

# International Urban Cooperation Project (IUC) in Kochi

Supported by the European Union



Facilitated by  Centre for Heritage  
Environment and  
Development



## **REPORT**

### **INTERNATIONAL URBAN COOPERATION PROGRAM**

*Facilitated by  
The Centre for Heritage, Environment and Development (c-hed)*

The Annual budget of the Kochi Municipal Corporation for the financial year 2018-2019 pronounced a project called the 'International Urban Cooperation'. This programme is initiated by the European Union to boost cooperation among cities in Europe and India in sustainable urban development. The budget also outlined that the Centre for Heritage, Environment and Development, the International Projects coordination wing of the Kochi Municipal Corporation would facilitate the process of implementation of the project.

*International Urban Cooperation (IUC) programme developed by the European Union aims to further cooperation on sustainable urban development between EU cities and partner cities in Asia and North and South America. The IUC/India programme is dedicated to Indian Cities. Through the programme, local leaders will be able to connect and gain new perspectives on pressing sustainable development issues. Successful candidates will be paired with a city that faces related challenges, allowing both parties to build cooperation and share knowledge. Representatives from each city will take part in study tours, staff exchange, trainings and seminars, etc. and will develop together a local action plan to drive sustainable urban development in the selected area.*

\*\*\*\*\*

The European Union called forward for proposals for its IUC programme that aims to foster international urban cooperation with EU partners in Asia and the Americas, supporting all main international urban and climate agendas. The c-hed, in this regard, prepared a proposal for Kochi and submitted the same to IUC India. Following scrutiny and analysis of the proposal submitted, by an expert panel, Kochi was selected as one of the IUC Cities from India.

Against this backdrop, initial discussions were held between the Hon'ble Mayor

Smt. Soumini Jain and Mr. Pier Roberto Remitti, Program Director, International Urban Cooperation /India in the presence of Mr. Ashish Verma (Sustainable Urban Development Expert, International Urban Cooperation), and Dr. Rajan Chedambath, Director, Centre for Heritage, Environment and Development (c-hed).

The discussion focused on the way forward and also the ways and means for the successful implementation of the project. It was also decided that a five member delegation headed by the Hon'ble Deputy Mayor T.J. Vinod would visit the partner city, Vilnius, Lithuania. Following this, the team had a meeting with Dr. Panagiotis Karamanos, Team Leader, International Urban Cooperation/India in New Delhi on October 25<sup>th</sup>, 2018. A detailed plan of action was worked out and areas of possible cooperation discussed.

The first official connection between the city of Vilnius, Lithuania and Kochi, Kerala was made. The team visited Vilnius for five days on 4<sup>th</sup> November 2018 to 9<sup>th</sup> November 2018. The agenda was focused, packed and included visits to:

- Vilnius City municipality
- Energy and Technology museum
- Maintenance Company Grinda
- Solid Waste Management
- Mechanical Biological Treatment Facilities
- Waste collection site
- Public transport company & Urban Mobility
- Water supply company & water supply site



## DAY 1:

The team was officially received by the Hon'ble Mayor of the Vilnius, Remigijus Simasius and had a meeting in the Mayor's office chaired by the Mayor in the presence of Deputy Mayor Linas Kvedaravicius, Deputy Chief Executive Director Julius Morkunas, Chief Architect/Director of Urban Development Department Mindaugas Pakalnis, Deputy Director of Urban Development Department Ruta Matoniene, Deputy Director of City Maintenance and Transport Department Arunas Visockas, Deputy Director of City Maintenance and Transport Department Stase Kvedariene and Head of Heating and Water Supply Office Kestutis Karosas.

After the official reception and brief introduction the visiting delegation made a half-an-hour presentation on Kochi – the city, its profile, its SWOT analysis, in order to give Vilnius Municipal Council a brief introduction about Kochi. Following this Ar. Mindaugas Pakalnis made a presentation on the structure and services of Vilnius city and also on the strategy moulded for urban development issues.

The most interesting aspect of their functioning noted by the delegation was that the city council formed companies, exclusively for handling city's various functionalities. These companies had its own independent CEOs, supported by a team of experts and dedicated individuals focused on the roles assigned. For Kochi, this was a new concept and a novel idea. Dr. Panagiotis Karamanos made a



presentation on the IUC programme; the scope and depth of the project as far as both the cities are concerned. Following lunch, the team moved for their first site visit for the day

The delegation visited the Energy and Technology museum in Vilnius, founded in the first Vilnius Central Power Plant. The museum houses the first power plant along with the original equipment used then – the steam turbine and generators along with steam boilers, water pumps, pipelines and the power plant’s control panel etc. Apart from this the museum also housed industrial exhibits and interactive exhibitions.

This, in a way, helped to stimulate interest in science and technology in an entertaining way thus popularizing science in the society. Ausra Radziute from the Energy and Technology museum explained about the museum and its significance in the present Vilnius.

The next visit was scheduled to the city’s Maintenance Company Grinda.

It was learned that the Vilnius City Municipality company GRINDA UAB provides all utility services to the city such as repairs and maintenance of streets and courtyards; remove graffiti from monuments, bridges and viaducts; Organize the work o the beaches of Vilnius; Organize care and quarantine of homeless animals; Provide specialized sanitary services; central dispatching functions and internal network emergency services. 100% of the company’s share belongs to the Vilnius city Municipality. With annual turnover of nineteen million euro, the company has been



implementing integrated system of quality, environment and safety and health management. Egidius Steponavicius, Head of marketing and Communication division at Grinda who was there with the team throughout, explained how the company's formation revolutionized the utility sector in Vilnius. Not only has the company transformed the utility sector, it has also brought many innovative and smart applications for better service delivery. These include the electronic task management system that helps to manage tasks; Open Vilnius - that shows the routes of special vehicles online; WAZE - that helps users to register obstacles and potholes on the mobile application and building information modelling tools.



Most advanced form of technology 'the drones' are used for assessing emergency situations, identifying illegal building and/or landfill sites; maintenance of urban infrastructure networks and roads'cleaning supervision. The day concluded with an official dinner hosted by City council.



## DAY 2:

The second day began with the delegation's visit to the Solid Waste Management Plant and associated components - Packaging Waste Management company, Mechanical Biological Treatment Facilities and Semi-underground waste container site of Vilnius.



It was learned that the Vilnius city municipality is responsible for organizing collection and disposal of waste and separate collection of recyclables like paper, glass, plastic, etc. Service providers for collection of waste and recyclables were selected by the municipality through tendering procedures. Vilnius County Waste Management Centre founded in 2003, has been



effectively implementing the waste management tasks and creating a waste management system for Vilnius city. It is one of the largest Solid Waste Management Plant with state of the art facilities. They manage the MBT plant, Vilnius county regional landfill, operates 17 bulky waste disposal site and 6 green waste composting site. The solid waste management company sets an example by paying attention to reducing the environmental impact, evaluating positive practical examples and applying the best available techniques.

The system strives to meet the needs and expectations of the population as much as possible. Waste collection and disposal, operation of bringing solid wastes to civic amenity sites are financed from the municipal waste tax levied from the homeowners; door-to-door collection of source separated recyclables is financed by manufacturers and importers. Municipality appointed waste collectors provide door-to-door collection services for paper, mixed cans, glass and plastic bottles for private houses. Owners of individual houses have signed contracts for the use of containers for separate waste collection.

Residents of apartment houses must deliver recyclable waste to Bring points (located in the distance of 50 - 500 meters from homes) and Civic amenity sites (one Civic amenity site per 50000 inhabitants), operated by municipality appointed contractors. The waste collection and treatment systems in Vilnius includes Mechanical Biological Treatment , Separation at source and Deposit System. Project Manager Darius Palsis and Environment Specialist Marius Banaitis of Vilnius Region Waste Management Company, explained each and every aspect of the plant highlighting even the smallest details.



Another noted system in the solid waste management is the deposit- recycling facility. Recyclable and reusable materials can be returned to the shops or to reverse vending machines. While returning the packaging with printed deposit marks, a small refund is also given. Packaging like metal, glass and plastic, including the beverage packaging are covered under the system. For the refundable deposit, the returned packaging must be empty, with its original shape maintained, its labels undamaged and the barcode clearly visible.

This system ensures a continuous reuse- recycle process and reduces the quantity of discarded waste. Others packing waste (including glass bottles) can also be delivered to the collection points called “Eko taškas“. This is a supplementary waste collection system organised by the manufacturers and importers association and financed by manufacturers and importers. Collection points can be found in comfortable locations and provide services for inhabitants of Vilnius. Gintara Varnas, General manager, Grazin Tiverta, who is in charge of deposit- recycling facilities explained how this has brought out considerable reduction in packaged waste.

As part of the waste collection and management strategies, an underground waste container system has also been developed and installed in Vilnius. As per this system, all the residents in the capital will install dozens of underground and semi-



underground container parks. There will be specific containers for household waste as well as paper, plastic and glass. These semi underground containers are economical , reliable and perfectly suited to both urban and rural communities especially for areas undergoing redevelopment. They are perfectly suited for places with large amount of wastes like residential area, shopping centres and recreational centres. The semi underground containers will have 75% of its depth underground and is more aesthetically pleasing than scattered collection bins.



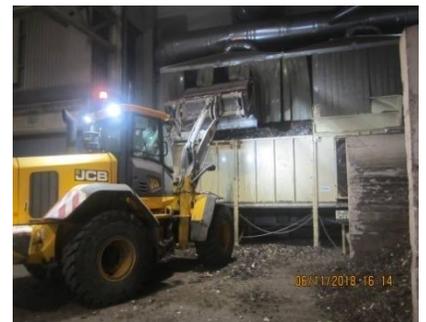
Vilnius is turning over a new leaf in Solid Waste Management sector. The delegation felt that there is much the city of Kochi could learn from Vilnius in this aspect.

**DAY 3:**

The team set-off to visit the Public Transport Company - UAB Viesasis Transportas and met with the General Manager Rimantas Markauskas who briefed about the company and its objectives. UAB Viesasis Transportas aims to carry passengers on regular (city and suburban) regular routes in Vilnius and in the neighboring municipalities.



The vision of UAB Vilniaus viešasis transportas explained by Rimantas is to become an innovative, transparent and leading passenger transport company in Lithuania. They also aim to believe will reduce urban pollution, noise, traffic congestion, create and develop a harmonious environment. The company transports passengers in specified routes and currently there are 78 buses and 18 trolleybus routes in Vilnius. The length of bus routes is 1802 km, and trolleybus is 412,7 km. Night public transport is also



present in the streets of Vilnius. The transportation system is well monitored. The company prepares traffic schedules according to which the public transport will be organized to run on the planned routes. A computerized traffic control systems is in place which operates on mobile communication channels which ensures timely and efficient management of the public transport. There are also rental bicycles and cars available in the city. The definite and smart parking spaces in the city adds to the well managed transportation system.



After a short coffee break, the team then visited the Urban Mobility Company - Sussisiekimo paslaugos which is a municipal enterprise. Here they met the Director Modesta Gusaroviene, Head of City Traffic Operation Department Aleksej Apanovic and Project Manager of Sustainable Mobility Division Anton Nikitin. The company focuses on 'Sustainable Transport' and carries out Smart management of the transport sector. They organise carriage of passengers, inspect tickets, develop and update information system for passengers and develop internal projects. They also manage the underground and multi-store parking lots as well as street parking.



The company has developed a modern traffic management system alongside promoting sustainable transport by encouraging cycling and incorporating pedestrian infrastructure and small pilot projects. A half an hour presentation was made which gave the delegation an opportunity to get a deeper insight into the Urban Mobility in Vilnius.



The third site visit was to the Waste System Administrator from Sivasa, a company



established by the Vilnius City Municipality to carry out efficient waste management system, control and supervise the provision of municipal waste management services and create provision to transfer information to municipal waste holders and Vilnius city municipality authorities. The company works as per the rules for the management of waste management in the Vilnius city.

#### DAY 4:

The delegation met with Production director Tadas Kazlauskas of the Water Supply Company VilniusVandenys. It is the largest water supply company in Lithuania that supplies water and waste water networks in Vilnius City, Šalčininkai, Švenčionys and Vilnius district. The company uses groundwater, which is treated and supplied.

The treated water is used for drinking and cooking ; bathing and washing ; car washing, etc. The reserves of groundwater are 7 times bigger than real need. The city has **289** deep wells (35-180 m deep), **34** wellfields , **17** drinking water treatment plants, **111** drinking water pumping stations and **45** drinking water reservoirs. No chemicals are used for water treatment and the technology used is aeration. Tadas explained that the plant is able to meet the demands of 260000 consumers and are never short of quality water.

From here the team moved to the waste water treatment facility run by the company. This plant consists of 1300 km length of gravity wastewater pipelines, 170 km length of pressure waste water pipelines, and has 180 waste water pumping stations and 8 waste water treatment plant. Mechanical and biological method are only used for treating water



and quality of treated waste water is measured by BOD, COD, Nitrogen, Phosphorus, suspended solids. The sludge produced is thermohydrolyzed producing gas which is used for generating electricity. The sludge is dried and composted. Director Andrius Zananavicius explained that the sludge thus produced is used for various purposes.



The team, post lunch session, visited the water supply site to understand the network.

## DAY 5

The team from Kochi met with the Mayor of Vilnius and council members. An informal note was shared amongst and Dr. Rajan Chedambath made a twenty minute presentation about Kochi city's observations and impression. This provided an opportunity to the partners to discuss in a more open and informal way about some of the cooperation projects that could be designed as part of the International Urban Cooperation Programme. Urban planning, corporate planning, solid waste management, transport and water and waste water treatment plant were the topics that the city of Kochi stressed on for technical cooperation. The International Urban Cooperation programme would explore the possibility of implementing selected projects in Kochi.



The delegation also witnessed an agreement signing between the city of Vilnius, IUC-India and Kochi.





# International Urban Cooperation Project (IUC) in Kochi

Supported by the European Union



Facilitated by  Centre for Heritage  
Environment and  
Development

