

**The Polish examples/good practices of strategies, policies, and measures employed to implement obligations under the 1988 Sofia Protocol concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes and the 1999 Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone to the LRTAP Convention:**

**KAWKA Programme – elimination of residential emission sources (so called “low emission”) supporting the energy efficiency improvement and development of dispersed renewable energy sources**

<p><b>Country:</b></p> <p><b>Poland</b></p>	<p><b>Sector:</b></p> <p><i>Please indicate the sector (e.g. agriculture, industry, urban planning, environment, etc.), or sectors (if several) for which the strategy, policy or measure has been mainly designed</i></p> <p>Residential combustion sector</p>												
<p><b>Type of strategy, policy or measure:</b></p> <p><i>Please identify the type of strategy, policy or measure – economic e.g. incentive or disincentive (taxes, funds, subsidies, prices or caps/ceilings, payments, rebates, etc); voluntary (agreements, programmes, contracts), regulatory (legislation), or other measures (educational, informational, other)</i></p> <p>Voluntary funding programme aimed at elimination of residential emission sources (so called “low emission”) supporting the energy efficiency improvement and development of dispersed renewable energy sources</p>	<p><b>Level:</b></p> <p><i>Please state at which level (municipal, regional, sub-national, national) the policy, strategy or measure is targeted or implemented</i></p> <p>National level</p> <p>Implementation level: municipal (cities/towns of over 10 thousand residents)</p>												
<p><b>What is the main objective of the strategy, policy or measure? When has it been implemented/or will be implemented?</b></p> <p><i>Please describe briefly what the measure attempts to achieve or what has been the result of its implementation. Please also describe since when it is being employed or for when its implementation is foreseen. Please explain whether implementation is/was immediate or gradual. [150 words max]</i></p> <p>The main goal of the KAWKA Programme was to improve air quality by reducing emissions of PM10, PM2.5 and benzo(a)pyrene in areas with exceeded air quality standards (concentration levels) for certain pollutants. Pursuant to the legal requirements in place - Act on <i>Environmental Protection Law</i> (EPL), special air protection programmes are developed for such areas (zones) setting relevant remedial measures. The KAWKA Programme primarily focuses on the reduction of particulate matter emissions, but it also provides reduction of NOx, SO<sub>2</sub> and CO<sub>2</sub> emissions.</p> <p>The Programme was implemented in two editions:</p> <table border="1" data-bbox="231 1758 1316 1870"> <thead> <tr> <th><b>Edition</b></th> <th><b>Starting from</b></th> <th><b>Resource allocation for</b></th> <th><b>Reimbursement year</b></th> </tr> </thead> <tbody> <tr> <td>KAWKA I</td> <td>2013</td> <td>2013 - 2015</td> <td>2018</td> </tr> <tr> <td>KAWKA II</td> <td>2014</td> <td>2014 - 2015</td> <td>2018</td> </tr> </tbody> </table>		<b>Edition</b>	<b>Starting from</b>	<b>Resource allocation for</b>	<b>Reimbursement year</b>	KAWKA I	2013	2013 - 2015	2018	KAWKA II	2014	2014 - 2015	2018
<b>Edition</b>	<b>Starting from</b>	<b>Resource allocation for</b>	<b>Reimbursement year</b>										
KAWKA I	2013	2013 - 2015	2018										
KAWKA II	2014	2014 - 2015	2018										
<p><b>Background and driving forces:</b></p> <p><i>Please explain briefly why this strategy, policy or measure was implemented; mention the driving forces for its introduction e.g. policy development, legislation (EU, national), action plans, voluntary, incentive, or other [150 words max]</i></p>													

The KAWKA Programme supported emission reduction measures taken in urban areas as a part of the priority programme on “Improvement of Air Quality” facilitating the implementation of the Act on *Environmental Protection Law* (EPL) which introduced a system for air quality assessment and management.

The priority programme supports the development and implementation of Air Protection Programmes (APPs). EPL provides legal requirements for developing APPs for zones at which at least one of permissible or target concentration level is exceeded for pollutants under review. Air quality assessments at zones and classifications of zones are annually carried out by Voivodeship (regional) Inspectors for Environmental Protection. Voivodship Management Boards are responsible for approving APPs. Such programmes are to meet the provisions of the Regulation of the Minister of the Environment [3]. The KAWKA Programme gave the opportunity to apply for funds to partially cover the costs for the implementation of measures considered in approved APPs as essential.

**Description of the strategy, policy or measure:**

*Please explain briefly how the strategy, policy or measure works and why it has been chosen compared to other policies/measures. Please also explain how its implementation is being monitored. [200 words max]*

The KAWKA Programme provided the opportunity to obtain funds to:

- Eliminate local boiler houses and individual stoves and replace them with connections to local heating systems,
- Replace coal-fired furnaces with more energy-efficient heating sources (heat pumps, modern gas-, oil- or coal-fired furnaces, electric heating),
- Extend the heating systems,
- Install solar systems,
- Provide thermal isolation of houses,
- Purchase emission control equipment for fuel burning and emission measurements.

Conducting educational campaigns and development of databases was an essential condition under which the end-users final beneficiaries could obtain funds for above-mentioned measures.

Local self-governmental authorities acting as intermediates in the transfer of providing funds for individuals, housing communities or developers were the main beneficiaries of the Programme. Applications for funding submitted to the relevant Voivodship Funds for Environmental Protection and Water Management (WFOSiGW) had to include information on expected environmental effects or outcomes – reduction of emissions levels of PM2.5, PM10, NO<sub>x</sub>, SO<sub>2</sub>, CO<sub>2</sub>, benzo(a)pyrene and possibly other pollutants, using emission factors in line with the EMEP Guidebook [4]. Each out of the 16 regional funds from the 16 voivodships in Poland applied to the National Fund for Environmental Protection and Water Management (NFOSiGW) for co-funding activities planned in areas under its competences.

**Costs, Funding and Revenue allocation:**

*Please state how much the implementation of the measure costs including its monitoring and how it is funded (national budget, industry, taxes, etc.) If the measure is creating revenue, please also explain how this revenue is being allocated and collected. [200 words max]*

The KAWKA Programme was financed by NFOSiGW and regional level funds. The NFOSiGW resources were distributed among towns with areas with exceeded air quality standards depending on the number of citizens. The total amount of funding for a single

measure or action covered up to 90% of its qualified costs, including 45% in the form of donations from NFOSiGW, and the remaining 45% from WFOSiGW (in different forms). Financial resources were transferred from NFOSiGW to WFOSiGW on the basis of legal contracts signed between those institutions. The local self-governmental authorities - the beneficiaries – received funds from WFOSiGW. Funds provided for taking measures under the KAWKA Programme did not generate income.

The total amount of almost 146.7 million EUR<sup>\*/</sup> from environmental funds was spent to improve air quality under the KAWKA Programme. The contracts that were signed between NFOSiGW and WFOSiGW during the two editions covered around 64.5 million EUR<sup>\*/</sup> (KAWKA I: 27.3 million EUR and KAWKA II: 37.2 million EUR).

<sup>\*/</sup> according to average exchange rate of 10 November 2016: 1 EUR = 4.3424 PLN

**Effect and impacts on air pollution abatement:**

*Please explain briefly the effect of the policy, strategy or measure and how it has impacted the abatement of air pollution. If impacts are known, please quantify, if possible. Please highlight also other effects of the implementation of the measure e.g. with regard to compliance, the acceptance of the measure or its transposition (e.g. from a voluntary to a regulatory or another type of measure). [150 words max]*

In the 1<sup>st</sup> edition of the KAWKA Programme 36 towns benefitted from the funding and 47 towns – in the 2<sup>nd</sup> edition, out of which 22 towns participated in both editions. Due to donations granted during the KAWKA Programme over 34 thousand coal-fired boilers/furnaces have been replaced with connections to the local heating systems or with low-emission heating sources (gas boilers, heat pumps, electric heating).

<b>Programme outcomes</b>	<b>KAWKA I</b>	<b>KAWKA II</b>	<b>Total</b>
Houses with thermal isolation (units)	233	171	<b>404</b>
Installed solar systems (units)	670	459	<b>1129</b>
Withdrawn boilers/furnaces (units)	15 325	18 994	<b>34 319</b>
Installed new heating sources (units)	3 814	5 100	<b>8 914</b>
Eliminated coal (kg)	45 469	60 902	<b>106 371</b>
<b>Reduction of annual emissions</b>			
PM10 (Mg/year)	439	419	<b>858</b>
PM2.5 (Mg/year)	420	396	<b>817</b>
CO2 (Mg/year)	67 134	65 764	<b>132 898</b>
B(a)P (Mg/year)	0.3	0.2	<b>0.5</b>

**References/Further information:** *Please provide most relevant sources for information such as references for web links, books, other resources.*

[1] Source of information on the KAWKA Programme: National Fund for Environmental Protection and Water Management

- [2] Act of 27 April 2001 - Environmental Protection Law (consolidated text: O.J. of 2016 item 672, as amended),
- [3] Regulation of the Minister of the Environment of 11 September 2012 on air protection programmes and short-term action plans (O.J. of 2012 item 1028),
- [4] EMEP/EEA Air Pollutant Emission Inventory Guidebook – 2013

**Contact:** *Please insert your contact details below.*

**Name:** Kinga Majewska

**Country:** Poland

**Organization:** Ministry of the Environment

**Address:** Wawelska 52/54, 00-920 Warsaw

**Telephone:** (+48 22) 57 92 810

**Email:** kinga.majewska@mos.gov.pl

**Additional comments:** *Please include any additional information you may wish to provide here.*

Presently, the National Fund for Environmental Protection and Water Management (NFOSiGW) is financing two sub-programmes under the priority programme on the “Improvement of Air Quality”:

1/ “The use of geothermal resources in energy generation”

2/ “Reduction of energy consumption in the building construction sector”

The total budget for those sub-programmes is estimated at 230 million EUR, including 69 million EUR in the form of donations and 161 million EUR as preferential loans.