The Challenger

AIR QUALITY

Modern Air Patrolling

FACTS

Project Title
Supply of project management, air quality information management, behavior change and communication services

Contract no.
RFP / MFK /2019/ QCBS / No. 006

Budget
1,960,000 USD

Duration
24 months
(01.10.2019 – 30.09.2021)

Source of Funding
Millennium Challenge Corporation

Contracting Authority
Millennium Foundation Kosovo

Beneficiaries
National Institute of Public Health (NIPH)
Kosovo Hydro-Meteorological Institute (KHMI)

Contractor
NIRAS IC Sp. z.o.o. (Poland) in consortium with Ainshaire S.A. (Poland) and Umweltbundesamt GmbH (Austria)

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New project to tackle air pollution

'Supply of Project Management, Air Quality Information Management, Behavior Change and Communication Services' has started implementation in late September 2019 and it will continue for 2 years. The project is designed and financed by Millennium Challenge Corporation (MCC) through the Millennium Foundation Kosovo (MFK) and implemented by NIRAS to help the National Institute of Public Health (NIPH) and the Kosovo Hydro-Meteorological Institute (KHMI) collect and disseminate information on air quality.

Overall, the work in this project is implemented by the NIRAS consortium and monitored by Matt MacDonald.

The overall objective of the project is to:

improve the public availability and analytical use of environmental data by business, the Government, civil society and NGOs, thus promoting data driven decision-making.

The project consists of four key components:

1. Management and coordination - will ensure collaborative management and coordination with key stakeholders and donors as well as monitoring the activities following project indicators.

2. Air Quality Monitoring Network and sample analysis - includes new monitoring and communication equipment for existing stations, and repairs, equipment and training on maintenance, calibration and sample analysis.

- Staff of Kosovo KHMI is able for measure independently heavy metals in ambient particulate matter, sample and analyze BTEX.

	Good	Fair	Moderate	Poor	Very Poor	Extremely Poor
Particles less than 2.5 µm (PM2.5)	0-10	10-20	20-25	25-50	50-75	75-800
Particles less than 10 µm (PM10)	0-20	20-40	40-50	50-100	100-150	150-1200
Nitrogen dioxide (NO_2)	0-40	40-90	90-120	120-230	230-340	340-1000
Ozone (O_3)	0-50	50-100	100-130	130-240	240-380	380-800
Sulphur dioxide (SO_2)	0-100	100-200	200-350	350-500	500-750	750-1250

Index level (based on pollution concentrations in µg/m3)

Air quality in monitoring stations in Kosovo on January 17, 2020.

3. Air quality and health advisory information management – will provide a near real time air quality reporting service (of monitored data), a short-term forecast service (integrating emissions data with air quality modelling data) and services that provide early warnings) and an open data platform for data sharing and dissemination.

- Civil society and media can interpret air quality data, to engage more productively with the Government on environmental and health issues following public campaigns and awareness raising. Business can use the information to assess the impacts of air pollution, behaviors for reducing pollution, and behaviors for minimizing exposure to pollution.
- Kosovo Environmental Protection Agency (KEPA), Kosovo Hydro Meteorological Institute (KHMI), and National Institute of Public Health (NIPH) effectively monitor and report on select environmental indicators to a variety of stakeholders including the public.
- Air quality data platform and Open Data Service (measurement results from monitoring station, PM10, PM2,5, NO, NO2, SO2, O3, CO, air quality forecast) of the is provided to the government and the public.
- KHMI is equipped to host and manage a smartphone application that provides real-time air quality information (PM10, PM2,5, NO, NO2, SO2, O3, CO), health advisories 3-day air quality forecast (including daily predictions for ozone, nitrogen dioxide, PM10 and PM2,5) to users.
- 3-days air quality forecasts are available to the public on smartphone application and in portal. It includes ozone, nitrogen dioxide, and particulate matter (PM10 and PM2,5).
- Smartphone app/Air Quality Portal will include information for residents that are sensitive to air pollution, suggestions what resident should do to reduce the adverse effects of exposure of air pollution, and what actions in general could be taken to reduce the health threats to public.
- Six cross-sectoral trainings to (1) KHMI, KEPA and NIPH, (2) Government Institutions, (3) Media, civil society, NGOs and Academia to present air pollution signage and health advisories, communicate the project results, and discuss their role air pollution reduction and awareness raising.

Smog in Pristina. January 2018.

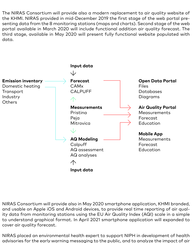
Photocredits
Armend Nimani

4. Outreach and behavior change - to communication to the public on air quality levels, health impacts of air pollution, behaviors for reducing pollution, and behaviors for minimizing exposure to pollution.

It includes preparation of written and visual aids and workshops.

- Health advisory outputs (research on the level of knowledge on air pollution and human health among the government and civil society, study on the relation between hospital admission and air pollution levels, health advisories for vulnerable individuals) of the international expert placed in the National Institute of Public Health (NIPH).
- Training workshops and on the job training of governmental staff to build capacity to execute social and behavior changes regarding air pollution.

We are in the process of designing the icons and the language that will be used in the smartphone app. We would like to advise the public on how to behave accordingly. The image shown here r epresents a sketch of the creative process. January 2020.



Progress to date

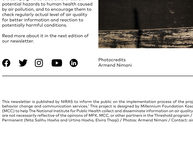
The project started in good speed at the end of September 2019. The kick-off meeting was organized on October 1, 2019 in the MFK premises for the project stakeholders. It was attended by 25 representatives from MFK, NIPH, KHMI, KEPA and NIRAS. The kick-off was delivered given by Mr. Petrit Selimi, Chief Executive Officer of MFK and Mr. Jacek Nowodzinski, NIRAS Director. Presentations followed by discussions, were given by NIRAS consortium regarding project methodology, emission inventory and air quality, outreach and behavior change. The presentations were interactive and invited discussions and clarifications.

Inception Workshop in the MFK premises on October 1, 2019.

More than 25 multiple meetings with stakeholders and the JICA air pollution project were held since early October. Good relationship was established with KHMI leading to access to the data collected by JICA monitoring stations. Based on the data from the JICA project, JICA presented pollution inventory (including transport pollution) and air quality modeling for Pristina. Data on transport pollution in Pristina were shared by JICA with the project team. Meetings with other organizations such as MESP, Cadaster Agency, municipalities resulted in provision of data for emission inventory

The Inception Report was prepared within 5 weeks and submitted for approval. Following comments received, and Inception Workshop on December 2-3, 2019, the report was improved and resubmitted in December 2019.

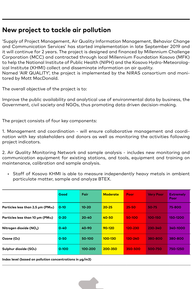
Inception Workshop in the MFK premises on December 3, 2019.



Much progress was done regarding the pollution inventory and the project platform. Data search for pollution inventory, and application of assumptions (if data is not available) are currently the key task for the project team.

Traffic volume data in Kosovo, 2015.

The NIRAS Consortium will provide also a modern replacement to air quality website of the KHMI. NIRAS provided in mid-December 2019 the first stage of the web portal presenting data from the 8 monitoring stations (maps and charts). Second stage of the web portal available in March 2020 will include functional addition air quality forecast. The final stage, available in May 2020 will present fully functional website populated with data.



NIRAS Consortium will provide also in May 2020 smartphone application, KHMI branded, and usable on Apple iOS and Android devices, to provide real time reporting of air quality data from monitoring stations using the EU Air Quality Index (AQI) scale in a simple to understand graphical format. In April 2021 smartphone application will expanded to cover air quality forecast.

NIRAS placed an environmental health expert to support NIPH in development of health advisories for the early warning messaging to the public, and to analyze the impact of air pollution on health. Another NIRAS expert will support KEPA to assess the negative impact of air pollution on biodiversity including animals, food and agriculture.

Work has started on public campaign that NIPH will launch, supported by Niras, to develop signage, visual aids, health advisories, and use of air quality information. Gender and Social Inclusion strategy is under development. It will be applied to all key deliverables of the project.

Project Steering Committee, Technical Committee and Donor Coordination will be convened in January 2020.

We are in the process of developing the campaign to introduce the icons for easier communication of actual level of air pollution to the citizens of Kosovo

and to promote the icons together with recommendations for the appropriate behavior of vulnerable groups during high levels of air pollution. The aim of the campaign is to raise awareness about potential hazards to human health caused by air pollution, and to encourage them to check regularly actual level of air quality for better information and reaction to potentially harmful conditions.

Read more about it in the next edition of our newsletter.

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Armend Nimani

This newsletter is published by NIRAS to inform the public on the implementation process of the project named: Air quality information management, behavior change and communication services. This project is designed by Millennium Foundation Kosovo (MFK) and Millennium Challenge Corporation (MCC). The content of this publication is the sole responsibility of the consortium NIRAS, Ainshaire and Umweltbundesamt and does not necessarily reflect the views of MFK, MCC, or other partners in the Threshold program / Edited by: NIRAS / Design and illustrations: Studio Permanent (Nita Salihu, Hasha and Urtina Hasha, Elvira Thaçi) / Photos: Armend Nimani / Contact: airq@niras.com