

Approach

To tackle these problems, the project approach is divided into three parts.

National awareness raising, knowledge and information sharing

With the aim to increase the knowledge of the problem of air pollution from (cruise) ships among the general public and identified national stakeholders, we will work towards sharing and publishing information on the topic regularly. Communication activities include distributing project background material, regular updates on the project's website will make it possible for interested parties to follow all developments.

Compiling national data and taking measurements

Improving the quality of data on the causes and consequences of air pollution from cruise liners provides the groundwork to respond appropriately to the problem. Through air quality monitoring, emission control and research on national health studies, we will work together with relevant stakeholders towards providing the opportunity for suggestions on the development of environmental policies in this field. Existing national baseline data will be researched and collected to be able to measure change throughout the project circle(s). Together, we will identify the most suitable solutions for Malta and the Mediterranean Sea to tackle the problems arising from ship emissions. These include for instance a change in political measures (establishment of emission control areas), technical measures (obligation for ships to install diesel particulate filter, selective catalytic reduction systems, seawater scrubbing and the use of liquefied natural gas), infrastructural measures (onshore power supplies from renewable energies), and voluntary measures for ports (ecological port fees depending on environmental performance of ships, incentive programs to motivate ship owners to be more environmental-friendly).

National and international partnership development

On the national level, the project activities have to be aligned with the objective to work together with relevant stakeholders from the maritime industry and authorities and discuss the necessary steps for the implementation of a SECA in the Mediterranean Sea. On the international level, a network will be established that is able to work on shipping related to air pollution in the partnering Mediterranean countries. Regular exchange of information and knowledge sharing will take place through this network and we will take part at periodical conferences with other European members of the "Clean Cruise Ship Action Network".

More Information:

NABU (2015): Clean Air in Ports Manual.

http://www.cleanair-europe.org/fileadmin/user_upload/redaktion/downloads/NABU/2015_NABU_Clean_Air_in_Ports.pdf

Centre for Energy, Environment and Health (2011): Assessment of Health-Cost Externalities of Air Pollution at the National Level using the EVA Model System.

http://ceeh.dk/CEEH_Reports/Report_3/CEEH_Scientific_Report3.pdf



Together Against Air Pollution from Ships

Background Information

Despite the fact that clean air is a basic requirement for human health and well-functioning ecosystems, air quality is globally in a constant decline particularly in urban areas. Cruise ships, berthing in harbours often located in close proximity to dense urban areas contribute massively to air pollution that threatens our climate, our environment and our health. In 2012, the World Health Organization identified that 95% of Europeans living in urban environments are exposed to levels of air pollution considered dangerous to human health and about 420,000 premature deaths are known as a result in the European Union¹.

Running engines of ships contribute considerably to global and local emissions of sulphur oxides (SO_x), nitrogen oxides (NO_x) and particulate matter (PM). The latter includes soot emissions (black carbon) which are in particular harmful to health and climate.

NO_x emissions diminish the function of the lungs and increase the risk of cardiovascular disease. NO_x is also a greenhouse gas causing climate warming due to its contribution in the formation of ozone (O₃). High concentrations of O₃ in cities are responsible for the death of elderly people and people with poor health conditions.

Emissions of sulphur oxides such as sulphur dioxide (SO₂) are harmful for our environment, not least because it causes acid rain which leads to the eutrophication of soils and coastal areas and it damages buildings and structures, particularly those made of limestone. Air pollutant emissions are furthermore responsible for a significant loss of productivity in agriculture and have a negative impact on biodiversity.

The Situation in Malta

Cruise shipping movements in Malta have increased by almost 16% over the past six years with 280 cruise ships in 2010 and 324 in 2015 berthing at Valletta Cruise Port. In 2014, cruise ship passengers stood at 471,554 for the year, a rise of 9.3% in comparison to 2013. Because of the small size of Malta, it can be assumed that a major part of the island is affected by the above-mentioned impacts.

¹<http://ec.europa.eu/environment/pubs/pdf/factsheets/air/en.pdf>

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This adds on to Malta's significant air pollution caused by traffic, energy generation and industry, identified as major concerns to the environment and health under the Strategic Plan for Environment and Development (SPED). Malta's Greenhouse Gas emissions increased by 54% between 1990 and 2012, the transport sector being the principal contributor with 91.1% in 2012 (SPED, 2015).

Project Overview

BirdLife Malta will implement the project "Together Against Air Pollution from Ships" together with various Mediterranean environmental Non-Governmental Organisations including Cittadini per l'Aria (Italy), France Nature Environnement (France), Ecologistas en Acción (Spain), and our BirdLife partners Ornithologiki (Greece) and NABU (Germany). Since October 2016, we work towards national awareness raising and knowledge development on air pollution from ships through activities and information sharing among relevant stakeholders as well as general public. As a long-term goal, we will work together with our partners towards the establishment of a network among Mediterranean countries supporting the establishment of a Sulphur Emission Control Area (SECA) in the Mediterranean Sea.

Sulphur Emission Control Areas (SECA) are declared areas under the International Convention for the Prevention of Pollution from Ships (MARPOL) ANNEX VI of the International Maritime Organization (IMO), which regulates air pollution from ocean-going vessels and ships in international waters. Ships are obliged to limit their maximum Sulphur content of fuel oils to 0.1% in comparison to outside SECA where a limit to 3.5% is established. The regulations apply to SO₂ emissions generated from ships including combustion equipment and devices onboard².

Sulphur limits for fuel in SECA

before 1 July 2010	1.50% m/m
between 1 July 2010 and 1 January 2015	1.00% m/m
after 1 January 2015	0.10% m/m

²[http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Sulphur-oxides-\(SOx\)-%E2%80%93-Regulation-14.aspx](http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Sulphur-oxides-(SOx)-%E2%80%93-Regulation-14.aspx)

