approach for external expertise in certain fields could be a clever strategy to strengthen the performance monitoring.

⁶ Guide to the inclusion of environmental criteria in public procurement (in Russian) (2021), <https://ecounion.ru/wp-content/uploads/2021/03/rukovodstvo-po-vklyucheniyu-ekologicheskikh-kriteriev-v-gosudarstvennye-zakupki.pdf>

5. Assessment of CAPs using indicators

CAPs are seen as a structured system highlighting envisaged efforts to contribute to the work for solving an environmental problem, e.g., to reduce or prevent pollution with hazardous substances and strive for a non-toxic environment. By NonHazCity methodology assessment of CAPs as a structured system is approached from two sides by evaluating the structure of governance and by efficiency of the structure:

- Structure of governance refers to the existence of such structure that corresponds to certain requirements to ensure solving of a problem. Indicators to provide information about change are related to institutional framework showing the level of fitting and uptake of structures to implement activities, and the CAP outreach showing the operation procedure and involvement of stakeholders.
- Efficiency of the structure shows the reflection on how the structure works in solving the HS related problems. Indicators related to knowledge on chemicals, addressing chemicals and campaigns on chemicals are closely linked to the subject of chemicals and HS, and are aimed to measure a change imposed by implementation of the CAP activities.

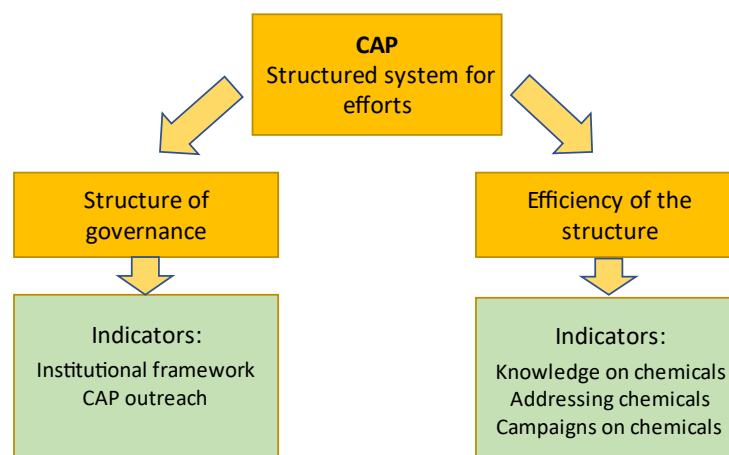


Figure 3: CAP as a structured system for efforts.

5.1 NonHazCity2 indicators

The NonHazCity2 approach

Majority of the partner municipalities have developed the CAP as a starting point for activities at the municipality agenda to be implemented during the coming years. Anchoring of CAPs as a structured system at a municipality was evaluated against a list of agreed indicators. Activities included in the CAP planning document were summarized by project partners and delivered in a snapshot template form of the state-of-affairs (in November 2019).

Measures listed in the CAP document were examined to collect defined aspects of each indicator in a scoring table. Here the important remark refers to formulation of the measure in a document: if the activity was focussed and clearly defined - the attribution of score has been rather straight forward; however, if the activity was foggy and loosely formulated - the scoring appeared a rather ambiguous task. Summary of the evaluation score in different categories was used to compare the results of the assessment.

5.1.1 Institutional framework

This indicator reflects the status and general framework conditions for the CAP implementation at the municipality. This indicator comprises five aspects - on status of the CAP, assigning responsible persons and setting roles and responsibilities for implementation, assignment of funding for activities, and settings for collaboration in CAP activity implementation. For better uniformity and compatibility of score for this indicator among various municipalities, a multiple-choice setting of answers is pre-defined that requires a “yes” or “no” selection.

Table 1: Aspects covered by the indicator – Institutional framework

Aspect	Option
Is the CAP made administratively binding document at the municipality	Yes, it is an outstanding binding document
	Yes, it is a chapter in another binding document (e.g., strategy, environmental action plan)
	Not yet. It is in a process for adoption.
	No, and there are no plans for making it administratively binding
Is there a responsible person(s) assigned for implementation of CAP?	Yes, there is a team established and a coordinator assigned
	Yes, there is a coordinator assigned
	Not yet. It is planned to assign a coordinator in 2019/beginning of 2020
	No and there are no plans for assigning a coordinator
Are the roles and responsibilities clearly set for implementation of CAP activities?	Yes, responsible institutions and departments or units are assigned
	Yes, responsible institutions are indicated
	Not yet. It is still in the discussion.
	No, responsibilities are not divided
Is funding envisaged for implementation of CAP activities?	Yes, costs are calculated, and funding is earmarked
	Yes, costs are calculated but funding is to be ensured
	Not yet. Assignment of funding is in process.
	No, financing of activities will be ad hoc
Is there a collaboration established for implementation of CAP activities?	Yes, collaboration between departments/units is ongoing and activities are coordinated
	Yes, departments/units are informed about CAP activities
	Not yet. It is planned to start collaboration in 2019/beginning of 2020
	No, collaboration with other departments/units is not envisaged

5.1.2 CAP outreach

This indicator reflects on general extent of the CAP to focus on chemicals and address stakeholders by the planned activities. The indicator comprises four aspects - the extent of CAP, specified chemicals or chemicals group to be addressed by activities, and outreach to stakeholders within the municipality and collaboration with organizations outside the municipality. For compatibility of score for this indicator, the number of activities is counted, and corresponding score estimated by a range of coverage.

Table 2: Aspects covered by the indicator – CAP outreach

Aspect	Definition, incl., examples of activities from CAPs
Extent of CAP	Total number of measures included in the CAP
Specified chemicals/chemicals group	Number of activities in the CAP addressing specifically named chemicals/chemicals group, examples: <ul style="list-style-type: none"> Sources for high nonylphenol concentrations entering the wastewater treatment plant will be mapped (Turku)

Aspect	Definition, incl., examples of activities from CAPs
	<ul style="list-style-type: none"> The use of chemical herbicides and pesticides in green areas will be limited (Turku) Remove PCB joints in the City`s buildings (Vasteras) Creation of the database with prioritized HS (Riga)
Stakeholders within the municipality	Number of activities in the CAP addressing and involving stakeholders from municipality departments and entities, examples: <ul style="list-style-type: none"> Annual seminars for different groups of the City Council employees (Riga) A working group with representatives of different City`s administrations (Vasteras) Through pilot project to help schools and pre-schools to carry out activities (Riga)
Collaboration with organizations outside the municipality	Number of activities in the CAP addressing and involving other organizations outside the municipality, examples: <ul style="list-style-type: none"> Collaboration with other municipalities for experience and knowledge sharing (Riga, Vasteras) Developing collaboration practices with the sewage treatment plant(s), industry, and the environmental authorities (Turku) Organize breakfast seminars for shops, focusing on chemicals legislation (Vasteras)

5.1.3 Boosting knowledge on chemicals

This indicator reflects on how the CAP works for increasing knowledge on chemicals aimed to solve HS related issues at a municipality. The indicator comprises four aspects – fixing the status, awareness events, education events, and spreading knowledge on chemicals, that are reflected by the activities. For compatibility of score for this indicator, the efficiency value is assigned for these aspects and corresponding named activities from the CAPs are equated.

Table 3: Aspects covered by the indicator – boosting knowledge on chemicals

Aspect	Definition, incl., examples of activities from CAPs
Fixing the status	Activities in the CAP that are aimed to estimate the status of awareness and knowledge on chemicals, example: <ul style="list-style-type: none"> Survey to investigate consumers knowledge and attitude towards chemicals (Vasteras)
Awareness events	Activities in the CAP that are aimed to raise awareness on chemicals to the stakeholders or public, example: <ul style="list-style-type: none"> Information to the public to spread information about hazardous waste and chemicals in the drain system (Vasteras)
Education events	Activities in the CAP that are aimed to educate the municipality personnel about chemicals and chemicals management, and GPP related issues, examples: <ul style="list-style-type: none"> Educate personnel on how to use the purchase guide and how to choose and find environmentally sound products (Vasteras) Implementation of further education on harmful substances for eco-supporters (Turku) Employees of the City Government and municipality agencies participate in seminars and a training program concerning the requirements of green procurement (Parnu) Training for employees of municipal institutions on GPP (Gdansk)

Aspect	Definition, incl., examples of activities from CAPs
Spreading knowledge	<p>Activities in the CAP that are aimed to disseminate information and share knowledge, especially beyond the municipality settings, examples:</p> <ul style="list-style-type: none"> • Storm water quality will be studied, and results will be disseminated (Turku) • Collaboration with other municipalities for experience and knowledge sharing (Riga) • Spread information about the guidelines for the use of weed killers on hard surfaces in the city (Vasteras)

5.1.4 Imposing chemicals requirements in purchases

This indicator reflects on how the CAP works for addressing chemicals at a municipality. The focus area on imposing chemicals requirements in purchases is closely related to application of GPP at a municipality. The indicator is evaluated by aspects of existence of criteria or requirements (related to chemicals), application of the product selection system (e.g., labelling), imposing chemical requirements in purchases (for suppliers), and follow-up on implementation of the imposed chemical requirements (e.g., inspections, reviews).

Table 4: Aspects covered by the indicator – chemicals requirements in purchases

Aspect	Definition, incl., examples of activities from CAPs
Criteria or requirements	<p>Activities in the CAP that are aimed to establish criteria or requirements to apply in purchases of products, articles, and services, example:</p> <ul style="list-style-type: none"> • Draw up specific chemical requirements (product/ article) and impose them in purchases (Vasteras)
Product selection system	<p>Activities in the CAP that are aimed to establish and/or use of the product selection system related to the chemicals smart or environmentally friendly purchases, examples:</p> <ul style="list-style-type: none"> • The guidelines for chemical smart procurers (Turku) • Use of environmental labelling function in the purchase guide (Vasteras) • The product selection system for the chemicals content of building products shall be used (Vasteras)
Chemical requirements in purchases	<p>Activities in the CAP that are aimed to impose chemical requirements for service providers and suppliers in municipality purchases, examples:</p> <ul style="list-style-type: none"> • Draw up specific chemicals requirements and impose them on services/ implementation contractors and land/ building entrepreneurs (Vasteras) • The list of priority substances will be instructed to be taken into use in procurements (Turku)
Follow-up on implementation	<p>Activities in the CAP that are aimed to follow-up on implementation of the imposed chemical requirements, examples:</p> <ul style="list-style-type: none"> • Procedures for systemic follow-up of imposed environmental and chemicals requirements (Vasteras) • Inspect and review the range of products in the purchase guide to reduce the use of chemicals that are harmful to the environment and health (Vasteras)

5.1.5 Assessing the chemical related information

The focus area on assessing the chemical related information is closely linked to obtaining and understanding information on chemicals management at a municipality. The indicator is evaluated by aspects of listing of chemicals (incl., priority substances), documentation of use of chemicals within the municipality operations, preparing chemicals inventory as a basis for decision making on managing chemicals risks, and creation, management and use of database of chemicals (incl., prioritized HS) at a municipality.

Table 5: Aspects covered by the indicator – chemicals related information

Aspect	Definition, incl., examples of activities from CAPs
Lists of chemicals	Activities in the CAP that are aimed to create and maintain lists of chemicals of concern at a municipality, example: <ul style="list-style-type: none"> The list of priority substances
Documentation of use of chemicals	Activities in the CAP that are aimed to record the use of chemicals at the municipality, example: <ul style="list-style-type: none"> Companies and administrations at the City shall document all the classified chemicals within their own activities (Vasteras)
Inventory of chemicals	Activities in the CAP that are dealing with an inventory of chemicals in products, operations, and entities, and aimed to serve as a basis for decision making on managing chemicals risks, examples: <ul style="list-style-type: none"> Make an inventory of products that contain PCB with the intention to remove the products (Vasteras) Make an inventory of pre-schools about fittings, fixtures and equipment, the goal being a “non-toxic preschool” (Vasteras)
Database of chemicals	Activities in the CAP that are aimed at creation, management and use of database of chemicals, including prioritized HS, for better managing of chemicals risks, examples: <ul style="list-style-type: none"> City hazardous substance database creation with prioritized HS (Riga) Companies and administrations in the City shall phase out substances in accordance with the PRIO database (Vasteras)

5.1.6 Phasing out of harmful chemicals

The focus area on taking efforts for phasing out of harmful chemicals is closely attributed to reduction the uses of products containing hazardous substances or implementing management practices aimed to minimize HS impacts at a municipality. The indicator is evaluated by aspects related to identification of HS occurrence (e.g., sources, quantity), selection of alternatives or replacement context (e.g., local regulations), preparation of the replacement or reduction plan, and implementation of practical replacement or reduction activities (e.g., pilot projects). For compatibility of score for this indicator, the efficiency value is assigned for the aspects in this focus area, and corresponding named activities from the CAPs are equated.

Table 6: Aspects covered by the indicator – phasing out of harmful chemicals

Aspect	Definition, incl., examples of activities from CAPs
Identification	Activities in the CAP that are aimed to identification of HS occurrence and related risks, examples: <ul style="list-style-type: none"> Mapping of sources for high nonylphenol concentrations entering the wastewater treatment plant (Turku) Examine possible risks with artificial grass used in child sports grounds and play areas (Vasteras)

Aspect	Definition, incl., examples of activities from CAPs
Alternatives or replacement context	Activities in the CAP that are dealing with assessment of alternatives or replacement context aimed to phasing out of harmful chemicals at municipality applications, examples: <ul style="list-style-type: none"> • Best practice alternative methods to limit the use of chemical herbicides and pesticides in green areas will be studied and applied (Turku) • Detailed specifications of the purification regulations will be considered (to include in e.g., environmental protection or construction regulations) (Turku)
Replacement or reduction plan	Activities in the CAP that are aimed to prepare the replacement or reduction plan for phasing out of harmful chemicals at municipality applications, examples: <ul style="list-style-type: none"> • Companies and administrations in the City shall present a plan for replacement of the phasing-out substances used in municipal activities (Vasteras) • Approval and reporting of the HS reduction plan (Gdansk) • City Council institutions prepare the replacement plan for used HS (Riga)
Practical replacement or reduction activities	Activities in the CAP that are aimed to implement practical harmful chemicals replacement or reduction activities, including pilot projects at the municipality, examples: <ul style="list-style-type: none"> • Remove PCB joints in the buildings at the City (Vasteras) • Develop and test new technology for wastewater treatment with the aim to reduce the amount of HS in the Lake (Vasteras) • Implement the pilot project to build non-toxic preschools in the City (Vasteras)

5.1.7 Campaigns related to chemicals

This indicator reflects on how the CAP works for implementing campaigns related to general awareness, covering chemicals in environment, focus on chemicals and campaigns with targeted focus on hazardous chemicals.

Table 7: Aspects covered by the indicator – campaigns related to chemicals

Aspect	Definition, incl., examples of activities from CAPs
General awareness	Activities in the CAP that are aimed to implement the general awareness increasing campaigns on chemicals, example: <ul style="list-style-type: none"> • Campaigns (info-days, info-materials) to make inhabitants aware of hazardous chemicals in everyday products
Chemicals in environment	Activities in the CAP that are aimed to implement campaigns related to chemicals in the environment, example: <ul style="list-style-type: none"> • Campaign that focuses on hazardous waste • Campaign for environmentally friendly events (Parnu)
Focus on chemicals	Activities in the CAP that are aimed to implement campaigns with the focus on chemicals, example: <ul style="list-style-type: none"> • Information campaigns intended to reduce household use of pesticides
Targeted focus on hazardous chemicals	Activities in the CAP that have a targeted focus on hazardous chemicals, example: <ul style="list-style-type: none"> • Plastics campaign: focus on the hazardous substances in plastic (food contact materials, household appliances, packaging, etc)

5.2 Indicator based evaluation of CAPs at the municipalities: Vasteras, Parnu, Riga

Assessment in the NonHazCity2 project was based on a snapshot information on CAPs from the partners. Concrete actions within different areas have been assessed against defined aspects of agreed indicators and the resulting score of CAP evaluation is presented for institutional framework, CAP outreach, boosting knowledge on chemicals, addressing chemicals and campaigns related to chemicals. The NonHazCity2 approach was applied for evaluation of CAPs as comprehensive planning documents in three project partner municipalities: Riga, Parnu, and Vasteras (Figure 4).

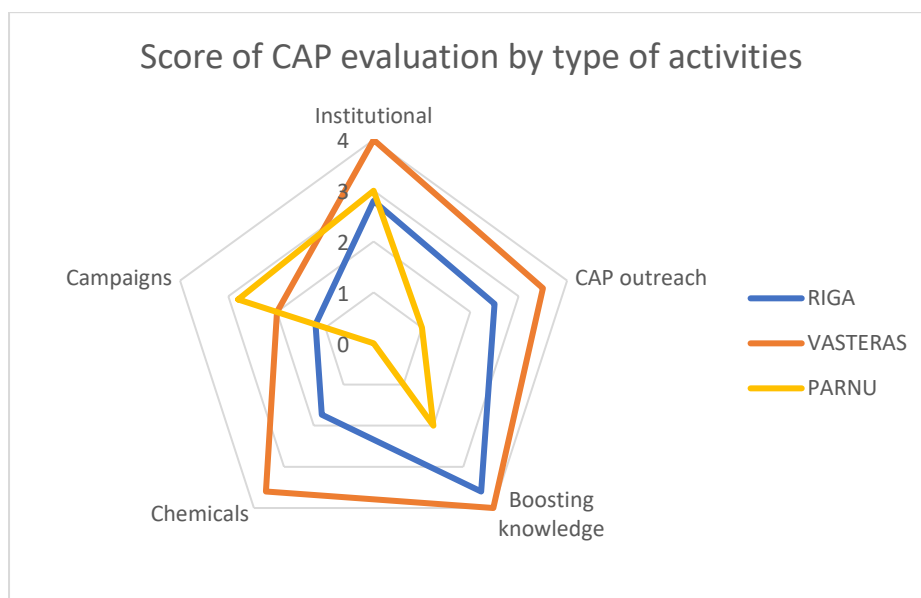


Figure 4: Indicator based CAP evaluation by type of activities in Riga, Vasteras and Parnu municipalities.

Different level of comprehensiveness of the CAPs are noticed via assessment in Riga, Parnu and Vasteras municipalities. In Vasteras (47 activities evaluated) the indicator scores are close to maximum (4 points), except for the activities on campaigns related to chemicals. This is not surprising as Sweden is known as one of the most active countries in the EU when it comes to proposing measures against environmentally harmful substances. In Riga (15 activities evaluated) the indicated scores reflect medium level of the range. Activities for boosting knowledge has been assigned for the most active performance where the score of the indicator is close to maximum. In Parnu only 4 activities have been assigned in the CAP related to boosting knowledge and campaigns (in particular). The coverage for addressing chemicals in the CAPs of Riga and Parnu is rather poor compared to Vasteras. This can be explained by initial intention from municipalities firstly to allocate efforts towards more general awareness and knowledge raising activities on chemicals rather than addressing chemicals and HS themselves.

5.3 Indicator based evaluation of CAP implementation in Riga

The NonHazCity2 indicator-based evaluation approach was demonstrated to compare the planned and actual implementation of activities in Riga (Figure 5). By less than half time duration of the CAP in Riga, the status of implemented and started activities is different for various indicators subject to evaluation. Most intensive activities were performed with the focus on boosting knowledge on chemicals and campaigns while CAP outreach and addressing chemicals themselves has been tackled to lesser extent. This is not surprising because municipality predominantly has implemented activities within the NonHazCity2 project frame. Targeted campaign – the NonHazCity Plastic Diet was a very successful type of activity implemented at Riga municipality on top of initially envisaged CAP actions.

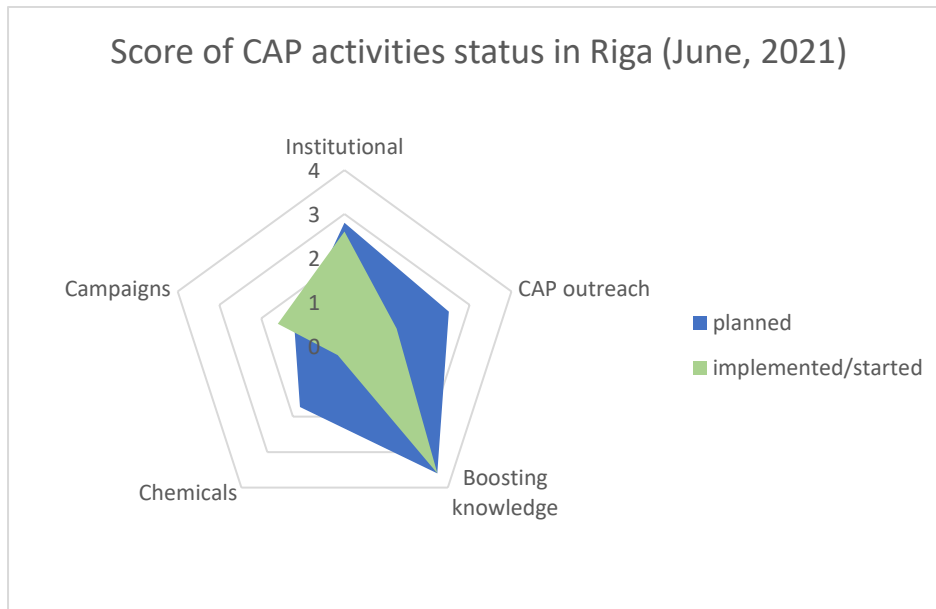


Figure 5: Indicator based evaluation of implemented CAP activities in Riga (by June 2021).

5.4 Applicability of indicator-based evaluation approach

Results of the assessment by scores for various indicators clearly demonstrate different state-of-the-art at these municipalities. The applied scoring approach allows the municipality to assess comprehensiveness of their CAP, to identify the high focus activities and to point out gaps where the planned activities do not reach the targets. The scoring outcome can be useful if the municipality decides on adjustment of the focus of activities during the CAP evaluation or preparation of the next period document.

The NonHazCity2 indicator-based evaluation allows extending the scope of assessment by amending the current set of indicators by adding new aspects and increasing the number of sublevels for each indicator. Moreover, the evaluation approach can be widened by considering the extent for implementation of each activity (e.g., number of trainings events envisaged/held). However, more sophisticated evaluation approach requests in-depth analysis of activities at municipalities which would be useful at more mature state of CAPs implementation.

6. Recommendations to foster implementation of CAPs and application of GPP at municipalities

Scope of activities that municipalities can do “they do what they must, or they do what they can” depends largely on political leadership within the municipality on a local level. Municipality on its own is a very formal structure and little can be done without political decisions from the top management which is why the awareness must be raised among politicians. The NonHazCity projects have increased understanding of municipal staff/policy makers on how hazardous substances (HS) can be decreased at municipalities by planning and implementing activities which have been incorporated in Chemical Action Plans (CAPs) and Green Public Procurement (GPP) policy applications. This was highlighted by responses from municipal staff when reflecting on supportive or partly supportive framework conditions on implementation of CAPs at the municipalities.

An important finding to be considered is related to the outreach of CAPs reflecting the extent of scope that focus on various aspects dealing with chemicals and involving stakeholders. The added value of the CAP is comprehensiveness of coverage addressing various fields – purchases, boosting knowledge, capacity building, awareness raising and practical activities to reduce hazardous substances.

If we want to link the local level with the national level, there should be respective regulations. However, often the legislation is lagging the actions that municipalities are already taking or are planning to take. “Today’s legislation is still working on the findings, the “environmental reality”, and problems that were identified yesterday”, like production-related emissions, manufacturing of chemicals, emissions from waste handling, while today’s discussion focus on consumption phase, use of articles, and building materials, not only the chemical products. CAPs at municipalities can be seen as a good tool to implement front-running activities related to reduction of HS and support achieving of non-toxic environment.

The dialogue with all stakeholders involving the whole municipality departments and units is necessary to understand the importance of issues concerning hazardous substances in municipal applications. The activities within CAP shall reflect the needs of all relevant municipal bodies e.g., educational establishments, municipal enterprises, social services. On the other hand, these departments and units shall be involved in planning and implementation of activities to reduce hazardous substances in everyday life. Competence of the targeted Chemicals centre at the municipality can serve as an important factor for the success in implementation of the CAP.

Small municipalities face challenges when dealing with GPP. Due to limited capacity of staff working at such municipalities, it is hard to expect them to be responsible for using all the innovation work that comes with GPP. They need a support from someone who can make the investigations and they need to cooperate, so that every municipality does not have to do the work on their own. Front-runner municipalities implementing CAPs have planned activities that aim at dissemination of information and spreading knowledge thus providing a good help to smaller municipalities.

Communication needs to be accelerated with consumers and end-users of products or services as they are the right target group. New ways of presenting the information will be more appealing and a lot more information must be added to the discussion (e.g., invisible chemicals). Therefore, the campaign-type activities will gain the importance in future to address citizens and create a ground for behavioural change towards toxic free choices.

Annex 1. CAP evaluation by indicators

Indicator	Aspect	Evaluation
Institutional framework	<p>CAP as administratively binding document:</p> <ul style="list-style-type: none"> • No, and there are no plans for it (1 point) • Not yet, it is in process for adoption (2 points) • Yes, as a chapter in another binding document (3 points) • Yes, as an outstanding binding document (4 points) <p>Responsible person(s) assigned for implementation of CAP:</p> <ul style="list-style-type: none"> • No, and no plans for assigning a coordinator (1 point) • Not yet, but is planned to assign a coordinator (2 points) • Yes, there is a coordinator assigned (3 points) • Yes, there is a team and coordinator assigned (4 points) <p>Roles and responsibilities are set for implementation of CAP:</p> <ul style="list-style-type: none"> • No, responsibilities are not distributed (1 point) • Not yet, it is still under discussion here (2 points) • Yes, responsible implementers indicated (3 points) • Yes, responsible implementers are assigned (4 points) <p>Envisaged funding for implementation of CAP:</p> <ul style="list-style-type: none"> • No, financing of activities will be ad hoc (1 point) • Not yet, assignment of funding is in process (2 points) • Yes, calculated costs but funding is to be ensured (3 points) • Yes, calculated costs and funding is earmarked (4 points) <p>Collaboration with departments/units for implementation of CAP activities:</p> <ul style="list-style-type: none"> • No, collaboration is not envisaged (1 point) • Not yet, but it is planned to start in near future (2 points) • Yes, others are informed about CAP activities (3 points) • Yes, ongoing collaboration and coordination (4 points) 	Max. 20 points
CAP outreach	<p>Total measures included in the CAP:</p> <ul style="list-style-type: none"> • 1-5 measures (1 point) • 6-10 measures (2 points) • 11-20 measures (3 points) • >20 measures (4 points) <p>Addressing specifically named chemicals/ chemicals groups:</p> <ul style="list-style-type: none"> • HS mentioned (1 point) • 1-2 chemicals/chemicals groups (2 points) • 3-4 chemicals/chemicals groups (3 points) • 5 and more chemicals/chemicals groups (4 points) <p>Involving stakeholders within the municipality:</p> <ul style="list-style-type: none"> • 1-3 stakeholders (1 points) • 4-6 stakeholders (2 points) • 7-10 stakeholders (3 points) • >10 stakeholders (4 points) <p>Addressing other municipalities and organizations outside the municipality:</p> <ul style="list-style-type: none"> • 1-2 addressees (1 point) • 3-4 addressees (2 points) • 5-6 addressees (3 points) • >6 addressees (4 points) 	Max. 16 points

Indicator	Aspect	Evaluation
Knowledge on chemicals	Activities for boosting knowledge on chemicals: <ul style="list-style-type: none"> • Fixing the status (1 point) • Awareness events (2 points) • Educational events for personnel (3 points) • Spreading information and knowledge (4 points) 	Max. 10 points
Chemical requirements in purchases	Activities imposing chemical requirements in purchases: <ul style="list-style-type: none"> • Criteria or requirements (1 point) • Product selection system (2 points) • Impose chemical requirements in purchases (3 points) • Follow-up on implementation of requirements (4 points) 	Max. 10 points
Chemicals related information	Activities for assessing the chemicals related information: <ul style="list-style-type: none"> • Lists of chemicals (1 point) • Documented use of chemicals (2 points) • Inventory of chemicals in use (3 points) • Database of chemicals (4 points) 	Max. 10 points
Chemical phasing out	Activities for phasing out of harmful/HS chemicals: <ul style="list-style-type: none"> • Identification of HS occurrence sources (1 point) • Alternatives or replacement context (2 points) • Replacement or reduction plan (3 points) • Practical replacement or reduction activities (4 points) 	Max. 10 points
Campaigns	Activities for campaigns related to chemicals: <ul style="list-style-type: none"> • General awareness increasing on chemicals (1 point) • Chemicals in the environment (2 points) • Focus on chemicals (3 points) • Targeted focus non-hazardous chemicals (4 points) 	Max. 10 points

IMPRINT

© Baltic Environmental Forum Latvia, 2021

Antonijas street 3-8, Riga, LV1010, Latvia

www.bef.lv

Contact: bef@bef.lv

www.thinkbefore.eu