

<u>Title</u>

Food waste prevention, reduction and management - "Getliņi Eko" experience

Short description

The practice plan for the landfill is based on 2 main pillars: operational practice and social education. This ecological management practice has created a chain of benefits: food waste turned to green energy and high nutrition food, with huge positive impact to environment. Due to this practice our atmosphere is protected from 2000m3 environmentally harmful gases per hour. Along with the operational practice, an intensive educational practice is performed to motivate, encourage and educate society about the life-cycle of household waste and recycling, as well as food waste reduction. The company is organizing general or specific free-of-charge educational trips for Riga educational institutions. The main impact of the practice is on the social environment of the neighborhood of the landfill. Before the practice was initiated, for many decades the landfill and the surrounding area was degraded - emotionally and socially, and from an environmental and safety perspective.

Topic

Green spaces and Food

Characteristics (type, level)

Local/Regional, Private and Public

Country/Countries of implementation

Latvia

Aims and Objectives

"Getliņi EKO" is the company that is owned by the City of Riga, capital municipality of Latvia. It is an environmentally friendly, high technology ecological waste management company that operates the waste landfill "Getliņi". Food waste makes up to 41, 50% of all waste biomass that is brought to "Getliņi" landfill and is not sorted and recycled. The efficient use of this waste has been an issue to solve for the municipality for many years. The practice plan for the landfill is based on 2 main pillars: operational practice and social education. This ecological management practice has created a chain of benefits: food waste turned to green energy and high nutrition food, with huge positive impact to environment. Due to this practice our atmosphere is protected from 2000m3 environmentally harmful gases per hour.

Target Group

All city citizens

Status

Ongoing

Start and Completion dates

The practice was started in 2011, while the preparation work and initial landfill modernization was started in 2002.



Lifestyle and Behavior Change

Along with the operational practice, an intensive educational practice is performed to motivate, encourage and educate society about the life-cycle of household waste and recycling, as well as food waste reduction. The company is organizing general or specific free-of-charge educational trips for Riga educational institutions. The events are highly popular among schools and pre-school educational institutions, due to the easy style of learning, videos used and the opportunity to see all parts of landfill operations in real life. The field trips are available also for companies, groups of visitors, groups of tourists, and groups of environmental activists, etc. The specific educational trips are designed for future engineers, physics, agronomists and ornithologists.

Annually, we host 250 - 300 educational trips, seminars and workshops in our landfill and in the educational institutions. This means that on average 5000 - 5500 persons per year are involved in our education practice.

| Health and Wellbeing | The last stage of the practice is the supply |
|------------------------|--|
| | and distribution of the produced food to Riga |
| | citizens and other cities. They have |
| | developed the one-touch method in |
| | gathering, packing and distributing our |
| | products to the wholesaler. The product is |
| | high in nutritional value due to the supply |
| | and distribution system. |
| | The practice provides healthy food to Riga |
| | citizens only a few hours after harvesting. |
| | The effectiveness of the food supply and |
| | distribution system. For the success of the |
| | whole practice, sustainable nutrition |
| | education is a key, as well as breaking the |
| | prejudices that the landfill is not a proper |
| | place for a greenhouse and healthy food. |
| Vulnerable populations | The main impact of the practice is on the |
| | social environment of the neighbourhood of |
| | the landfill. Before the practice was initiated, |
| | for many decades the landfill and the |
| | surrounding area was degraded - |
| | emotionally and socially, and from an |
| | environmental and safety perspective. |
| | Adverse social groups, increased crime, |
| | constant smell and a huge, negative |
| | environmental impact were the features of |
| | the place. The changes started with the |
| | |
| | decision of Riga Municipality to transform |
| | the landfill or dump to a modern, safe and |
| | technologically advanced polygon. The waste |
| | management and greenhouse practice is the |
| | last, with most results bearing this out- as an |
| | efficient part of the decision. |
| | The social area of the landfill has |
| | transformed to a green suburb of Riga, an |

Effects on:



| | active, educational destination, a destination for ornithologists from all over the world, a destination for government, municipal and corporate delegates, and a safe environment for the citizens and visitors. The landfill is among the biggest employers in the suburb. |
|-------------|--|
| Environment | Food waste is deposited in environmentally safe biodegradable cells, which cannot be penetrated by either air or rainwater. The landfill gas that forms in the cells is channelled to the Getlini power unit, incinerated and transformed into energy, while wastewater is collected and purified. The impact of waste on the environment is reduced to a minimum. The gas is transformed to the energy. Getlini ecological landfill is one of the largest and most modern producers of green energy in Latvia. The heat is used for the needs of greenhouses that are located in the territory of the landfill and operated by "Getlini EKO". The greenhouses team is growing orange and red tomatoes during the local vegetable off-season and supplying Riga municipality's citizens via the largest supermarket chains. The season of "Getlini" tomatoes was changed from the May - August cycle in Latvian agriculture to complete the off- season - November - July cycle. This is an important aspect since Latvia as a Nordic country is experiencing insufficient quality vegetable supplies in winter and spring seasons. This ecological management practice has created a chain of benefits: food waste turned to green energy and high nutrition food, with huge positive impact to environment. Due to this practice our atmosphere is protected from 2000m3 environmentally harmful gases per hour. |

Initiated and/or implemented by

The inclusion of the practice consists of two ways. The practice is integrated across two municipalities - Riga City and the neighboring Stopini municipality. The landfill is serving Riga City and the surrounding districts, but it is located on the land that belongs to Stopini municipality. To achieve the best result of the practice, a close co-operation of both



municipalities on the level of planning, implementation and assessment is required and is taking place. The evaluation and decisions on the future practice development are made including and respecting the requirements and criteria of the environmental, social and municipal needs for both sides.

Stakeholders and sectors involved

The implementation of the practice required monitoring and adaptations in municipal legislation to enable the legal environment for our activities. In close co-operation with Riga City municipality we have monitored the legal acts and found the solutions for effective waste management, food distribution and education practice

Financial support

The main financial supporter is the municipality of Riga

Evidence-base

N/A

Main activities

The practice is unique because the whole process uses our own resources to create value from one side and to protect the environment and surrounding area from the other side. Riga City is benefiting in both ways. This innovative approach is demonstrated in a way that the whole practice is set together. Main benefits:

- Environmental benefit: landfill gas generated by food waste is properly gathered and managed to avoid any negative impact to the environment.
- Urban pressures: while a city is growing and waste volumes are increasing, we have a chance to avoid landfill territory issues and keep the landfill limited and territory safe by storing less and recycling waste more.
- Resource benefits: we can efficiently utilize valuable resources as energy and heat in producing value for Riga City. Otherwise the heat would be left unused and create harm to the environment.
- Social benefits: food high in nutrition and available in the off-season for Riga City citizens.

Evaluation

N/A

Main results

The decision of Riga Municipality to transform the former dump for Riga city waste to a modern, safe and technology based landfill included also an aspect of improving the social environment around the landfill. The former degraded territory, with an increased crime scene and low motivation of citizens to live here, has transformed to green suburb of Riga, to an active educational destination, a destination for ornithologists from all over the world, a destination for government, municipal and corporate delegates, and a safe environment for the citizens and visitors. Economic and social activities in the region have significantly increased. Dealing with adverse social issues and improving the social environment was the second important step to deal with during the planning phase of the practice

Key success factors and barriers



The most important barrier of the practice would be securing funding and the costs of such a enormous project.

INHERIT Perspective

For the success of the whole practice of sustainable nutrition, education was a key, as well as breaking the social prejudices. The main prejudice was based on a former perception of the landfill as a socially degraded area. The second strong prejudice was, and is, based on the assumption that food—vegetables may not be grown and may not contain any valuable qualities and nutritional qualities in the landfill. The systematic educational, informative and interpretive work is done via social media, media publications and interviews, media trips to the landfill, an education video and free-of-charge educational trips to the landfill for a variety of target audiences.

More information www.getlini.lv/eng

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