

THE NFEP&WM – 30 YEARS
FOR ENVIRONMENTAL SUSTAINABILITY IN POLAND 1989–2019

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First Edition

Prepared by: the NFEP&WM

Graphic design, editing and correction: Sil-Veg-Druk Printing House

Warsaw 2019

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Printed on ecological paper.

30 YEARS FOR ECO-DEVELOPMENT 1989 – 2019

THE MAIN SOURCE OF FINANCING ENVIRONMENTAL PROTECTION IN POLAND

HENRYK KOWALCZYK
MINISTER OF ENVIRONMENT



Effective and efficient support of environmental activities, with particular reference to activities absorbing foreign resources, operated by the National Fund” – this is the mission statement of the National Fund for Environmental Protection and Water Management (the NFEP&WM). The National Fund has successfully been fulfilling its mission for the last 30 years when it was first committed to the management of funds obtained from the environmental charges and fines scheme. Today, this mechanism is the basis of the system of financing environmental protection actions.

When the NFEP&WM was established, the condition of Polish ecology was referred to as critical. After spending billions of Polish zlotys and completing hundreds of thousands of tasks, we now recognise that the National Fund supports the sustainable development of Poland in real terms. It is an important pillar of funding the environmental investments in our country. These investments enhance the condition of the environment in Poland, and therefore the quality of life of all residents. Amongst those projects, we need to mention the protection of water, land, air, the natural environment and ecosphere, municipal services management and waste management, and finally, environmental education. These days it is difficult to find an area free of resources deriving from the NFEP&WM.

Using its acquired knowledge and experience, the National Fund is taking on further challenges. The Clean Air Programme, with the budget of 103 billion of Polish zlotys, is one of them. From 2018, over the period of 10 years, these funds will be allocated to, among other projects, thermo-modernisation of family detached houses and replacement of heat sources. This will result in the reduction of so-called „low-stack emission”. This way we will all be able to breathe with cleaner air.

On this beautiful anniversary, I express my appreciation to all former and present Board members and employees of the National Fund. You are the people who carry the responsibility for the sustainable development of Poland. Considering the fact that the NFEP&WM has become a model for numerous institutions, you can be proud of yourselves.

I congratulate you on your persistence, creativity and the relentless passion for the fulfilment of the NFEP&WM mission. Please accept my sincere wishes of the many professional achievements and the satisfaction from them. At the same time, I wish you success in the implementation of all your goals and prosperity for the next 30 years of operation.

Henryk Kowalczyk



PROFESSOR ROMAN NIŻNIKOWSKI (PH.D.).
CHAIRMAN OF THE NFEP&WM'S SUPERVISORY BOARD

Concern for the environment has always been of interest to local authorities, regardless of which period in the beautiful history of our country we were in. The first spectacular success was recorded in Warsaw, in 1886, when the first water supply and sewage collection system in the region was completed. It was modern, as for those times, and it is still in operation at present. Moreover, the class of the system was similar to those in Hamburg and Berlin, while cities like Moscow or Saint Petersburg still had to wait for a long time to achieve these standards of water management and sewage systems. This installation built in Warsaw has immediately contributed to the improvement of hygienic conditions and to the reduction of the threat of epidemics. This was a definite action for the environment maintained by the local office that was counterpart of the local government operating these days. Such a model of the „environment protection” of the local authorities operates in most countries of the world and they serve well the communities caring for their natural environment and humans.

The first attempt to institutionalise the care of the environment was made in Poland, in 1989, when the National Fund for Environmental Protection and Water Management was established. This is probably the only institution of this kind in the world. It has developed wonderfully due

to the adequate adjustments of legislation enabling the generation of resources for funding programmes and actions improving the quality of the environment in which we live. As a result, there exists a framework that manages the environment in Poland that is exceptional internationally, and the successes in this area constitute an example for other countries that consider the protection of the natural environment as serious.

According to the mandate of the operation of the National Fund for Environmental Protection and Water Management, all actions related to the utilisation of our natural resources located under the ground, the protection of the land itself and of the space above it will be funded, including those of a high cost. It requires the involvement of numerous specialists. Indeed, it must be remembered that we had only 20 specialists in 1989, however, at present there are almost 700 of them.

The National Fund for Environmental Protection and Water Management operates on the basis of the Environmental Protection Act, as well as the contracts and agreements concluded mostly with the Ministry of Environment, the Ministry of Investment and Development and the Ministry of Energy. The National Fund is the main provider of foreign-sourced programmes drawn from various funding

sources, such as: ISPA, PHARE, the Cohesion Fund and the European Regional Development Fund, the Operational Programme Infrastructure and Environment (OPI&E), the Norwegian Financial Mechanism (NFM), European Economic Area Financial Mechanism (EEA FM) and the LIFE financial instrument.

In the context of the OPI&E 2014–2020, the NFEP&WM oversees the “Nationwide system of advisory support for the public and housing sectors and enterprises in terms of energy efficiency and RES”. We can see this in the recent period, during the Poznan “POL-ECO SYSTEM” Trade Fair, jointly with the Ministry of Environment and Bank Ochrony Środowiska (Bank for Environmental Protection) and the voivodeship funds, we created the Ecosphere – a special conference and exhibition sphere that promotes all the institutions concentrated around the Ministry of Environment. Moreover, we oversee the National Fund for Environmental Protection and Water Management that is responsible for the implementation of the Clean Air Programme. The National Fund carried out a nationwide action “100 thousand trees for the 100th anniversary of Polish independence 1918–2018” and got involved in the Low-Carbon Transport Fund as a future operator. The signing of three contracts regarding subsidising under the OPI&E with beneficiaries

numbered 999, 1000 and 1001 in October 2018 during the POL-ECO SYSTEM in Poznan was very significant. It clearly indicates the tremendous engagement of the personnel and the management of the National Fund in the operation in favour of the environment. Considering the fact, that in 1989 there were only 33 of such agreements signed, this great increase of organisational activity needs to be noted. Throughout the 30 years of the operation of the National Fund for Environmental Protection and Water Management, supporting the most significant ecological projects, the implemented strategy reflected the following motto: “Let us invest in the environment together.”

The 30 years of the National Fund’s existence has resulted in numerous prizes and awards for the institution and for the board members. This is the result of its incredibly efficient operation. The dedication and commitment of the NFEP&WM staff, as well as of the beneficiaries enacting various the NFEP&WM projects, indicates the relevance of the establishment of this institution and the exceptional need for its operation and development. We should congratulate and wish further achievements to all those who are a part of this beautiful history of environmental protection actions.

Roman Winiukowski



PIOTR WOŹNY
PRESIDENT OF THE NFEP&WM'S MANAGEMENT BOARD

The National Fund for Environmental Protection and Water Management, being both a “peer” and a co-participant of the Polish political transformation, celebrates its 30th anniversary in 2019. Our institution was formally established on 1 July 1989, when the regulations of 27 April 1989 revising the Protection and Development of the Environment Act and the Water Law came into force. It was an event I would not hesitate to call a breakthrough – the moment of the creation of a unique public finance institution for supporting the improvement of the natural environment in the difficult time of transformation in Poland.

Over three decades, the Fund, constituting a pillar of funding for environmental protection and water management, has consistently promoted the greatest and most significant strategic and innovative ecological undertakings in Poland. Through this, it has played one of the key roles in the implementation of the state environmental policy, acting as a financial instrument.

The balance sheet of the 30 years of the Fund's existence is impressive. Since its inception, our institution has spent a total of PLN 96 billion on the improvement of the environment. More than half of these funds came from the state budget (50 billion PLN) and the remainder (PLN 46 billion) came from international sources, mainly from the European Union's Operational Programme “Infrastructure

and Environment”, including the ongoing 2014–2020 phase.

In its 30 year history, the Fund signed nearly 32 thousand contracts, including 28.8 thousand funded by national resources. Over 30 years of existence, we have established a unique and efficient system of financing investments in the area of environmental protection. We support not only investment projects but also educational, expert, research and development and the recovery undertakings. These initiatives significantly benefit the natural environment in Poland, as well as Polish society.

Cardinal Stefan Wyszyński once said, “A year of our life is worth as much as the amount of heart, closeness, compassion, kindness and comfort we managed to give to others”. The anniversaries of public institutions are worth as much as they have been able to do for the common good during their existence. Over the last 30 years, the Fund has achieved much for the improvement of the natural environment in Poland and the enhancement of the quality of life of the Polish people. Now the National Fund faces a great new challenge – the Clean Air programme. The Fund needs to meet public expectations and be a leader of government administration in the area of combating air pollution. It is my wish for the Polish people, that going forward, the Fund will be able to say, as a 40-year-old institution, that it achieved this goal.

A handwritten signature in blue ink, appearing to read 'Piotr Woźny'.



Narodowy Fundusz
Ochrony Środowiska
i Gospodarki Wodnej
30 lat

ENVIRONMENTAL PROTECTION AND ITS FINANCING BEFORE THE NFEP&WM ESTABLISHMENT

The idea of environmental protection dates back to the second half of the 19th century. In Europe it originated from a movement being a reaction to the dynamic processes of industrialisation and expansion of cities, as well as increasing levels of air and water pollution. The methods of environmental protection include: rational shaping of environment and managing its resources in accordance with the sustainable development principle, counteracting contaminations, maintaining and restoring elements of Nature to their proper condition and recycling, i.e. sorting waste materials in order to reuse them – something that is currently developing into a higher form of functioning – a circular economy.

A green patriot in independent Poland

Since gaining independence in 1918, the achievements of our country included activity in terms of shaping the environment and attitudes of citizens and entrepreneurs. At that time, there was a wide discussion concerning the directions of Polish environmental protection development. A great importance was assigned to ecological education, according to the maxim: “A good patriot is a green patriot”. Some stated that in the pre-war Poland there was a fierce fight not only against the Bolsheviks and the opposition, but also against destroying the natural world. A new precursory branch of administrative law existed already in the Second Republic of Poland. The Polish model of environmental protection, at that time focused on the protection of Nature, was well seated in modern European trends and it constitutes a significant element of Polish legal achievements of the interwar period.

In the period from the end of warfare to the end of the 80's of the previous century it is hard to talk about the environmental protection policy or any systemic activities in this area, par-

ticularly those referring to the intense industrialisation of the economy at that time. The activities of scientists (professor Władysław Szafer) and social organisations (League for Nature Conservation) only allowed continuing the development of the national parks' network and other forms of Nature protection. Still, the Act on Protection and Development of the Environment of 31 January 1980, which was in force until 2001, was one of the most modern in Europe (it introduced, *inter alia*, a system of charges for using the environment and water and penalties for exceeding the stipulated limits). Unfortunately, until 1989 this Act was often evaded, particularly in terms of the preparation of new industrial investments and destroying the environment and Nature by existing (often outdated) technologies.

The 80's of 20th century

At the beginning of the 80's of the 20th century, we dealt with serious life and health hazards for the residents of Poland – all caused by environmental pollution. In numerous regions of the country, the allowed limits for air, as well as soil and water pollution were permanently exceeded. These zones were called ‘areas of ecological hazard’. In accordance with the estimates of the Central Statistical Office, at the beginning of the 80's, 27 areas of ecological hazards, covering about 10% of the area of the country, were distinguished. One third of Poland's population lived in these hazard areas. The worst conditions occurred in the Upper Silesia. Children, playing in their back-yards, where toxic dusts accumulated, were especially exposed to these hazards. Zones contaminated with lead, causing learning difficulties within the youngest generation (which was clearly recorded in school reports), were exceptionally dangerous. Similar health hazards occurred around the aluminium plant in Skawina, in the vicinity of Celwiskoza, in Jelenia Gora and in other places.

These hazards started to be disclosed back in 1979, when the first independent reports were published. Emerging ecological movements led a far-flung campaign against further projects of Poland's industrialisation, such as a nuclear power plant in Zarnowiec, metals mine and works in Sudovia, brown coal open pit near Poznan and aluminium oxide factory near Kielce.

Way to the Round Table and what then?

Independent expertise and reports criticizing those and other investments, were developed. These works were somehow crowned by the idea of future environmental sustainability of Poland (developed by professor Stefan Kozłowski in 1985), one of the first theories of this type in the world. The published information formed and popularised new ideas and social attitudes, and ecological slogans gained a permanent place in the solidarity programmes. During the organisation of the Round Table negotiations, the technical, legal and financial

problems regarding the environmental protection and water management were included in the package of issues requiring changes and they were discussed by the team of partners from the opposition-solidarity and governmental parties, called the "ecological sub-table".

Some of the Round Table's arrangements had a strategic dimension for the new organisation of operating principles of environmental protection services and the manner of their financing. Among these arrangements, the establishment of the National Fund for Environmental Protection and Water Management came to the fore. In the first phase of its activity it functioned as a State special purpose fund, providing financial support for the largest ecological investments and projects. In addition, the 'polluter-pays' principle was strengthened and the basis for the (well functioning – even now) mechanism of funding pro-ecological undertakings from the funds supplied mainly by charges for polluting, was created.

THEY SAID ABOUT ECOLOGY:

Saint John Paul II, Encyclical Letter Evangelium Vitae, 1995

The awareness of the existence of ties between God and humanity gives a deeper sense to the meaning of the ties between people and the natural environment which – as the creation of God – was entrusted to us, so we would protect it with wisdom and love.

BEGINNING OF THE NFEP&WM – CIRCUMSTANCES OF ITS ESTABLISHMENT AND ACTIVITIES

It is an important date not only for the National Fund for Environmental Protection and Water Management (the NFEP&WM), but also for the natural environment and the development of ecology in Poland. The NFEP&WM actually commenced its activities on 1 July 1989, pursuant to the Ordinance no. 11 of the Minister of Environmental Protection and Natural Resources of 30 June 1989, on granting the statute to the National Fund.

The NFEP&WM was established as a special purpose fund, and since 2010, it has been operating as a State legal entity. Providing financial support to the largest domestic or supra-regional undertakings for the protection of environment and water management is its main objective.

In the first year of its activities alone, the National Fund for Environmental Protection and Water Management signed 33 contracts for co-funding, most in the area of water protection. The first President of the institution was Lestaw Puczniewski.

HISTORY OF THE NFEP&WM UNTIL POLAND'S ACCESSION TO THE EUROPEAN UNION (1989–2004)

In September 1990, Bank Ochrony Środowiska (BOS), which supports the activities of the NFEP&WM, was established, also on the basis of the Round Table's agreements. The National Fund is the main shareholder of this bank. BOS commenced its activity in 1991. Two years later, in July 1993, the voivodeship funds for environmental protection and water management (VFEP&WM), independent units cooperating with the National Fund, were created in order to complete the tasks on a regional scale. Since then, the NFEP&WM, along with the voivodeship funds and BOS have been the main links in the Polish system of financing environmental protection and water management.

From its beginnings, the activity of the NFEP&WM was made possible thanks to the funds obtained from environmental charges and penalties. This changed in 1994, when on the basis of the

On 27 April 1989, on the basis of the Round Table's agreements and the amendment to the Act on Protection and Development of the Environment of 1980, the National Fund for Environmental Protection and Water Management was established.

agreement concluded by the Minister of Environment and the Chairman of the Board, the Bureau of the *Environment Management Strategy Programme*, which manages foreign financial means, was incorporated into the structures of the NFEP&WM.

Irrespective of the statutory tasks, the NFEP&WM always joined into the support activities in cases of extraordinary hazards and natural disasters. This was, for example, the case during the millennial flood in 1997, when the National Fund provided financial help for removing the effects of the flood.

In 1998, in concern for effective and efficient management of financial means, procedures of obtaining and processing of applications for funding from the financial resources of the National Fund were enhanced.

In January 1999, the NFEP&WM commenced the implementation of pre-accession assistance projects (Instruments for Structural Policies for Pre-Accession – ISPA and PHARE – Poland and Hungary Assistance for the Restructuring of the Economy) in the area of environmental protection. In the fol-

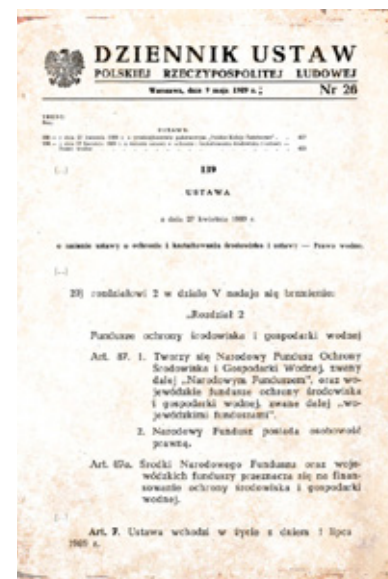


Fig. 1. Act on establishing the NFEP&WM of 27 April 1989.

lowing years, the National Fund dealt with projects within the framework of the Cohesion Fund and the European Regional Development Fund, and since 2007, within the framework of the Operational Programmes Infrastructure and Environment.

HISTORY OF THE NFEP&WM AFTER POLAND'S ACCESSION TO THE EU (2004–2015)

In the years 2004–2009, the NFEP&WM, in cooperation with the Ministry of Environment, prepared, assessed and coordinated the completion of projects co-financed from the Norwegian Financial Mechanism (NFM) and the Financial Mechanism of the European Economic Area.

Another project completed by the NFEP&WM was the Sectoral Operational Programme – *Improvement of the Competitiveness of Enterprises* (SOP – ICE Union for Enterprising – Competitiveness Programme) addressed to enterprises interested in increasing their competitiveness in the conditions of the European Single Market. Within the framework of this programme, the investments for environmental protection were completed through measure 2.4 of SOP-GCC, in which the NFEP&WM was the Implementing Institution in years 2005–2009. It was the first EU financial assistance facility for Polish entrepreneurs for the completion of pro-ecological projects, co-funded simultaneously from the financial resources of the NFEP&WM.

OPI&E 2007–2013 AND LIFE+

In 2007, the Operational Programme Infrastructure and Environment 2007–2013 began. In this, the role of the Implementing Institution was entrusted to the NFEP&WM. In June of the same year, the National Fund signed an agreement with the Ministry of Environment for the completion of the OPI&E in the scope of priority axes I, II and IV, and in October, the agreement with the Ministry of Economy was signed for the completion of the OPI&E in the scope of priority IX (measures 9.1, 9.2 and 9.3). Since 2008, it also commenced the completion of priority III.

In September 2008, on the basis of an agreement with the Ministry of Environment, the National Fund became the National Implementing Institutions for the LIFE+ Financial Instrument in Poland. Herein, the National Fund fulfilled the role of National Contact Point for all components of LIFE+. It cooperated with applicants, conducted consultations regarding the preparation of applications, conducted the call for applications and passed them to the European Commission. Simultaneously, a priority programme for co-funding of the LIFE+ undertakings from domestic funds was also created.

THE NFEP&WM DOMESTIC PROGRAMMES

Since 2009, the NFEP&WM has been managing its own funds through the national priority programmes that consider environmental needs and financial capabilities of beneficiaries and which constitutes the response to a changing environment.

In 2009 the function of the National Operator of the *Green Investments Scheme (GIS)* was entrusted to the National Fund, by virtue of the Act of 17 July 2009 on the System to Manage the Emissions of Greenhouse Gas and Other Substances. Co-funding within the framework of GIS is aimed at reducing energy consumption in buildings used by local governments, health care centres, higher education institutions, non-governmental organisations, voluntary fire brigades, church legal persons and selected entities from the public finance sector. The construction or modernisation of agricultural biogas plants, biomass-fired heat-generating and heat and power generating plants with thermal power below 20 MW, modernisation of power grids in order to connect new wind energy sources, street lighting and also tasks related to reduction in energy and fuel consumption in urban transport, thanks to, *inter alia*, purchasing low-emission buses, were co-financed.

NEW FOREIGN FUNDS

In connection with concluding international agreements between the European Union and Donor States in 2011, regarding the mobilisation of new financial perspectives of the Norwegian Funds and EEA for the years 2009–2014, Poland received financial support amounting to 578 million EUR. The greatest funds were allocated to environmental protection – 180 million EUR, which included funds for the protection of biological diversity and ecosystems (Programme PL02 – 20 million EUR), for undertakings aimed at improving environment monitoring and inspection (Programme PL03 – 15 million EUR) and for saving energy and promoting renewable energy sources (Programme PL04 – 145 million EUR). The NFEP&WM, along with the Ministry of Environment, became the Operator of Programmes PL02, PL03 and PL04. First calls for applications in the areas of the listed programmes commenced in the first half of 2013.

The activity of the NFEP&WM, as well as the good practices developed and applied by the National Fund were noticed and appreciated. In 2011, the National Fund received a prestigious Best Practice Certificate EPSA 2011 for the programme of 45% subsidies for partial payments of loans for the purchase and installation of solar thermal collectors and the award of 'distinction' in the contest "Good practices of strategic management are the development of Poland", awarded by the Ministry of Regional Development.

LIFE PROGRAMME AND OPI&E 2014–2020

The LIFE programme, being the continuation of LIFE+, was created in December 2013 and it is the only financial instrument of the European Union dedicated exclusively to co-funding projects for protecting and improving the quality of the environment and dealing with human influence on climate and adaptation to its change. The National Fund also fulfils the role of the LIFE National Contact Point in the EU's financial perspective for the years 2014–2020. In 2014, the National Fund received the 'Quality of the Year 2014 Emblem' in the ecology category in the 9th edition of this programme for financing activities within environmental protection and water management.

OPI&E 2014–2020

In 2014, the NFEP&WM was entrusted with the function of the Implementing Institution for the OPI&E 2014–2020 regarding priority axis I *Low-carbon economy* (measures 1.1, 1.2, 1.3, 1.5 and 1.6) and all measures in the priority axis II *Environmental Protection, Including Adaptation to Climate Change* (measures: 2.1, 2.2, 2.3, 2.4 and 2.5).

On 3 March 2016, the NFEP&WM signed an agreement with the Ministry of Energy on the completion of the project *Nationwide system of advisory support for the public and housing sectors and enterprises in terms of energy efficiency and RES* (renewable energy sources) within the framework of the OPI&E 2014–2020. This is a partner project with the participation of the NFEP&WM as the leading partner, and involves 15 separate voivodeship-based funds for environmental protection and water management and the Marshal's Office in Lublin. Within the framework of this programme, a nationwide network of a few dozen advisors provides assistance to those who want to benefit from the EU's support in the area of energy efficiency.

THE NFEP&WM IN THE DIGITAL ERA

In January 2015, a new website (www.nfosigw.gov.pl) was launched. Since then, within the framework of financing processes computerisation, all the applications are submitted through the electronic system. Generators of applications for co-financing and for the payments from domestic financial resources, as well as for the payments for OPI&E, were created and electronic circulation of documents in the e-Kancelaria system was enacted.

In May 2016, the NFEP&WM launched its official Twitter account ([twitter.com.nfosigw](https://twitter.com/nfosigw)), and in June 2017, a Facebook account (facebook.com/NarodowyFunduszOchronySrodowiskaiGosp

odarkiWodnej). The presence in social media allows quick contact with beneficiaries and is also a perfect tool for promoting National Fund activities and offers.

YEAR 2018

The implementation of the priority programme *Clean Air*, so far the largest environmental programme supporting natural persons, is a significant activity of the NFEP&WM. On 7 June 2018, the National Fund signed an agreement in this matter with Bank Ochrony Środowiska and with 16 voivodeship-based funding agents for environmental protection and water management. It will be in operation in the years 2018–2029. The financial resources for heat source replacement and thermo-modernisation will be obtained by natural persons who are the owners or co-owners of detached housing. The call for applications started in September 2018, through the voivodeship funds.

Almost at the same time, in commemorating the 100th anniversary of Poland's re-emergence as a nation, the NFEP&WM paid attention to the evolution of modern environmental law in our country, and simultaneously to the role of the National Fund in financing environmental sustainability in Poland. Hoping to encourage the Polish people to engage more actively in the activities for the environmental protection, on 9 September 2018, the National Fund, along with its voivodeship partners, organised and conducted the countrywide action "100 thousand trees for the 100th anniversary of Poland regaining independence – 1918–2018".

In October 2018, during the POL-ECO SYSTEM Trade Fair, the NFEP&WM signed three agreements with symbolic numbers: 999, 1000 and 1001 for co-funding within the framework of OPI&E 2014–2020.

The year 2018 was also the time of engagement of the NFEP&WM, as the future operator of the Low-Carbon Transport Fund for the development of electromobility and other forms of low-carbon transport. It is one of the key elements of the governmental *Strategy for Responsible Development*, the main target of which is the sustainable development of Poland and the improvement of the quality of life of its residents. The activities of the NFEP&WM fit into this strategic undertaking, as it is the one institution whose mission for almost 30 years has been providing financial support for the most important pro-ecological projects in Poland, serving both people and the state in accordance with the slogan *Let us invest together in the environment*.



Fig. 2. NFEP&WM headquarters in 2019.
Photo by Krzysztof Kuczek

Managing the National Fund for Environmental Protection and Water Management

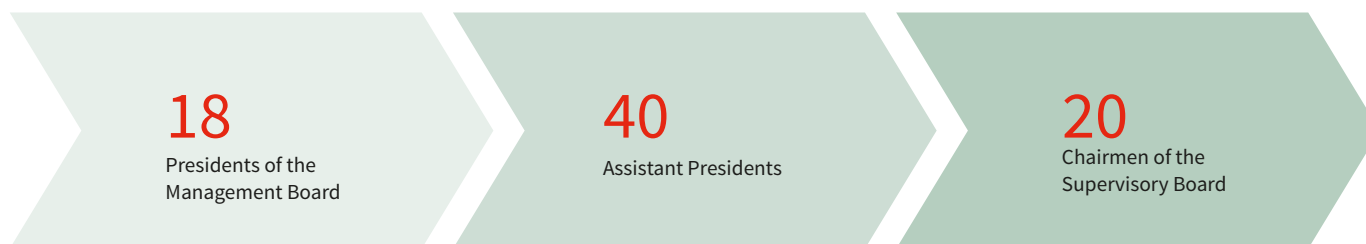
THE NFEP&WM AUTHORITIES

The National Fund for Environmental Protection and Water Management, a public financial institution that was operating as a special purpose fund in the years 1989–2010, and then (until now) as a State legal person, is not a typical government agency, it is even less an institution of a political nature. Although after each parliamentary election, the management of the National Fund is a personal reflection of governmental majority, the legal grounds of the NFEP&WM activity and its organisational structure are defined by specific regulations: articles 400–411a of the Environmental Protection Act of 2001 (as amended) and the statute granted by the regulation of the Ministry of Environment. According to these norms, the organs of the National Fund are the Supervisory Board and the Management Board. The Supervisory Board is composed of 12 members, including, among others, representatives of the ministers relevant to environmental matters, public finances, economy issues and regional development issues, but also representatives of local government parties, the Joint Commission of the Government and Local Authorities and of ecological organisations. The members of the Supervisory Board are appointed and dismissed by the minister responsible for environmental issues, who also appoints the Chairman of the Supervisory

Board. The NFEP&WM Management Board is composed of the President of the Board and the Assistants of the President. The members of the Management Board are appointed by the minister responsible for environmental issues from among persons selected after an open and competitive recruitment process and on request of the Supervisory Board. The Management Board can be composed of three to five persons.

The main purpose of the NFEP&WM activities, i.e. financial support of the largest domestic or supra-regional undertakings for environmental protection and water management, is, ex definition, apolitical and serves the common good, not individual interests. We can say that these actions, like very few other activities in the public sphere, are a good model of country before politics in the categories of responsibility for the cleanliness of the environment, and in accordance with the idea of Poland's sustainable development. The independence and concentration on task is guaranteed by the competences of the authorities of the National Fund who are from outside the political world and are specialists in the area of natural, technical, economic and legal science, including environmental protection, water management, environmental engineering, power engineering, electrical engineering, management, finance and law.

1989–2019



MISSION: ENVIRONMENTAL PROTECTION

Nowadays, environmental protection as well as improvement of the environment condition are among the most significant civilisation challenges that which the NFEP&WM has been effectively facing for 30 years for the common good.

The activity of the National Fund is often described as a “mission”. It sounds slightly pompous, but there is no exaggeration in its considering that in the dictionary the understanding this term means “a task to fulfil”. Moreover, the most significant programming documents of the NFEP&WM are designated with the words “mission” and “strategy”, and the presentation of the *National Fund for Environmental Protection and Water Management’s Action Strategy for the years 2017–2020* is preceded by the following explanation: “The mission of the National Fund is efficient and effective supporting of activities for the environment, particularly the activities for absorption of foreign financial resources operated by the National Fund. Let us add that these activities are in the scope of adaptation to climate change and water management, air protection, water protection, geology, mining and circular economy, including waste management and biological diversity.

The NFEP&WM completes these specific tasks with the sense of accomplishing a special mission for protecting the environment, improving the quality of life of Poland’s citizens and enabling the sustainable development of the nation.

The conviction that ecology is a very important sphere of human activity has been expressed for years by spiritual leaders, moral authorities and the greatest minds. This is what Pope John Paul II said to the young people back in 1989 (at the time when the National Fund for Environmental Protection and Water Management was established) at the meeting in Santiago de Compostela about the need to protect the environment: “Coordinated and responsible counteracting must be necessarily undertaken, before the damages suffered by our planet will become irreversible”. And ten years later, he formulated his standpoint and called on the Polish people to act, saying: “The beauty of this land makes me call for its preservation for future generations. If you love this homeland, do not leave this call without a response! I turn in a special way to those to whom the responsibility for this land and its development was entrusted, so they do not forget about the obligation to protect it from ecological destruction! Let them create environmental protection programmes and watch over their effective implementation! Let them shape, above all, the attitudes of respecting the common good, the laws of Nature and life! Let them be supported by the organisations aimed at protecting Poland’s natural resources!”

The NFEP&WM has been fulfilling its mission of environmental protection, understood in such a manner, every single day of its existence over the last 30 years.



Effective and efficient support of environmental activities, with particular reference to activities absorbing foreign resources operated by the National Fund.



Fig. 3. NFEP&WM Strategy for the years 2017–2020, Warsaw 2016

PRIORITIES IN THE NFEP&WM ACTIVITY

The fundamental current goals and priorities of the NFEP&WM are included in the *National Fund for Environmental Protection and Water Management's Action Strategy for the years 2017–2020*, adopted in the second half of 2016.

In this document, the elements of Poland's environmental protection and energy policies are included and the following strategic goals are set: the implementation of environmental goals in a manner ensuring full utilisation of foreign financial resources in terms of priorities operated by the National Fund, effective and efficient management of the National Fund's resources in the

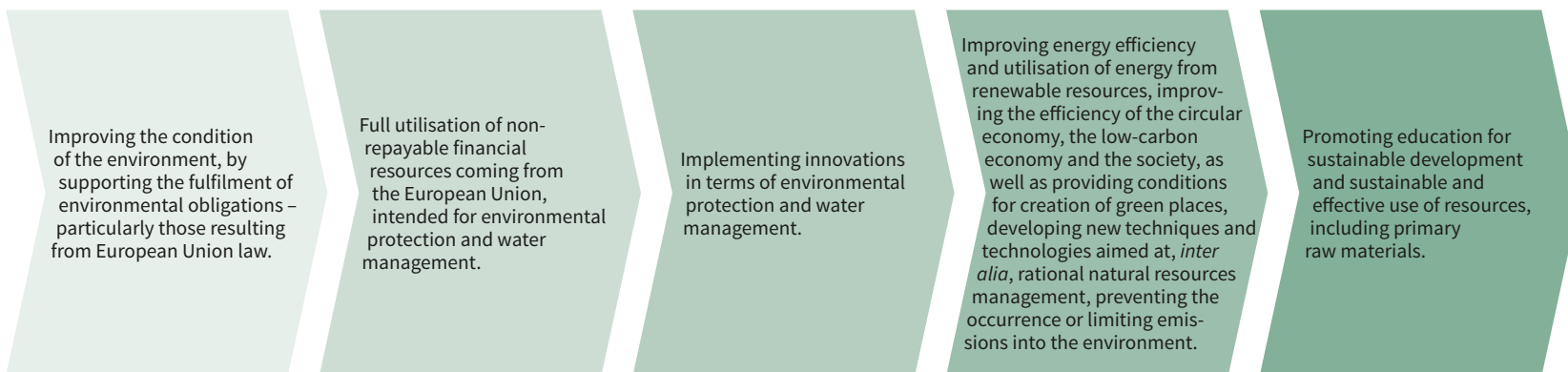
completion of environmental goals and priorities, organisational development focused on maintaining a leading role of the National Fund in the system of environmental protection financing.

The environmental goals of the NFEP&WM are achieved by completing the tasks defined in the document of the Ministry of Investment and Development, titled: *Detailed description of the priority axes of the Operational Programme Infrastructure and Environment 2014–2020*, in the list of priority programmes adopted every year by the NFEP&WM Supervisory Board and in the priority programmes themselves.

The following environmental goals are set in the Strategy:



The horizontal environmental objectives of the NFEP&WM and the entire system of 17 funds are:





PROTECTION OF THE AIR

The priority tasks in the area of the protection of the air are the following:

- Comprehensive thermo-modernisation, exchange of furnaces and implementation of renewable energy sources in detached houses through the NFEP&WM priority programme *Clean Air*.
- Projects aimed at the development of low-carbon transport, including electromobility and supporting education and development of infrastructure in this area.
- Improvement of energy efficiency in enterprises, buildings, towns and gminas through the development of effective transmission and distribution of heat and cold and through supporting high efficiency cogeneration.
- Generation of energy from renewable sources, contributing to the support of technological development and innovations, creating opportunities for regional development and increased safety of energy supplies, particularly at the local level.
- Reduction of emissions from production processes in enterprises.
- The undertaking of tasks regarding the improvement of air quality that are aimed at avoiding, preventing or limiting harmful effects on human health and the environment, as well as maintaining the quality of the air.
- Creation of energy systems ensuring the energy self-sufficiency of gminas through the priority programme for the energy self-sufficiency of gminas/areas – support for investments in local infrastructure for energy production (e.g. geothermal sources, small water power plants, agricultural biogas plants, photovoltaic installations, along with energy storage).
- Support of effective energy distribution, allowing the use of energy generated for local societies own needs and integration of these systems with the national electric power system.



ADAPTATION TO CLIMATE CHANGE

The priority activities in the area of adaptation to climate change and protection of Poland from floods and drought, and development of an efficient rapid response system in the event of a natural disaster are the following:

- Increasing the level of protection from the effects of natural disasters (flood, drought) and serious failures, directed at the protection of health and safety of people, including the protection of property, drought prevention, water retention and rainwater management through, *inter alia*, constructing, reconstructing and repairing hydrotechnical facilities, flood protection infrastructure and coast protection facilities, as well as undertaking activities aimed at the natural retention of rainwater and slowing down its run-off.
- Improving the removal of effects of natural hazards, including identifying hazards, removing their effects and strengthening the system of people and natural environment protection.
- Strengthening the selected elements of environmental management, including environment monitoring, consisting of, *inter alia*, developing an effective environment monitoring system and system of measuring, assessing and forecasting the condition of the environment (collecting, processing and informing on the environment).
- Increasing greater society awareness concerning climate change and the necessity of adaptation to it.



BIOLOGICAL DIVERSITY, ENVIRONMENTAL PROTECTION AND ECOLOGICAL EDUCATION

The priorities of support in the area of biological diversity include:

- Preparing landscape audits within the areas of voivodships and designating priority landscapes.
- Developing plans of protection or plans of protective tasks for areal forms of environmental protection.
- Establishing and implementing monitoring systems of protective action completion, including actions in Nature 2000 areas.
- Ensuring a full and updated wildlife inventory of the country.
- Organising a system of sanctuaries and places for protected, alien and invasive species.
- Developing and implementing guidelines in terms of managing selected protected species that could cause significant economic damages.
- Developing and implementing projects of protection and restoration of degraded habitats, especially the wetland habitats in protected areas.
- Removing barriers to the migratory routes of species.
- Creating green infrastructure, particularly in the area of towns and along the roads.
- Implementing a system of preventing the appearance and spread of invasive species in the area of the country.
- Establishing programmes for combating invasive alien species.
- Ensuring conservation of the natural and cultural landscape, including historic parks and gardens.



PROTECTION OF THE EARTH AND WASTE MANAGEMENT

The priority activities in the area of waste management and protection of the Earth have led to the enacting of a hierarchy of methods of waste management, and include:

- Promoting and implementing pilot solutions from the area of the circular economy – linking the area of environmental protection with energy and transport through programmes for developing the generation of energy from waste.
- Reducing the negative impact of various products and production processes on the environment in the entire product life cycle, taking into consideration the necessity for reducing the amount of waste produced and increasing the efficiency of raw materials utilisation.
- Creating appropriate technical and logistical infrastructure in order to create an opportunity of repairing and replacing the used items and selective collection of raw materials.
- Modernising infrastructure for preparing municipal waste for recycling.
- Constructing, extending and modernising recycling installations.
- Building installations for processing waste other than municipal – including waste produced from municipal waste and sewage sludge and that associated with the power and heat distribution networks – serving for generating heat.
- Rehabilitating degraded land.
- Supporting the proper management of dangerous waste and the development of innovative technologies of its processing.



PROTECTION OF WATER

The priority tasks in the area of water protection are constructing:

- new sewage systems and modernising that existing.
- new sewage treatment plants and modernising and extending that existing.
- connections of buildings to existing sanitary systems.
- local and domestic sewage treatment plants in areas which are not covered by agglomerations.
- collective systems of water supply – and modernising.



GEOLOGY AND MINING

In the area of geology and mining the key activities are directed to:

- Reducing negative environmental effects resulting from mining minerals and removal of mining plants, by the rehabilitation of land in the areas degraded by mining activities.
- Eliminating hazards resulting from the construction and usage of structures and mining excavations.
- Monitoring of the state of the environment and counteracting serious failures in mining.
- Mapping the geological structure of the country.
- Supporting a rational management of mineral deposits and groundwater deposits.
- Implementing relevant directives and completion of statutory tasks, as well as other tasks that are necessary to extend the geological base in research-exploratory and documentation scopes.
- Environmental surveys related to the exploration of and prospecting for thermal water deposits and the potential of using thermal energy of dry rocks.

The offer of the NFEP&WM priority programmes is addressed to those beneficiaries who cannot be the recipients of funds from the OPI&E2014–2020. In case of large projects, the funds from the NFEP&WM can match the EU financing.

The NFEP&WM priorities correspond to the environmental provisions included in the governmental *Responsible Development Strategy by 2020*. The National Fund refers to this strategy in its documents and activities as

being the basic guideline for a long-term vision of the NFEP&WM development.

An important area of the convergence of the NFEP&WM tasks with *Responsible Development Strategy* are the undertakings supporting the (non-conflicting) renewable energy sources and improving energy efficiency, as well as focusing on reducing the losses of heat energy and usable water.

CHARACTERISTICS OF THE NATIONAL FUND FOR ENVIRONMENTAL PROTECTION AND WATER MANAGEMENT FINANCING

DOMESTIC AND FOREIGN FUNDS

Foreign funds and co-funding

The National Fund implemented projects financed from the pre-accession funds (available for the countries aspiring to the accession to the European Union), such as ISPA, and after Poland's accession to the EU, from the Cohesion Fund within the framework of the *Operational Programme Infrastructure and Environment 2007–2013*. At present, the NFEP&WM is completing the *Operational Programme Infrastructure and Environment 2014–2020*. Ninety projects have been implemented within the framework of pre-accession funds ISPA/FS. As many as 1,142 contracts, financed from the EU funds, were concluded in the 2007–2013 financial perspective. Currently, in the 2014–2020 programming period, 1,100 contracts have been already signed and their number is still increasing.

The diversity of contracts is immense. Beginning with the infrastructural projects regarding construction, reconstruction, modernisation and extension of water, sewage and waste infrastructure and infrastructure connected with heat and energy distribution, responding to climate changes and natural disasters, ending with so-called soft projects – related to the conservation of nature, ecological education, improving the quality and conditions of urban environment. All the projects are important, because they reflect a comprehensive, pro-environmental activity of the National Fund for Environmental Protection and Water Management.

Including projects completed from the EU funds, there are also contracts co-funded by the NFEP&WM – there are already 180 such agreements only within the framework of OPI&E 2014–2020.

Domestic funds

A separate group of projects are those financed only from the national funds, i.e. own the NFEP&WM funds. Both the projects co-financed by the National Fund and the projects financed entirely from the NFEP&WM own funds regard all the areas of environmental protection and water management. Over 28 thousand contracts financed from own funds have already been concluded over the last 30 years.

In order to depict the wide and diverse activity of the NFEP&WM, selected projects, which obtained the largest support or have the greatest ecological effects, are presented below, divided into their financing sources and specific measures and sub-measures related to the EU funds.

Projects completed within the framework of OPI&E 2014–2020

Within the framework of the Operational Programme Infrastructure and Environment 2014–2020, the National Fund for Environmental Protection and Water Management is completing projects for the priority axes I and II.

Priority axis I: Low-carbon economy

Submeasure 1.1.1: *Supporting investments related to energy generation from renewable sources, including connecting these sources to the distribution/transmission networks.*

- Project: *Completion of geothermal boreholes in Stargard*
 - Beneficiary: G-TERM ENERGY Sp. z o.o.
 - EU co-funding: 40 million PLN (project value: 89 million PLN)

- Results: as a result of the completion of this project, the production of thermal energy derived from RES in newly constructed plants will amount to 62 thousand MWh/year and the estimated annual decrease of greenhouse gas emissions is 23 thousand tonnes/year.

Measure 1.2: *Promoting energy efficiency and renewable energy use in enterprises*

- Project: *Improvement of energy efficiency in JSW KOKS SA*
 - Beneficiary: JSW KOKS SA
 - EU co-funding: 134 million PLN (project value: 220 million PLN)
 - Results: the consumption of final energy will be reduced by 218 thousand GJ/year and the greenhouse gas emission will be reduced by 22 thousand tonnes/year.

Submeasure 1.3.1: *Supporting energy efficiency in public utility buildings*

- Project: *Reduction of energy consumption in objects belonging to Zakład Karny (Penitentiary) in Potulice*
 - Beneficiary: Penitentiary in Potulice
 - EU co-funding: 34 million PLN (project value: 41 million PLN)
 - Results: thermo-modernisation of buildings with the usable area of 19 thousand m² will cause reduction of greenhouse gas emission by 5,898 tonnes/year, savings in thermal energy of 47 thousand GJ/year and savings in electric energy of 4 thousand MWh/year.

Submeasure 1.3.2: *Supporting energy efficiency in the housing sector*

- Project: *Comprehensive thermo-modernisation of residential buildings in Zawada housing estate in Elbląg*
 - Beneficiary: Spółdzielnia Mieszkaniowa (Housing Association) “Zakrzewo”
 - EU co-funding: 33 million PLN (project value: 48 million PLN)
 - Results: thermo-modernisation of 22 multi-apartment residential buildings with the usable area of 129 thousand m² will reduce the consumption of final energy by 61 thousand GJ/year and the estimated reduction of greenhouse gas emission amounts to 1,400 tonnes/year.

Priority axis II:

Environmental protection, including adaptation to climate change

Measure 2.1: *Adaptation to climate change, including ensuring and increasing the resilience to natural calamities, in particular to natural disasters and environment monitoring*

- Project: *Protection of the Kłodzko Valley from flood, with special regard to the protection of Kłodzko town*
 - Beneficiary: Państwowe Gospodarstwo Wodne Wody Polskie – Regionalny Zarząd Gospodarki Wodnej we Wrocławiu (National Water Management Authority – Regional Water Management Authority in Wrocław)
 - EU co-funding: 370 million PLN (total value: 648 million PLN)
 - Results: Flood protection will cover 1,237 more persons, in the area of 7.17 km², four anti-flood facilities will be constructed, the capacity of retention objects will be increased by 16.7 billion m³.

Measure 1.5: *Effective distribution of heat and coolness*

- Project: *Liquidation of group nodes including the construction of connections to existing buildings and installation of double-function nodes (hot usable water) in Cracow and Skawina – stage I*
 - Beneficiary: Miejskie Przedsiębiorstwo Energetyki Ciepłej SA w Krakowie (Municipal Heat Supply Company in Cracow)
 - EU co-funding: 82 million PLN (project value: 199 million PLN)
 - Results: 69 km of heat distribution network were constructed and 1,081 individual heat nodes were installed. The estimated annual decrease in greenhouse gas emission amounts to 15 thousand tonnes/year and the reduction of primary energy consumption amounts to 67 thousand GJ/year.

Submeasure 1.6.1: *Sources of high-efficiency co-generation*

- Project: *Construction of a biomass-fired co-generation unit with power of about 11 MWe and 22 MWt in the area of Kalisz heat and power station*
 - Beneficiary: Energa Kogeneracja Sp. z o.o.
 - EU co-funding: 58 million PLN (project value: 152 million PLN)
 - Results: Additional capacity to produce thermal energy as a result of applying high-efficiency co-generation will increase by 31.3 MWt and the capacity to produce electric energy will increase by 11.3 MWe. In addition to that, the emission of greenhouse gas will be reduced by 127 thousand tonnes/year and the consumption of primary energy will be reduced by 574 thousand GJ/year.

Submeasure 1.6.2: *Heat distribution and cooling networks for the sources of high-efficiency co-generation*

- Project: *Utilisation of high-efficiency co-generation based on demand for usable heat – stage I*
 - Beneficiary: Veolia Energia Poznań SA
 - EU co-funding: 39 million PLN (project value: 81 million PLN)
 - Results: Construction of heat distribution network with the length of 13 km.

Measure 2.2: *Municipal waste management*

- Project: *Construction of a plant for municipal waste thermal treatment in Gdańsk*
 - Beneficiary: Port Czystej Energii (Clean Energy Port) Sp. z o.o.
 - EU co-funding: 353 million PLN (project value: 644 million PLN)
 - Results: Increasing the processing capacity of the waste treatment plant up to the level of 160 thousand tonnes/year.

Measure 2.3: *Water and sewage management in agglomerations*

- Project: *Water supply and sewage treatment in Warsaw – phase VI*
 - Beneficiary: Miejskie Przedsiębiorstwo Wodociągów i Kanalizacji w Mieście Stołecznym Warszawie SA (Municipal Water and Sewage Company in the Capital City of Warsaw)

- EU co-funding: 638 million PLN (project value: 1.2 billion PLN)
- Results: Creation of 30 km of sanitary sewage system, 23 km of water supply system; two sewage treatment plants (“Czajka” and “Południe”) and the water treatment plant in Wieliszewo will be modernised. An intelligent system of sewage system management will be expanded and 14 specialised vehicles will be purchased. There will be improvement in the operation of the sewage treatment system in Warsaw (the largest environmental investment in the East-Central Europe). Moreover, 6,720 persons will get connected to the water supply system and the number of treated sewage coming from 5,700 population equivalent (PE) persons will increase.

Measure 2.4: *Environmental protection and ecological education*

- Project: *Inventory of precious natural habitats in the country and of the species occupying them as well as creation of the Natural Resources Data Bank*
 - Beneficiary: Regional Directorate for Environmental Protection
 - EU co-funding: 40 million PLN (project value: 47 million PLN)
 - Results: an increase of 170 items of the number of species included in the inventory.
- Project: *Protection of the habitats and species existing in the non-forest areas dependent on water*

- Beneficiary: Regional Directorate for Environmental Protection
- EU Co-funding: 37 million PLN (project value: 47 million PLN)
- Results: 11 plant habitats and 3,362 ha of habitats will obtain a better conservation status, the number of species with a conservation status will rise by 6 pieces.

Measure 2.5: *Improvement of the urban environment quality*

- Project: *Remediation of polluted area in the region of former ZCH “Za-CHeM” factory in Bydgoszcz in order to eradicate the health and environmental threats in, inter alia, the Natura 2000 areas of the Lower Vistula Valley and the Baltic Sea.*
 - Beneficiary: Regional Directorate for Environmental Protection
 - EU co-funding: 79 million PLN (project value: 93 million PLN)
 - Results: rehabilitation of 27 ha of land.
- Project: *Improvement of the urban environment quality in gmina Świętochłowice – remediation of degraded and polluted areas in the region of Kalina pond, including the restoration of its biological activity*
 - Beneficiary: gmina Świętochłowice
 - EU co-funding: 59 million PLN (project value: 70 million PLN)
 - Results: Rehabilitation of 10 ha of land and obtaining 9 ha of biologically active area.

Projects implemented from EU sources and co-financed by the NFEP&WM

Full utilisation of resources deriving from foreign funds is the elementary priority of the NFEP&WM. From this point of view the National Fund’s assistance in the assembly of projects’ finances is crucial. Consequently the NFEP&WM co-finances the implementation of projects funded mainly by the European Union, primarily under measures 2.3 and 2.1.

- Project: *Optimisation of the water and sewage management in Białystok city and in gmina Wasilków – stage I*
 - Beneficiary: Wodociągi Białostockie Sp. z o.o. (Water Supply Works in Białystok)
 - the NFEP&WM’s co-funding: 47 million PLN, EU co-funding: 109 million PLN (project value: 209 million PLN)
 - Results: 3.9 km of sanitary sewage system will be constructed and 10 km of sanitary sewage system will be modernised. 1.5 km of water supply system will be constructed and 4 km of it will be modernised. The number of people using improved sewage treatment will increase by 100 PE; the capacity of the modernised facilities will equal 470 thousand PE, sewage coming from 370 PE will be discharged to the sewage system and the number of people using the water pipeline will increase by 100 persons.
- Project: *Water and sewage management in the agglomeration of Toruń – stage III*
 - Beneficiary: Toruńskie Wodociągi Sp. z o.o. (Water Supply Works in Toruń)
 - the NFEP&WM’s co-funding: 38 million PLN, EU co-funding: 71 million PLN (project value: 140 million PLN)
 - Results: The number of individuals using the improved water treatment will

increase by 2,861 PE; the capacity of the modernised facilities will equal 452,190 PE; 21 km of sanitary sewage system will be modernised and 2.5 km of it will be constructed, 11 km of water supply system will be modernised and 2.15 km of it will be constructed.

- Project: *Structural approach to the water and sewage management in the area of Sława agglomeration*
 - Beneficiary: Zakład Wodociągów i Kanalizacji Sława Sp. z o.o. (Water and Sewage Company in Sława)
 - the NFEP&WM’s co-funding: 37 million PLN, EU co-funding: 68 million PLN (project value: 135 million PLN)
 - Results: The number of additional individuals using the improved water supply will equal 6,838 persons; the amount of utilised sediments will equal 620 Mg/year; the number of additional individuals using the improved sewage treatment will equal 9,228 PE; the number of new users connected to the sewage system in the part that does not include the construction of new connections will equal 9,228 PE.
- Project: *Structural approach to the water and sewage management in Płock town – stage IV*
 - Beneficiary: Wodociągi Płockie Sp. z o.o. (Water Supply Works in Płock)
 - the NFEP&WM’s co-funding: 36 million PLN, EU co-funding: 70 million PLN (project value: 140 million PLN)
 - Results: Construction of 0.5 km of sanitary sewage system (20 km of modern-

ised sewage system), renovation of 6 km of water supply system. Additionally, 40 people will use the improved sewage treatment and the capacity of the modernised sewage treatment plant will equal 160 thousand PE.

- Project: *Reorganisation of the water and sewage management system in Skierniewice town – stage II*
 - Beneficiary: Zakład Wodociągów i Kanalizacji WOD-KAN Sp. z o.o. (WOD-KAN Water and Sewage Company)
 - the NFEP&WM’s co-funding: 32 million PLN, EU co-funding: 73 million PLN (project value: 140 million PLN)
 - Results: Constructing 7.37 km of sanitary sewage system, 990 m of water supply

system and reconstruction of 4.07 km of sanitary sewage system and of 340 m of water supply system. Moreover, the sewage treatment plant will be modernised in terms of sewage sludge processing and management. Due to this investment 935 persons will use a better system of sewage treatment.

- Another project related to the one above is being implemented in the town of Skierniewice: *Reorganisation of the water and sewage management system in Skierniewice town – phase III*. EU co-funding for this project equals 22 million PLN (project value: 43 million PLN).

Projects financed solely by domestic resources which are the own funds of the NFEP&WM

A subjective choice of the most significant contracts concluded between 2016 and 2018 are set out below. The selection criteria were the amount of co-funding, the lack of co-funding from the EU and the absence of redistribution characteristics (co-funding resulting from the provisions of law, i.e. co-funding of the National Centre for Emissions Management (KOBiZE) or the implementation of obligations resulting from Poland’s membership in international organisations and treaties).

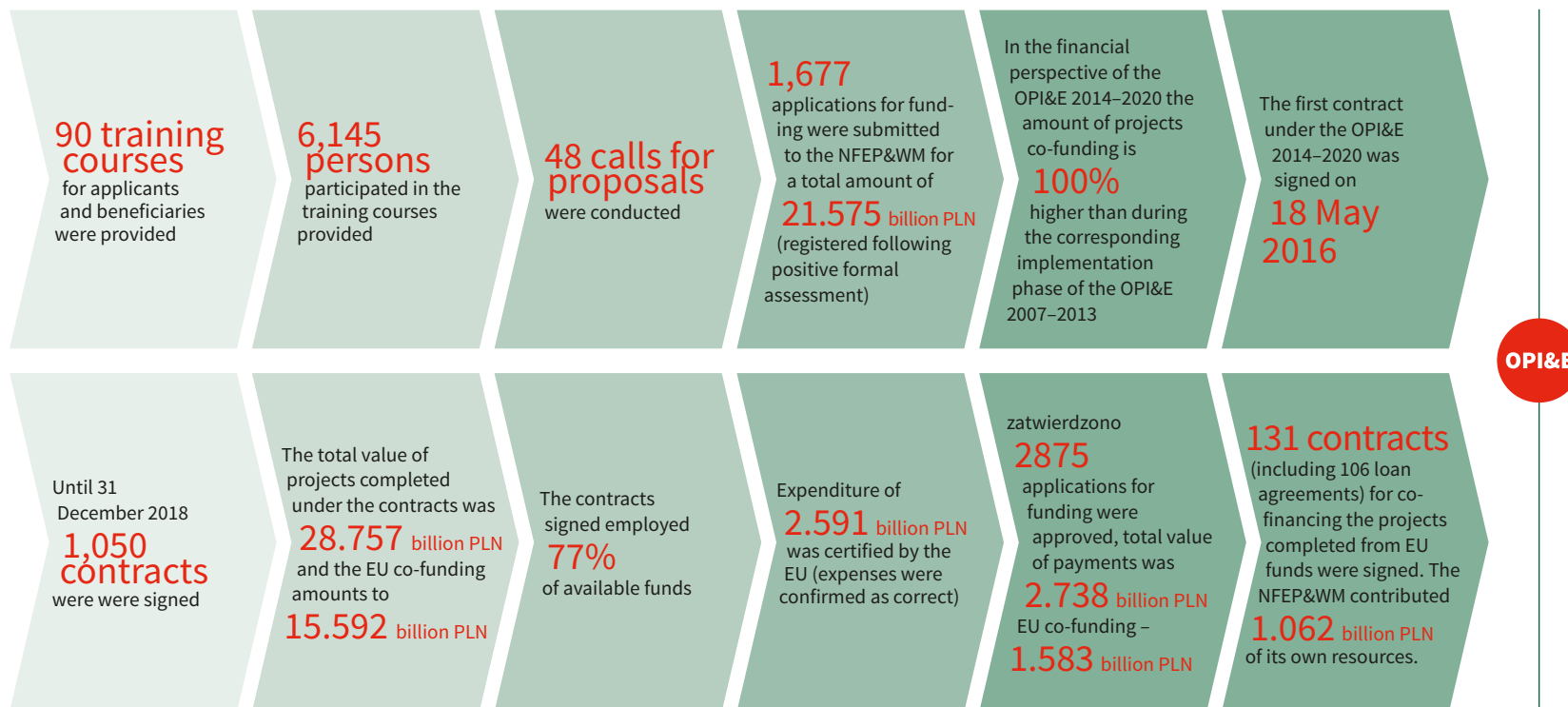
- Project: *Modernisation of coke oven battery number 4 in “Przyjaźń” coking plant*
 - Beneficiary: JSW KOKS SA
 - the NFEP&WM’s co-funding: 200 million PLN (project value: 345 million PLN)
 - Results: Reduction of nitrogen oxides emission by 45.42 Mg/year; reduction of sulphur dioxide emission by 20.348 Mg/year; reduction in emission of dust with diameter of 2.5 – 10 micrometers – 30.003 Mg/year; reduction of other pollutants emission – 286.75 Mg/year.
- Project: *Construction of FGDP II (Flue Gas Desulphurisation Plant) in Ostrołęka B power plant*
 - Beneficiary: Energa Elektrownie Ostrołęka SA
 - the NFEP&WM’s co-funding: 134 million PLN (project value: 210 million PLN)
 - Results: Reduction in SO₂ emission by 4,676 Mg/year
- Project: *Construction of an innovative plant producing mean-and-bone meal and animal fat*
 - Beneficiary: Michna Sp. z o.o. s.k.
 - the NFEP&WM co-funding: 78 million PLN (project value: 104 million PLN)
 - Results: Saving of electricity amounting to 6,806 MWh/year; saving of heat energy amounting to 122,367 GJ/annum; saving of water consumption – 3,010 m³/year
- Projects: *Construction of a new dust removal system in the Steel Plant in Dąbrowa Górnicza branch of “Arcelor Mittal Poland SA” and Eco-innovative system of hybrid dust removal for the DL-3 sintering belt in Dąbrowa Górnicza branch of “Arcelor Mittal Poland SA”*
 - Beneficiary: “Arcelor Mittal Poland SA”/Huta Katowice

- the NFEP&WM’s co-funding: 75 million PLN (project value: 104 million PLN)
- Results: Reduction of dust emission by 569 tonnes/year
- Project: *Construction of an innovative assembly line for producing powder milk and whey in “Bielmlek” Spółdzielnia Mleczarska (Dairy Cooperative) in Bielsk Podlaski*
 - Beneficiary: “Bielmlek” Spółdzielnia Mleczarska
 - the NFEP&WM’s co-funding: 135 million PLN (project value: 186 million PLN)
 - Results: Saving of 146 thousand tonnes of water and electricity saving of 2,301 MWh/year
-
- Project: *Execution of an exploratory-producing bore-hole Bańska PGP-4 in order to determine resources of thermal water in the nummulitic Eocene and Mesozoic formations of the Podhale Trough, in the mining region “Podhale 1”*
 - Beneficiary: gmina Szaflary
 - the NFEP&WM’ co-funding: 45 million PLN (project value: 45 million PLN)
 - Results: Execution of a 5,300 deep bore-hole in order to determine resources of thermal water
- Project: *Search for thermal water in the bore-hole LZT-1 in Łądek Zdrój*
 - Beneficiary: gmina Łądek Zdrój
 - the NFEP&WM’s co-funding: 18 million PLN (project value: 18 million PLN)
 - Results: Execution of a 2,500 m deep exploratory bore-hole
- Project: *Research of the opportunities for using geothermal resources for heating purposes in the area of Sochaczew town throughout executing a geothermal bore-hole Sochaczew GT-1 on the plot with the registration number 24/4, surveying section Sochaczew Centrum*
 - the NFEP&WM’s co-funding: 10 million PLN (project value: 10 million PLN)
 - Results: Execution of a 1,400 m deep exploratory bore-hole
- Project: *Research and recording of thermal water resources in the area of Sieradz town*
 - the NFEP&WM’s co-funding: 11 million PLN (project value: 11 million PLN)
 - Results: Execution of a 1,475 m deep exploratory bore-hole

The above-mentioned overview is dominated by projects relating to the reduction of air pollutant emission and to the research and economic exploitation of thermal water resources. This falls within a wider context of the growth of energy exploitation and the increase of energy efficiency. The most significant challenge that Poland and the NFEP&WM face today is combating air pollution. This was, among others, the purpose of the formation of the largest priority programme during National Fund activity with the budget of 103 billion PLN. The objec-

tive of the Clean Air programme is reducing emissions into the air of harmful substances that are produced from heating of detached houses using outdated heat sources and low quality fuels. The cooperation with the voivodeship funds for environmental protection and with local authorities in order to achieve faster implementation of the *Clean Air* programme, and other programmes associated with environment protection, including reduction of energy consumption in the construction sector, collection of agricultural waste or soil liming, is being continued.

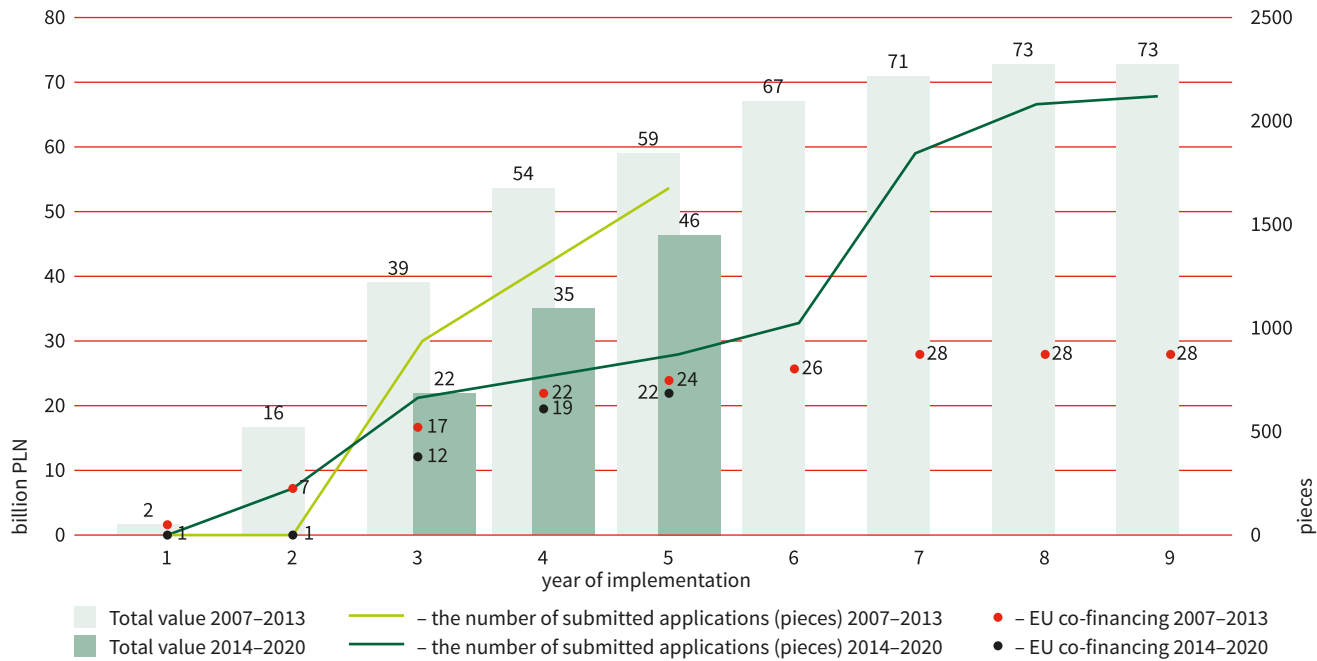
Summary of OPI&E 2014–2020 implementation*



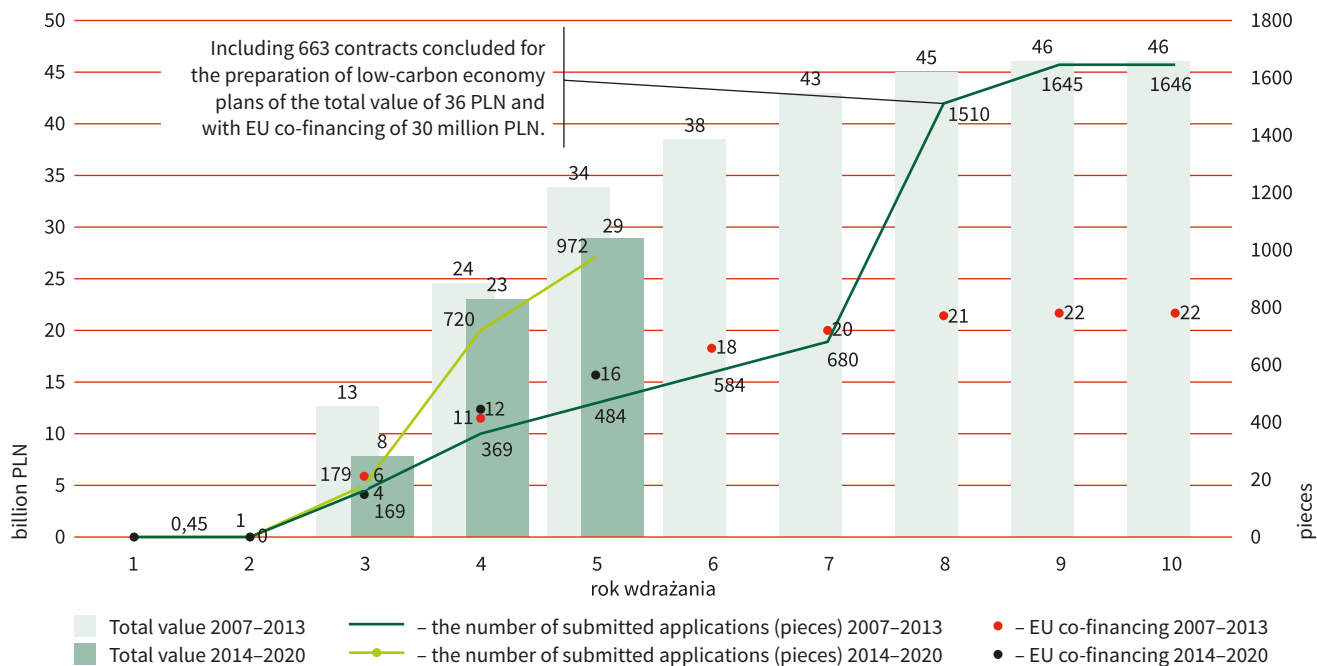
OPI&E

*Data as of 31.12.2018

Applications submitted in calls for proposals completed by the NFE&WM within OPI&E&WM 2007-2013 and OPI&E 2014-2020



Contracts signed within the implementation of OPI&E 2007-2013 and OPI&E 2014-2020 by the NFE&WM



THE LAST THREE YEARS OUT OF THIRTY YEARS OF THE NFEP&WM

Due to National Fund's initiative, there are periodic meetings of representatives of the Managing Institution (Ministry of Investments and Development), Intermediary Institutions (Ministry of Environment and Ministry of Energy), Implementing Institution (the NFEP&WM) and, if applicable, representatives of other institutions and beneficiaries, concerning the implementation of the Operational Programme Infrastructure and Environment 2014–2020. As a result of these meetings and other National Fund's initiatives, many simplifications were introduced facilitating the selection of projects for co-financing and their implementation and settlement.

All institutions implementing OPI&E 2014–2020 may take advantage of those solutions. This is a significant help and provides guidelines for applicants and beneficiaries, facilitating the settlement of the projects and influencing an acceleration of assumed goals in the scope of funds certification. In connection with the facilitation of procedures a huge acceleration in the number of contracts signed took place. By the end of 2018, the NEFP&WM processed 1999 applications for co-financing, concluding 1,050 contracts for the amount of the EU co-financing exceeding 16 billion PLN, for the investments of the total value of over 30 billion PLN.

The essential elements increasing the efficiency of work of the National Fund in this area were simultaneous improvement of organisational scheme, improvement of management and managing control and improvement of internal communication and training. By the end of 2018, more than 90 training sessions were conducted in the scope of activities within the OPI&E 2014–2020. Over 6,250 representatives of applicants and beneficiaries took part in them.

Verification of the NFEP&WM's priority programmes was completed (their list is updated every year). The implemented programmes and their terms and conditions referred to the governmental programmatic idea of sustainable development

of the country and therefore they aimed at balancing the options of initiating ecological project in all regions of Poland. At the same time co-financing of large enterprises and companies in the form of grants was stopped, as they were concerned as businesses that should complete their undertakings using their own resources.

Investments in the scope of water and sewage management completed from the NEFP&WM own funds and the funds being at the NFEP&WM disposal (ISPA, Cohesion Fund) contributed to the completion of the *National Programme for Municipal Sewage Treatment* (NPMST) and fulfilment of accession commitments made by Poland, which are determined in a so-called sewage directive – Directive of the Council of 21 May 1991 concerning urban waste-water treatment (91/271/EEC). The effects of projects completed in the years 1989–2018 with the support of the NFEP&WM in the field of water and sewage management are the construction or modernisation of over 83 thousand km of sewage system. Co-financing (from EU and domestic funds) amounted to 33.6 billion PLN and the total value of projects amounted to almost 87 billion PLN.

NEW AREAS OF ACTIVITIES

The main issues faced by the NFEP&WM are: air protection, renewable energy sources and energy efficiency. The National Fund works actively for promotion and implementation of geothermal energy.

The priority programme *Recognition of the geological structure of the country and management of mineral deposits* and groundwater deposits is aimed at the recognition of geological structure and rational management of minerals and underground water deposits, taking into consideration the state policy, implementation of relevant directives and statutory tasks necessary for expanding the geological base within research-

exploratory and documentation scopes. Moreover, environmental survey related to prospection for and exploration of thermal water deposits and possibilities of gaining thermal energy from dry rocks, should be mentioned.

This programme enables subsidy supports of local authorities and entrepreneurs in prospection for and exploration of thermal water deposits in order to use them for energy production. Co-financing was obtained by, *inter alia*: Sochaczew, Sieradz, Szaflary, Koło, Łądek Zdrój, Turek, Tomaszów Mazowiecki and Dębica. Investments in this area may be completed within the priority programme *Use of geothermal resources for energy production*. The development of geothermal energy is also supported within the priority axis I of the OPI&E 2014–2020: *Low-carbon economy*.

THE NFEP&WM AS THE BENEFICIARY OF OPI&E 2014–2020

Since 2016, a big role in the NFEP&WM activities is played by the project: *Nationwide system of advisory support for the public and housing sectors and enterprises in terms of energy efficiency and RES*. It is completed from the financial resources of the Cohesion Fund within submeasure 1.3.3 of OPI&E priority axis I – the contract was concluded on 3 March 2016 between the Ministry of Energy (Implementing Institution) and the National Fund for Environmental Protection (beneficiary). The objective of the project is promotion of the low-carbon economy in Poland. The advisory support concerns the issues of sustainable energy

– energy efficiency and RES. The NFEP&WM plays the role of a Leading Partner and the partners are 15 VFEP&WM (Voivodeship Funds for Environmental Protection and Water Management) and Lubelskie Voivodeship. The project completion is based on the teams of consultants providing free services at regional and local levels. Within the project, *inter alia*, 1,100 of modern environmental investments were supported and 1,800 of Low-Carbon Economy Plans (LCEP) were verified. These actions are continued. In addition to that, the NFEP&WM plans to train 1,300 of gmina energy specialists.

The Responsible Development Strategy presents challenges which Polish economy, including energy economy, faces. It assumes modernisation of energy sector and taking measures for diversification of energy sources by, *inter alia*, implementing the idea of energy clusters, which means civil law agreements with the purpose of production and balancing of demand, distribution and trading of energy derived from RES, other sources or fuels within distribution network. In order to implement the ideas in this scope, the NFEP&WM introduced, in calls for applications for measures/submeasures of the OPI&E 2014–2020, the preferences for applicants who participated in this form of energy production and transmission. It referred to submeasure 1.1.1 *Support of investments related to production of energy from renewable sources, including connection of these sources to distribution/transmission network and submeasures 1.6.1. Sources of high-efficiency co-generation*.

THEY SAID ABOUT ECOLOGY:

Second Vatican Council, Pastoral Constitution Gaudium et Spes

The man was called to cultivate the garden of earth and protect it, so he is especially responsible for the environment of life, i.e. for the created reality, which, by the will of God, is to serve man's personal dignity and life: he is responsible not only to the present epoch, but also to the future generations

The NFEP&WM Involvement

THE NFEP&WM AND THE VFEP&WM – A SYSTEM FOR FINANCING ENVIRONMENTAL PROTECTION IN POLAND: A NEW OPENING AND NEW PROJECTS

The Foundation of the the NFEP&WM started 30 years ago as a State special purpose fund and gave rise to building a uniform and modern co-financing system of environmental protection and water management in Poland. A year and a half later, the voivodeship environmental protection and water management funds, which operated in 49 former voivodeships, were established. Since 1999 (after administration reform) they function in 16 voivodeships. In 1991, Bank Ochrony Środowiska SA – a financial institution offering, *inter alia*, loans for various pro-ecological undertakings, started its operation

Between 1992–2010, the system included the “EkoFundusz” (“Ecofund”) foundation created on the initiative of professor Maciej Nowicki. Its purpose was supporting enterprises in terms of environmental protection from the funds coming partly from Poland’s foreign debt relief. The decision of eco-conversion of Polish debt was taken by the United States, France, Switzerland, Italy, Sweden and Norway. Temporarily, the poviats and gmina environmental protection funds were elements of the system. They were liquidated in January 2010 and their tasks were taken over by the budgets of the gminas and poviats.

The basis for the system of financing of environmental protection and water management is found in the provisions of the Environmental Protection Act (i.e. Journal of Laws of 2018, no. 218. as amended). Accordingly, the National Fund and the Voivodeship Funds conduct independent financial management, covering the expenses for financing tasks specified in the Act and costs of activities, from their own resources and received revenues. National Fund and Voivodeship Funds run a financial economy in a way ensuring full utilisation of non-refundable funds coming from the European Union intended for environmental protection and water management.

The basic revenues of National Fund and Voivodeship Funds are revenues from charges for using the environment and from administrative penalties. The revenues of the NFEP&WM include: charges, guarantee charges and substitute fees received according to the provisions of, *inter alia*, Energy Law, Geological and Mining Law, law on energy efficiency, renewable sources of energy, trade system for rights for emission of greenhouse gas, and also revenues due to emission charge, which is partly received by the National Fund.



TASKS COMPLETED WITHIN THE NEW OPENING OF COOPERATION BETWEEN THE NATIONAL FUND AND VOIVODESHIP FUNDS FOR ENVIRONMENTAL PROTECTION AND WATER MANAGEMENT

- *Clean Air*, is a common priority programme of the NFEP&WM, with a budget of 103 billion PLN. To bring this about, VFEP&WM concluded a series of contracts with beneficiaries – owners or co-owners of detached houses, who with the obtained funds are to complete comprehensive thermo-modernisation, replacement of non-ecological heating sources and the assembly of RES micro-generation.
- *Nationwide programme for financing of rescue services.*
- *Improvement of air quality by reducing energy consumption in buildings.* Within this programme, co-financing is granted to institutions that are not beneficiaries of other projects within the OPI&E 2014–2020.
- *Nationwide system of advisory support for the public and housing sectors and enterprises in terms of energy efficiency and RES*, which is completed within the OPI&E 2014–2020. This is a partner project with the participation of the NFEP&WM (as a leading partner), 15 voivodeship funding agents and Lubelskie Voivodeship (partners) to support environmental protection and water management projects.

Moreover, in order to improve cooperation, the NFEP&WM and Voivodeship Funds specialists are working on:

- standardising co-financing rules for undertakings within the system of funds,
- proposals of changes in the system of environment charge collection,
- proposals of a joint programme in ecological education,
- joint monitoring and compilation of the results of the evaluation of the *Energy Consultancy Project*.

The Ecological funds are revolving funds (i.e. renewable funds-repayments of loans that are used again for the needs of future projects). The financial lever effect is vital and is obtained by use of (apart from the NFEP&WM help) other financial entities, as well as contributions from beneficiaries themselves. This means greater availability of capital and the ability to reach higher economic and ecological results.

Nowadays, the system of environmental protection and water economy financing in Poland is based on: the NFEP&WM, 16 Voivodeship Funds and Bank Ochrony Środowiska SA. The Activities conducted by VFEP&WM enable regionalisation of the state ecological policy. Changing the mode of appointing the VFEP&WM organs (by amending the Act on Environmental Protection of May 2017) allowed obtaining better cohesion of the procedures of environmental protection financing, both at the national level and in the regions. It also enabled a proper completion of tasks defined in the Joint Action Strategy of the National Fund and in voivodeship managed projects in the fields of environmental protection and water management for the years 2017–2020. These tasks include:

- creating a joint base from which the action strategies of individual funds will derive,
- optimising a consistent system of funds by determining the areas of cooperation and their mutual interaction, which goes beyond their separate strategies. This relates to cooperation for obtaining synergy and for building a consistent system of funding (maintaining organisational independency) by, *inter alia*, putting into place solutions eliminating unjustified support, but also ensuring its flexible availability where it is needed.



BANK OCHRONY ŚRODOWISKA – POLAND'S ECO-BANK FOR PEOPLE, BUSINESS AND ENVIRONMENT



Fig. 4. Headquarters of BOS SA, Zelazna Street 34, Warsaw 2018, photo by BOS SA

Bank Ochrony Środowiska SA (BOS) is a leader in the Polish banking market, and specialises in financing environmental protection endeavours. Its success is demonstrated by the numbers summarising almost 30 years of Bank activity. During the last three decades, BOS has granted pro-ecological loans for 21.2 billion PLN and the total value of completed pro-ecological investments co-financed by the Bank amounts to approx. 51.2 billion PLN.

Over 1,200 specialists from various areas, but sharing similar values, work for the success of the Bank. The ecologists from BOS support Customers in the analysis of the long-term environmental impact of their completed investments.

LEADERS OF ENVIRONMENTAL PROTECTION FINANCING IN POLAND

BOS strives to achieve the position of a leading participant in the Polish system of environmental protection financing, while increasing the value for Shareholders and creating innovative solutions for Customers. All its activities are conducted on the basis of business social responsibility. In financing pro-ecological undertakings, the Bank cooperates with entities with similar objectives. The National Fund for Environmental Protection and Water Management (the NFEP&WM) is a leading institution that is a part of the system of environmental protection financing in Poland, as well as the main shareholder and partner of BOS. The Bank cooperates with Voivodeship Funds for Environmental

Protection and Water Management, creating a financial lever for programmes of regional range, as well as supporting key activities in terms of improvement of the quality of the natural environment and enhancing sustainable development.

ENVIRONMENTAL EFFECTS AND IMPROVEMENT OF LIFE IN POLAND

The pro-ecological mission of the Bank finds its implementation in completing thousands of investments, bringing measurable environmental effects and improvement in the quality of life. Over the span of its many years of activity, the Bank has made pro-ecological transactions for 21 billion PLN. Preferential loans granted in cooperation with the National and Voivodeship Funds for Environmental Protection and Water Management constitute over 35% of this amount.

Financing involved mainly the protection of the air (activities aiming at the improvement of energy efficiency, including thermo-modernisation of buildings and use of renewable energy sources), protection of water (through proper water management) and waste management.

The changing market environments and social expectations are also conducive to the development of cooperation in dealing with projects related to energy efficiency, electromobility, renewable sources and energy storage.

BOS is the only bank in Poland that, since the commencement of its activity, calculates and monitors the environmental effects of financed pro-ecological investments. For example, the capacity to reduce carbon dioxide emission, achieved through the investments financed by Bank Ochrony Środowiska is 3.88 million tonnes a year.

As of 30 June 2019, the Capital Group of Bank Ochrony Środowiska SA consisting of Bank Ochrony Środowiska SA, has been playing the role of parent company to: Dom Maklerski BOS SA, BOS Eko Profit SA and an indirect subsidiary (subsidiary of BOS Eko Profit SA) – MS Wind Sp. z o.o.

GEOTERMIA PODHALAŃSKA – EXAMPLE OF SUCCESSFUL INVOLVEMENT OF THE NFEP&WM AS A SHAREHOLDER

The largest Polish geothermal plant was created in 1993 on the initiative of the National Fund for Environmental Protection and Water Management. At first it operated as Geotermia Podhalańska SA, and then as Przedsiębiorstwo Energetyki Ciepłej (District Heating Company) Geotermia Podhalańska SA (fusion with PEC “Tatry” in 1998). The Company has been providing the residents of Podhale with heat and hot water for as long as a quarter of the century, it also educates and takes care of the improvement of air quality. It is also a success of the National Fund, which is the main shareholder of the company (90% of shares).

Its mission is the utilisation of renewable energy contained in geothermal water for central heating and preparation of hot domestic water, air conditioning, tourism, recreation and balneology.

The Company can be an example of good practice in identification, extraction and distribution of thermal resources. There exist measurable results of that: approx. 110 km of constructed heating network, over 4.8 million m³ of extracted geothermal water per year, allowing to produce and sell approx. 450,600 GJ of thermal energy. At the end of September 2018 the power generated by the Company achieved the level of almost 68 MW. Approximately 90% of heat is produced from geothermal energy (the rest is produced from gas and fuel oil).

After a long period of investing (almost 260 million PLN – a half of the sum accounts for subsidies in the period of 1998–2017) in bore-holes, geological and hydrological surveys or expensive construction of heating network, practically from scratch, the Company has been achieving profits since 2008. It also translated into benefits for the customers of PEC. In 2016 the first reduction of the network heat prices by 1.25 – 2.51% took place, depending on tariff groups. In 2018 the previous prices were maintained, in spite of the increase of energy prices. An owner of a detached house with the area of 120 m² paid, on average 352 PLN a month for heating and hot domestic water, and now he pays 345 PLN.

POLISH PIONEER

The beginnings of the Company activities were rather modest: heating Bańska Niżna village. However, at present, after 25 years of experience, Przedsiębiorstwo Energetyki Ciepłej Geotermia Podhalańska SA operates as many as five bore-holes.

Heat is produced from three producing bore-holes (Bańska IG-1, with total depth of 5.2 km, water is extracted from the depth of approx. 2.7 km, resources: 120 m/h; Bańska PGP-1 – 3.2 km, resources: 550 m/h and Bańska PGP-3 – 3.4 km, resources: 400 m/h) and two absorption bore-holes (Biały Dunajec PAN-1 – 2.6 km and Biały Dunajec PGP-2 – 2.4 km). The two latter ones serve – after reception of heat energy – for re-injection of water into the depth of the earth. Their absorbing capacity is 500 m/h and 375 m/h, respectively.

The Podhale geothermal system allows to supply heat to 1,500 facilities located in the area of four gminas – Szaflary, Biały Dunajec, Poronin and Zakopane. The majority of them are detached houses and multi-apartment buildings (over 1 thousand). The rest includes commercial buildings and public utility buildings, hotels and guesthouses. The institutional recipients include the Tatra National Park, recreational complex Termy Szaflary, Zespół Szkół Hotelarsko-Turystycznych (Hotel and Tourist School Complex) in Zakopane or Powiat Starosty in Zakopane. In the town of Zakopane located over a dozen kilometres away and a few hundred metres higher than the drilling area, geothermal energy meets as much as 40% of the heating needs.



Fig. 5. Bańska Niżna plant, photo by Szymon Wójtowicz

THE GREEN FUTURE OF PODHALE AREA

The Podhale-based company is now about to complete further significant projects. These projects relate to the connection of new users between Szaflary and Nowy Targ. A heating network for gmina Szaflary and a heating main for Nowy Targ are needed in order to achieve this goal. This is how the idea of the execution of a subsequent producing bore-hole called Bańska PGP-4 emerged. This drill will become the deepest geothermal one in Poland and its depth will reach more than five km, however, there will be a possibility of its deepening by two further kilometres. The water temperature inside the drilling is expected to reach even 130°C. Such a result would be sufficient not only to the production of heat but would also enable electricity generation. As this investment is very expensive the NFEP&WM came to the assistance giving gmina Szaflary (applicant) a subsidy amounting to nearly 45 million PLN. These funds will allow the execution of an exploratory-producing bore-hole. Even in the case when the parameters of the thermal water will not be as satisfactory as estimated, the extracted water temperature will still be higher than 85°C and therefore sufficient for heating of Nowy Targ. According to the planned timeframe the drilling should start even in 2019.

GEOTHERMAL ENERGY AND SMOG

The underground water is regarded as thermal when its temperature at the outflow from the source or the bore-hole is at least 20°C. It is assessed that the Podhale area is characterised

by perfect conditions for the development of geothermal energy. Bańska Niżna near Zakopane, where Geotermia Podhalańska operates, combines high water temperature (86°C) with high efficiency (500–550 m/h) and low mineralisation (2.5 g/l). However, this is not the only location of such dynamic solutions. Mszczonów, Uniejów, Poddębice, Pyrzyce and Stargard Szczeciński, as well as Toruń undergoing such development at the moment, all followed Geotermia Podhalańska. It shows that clean renewable energy sources impact on the improvement of local air quality as well as on the achievement of specific ecological results. Over 25 years of PEC Geotermia Podhalańska operation in the Podhale area, which is the most frequently visited by tourists region of Poland, there was a reduction in coal consumption by 265 thousand tonnes and in CO₂ emission by 530 thousand tonnes in comparison with previous years.

IT IS WORTH IT

The scale of the company operation, financial results and, primarily, the benefits for the Podhale residents prove the successful engagement of the NFEP&WM as a shareholder through funds invested in the geothermal company. The National Fund also holds shares in the Polish National Energy Conservation Agency SA (67%), Geotermia Pyrzyce Sp.z o.o. (62%), Bank Ochrony Środowiska SA (58%), Miejska Energetyka Ciepła (District Heating Company) Sp.z o.o. in Ostrowiec Świętokrzyski (43%) and Miejskie Przedsiębiorstwo Energetyki Ciepłej SA (District Heating Company) in Tarnów (39%).

GEOTERMIA PYRZYCE

Geotermia Pyrzyce is an example of equally important (however, somewhat lower – 62%) involvement of the National Fund for Environmental Protection and Water Management as a shareholder. This company was brought to life in 1994, five years after the establishment of the National Fund and only one year after Geotermia Podhalańska was founded. Its main objectives were finalisation of the Pyrzowice heating system construction which started in 1992 with the exploratory test bore-hole (GT-1) and continuation of exploration activities.

Heat energy has been continuously generated and distributed there since 2017. With 15 km of the heating network it serves most institutions, public sector entities, manufacturing sites, apartment buildings and individual customers at the moment. However, it is important to recall the times preceding Geotermia Pyrzyce when buildings in the area were heated by as many as 68 local coal-fired boiler plants.

Interestingly, nowadays Pyrzyce use salt and hot water not only for the generation of heat energy. They also provide a little graduation tower located in the town centre as well as a medical and rehabilitation centre with brine.

The temperature of the thermal water in the deposit near Pyrzowice is 64°C and the bore-holes are 1.6 km deep. So far, the Geotermia Pyrzyce operation was based on two mining bore-holes (GT-1 and GT-3) and two injection wells (GT-2 and GT-4). Construction of another mining bore-hole was officially completed in 2018. It is a source of 12.2% of chloride and sodium, iodide, ferruginous and hyper thermal water. The National Institute of Hygiene in Poznań conducted tests that prove therapeutic qualities of the brine and also show options of using underground geothermal water in medicine and recreation in a broad sense.

Policy actions

AIR CLEAN AIR – THE NFEP&WM’S GREATEST PRIORITY PROGRAMME

The agreement regarding completion of the *Clean Air* programme was signed on 7 June 2018 between Kazimierz Kujda, the President of the NFEP&WM Management Board at that time, presidents of 16 voivodship funds for environmental protection and water management and the President of Bank Ochrony Środowiska SA’s Management Board. This document was signed in the presence of Prime Minister Mateusz Morawiecki, Minister for Environment Henryk Kowalczyk and the Vice-President of the NFEP&WM, Anna Krol. This programme is one of the foremost government initiatives. The Prime Minister clearly stressed this in his speech of 12 December 2017, saying: “Clean Air is a civilisational challenge, we want to fight against smog through eradication of energy poverty”.

The programme developed in the NFEP&WM under the guidance of Anna Krol, the NFEP&WM Vice-President is aimed mainly at improving energy efficiency and reducing dust and other pollutant emissions to the atmosphere from existing detached houses and avoiding air pollutant emissions coming from newly constructed houses. The completion of the programme will, at a global level, contribute to decreasing the levels of pollutants impacting on climate change. *Clean Air* is a key project within governmental activities that will contribute to the improvement of atmosphere cleanness and quality of life, while ensuring a “comfortable home” to all Polish people, savings in home budgets and eradication of energy poverty. A special revolution, the purpose of which is the support for renovating four million homes and dealing with the harmful phenomenon of smog, has started.

On the initiative of Henryk Kowalczyk, the Minister of Environment, an educational and informational campaign to raise social awareness of air protection and air quality issues, as well as the effects of air pollution on human health, has been conducted. Indeed, over 170 thousand people have taken part in its town hall meetings that were held throughout Poland. Due to the informational and educational campaign, one of the assumed

objectives was achieved – increasing the awareness of residents and their knowledge of risks related to air pollution.

These undertakings are continued through a social campaign promoting the Clean Air priority programme, titled: *Clean Air – Healthy Choice*. Within this campaign, the mass media present the reasons for smog, and inform the public on ways to mitigate this problem.

PROGRAMME MEASURES

The effects of the programme will be measured by, *inter alia*, the number of residential buildings with improved energy efficiency, the number of ineffective sources of heat (old-generation boilers) replaced with low-emission sources in existing buildings, the number of installed low-emission sources of heat in newly constructed buildings and a decrease of final energy consumption by at least 21.8 million MWh/year.

The ecological effects and the progress in implementing the Clean Air programme will be measured and assessed by the voivodship funds for environmental protection and water management and Voivodship Inspectorates for Environmental



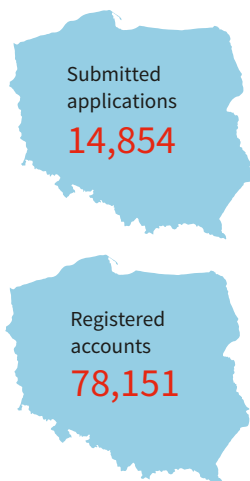
Fig. 6. Signing the agreement regarding completion of the Clean Air Programme with the Management Board Presidents of 16 VFEP&WMs in the presence of Mateusz Morawiecki, the Prime Minister of the Republic of Poland, photo by NFEP&WM.





Fig. 7. Henryk Kowalczyk, the Minister of Environment, at a meeting in Ostrołęka

Number of formally submitted applications within the Clean Air programme



Protection. An overview of effects will be presented by the Chief Inspector for Environmental Protection through the measurements of the State Environmental Monitoring and through the assessment of air quality.

The programme will be active between 2018–2029. The support within the programme is addressed to natural persons who are owners or co-owners of existing or newly built houses.

- In many houses, a mixture of low-quality coal, wood and litter, combusted in manually operated boilers with low efficiency is used for heating (WB).
- Family houses are often poorly thermally insulated, which causes a higher demand for heat energy and results in ineffective use of heating fuels (WB).

PROGRAMME FOUNDATIONS AND CO-FINANCING

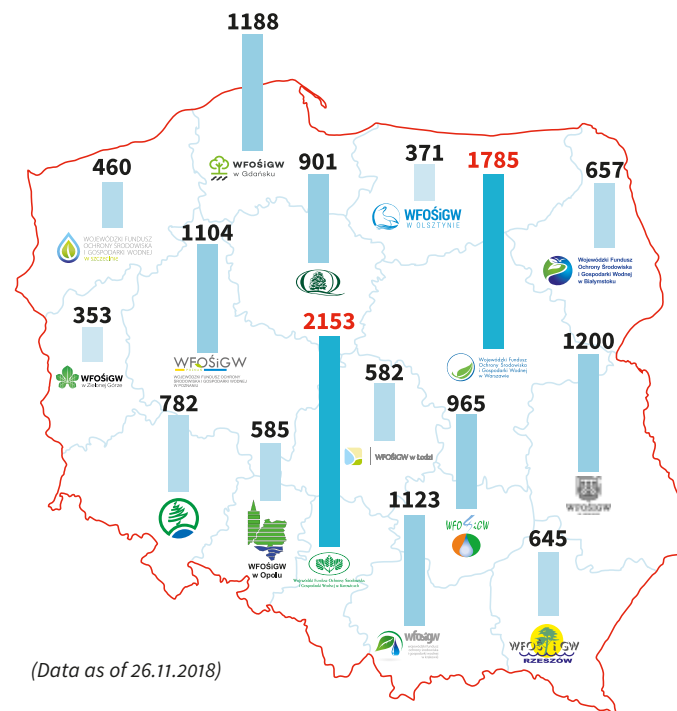
The amount of support depends on the average monthly income per capita in the household.

The total budget of the programme is 103 billion PLN – 63.3 billion PLN in the form of a grant, 39.7 billion in the form of a loan. A loan can be granted for a period not longer than 15 years.

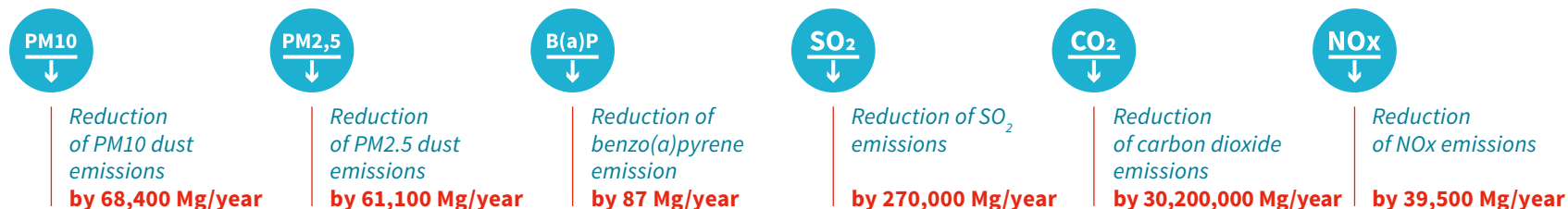
The programme provides funds to counter the negative phenomenon of smog by eliminating energy poverty. With particular regard to the occupants of family houses, this phenomenon was described in, *inter alia*, the report of the Institute for Structural Research (ISR) of April 2018 and World Bank’s (WB) report of May 2018. According to these reports:

- In 2016 12.2% residents of Poland were affected by energy poverty (ISR).
- Energy poverty affects mainly the residents of villages and small towns, up to 20 thousand residents (ISR).
- The number of buildings constructed by 2002 was 46.6 million. These are the buildings which require the improvement of energy efficiency, i.e. insulating the walls and replacing boilers and furnaces.

Requested amounts of grants and loans, divided into voivodship funds



Assumed ecological effects of the Clean Air programme



ECOMOBILITY – LOW-CARBON TRANSPORT FUND

The years 2016–2018 were a period of intensive work on laying the foundations for the development of ecomobility in Poland. Thanks to the activities listed below it was possible to prepare significant programmes for financial support of electromobility development. At present, the National Fund is completing several vital programmes that actively support the development of ecomobility. Within the priority programme

CHEETAH II Part 1) *Supporting of innovative solutions in zero-emission transport*, in December 2017, the National Fund for Environmental Protection and Water Management undertook cooperation with the National Centre for Research and Development (NCRD). The subject of this cooperation is ensuring co-financing for the purchase of zero-



16 March 2017

The government adopts the *Electromobility Development Plan in Poland*, setting industrial objectives in a 10-year perspective and identifying the market areas to which the financial support should be addressed

11 January 2018

Adoption of the *Act on electromobility and alternative fuels*, aiming at stimulating the development of electromobility and popularizing the application of other alternative fuels (LNG and CNG, among others) in the transport sector in Poland.

6 June 2018

The Act on the amendment of act on biocomponents and liquid biofuels and certain other acts, establishing the Low-Carbon Transport Fund (LCTF)¹, which is at disposal of the Minister of Energy. The NFEP is the Managing Entity for this Fund. The main tasks of the LCTF will be supporting the development of infrastructure for alternative fuels and creating a market for vehicles using such fuels.

December 2018

The 24th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP24), during which electromobility was one of the key subjects, was held in Katowice. Partnerships in ecomobility were established – DriveChangeTogether – Katowice Partnership for Electromobility. The declaration of partnership for developing electromobility and zero-emission transport was signed by 35 countries coming from five continents.

¹ *The Low-Carbon Transport Fund was established by the Act on the amendment of act on biocomponents and liquid biofuels and certain other acts of 6 June 2018.*



Fig. 8. Charging electric car. Street charging station, photo fotolia.com

emission vehicles by Partner Towns by way of the programme Zero-Emission Public Transport (ZEPT), organised by the NCRD. The programme is aimed at developing innovative zero-emission busses and enabling the purchase of prototypes by those towns that concluded agreements with NCR&D (at present, there are 27 signatories of this agreement – Partner Towns).

Completing the priority programme GEPARD II – Zero-emission public transport. Part 2) Strategy of electromobility development – the National Fund began supporting local government activity through co-financing the development of the electromobility strategy, as its main objective. Within this programme, preparation of 219 such documents, being complex strategies of electromobility development in local government units, was assumed.

Part 3) of the same programme, titled *Silesia – the heartland of zero-emission public transport*, consists in co-financing of the undertakings co-funded from the financial resources of the Regional Operating Programme for the Silesian Voivodeship, in the forms of a subsidy and a loan. This programme enables the purchase of new zero-emission buses and modernisation or construction of charging stations for public collective transport vehicles.

Launching of the Low-Carbon Transport Fund (LCTF) is planned for 2019. Due to many years of experience in financ-

ing environmental projects, the management of this fund was entrusted to NFEM&WM, and the institution took on responsibility for, *inter alia*, selecting projects following public tender, concluding contracts for support, settling in motion the projects, paying out the funds, informing the public and promoting LCTF activity.

Support within the LCTF is provided for both initiatives related to the development of electromobility (i.e. vehicles driven by electrical energy) and that of transport based on alternative fuels, such as CNG and LNG¹. The projects listed in, *inter alia*, the Plan for the Development of Electromobility in Poland², the National Framework for the Development Policy of Alternative Fuels Infrastructure and the Act on Electromobility and Alternative Fuels³ of 11 January 2018, will be financed through the LCTF.

Co-funding (the amount planned for years 2019–2027 equals 6.7 billion PLN) can be granted to the following entities: manufacturers of transport means, local authorities investing in clean public transport, entrepreneurs constructing infrastructure for alternative fuels, producers of bio-components and entities willing to purchase new vehicles. The National Fund will also support promotion and education in terms of using alternative fuels in transport.

Aside from that, in connection with entrusting the management of the LCTF to the NFEM&WM, the National Fund is obliged to spend another 3.9 billion PLN on the development of electromobility by 2027. This amounts to a total of 10 billion PLN. Prospects for the future are promising, particularly taking into consideration that, at present, Poland is one of the leaders in the production and sales of electrical buses.

In 2017, one Polish company alone manufactured 1,397 buses, of which, 445 vehicles were sold in Poland and the remainder of them abroad. In addition to that, the first world electromobility forum ‘DrivingChangeTogether’ will take place in 2019, also in Poland.

1 CNG – compressed natural gas, used for driving motor vehicles; LNG – liquefied natural gas.

2 Strategy prepared by the Ministry for Energy, adopted by the government of the Republic of Poland in May 2018.

3 On 29 March 2017 the Council of Ministers adopted national frameworks of the policy of the development of alternative fuels infrastructure. This document defines the manners of supporting the development of the market and infrastructure in relation to electrical energy and natural gas in the form of CNG and LNG applied in the road and water transport.

GREEN INVESTMENT SCHEME

The *Green Investment Scheme* (GIS) derives from the mechanism of emission allowances trade. The idea and the goal of GIS come down to creating and strengthening a pro-ecological effect resulting from selling the surpluses of AAU¹.

The Act on the System to Manage the Emissions of Greenhouse Gases and Other Substances of 17 July 2009 granted the role of the National Operator of the Green Investment Scheme (NOGIS) to the NFEP&WM. The supervision over completing the tasks by the National Operator is executed by a minister relevant for environmental issues.

Acting as the National Operator, the NFEP&WM ensures the transparency of spending GIS funds, identification of projects using the mechanism of a competitive call for applications, selection of projects through public tender, estimating the impact of co-financed undertakings on the environment, in accordance

¹ AAU – Assigned Amount Units, a conventional unit of granted rights to greenhouse gas emissions. 1 AAU correspond to 1 tonne of CO₂ equivalent.

with developed methodologies, selection of projects based on economic effectiveness of obtaining an ecological effect, strict rules in terms of monitoring, reporting and verification binding the beneficiaries and the NFEP&WM.

Within the framework of the Kyoto Protocol regarding the emission allowances trade, 11 contracts for sale of AAU (AAU contracts) between the Treasury of the Republic of Poland, represented by the minister relevant for environmental issues, and foreign contractors, for an amount of 796 million PLN, were signed by the end of 2015. As of 30 September 2018 the income, including the interest, amounted to 861.5 million PLN.

Fulfilling the obligations resulting from the signed AAU contracts, the National Fund, as the NOGSI, implemented priority programmes for eight areas indicated for co-financing by the purchasers of AAU. The programmes were developed in order to allow providing subsidies within the GIS, leaving options for engagement of other funds of the NFEP&WM. In addition to that, the applicants were enabled to apply for co-financing in the form of a loan.



THE NFEP&WM PRIORITY PROGRAMMES WITHIN THE FRAMEWORK OF THE GREEN INVESTMENT SCHEME (GIS)

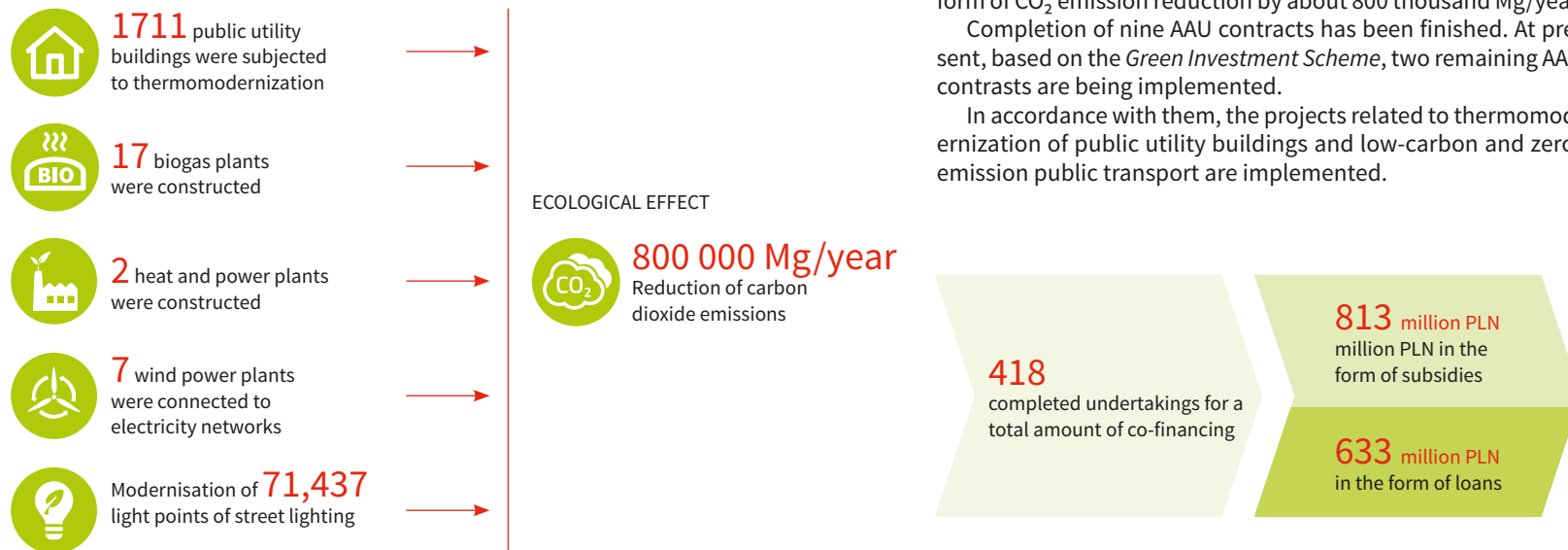
- Part 1) *Energy Management in Public Utility Buildings*
- Part 2) *Agricultural Biogas Plants*
- Part 3) *Biomass Heat and Power Plants*
- Part 4) *Construction and reconstruction of electricity networks for connecting renewable wind energy sources (RES)*
- Part 5) *Energy management in buildings of selected public sector entities*
- Part 6) *OWL – Energy-efficient street lighting*
- Part 7) *GAZELLE – A low-carbon urban transport*
- Part 2) *CHEETAH – Zero-emission public transport*

418 undertakings, in such fields as thermomodernisation of public utility buildings, construction of agricultural biogas plants, biomass heat and power plants, construction and reconstruction of electricity networks for connecting renewable wind energy sources and energy-efficient street lightning, were completed by the end of 2018 within concluded AAU contracts.

813 million PLN in the form of subsidies and 663 million PLN in the form of loans were spent in total for the undertakings from the funds collected at the Climatic Account. 1,711 public utility buildings were subjected to thermomodernization, 17 biogas plants and 2 biomass heat and power plants were constructed, electricity networks were connected to seven wind farms and 71,436 light points were modernised. The completion of these undertakings will contribute to achieving the planned ecological effect in the form of CO₂ emission reduction by about 800 thousand Mg/year.

Completion of nine AAU contracts has been finished. At present, based on the *Green Investment Scheme*, two remaining AAU contracts are being implemented.

In accordance with them, the projects related to thermomodernization of public utility buildings and low-carbon and zero-emission public transport are implemented.



EXAMPLES OF GOOD PRACTICE

Thermomodernization, including RES, of selected public utility buildings of the Drohiczyn Diocese.

- **Beneficiary:** Drohiczyn Diocese
- **Total cost of the project:** PLN 9,073,735
- **Co-financing:** PLN 2,602,120
- **Form:** subsidy
- **Source:** Part 1) Energy management in public utility buildings
- **Date of contract conclusion:** 30.05.2012 r.
- **Project completion:** from 06.2012 to 01.2013
- **Obtained ecological effect:** reduction in emissions of carbon dioxide, amounting to 799 Mg/year and reduction of demand for thermal energy by 4,694 GJ/year.



Fig. 9. Drohiczyn, photo by Katarzyna Zawadzka

Increasing Energy Management Efficiency in Uzdrowisko Horyniec (Horyniec Resort)

- **Beneficiary:** Uzdrowisko Horyniec Sp. z o.o.
- **Total cost of the project:** PLN 5,500,580
- **Co-financing:** PLN 1,037,079.10
- **Form:** subsidy
- **Source:** Part 1) Energy management in public utility buildings
- **Date of contract conclusion:** 17.12.2014 r.
- **Project completion:** from 12.2012 to 12.2016
- **Obtained ecological effect:** reduction in emissions of carbon dioxide, amounting to 2,230 Mg/year and reduction of demand for thermal energy by 20,411 GJ/year.



Fig. 10. Uzdrowisko Horyniec Sp. z o.o., photo by Paweł Petrykowski

WATER AND CLIMATE PROTECTION OF WATER – WATER AND SEWAGE MANAGEMENT



Sewage management was the first area supported by the NFEP&WM and in 2003 the National Programme for Municipal Sewage Treatment was created. It includes a list of agglomerations which must be equipped with the combined sewage networks and sewage treatment plants by specified deadlines. This resulted from Poland's accession to the EU and the obligation to fulfil the so-called Urban Waste-Water Treatment Directive. At present modern sewage treatment plants become simultaneously the plants for recovering energy and raw materials from waste.

In the 2014–2020 financial phase of the OPI&E it is planned to construct and modernise 208 sewage treatment plants and over 5 thousand km of sewage network within the projects which will be completed by 2023. The pollutant load planned to be removed is over 2.8 million PE¹. Over 400 contracts were

concluded. The value of co-financed projects is over 15 billion PLN, including about 1.5 billion PLN from the NFEP&WM own funds and about 8 billion PLN from foreign funds.

At present the NFEP&WM is completing two co-funding programmes in terms of water protection: Water and sewage management in agglomerations and the Operational Programme Infrastructure and Environment, measure 2.3 Water and sewage management in agglomerations.

The priorities of the National Fund are the following: completion of the National Programme for Municipal Sewage Treatment as well as the management of sewage sludge, implementation of new sewage treatment technologies – circular water and sewage economy and water waste management in the areas with scattered housing, outside agglomerations.



Fig. 11. Wschód Gdańsk Sewage Treatment Plant
Photo by GIWK Sp. z o.o. and aeromedia.pl

1 PE – Population Equivalent

Domestic biological sewage treatment plants for residents of municipality Pietrowice Wielkie as the method of environment protection

- **Beneficiary:** gmina Pietrowice Wielkie
- **Total cost of the project:** PLN 20,112,500.00
- **Co-financing:** PLN 9,032,523.00
- **Form:** subsidy
- **Source:** Part 1.4 Co-financing domestic sewage treatment plants and connections to the combined sewage system Part 1) Domestic sewage treatment plants
- **Date of contract conclusion:** 18.10.2012 r.
- **Project completion:** from 10.2012 to 09.2014
- As a result of the project completion 1,170 domestic sewage treatment plants were constructed (they are used by almost 6 thousand people, i.e. over 80% of gmina residents), connected into one, consistent sewage system, due to equipping all the plants with SIM cards (it allows a constant read-out of working plants' parameters). The constructed domestic biological sewage treatment plants (DBSTP) are equipped with biological reactors and produced sludge is received by the mechanical-biological sewage treatment plant in Krzanowice. Completion of this undertaking allowed regulation of the sewage management in gmina Pietrowice Wielkie in over 80%.

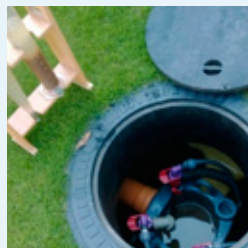


Fig. 12. Gmina Pietrowice Wielkie, photo by Lidia Burdzik

Water supply and sewage treatment in Warsaw, phases I, II, III, IV, V and VI

- **Beneficiary:** Miejskie Przedsiębiorstwo Wodociągów i Kanalizacji w m. St. Warszawie SA (Municipal Water Supply and Sewage Company in the Capital City of Warsaw)
- **Total cost of the project:** 7.4 billion PLN
- **Co-financing:** 3.4 billion PLN
- **Form:** subsidy
- **Source:** ISPA pre-accession programme, the Cohesion Fund 2004–2006, the Operational Programme Infrastructure and Environment 2007–2013, the Operational Programme Infrastructure and Environment 2014–2020



Fig. 14. Water supply and sewage treatment in Warsaw, photo by Krzysztof Kubus and Kacper Kowalski.

Water and sewage management in gmina Jarocin

- **Beneficiary:** Przedsiębiorstwo Wodociągów i Kanalizacji Sp. z o.o. w Jarocinie (Water Supply and Sewage Company in Jarocin)
- **Total cost of the project:** PLN 255,960,534.24
- **Co-financing:** PLN 128,190,579.07
- **Form:** subsidy
- **Source:** POPI&E 2014–2020, priority axis II: Environmental protection, including adaptation to climate change, measure 2.3, Water and sewage management in agglomerations
- **Date of contract conclusion:** 11.04.2017 r.
- **Project completion:** from 01.2014 to 09.2022
- This project is an innovative undertaking at a national level. A granulate for using in agriculture as a mineral fertiliser will be produced from post-sludge water in a modern plant for nitrogen and phosphorus recovery. Biogas, used for the production of electrical energy, will be produced from sludge, which will contribute to savings in energy and reducing greenhouse gases emission. The project also includes the implementation of an intelligent system for managing water and sewage systems.
- By now, the NFE&WM spent 0.5 billion PLN of a loan from domestic funds and intends to spend further 0.7 billion PLN on co-funding this investment
- **Date of contract conclusion:** 8.11.2002 (phase I), 24.11.2017 (phase VI)
- **Project completion:** from 05.2004 to 12.2023
- The completion of this project contributed to the improvement of drinking water quality for the residents of Warsaw due to the modernisation of three water purification plants and by the modernisation and construction of 180 km of water supply network. The investment had a significant impact, through the modernisation of three sewage treatment plants and construction of a transmission collector, construction and modernisation of 260 km of sewage network and through using sewage sludge for production of heat and thermal energy for the needs of the sewage treatment plant, on improving the treatment of all sewage discharged to the sewage receiver. About 29 thousand new users of the sewage system and about 14 thousand new users of the water supply system were connected.



Fig. 13. Water purification plant in Stefanów k. Jarocina, photo by PWiK in Jarocin

ADAPTATION TO CLIMATE CHANGE AND COUNTERACTING ENVIRONMENTAL HAZARDS

WATER MANAGEMENT

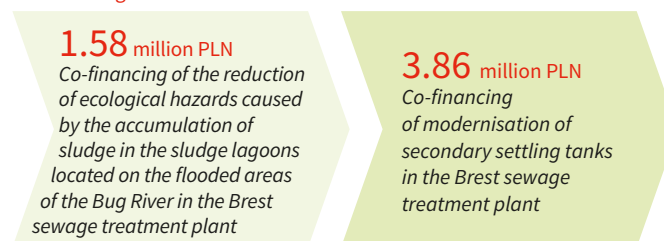
One of the most significant achievements in the activities of the NFEP&WM in the area of water management and adaptation to climate change is the completion of a few dozen important investments in terms of flood protection and enhanced water transport on the Oder and Vistula rivers and their main tributaries, such as, for example:

- Construction of water reservoir *Swinna Poręba* on the *Skawa River*, which constitutes an important element of *Cracow's* flood protection. Half of the cost of this investment, finished in 2017, was co-financed from the funds of the NFEP&WM (over 1 billion PLN of subsidies).
- Construction of the *Malczyce* barrage on the *Oder River* – crucial for enhancing river transport and recreational sailing on the *Odra River*. The lock was put into operation in 2018. By now over 800 million PLN were spent on the construction of this object from funds provided by the NFEP&WM.
- Modernisation of the *Przeczyce* storage reservoir (Upper *Silesia* -*Będzin* surroundings), protecting the areas in the valley of the *Przemsza River* from flood, finished in 2018 – NFEP&FM provided over 28million PLN for this purpose.
- Modernisation of the *Zerah* lock, allowing navigation between the *Vistula River* and the *Great Masurian Lakes*, finished in 2017 – about 9 million PLN were spent on this purpose from the funds of the NFEP&WM.
- Restoring navigability on the historic *Augustow Canal*, allowing river transport and recreational sailors to reach the *Neman River*. In 2018, the reconstruction of the last lock – *Swoboda*, was finished (slightly over 5 million PLN were spent on this task). In total, about 70 million PLN were spent from the funds of the NFEP&WM on the reconstruction of all locks on the *Augustow Canal*.
- Completion of 520 contracts related to the purchase of specialist equipment for rescue actions, as a result of which at least 3,100 pieces of equipment were purchased.

The following amounts were spent from the domestic funds of the NFEP&WM:



Co-financing of two investments in Belarus:



Within the Operational Programme Infrastructure and Environment 2007–2013 (OPI&E 2007–2013), priority III, Resource management and counteracting environmental risks



- Completions of undertakings in the scope of ensuring protection from hazards for at least 170 thousand people.
- Creation of the *Nationwide programme for the financing of rescue services*, in 2018, jointly with voivodeship funds for environmental protection and water management.

ENVIRONMENTAL MONITORING

Another significant activity that cannot be omitted is state environmental monitoring. This action is conducted in accordance with the Environmental Protection Act. The Priority Programme '5.3: Supporting Environmental Monitoring' provides funding for monitoring air quality, water quality, soil and land quality, ecological quality, noise, electromagnetic fields and ionizing radiation. At present 55 monitoring contracts are being completed and the planned amount of co-financing for these contracts in 2018 is almost 40 million PLN. As a result of changes introduced in November 2018, the National Fund will allocate almost 100 million PLN for the completion of the monitoring tasks in 2019. The domestic funds will be given over exclusively

to the completion of the co-financing contracts where the Chief Inspectorate for Environmental Protection and the Institute for Environmental Protection – National Research Institute are the beneficiaries.

TRANS-BOUNDARY PROJECTS

On 5 October 2017, a memorandum of cooperation was signed between the NFEP&WM, the city of Lvov and Lvivvodo-kanal Communal Enterprise under the auspices of the Minister for Ecology and Natural Resources of Ukraine. The objective of this memorandum is completing joint undertakings in terms of ensuring effective treatment of sewage from the city of Lvov and minimizing the pollution of the trans-boundary Bug River.

DOMESTIC PROGRAMMES

- 1.2 Construction, redevelopment and reconstruction of hydrotechnical facilities – a programme being gradually wound down since 2015 – closure on 31 December 2020. Closing report: I quarter of 2021.
- 1.3 Investments in sewage management abroad
- 5.2 Supporting ecological forms of transport and environmental protection in inland navigation
- 5.3 Supporting environmental monitoring
- 5.4 Adaptation to climate change and reducing the effects of environmental risks
- Nationwide programme for financing of rescue services

FOREIGN PROGRAMMES

Measure 2.1 OPI&E 2014–2020 Adaptation to climate change, including protection and increasing the resilience to natural calamities, in particular, to natural disasters and environment monitoring

There are 12 types of projects within this measure:

- **Typ 2.1.1** Development and updating of strategic/planning documents
 - **1a.** Development or updating of strategic/planning documents in terms of water managementch z zakresu gospodarowania wodami
 - **1b.** Preparation or updating of plans of adaptation to climate change in cities with population over 100 thousand residents, taking into consideration the informational-educational component
- **Typ 2.1.2** Completion of tasks aiming at the achievement of good water condition
- **Typ 2.1.3** Supporting supra-regional systems of small retention
- **Typ 2.1.4** Construction, redevelopment or repair of water devices that contribute to reducing the effects of flood and drought
- **Typ 2.1.5** Systems of precipitation water management in the urban areas (a call for proposals)
- **Typ 2.1.6** Protection of sea shores exposed to erosion
- **Typ 2.1.7** Prevention, counteracting and limiting the effects of risks
 - **7a.** Development of early warning and risk forecasting systems
 - **7b.** Supporting of rescue and firefighting systems
 - **7c.** Support in terms of forests and forestry adaptation to climate change
- **Typ 2.1.8** Implementation of observation methods and purchase of equipment in order to improve the environment monitoring system
- **Typ 2.1.9** Creation of the base of knowledge and competences related to climate change and adaptation to climate change
- **Typ 2.1.10** Informational and educational activities in relation to climate change and adaptation to it
- **Typ 2.1.11** Construction of specialist vessels for active anti-jamming protection
- **Typ 2.1.12** Preparatory work for investments in terms of type 4 projects

FINANCING INVESTMENTS AIMED AT ADAPTATION TO CLIMATE CHANGE

As a result of an analysis regarding the scope of adaptation activities conducted in towns, a very high need of increasing social awareness (first of all, among local government representatives) was noticed in terms of the necessity of planning activities for increasing the resilience of towns to climate change. An appropriate proposal of refundable financing was then prepared. It focused, in the first place, on the strategic documents dedicated to adaptation to climate change, such as, *inter alia*, urban adaptation plans, and, in the second place, on

specific investment actions in towns, resulting from the above-mentioned plans and strategies. In addition, investment needs related to drinking water supply for the population (construction and modernisation of water intakes, water purification stations and water supply network) were taken into consideration due to the increasing problem of drought, as well as investments related to increasing water retention in ecosystems and flood protection. Moreover, co-financing possibilities of the beneficiaries' own contributions within the actions carried out using the European Union resources set up for adaptation to climate change, were put in place. A modified form of this programme has been in force since January 2019.



EXAMPLES OF GOOD PRACTICE

Raciborz Dolny flood protection reservoir on the Oder River in Silesian Voivodeship (polder)

- The main purpose of the construction of the dry flood protection reservoir on the Oder River above Raciborz is reducing the size of the flood wave on the Oder River, above the city of Wrocław, as well as ensuring flood protection for over 1.3 million residents of the Silesian, Opolskie and Lower Silesian Voivodeships. The polder will delay the arrival of the Oder wave culmination to the estuary of the Eastern Neisse River, reducing considerably the probability of two wave culminations overlapping. The flood waves with the flow rate $> 1,210 \text{ m}^3/\text{s}$ will be subjected to reduction.
- **Beneficiary:** Państwowe Gospodarstwo Wodne Wody Polskie – RZGW w Gliwicach (National Water Management Authority – Regional Water Management Authority in Gliwice)
- **Total cost of the project:** PLN 1,997,722,909.96
- **Co-financing:** PLN 667,040,000
- **Form:** subsidy
- **Source:** OPI&E 2014–2020, within the measure 2.1 Adaptation to climate change, including ensuring and increasing the resilience to natural calamities, in particular, to natural disasters and environment monitoring, priority axis II Environmental protection, including adaptation to climate change
- **Date of contract conclusion:** 29.06.2016
- **Project completion:** from 01.2014 to 09.2020
- Main objectives of the project are the protection of life and property of the society in the valley of the Oder River, from Raciborz to Wrocław, with particular regard to Wrocław, increasing the flood safety and improving the condition of technical infrastructure, improving the economic situation of the region.



Fig. 15. Flood protection reservoir in Raciborz, photo BWP Raciborz

Construction and redevelopment of storm-water drainage and adaptation of storm-water drainage systems to climate change in the area of Bydgoszcz city

- This project is so far the largest undertaking financed from the funds of the OPI&E 2014–2020 among projects of that type. Its objective is retaining and using, to a maximal extent, precipitation water for, *inter alia*, watering urban greenery, and introduction (after pre-treatment) of rain water run-off to ponds and water holes. The project will contribute to minimizing the flooding of buildings and streets and will also reduce the consumption of water from urban networks for greenery watering.
- **Beneficiary:** Miejskie Wodociągi i Kanalizacja w Bydgoszczy Sp. z o.o. (Municipal Water Supply and Sewage Company in Bydgoszcz)
- **Total cost of the project:** PLN 316,456,889.57
- **Co-financing:** PLN 154,795,269.71
- **Form:** subsidy
- **Source:** OPI&E 2014–2020, measure 2.1 Adaptation to climate change, including ensuring and increasing the resilience to natural calamities, in particular to natural disasters and environment monitoring, project type 5. Precipitation water management systems
- **Date of contract conclusion:** 29.03.2017
- **Project completion:** from 04.2016 to 12.2021
- • drainage system, redevelopment of 90 km of storm water drainage system and construction of 81 facilities serving for precipitation water management (storage reservoirs, storm water pre-treatment plants, installations for green areas irrigation) and increase of volume of retained water up to about 37 thousand m^3 .



Fig. 16. Renovation of storm water channels by means of on-site hardened sleeve in Bydgoszcz, photo by Jakub Wysocki

THE COVENANT OF MAYORS

the NFEF&WM is the National Coordinator of the Covenant of Mayors for Climate and Energy in Poland. The covenant is an initiative of the European Commission involving local authorities and citizens in activities increasing energy efficiency and use of renewable energy sources.

The role of the National Coordinator is to provide all interested entities with technical support in fulfilling the procedure of joining the Covenant, as well as to provide assistance in contacts with the Covenant of Mayors Office and to represent

the European Commission.

In the coming years, educational activities promoting knowledge related to adaptation to climate change are being planned through the use of the Covenant of Mayors as a platform for exchanging experiences in the field of environmental protection and for supporting activities to mitigate climate change. The signatories and potential signatories will receive support from the National Fund in the procedure of joining the agreement, drawing up necessary documents, including the preparation of SECAP (i.e. sustainable energy and climate action plan), and subsequently in filling up the declaration forms included in SECAP.

EXAMPLES OF GOOD PRACTICE

Increasing the retention capacity and counteracting flood and drought in forest ecosystems of lowland areas and counteracting the effects of storm water run-off in mountainous areas. Increasing retention and maintaining the streams and infrastructure related to them in good conditions

- This is an exceptional and spectacular project consisting of two undertakings that complement each other – one is implemented in the lowland areas, the other – in the mountainous areas. They are aimed at counteracting drought and flood.
- **Beneficiary:** General Directorate of the State Forests, in the person of the General Director, representing over 220 Forest Inspectorates – the final beneficiaries of the projects
- **Total cost of the project:** PLN 363,478,176.86
- **Co-financing:** PLN 247,570,941.50
- **Form:** subsidy
- **Source:** measure 3.1 Water retention and ensuring flood safety, priority III Resource management and counteracting environmental risks
- **Date of contract conclusion:** 09.06.2010 and 29.08.2011
- **Project completion:** from 10.2007 to 12.2015
- The effect of the project completion is the construction of over 3 thousand small retention objects and generation of over 43 million m³ of retained water. The work consists of construction of protective systems on skid tracks for protection from excessive erosion and sudden avalanches; lining mountain streams beds with natural material rip-rap as protection from flash-flooding. Both projects are continued in an analogical form in the current phase of the project.



Fig. 17. Small retention changes, mountainous areas on the Lgdek Zdroj Forest Inspectorate, photo by the State Forests

Modernisation of the Wroclaw Water Node

- The main objective of this project is protecting the residents of Wroclaw city and neighbouring towns from flood, by increasing the flow capacity of canals of the Oder in the area of Wroclaw. The project also assumes the reduction of control flow $Q_k = 3,850 \text{ m}^3$ of water jet/s in the cross-section of Wroclaw to the value of $3,100 \text{ m}^3/\text{s}$. In addition to that, the flood protection of the residents in the area of Wroclaw city and neighbouring towns will be improved by increasing the flow capacity of the Oder canals in the area of Wroclaw.
- **Beneficiary:** Panstwowe Gospodarstwo Wodne Wody Polskie – RZGW we Wroclawiu (National Water Management Authority – Regional Water Management Authority in Wroclaw)
- **Total cost of the project:** PLN 901,000,000
- **Co-financing:** PLN 578,478,903
- **Form:** subsidy
- **Source:** OPI&E 2007–2013, measure 3.1 Water retention and ensuring flood safety, priority III – Resource management and counteracting environmental risks
- **Date of contract conclusion:** 05.01.2012
- **Project completion:** from 01.2012 to 09.2016
- The main effects of the project completion include: improving the ecology of the Oder River's bed, banks and canals, creating new elements enriching the landscape of the river valley (small islands, side distributaries, bays, etc.), improving flood safety of Wroclaw and improving the technical condition of hydrotechnical facilities, strengthening the economic development of the region, increasing its investment attractiveness, providing opportunities for creating new jobs and improving the residents life conditions.



Fig. 18. Redevelopment of Wroclaw Weir I, photo by RZGW Wroclaw

ENERGY RENEWABLE ENERGY SOURCES

The main activities financed by the NFEP&WM in terms of energy include reduction in the impact of enterprises (counting energy sector) on environment, improvement of their energy efficiency, improvement of air quality by reducing or avoiding CO₂ emission as a result of increasing the production of energy from renewable resources and supporting the local potential in completing the goals of the climate package.

Having in mind the domestic goals in terms of sustainable development and maintaining the cohesion and balance between the investment activities in the scope of support addressed to selected areas of economy and the completion of EU strategic goals in the area of low-carbon economy, the National Fund co-finances the construction of RES plants, *inter alia*, biogas plants, plants for energy production from geothermal sources, wind farms, small water power plants, biomass-fired boiler houses, and also installing heat pumps, solar collectors, and, since 2014, photovoltaic cells.

THE NFEP&WM OBJECTIVES RELATED TO THE DEVELOPMENT OF THE RES SECTOR

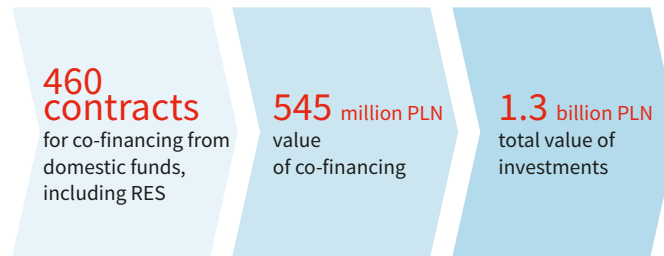
- Consistent and comprehensive support of Polish industry in terms of the adaptation to increasingly restrictive ecological norms and emission standards and limiting negative environmental impact of enterprises (financial phases 2004–2006 / 2007–2013 / 2014–2020).
- Continuous adjustments of the offer in order to respond to the needs of the industry and to achieve complete match funding from the domestic and European Union funds.
- Comprehensive support of the industry area in terms of environmental protection (not only financing of large investment projects regarding, for example, reducing emissions and adaptation

to the BAT¹ standards, but also supporting the implementation of environmental management systems and the development of energy audits).

- Support of the local potential in completion of the climate package goals, by financing the development of Low- Carbon Economy Plans (documents identifying local opportunities for using energy sources, including RES, development of heating networks, improvement of energy efficiency and other activities related to the improvement of air quality).

ACCOMPLISHMENTS AND ACHIEVEMENTS

The NFEP&WM involvement on the “green energy” market



In total, 10 billion PLN was transferred to the applicants from the domestic and EU funds for projects relating to energy. The domestic funds offer was standardised and the application of available EU funds was stimulated. Twenty one calls for proposals were conducted, with over 750 applications verified. The total cost of these projects is over 15 billion PLN and the amount of requested co-financing is about 5 billion PLN.

¹ BAT – Best Available Technology; the overarching objective of BAT is proposing such emission limits which would reflect proper proportions between benefits and costs.

CURRENT PROGRAMMES

Energy Plus

It is a consolidation of previous programmes “Support for entrepreneurs in terms of low-carbon and resources efficient economy” and “Improvement of air quality – part 1) Usage of geothermal resources for energy production”. This programme is addressed to the entrepreneurs who intend to carry out activities in relation to limiting or avoiding harmful atmospheric emissions, reducing the consumption of primary raw materials, improving of energy efficiency, using new sources of heat and electrical energy, modernisation of heating networks or use of geothermal resources. The budget of this programme is 4 billion PLN. The offer of financing is based on loans granted on preferential terms. Subsidies are planned for undertakings using the ORC technology for the production of energy from geothermal sources. The Energy Plus programme is aimed to support

the completion of those activities of Polish industry that regard the fulfilment of requirements provided for in IED and MPC Directives.

Powiat heating networks – a pilot programme

It is a programme for enterprises conducting heating activities for communal and living purposes, in which 70% of capital belongs to the local government units and under the condition that the amount of power ordered by system recipients cannot exceed 50 MW. Financing from the NFEP&WM funds can be granted in the form of a subsidy – up to 30% of eligible costs or up to 50% in the case where geothermal ORC technologies are used – and in the form of a loan granted on preferential terms. The total allocation is 500 million PLN, including 150 million PLN for non-repayable co-financing and 350 million PLN for repayable co-financing. The programme allows development in the direction of effective heating systems.

EXAMPLES OF GOOD PRACTICE

Construction of a heat accumulator in Elektrociepłownia “Kraków” SA (Cracow Heat and Power Station)

- During the period of the project completion the co-financed undertaking was one of the only three installations of such type in the whole of Poland. The project consists in constructing a heat accumulator – a huge storage tank for hot water, which is heated at the time of reduced demand for heat and then used for heating the city during the rush hour.
- **Beneficiary:** PGE “Kraków” SA (former: Elektrociepłownia “Kraków” SA)
- **Total cost of the project:** PLN 52,321,396.85
- **Co-financing:** PLN 11,062,772.40
- **Form:** subsidy
- **Source:** OPI&E 2007–2013, measure 4.2: Rationalisation of resource and waste management in enterprises
- **Date of contract conclusion:** 8.10.2010 r.
- **Project completion:** from 10.2010 to 03.2012
- The effect of the project completion was the reduction of heating water losses by 6 thousand m³/year, energy saving by 2,023 MWh/year, reduction of pollutant emissions into the air, in the following amounts in relation to the years 2006–2008: CO₂ – 1,829.67 tonnes/year, NO_x – 4.20 tonnes/year, SO₂ – 7.34 tonnes/year, dust – 0.7 tonnes/year.



Fig. 19. PGE Energia Ciepła SA Oddział nr 1 w Krakowie, photo by PGE Energia Ciepła SA

Modernisation of Nidzica heating system – construction of an urban boiler house based on the production of heat energy from biomass combustion

- This undertaking includes modernisation of the heating system of Nidzica town. The project consists in construction of a boiler house: two biomass-fired boilers with the power of 5MW and 2.5 MW, including a plant for heat recovery from flue gas, with the power of 1.15 MW. The additional capacity to produce heat energy from renewable resources is 7.5 [MWt].
- **Beneficiary:** Nidzica town
- **Total cost of the project:** PLN 16,997,950.60
- **Co-financing:** PLN 5,199,997.09 and loan from the VFEP&WM in Olsztyn: 8,239,413.11 PLN
- **Form:** loan
- **Source:** OPI&E 2014–2020, measure 1.1: Support of investments related to production of energy from renewable sources, including connection of these sources to the distribution/transmission network
- **Date of contract conclusion:** 13.11.2017 r.
- **Project completion:** from 03.2017 to 01.2018
- The result of this investment is estimated annual decrease in greenhouse gas emissions by 5,068.83 (Mg CO₂/year). Production of heat energy from newly constructed/new production capacities of plants using RES is 12,964.12 [MWh/year]. Biomass comes from wood chips and forest and timber mill waste. The new boiler house will cover, in 100%, the needs of the current heat energy recipients, for whom natural gas and hard coal are basic fuels at present. The existing urban boiler house will be closed down after the completion of the entire undertaking.

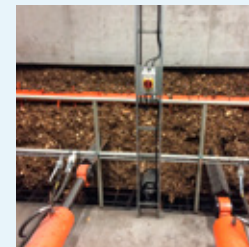


Fig. 20. Nidzica, Rataja 11 Street, photo by Paweł Łazicki, Vice-president of PUGK Sp. z o.o.

Agroenergy

This is a pilot programme, intended for the agricultural sector. An individual farmer, who implements the installation of a new source of energy derived from RES, co-generation or a technology using waste heat, can become a beneficiary of the programme. Moreover, within the framework of this programme, there is a potential for activities improving energy efficiency and reducing the consumption of primary raw materials. Co-financing is in the form of a subsidy (up to 40% of eligible costs) and/or a loan (up to 100% of eligible costs). The implementation of the programme will contribute to fulfilling the international obligations of Poland in terms of air quality and development of the renewable energy sector.

My electricity

The support within this programme is aimed at encouraging natural persons to use photovoltaic installations in households. Micro-installations with power from 2 kW to 10 kW will be co-financed. Concluding a prosumer contract with a power distribution company is required. A non-repayable support amounts up to 50% of eligible costs of investment, maximally 5 thousand PLN.

Polska Geotermia Plus (Polish Geothermal Energy Plus)

This programme constitutes a complex instrument of support for the undertakings aimed at reducing a negative environmental influence and adaptation to the more and more restrictive emission norms of the Polish heating sector at the poviast level. The following undertakings are the main beneficiaries of the programme: construction of a new, extension or modernisation of the existing district heating station/heat and power station/geothermal power station or modernisation/extension of existing sources of renewable energy production by a district heating station/heat and power station/geothermal power station based on a geothermal source.

WORK RELATED TO THE PREPARATION OF THE NEW EU FINANCIAL PERSPECTIVE FOR YEARS 2021–2027

Support of investments based on innovative RES technologies will be continued until 2020, with a particular emphasis on the development of stable RES sources, including the support of technologies using the potential of the geothermal energy in Poland,

EXAMPLES OF GOOD PRACTICE

Construction of a flue gas desulphurisation plant for the K7 and K8 boilers in Elektrociepłownia “Białystok” (Białostok Heat and Power Station)

- Within the project a complete, modern plant for flue gas desulphurisation (FGD) in semi-dry technology was constructed for two steam boilers.
- **Beneficiary:** Enea Ciepło Sp. z o.o.
- **Total cost of the project:** PLN 105,450,500
- **Co-financing:** PLN 60,075,000
- **Form:** loan
- **Source:** priority programme: Support of undertakings in the scope of the low-carbon and resource-efficient economy, Part 1) E-KUMULATOR – Ecological Accumulator for Industry
- **Date of contract conclusion:** 29.12.2015 r.
- **Project completion:** from 03.2015 to 03.2018
- The result of this project is achievement of concentrations not exceeding (at 6% oxygen content) the following values: SO₂ – 200 mg/Nm³, dust – 20 mg/Nm³ and the reduction of pollutant emissions from boilers K7 and K8 into the air by: SO₂ – 427.00 tonnes/year, dust – 23 tonnes/year.



Fig. 21. Enea Ciepło Sp. z o.o. Oddział Elektrownia Białystok, photo by Enea Ciepło Sp. z o.o.

Construction of a flue gas cleaning system for the WR25 boiler no. 4 in Ciepłownia Główna PEC in Suwałki (Main District Heating Station PEC in Suwałki)

- Within the project a flue gas cleaning system (FGCS) was constructed. The boiler, which will be operated by the FGCS, is a water stoker-fired boiler of WR25 type, adapted to the combustion of hard coal.
- **Beneficiary:** PEC Suwałki Sp. z o.o.
- **Total cost of the project:** PLN 13,676,034.02
- **Co-financing:** PLN 8,207,213.00
- **Form:** loan
- **Source:** priority programme: Support of undertakings in the scope of the low-carbon and resource-efficient economy, Part 1) E-KUMULATOR – Ecological Accumulator for Industry
- **Date of contract conclusion:** 23.11.2018 r.
- **Project completion:** from 04.2018 to 02.2019
- The effect of the project completion will be reduction in the emissions of: sulphur dioxide by 28.50 Mg/year, nitrogen oxides by 2.20 Mg/year, and dusts with diameter larger than 10 micrometres by 1.69 Mg/year.



Fig. 22. Przedsiębiorstwo Energetyki Ciepłej w Suwałkach Sp. z o.o., 6A Przemysłowa Street, 16–400 Suwałki, photo by Przedsiębiorstwo Energetyki Ciepłej w Suwałkach Sp. z o.o.

conducive to the achievement of goals regarding environmental protection and climate change.

The NFEP&WM was the first institution which promoted the improvement of energy efficiency in enterprises, including financing of the preparation of energy audits. Comprehensive guidelines regarding the preparation of audits have been created and the development of the market of energy efficiency improvement has been stimulated.

The National Fund promoted and financed the idea of developing the Low-Carbon Economy Plans (LCEPs), which identified, in a strategic and comprehensive manner, the potentials for achieving the goals of the climate package by individual gminas. LCEPs become the base of opportunities for applying for the EU funds concerning energy in the 2014–2020 financial perspective. Within these activities, the development of plans for over 870 gminas (over 35% of all gminas in Poland!) was co-financed. These plans will constitute the foundation for the development of detailed energy balances, which can be a starting point in applying for the EU financing in the future perspective of 2021–2027.

It should be emphasised that with no exceptions all of the professional power plants in Poland benefit from co-financing offered by the NFEP&WM (within the framework of EU or domestic funds) in terms of reducing pollutant emissions.

The projects regarding modernisation and construction of heating networks, which are co-financed by the NFEP&WM, cover over 1 thousand km of the heating network, which is about 5% of all networks in the country and it is worth emphasizing that the Polish system of heating networks is the second best-developed in the EU.

ENERGY EFFICIENCY

The overarching objective in this area of the NFEP&WM activities is the improvement of energy efficiency in buildings (particularly in the public sector), including the use of energy from renewable sources, supporting the local potential of achieving the goals of the climate package in terms of energy efficiency and RES and supporting the achievement of objectives of the CAFE Directive

(improvement of air quality by the reduction in low-stack emission). Therefore, the support for projects in the scope of energy efficiency has been provided consistently and comprehensively for many years from various sources of financing, such as, *inter alia*, OPI&E 2007–2013 (priority IX, measure 9.3: Thermo-modernisation of public utility facilities). Thirty nine grant contracts for the total of 396 million PLN of co-financing have been signed and the total cost of the undertakings was 657 million PLN. In addition to that, in order to improve the completion of measure 9.3, the NFEP&WM launched its own programme: Co-financing of OPI&E priority axis IX. Part 1) Subsidies for interest rates of bank loans for the projects completed within measure 9.3. Seventy projects were co-funded from the European Economic Area Financial Mechanism and the Norwegian Financial Mechanism 2004–2009 and their cost amounted to almost 60 million EUR, while the amount of co-financing exceeded 40 million EUR. Within the framework of the Green Investment Scheme (GIS) Part 1) Energy management in public utility buildings 570 grant contracts for 1.83 billion PLN and 217 loan contracts for 453 million PLN were concluded.

At present, the support is directed towards the so-called deep and comprehensive energy modernisation of public utility buildings (under submeasure 1.3.1) and multi-apartment buildings (under submeasure 1.3.2) within the framework of priority axis I of the OPI&E 2014–2020: Low-carbon economy. A deep and comprehensive energy modernisation is understood as insulation of building partitions, replacement of windows or doors and replacement or modernisation of heat (cold) sources and installations resulting in the reduction of the values of indicators of annual demand for final energy and non-renewable primary energy. The above mentioned installations are understood as: central heating, hot domestic water, ventilation, air conditioning or lighting. The scope of an undertaking must originate from the conducted energy audit.

Within the domestic funds the NFEP&WM also provides support for activities related to thermo-modernisation of buildings. In this scope the NFEP&WM offer includes, *inter alia*, such programmes as: Improvement of air quality. Part 5) Public utility buildings with increased the standard of energy efficiency or energy efficient buildings. Part 1) Reduction of energy consumption in buildings. Within the first programme, the construction of new public utility buildings, which are characterised by better (at least by 10%) indicators of primary energy consumption than required in law regulations, is supported. The second programme supports the thermo-modernisation of those facilities, which cannot obtain support from the European Union funds, e.g. hospitals, historical buildings, museums, sacral buildings, etc. The support is provided in both forms – a grant and a loan.

Submeasure 1.3.1, OPI&E 2014–2020

158 contracts for
1.147 billion PLN

Submeasure 1.3.2, OPI&E 2014–2020

19 contracts for total amount of
137 million PLN

Ongoing programmes financed by foreign funds

- OPI&E 2014–2020, Submeasure 1.3.1 *Supporting energy efficiency in public utility buildings*
- OPI&E 2014–2020, Submeasure 1.3.2: *Supporting energy efficiency in the housing sector.*

Ongoing programmes financed by domestic funds

- Improvement of air quality. Part 5) *Public utility buildings with increased standard of energy efficiency.*
- Energy-efficient buildings. Part 1) *Reduction of energy consumption in buildings.*

An intensive thermo-modernisation of residential buildings is one of the eight directions of Poland's energy policy by 2040¹,

¹ Project of document: *Poland's energy policy by 2040 (PEP2040)* was prepared by the Ministry for Energy in January 2019. It was passed to public consultations.

which is the improvement of energy efficiency of the economy.

Other regulations increasing the requirements regarding thermal insulation and other requirements related to energy saving in newly constructed facilities will come into force on 1 January 2019, and in case of buildings occupied by public authorities and being their property on 1 January 2021. It means the fulfilment of the provisions of art. 9 of the Directive of the European Parliament and the Council 2010/31/EU of 19 May 2010 on the energy performance of buildings. The main tasks of the NFEP&WM in the building sector consist in, *inter alia*, the preparation of new financial phase of the EU for the years 2021–2027 in terms of comprehensive thermo-modernisation, combined with the replacement of local heat sources and imposing a ban on firing with coal, including particularly the implementation of the provisions of the Directive of the European Parliament and the Council (EU) 2018/844 of 30 May 2018.

EXAMPLES OF GOOD PRACTICE

Comprehensive thermo-modernisation of selected state artistic educational facilities in Poland

- It is a pioneer project at European level and a systemic undertaking, aiming at increasing the energy efficiency of buildings in the area of the whole country. In the basic scope the investment covers 139 educational artistic facilities, including 187 buildings with the total area of 252,600 m². A large part of these facilities is entered into the register of monuments or is covered by heritage protection, meaning that special requirements must be met during the completion of tasks. The project is an expression of a great engagement of the Ministry for Culture and National Heritage and the NFEP&WM in the protection of cultural heritage and improvement of functioning of the artistic education sector as well as in the necessary energy transformation in Poland.
- **Beneficiary:** Ministry of Culture and National Heritage
- **Total cost of the project:** PLN 501,390,321.62
- **Co-financing:** PLN 481,390,321.63
- **Form:** subsidy
- **Source:** OPI&E 2014–2020, submeasure 1.3.1: *Supporting energy efficiency in public utility buildings*
- **Date of contract conclusion:** 22.12.2016 r.
- **Project completion:** from 10.2016 to 12.2021
- The objective of the project is the reduction of demand for heat and electrical energy and increase in energy efficiency for the entire project up to the level of 60.02% (which exceeds the levels assumed for so-called deep thermo-modernisation). The estimated annual decrease in greenhouse gas emission is 22,269 Mg of CO₂ equivalent and consumption of final energy will be reduced by 164,773 GJ/year. The conditions of work for over 31 thousand teachers and students will be improved.



Fig. 23. Państwowa Szkoła Muzyczna I stopnia in Chełmno, photo by Sławomir Sawina

Thermo-modernisation of a building of the Voivodeship Inspectorate for Environmental Protection office in Radom

- **Beneficiary:** Wojewódzki Inspektorat Ochrony Środowiska w Warszawie (Voivodeship Inspectorate for Environmental Protection in Warsaw – VIEP)
- **Total cost of the project:** PLN 990,000
- **Co-financing:** PLN 978,892.68
- **Form:** subsidy
- **Source:** Operational Programme Infrastructure and Environment 2014–2020, submeasure 1.3.1: *Supporting energy efficiency in public utility buildings*
- **Date of contract conclusion:** 20.03.2017 r.
- **Project completion:** from 01.2017 to 12.2017
- The effect of the project completion is the reduction of demand for heat and electrical energy and percentage increase in energy efficiency for the entire project up to the level of 60.02% (which exceeds the levels assumed for so-called deep thermo-modernisation). The estimated annual decrease in greenhouse gas emission is 80.82 Mg of CO₂ equivalent and the consumption of final energy will be reduced by 654.77 GJ/year. Higher comfort of facility users.



Fig. 24. Delegatura WIOŚ w Radomiu, photo by Wojewódzki Inspektorat Ochrony Środowiska w Warszawie



THE PROJECT OF ENERGY CONSULTANCY

This project is fully financed from the funds of the OPI&E 2014–2020, within the priority axis I: *Low-carbon economy* and the National Fund is, as an exception, the beneficiary and additionally the leading partner.

In 2016 the NFEP&WM signed a contract for joint completion of the project within submeasure 1.3.1. *Supporting energy efficiency in buildings* with the voivodeship funds for environmental protection and water management (partners).

The mission of the project titled *Nationwide system of advisory support for the public and housing sectors and enterprises in terms of energy efficiency and RES* is to create a countrywide system of support in conducting the activities for the development of low-carbon economy and promotion of knowledge on this subject among the local government units, public administration, entrepreneurs and the society. The construction of the consultancy system in regards to the low-carbon economy in regions is based on a network of consultancy teams, providing free services at the regional and local levels.

Objectives of the project

The main objectives of the projects are consistent with the strategic objectives of the EU and Poland, including the policy of environmental protection and sustainable development.

The detailed objectives of the project include increasing awareness of the society in the scope of low-carbon economy development, supporting gminas in preparation and implementation of the Low-Carbon Economy Plans (LCEP) and supporting preparation and implementation of investments in energy-saving, and energy- and cost-efficiency. These investments should serve the people and the environment in terms of energy efficiency (EE) and renewable energy sources (RES).

In 2015 the NFEP&WM conducted a cycle of specialist training sessions improving the competences of future consultants, in

order to build a nationwide system of energy consultancy in all regions of the country.

Since 2016 the consultants supported the preparation and implementation of about 1,800 Low-Carbon Economy Plans, which define the strategy of gminas development in the scope of saving final energy, using renewable energy sources and reducing pollutant emissions into the air in a given area by 2020. The LCEP should serve the gmina, its residents and other stakeholders.

Within the framework of informational and promotional activities 87 conferences have been organised, in which over 16,500 people from the entire country have participated. These events as well as the countrywide and regional conferences are enjoying a big interest and they are an effective method of reaching a wide circle of project beneficiaries.

The activities of consultants contributed to raising the interest in investments in terms of energy efficiency and RES, for which the investors could obtain co-financing from the EU (OPI&E, ROP) and domestic (the NFEP&WM, VFEP&WM) funds.

At present the trainings for candidates for gmina energy specialists are being conducted. Their task will include supporting local authorities and local communities in activities relating to energy saving, energy efficiency and improvement of air quality. It is planned to train 1,300 persons in the whole country. Moreover, the courses for social employees of the Social Welfare Centres in gminas are conducted, during which, *inter alia*, the methods of rational use of apartments or leveraging the funds for natural persons are presented. These activities are aimed at combating the energy poverty in Poland. Since 2017, 114 training courses for over 2,500 people have been organised.

Within the Energy Consultancy Project the consultative support is provided for the investments in the scope of energy efficiency and RES, planned in large, medium and small enterprises, Units of Local Authorities and households.

With this network of consultative support aid can be obtained in the entire area of Poland.

In the coming years the following activities in terms of energy efficiency, low-carbon economy and use of renewable energy sources are planned:

- continuation of informational and educational activities through, *inter alia*, organisation of training sessions, conferences and events;
- raising the competences of gmina energy specialists by ongoing communication, exchange of information and experience with the energy consultants acting within the framework of the project;
- maintaining a high quality of investments support;
- targeting new areas of development.

Almost
24 thousand
consultations
were provided

Over
17 thousand
advices were provided

Preparation of
1,076
modern investments
serving the environment
were supported

THE EARTH PROTECTION OF THE EARTH SURFACE

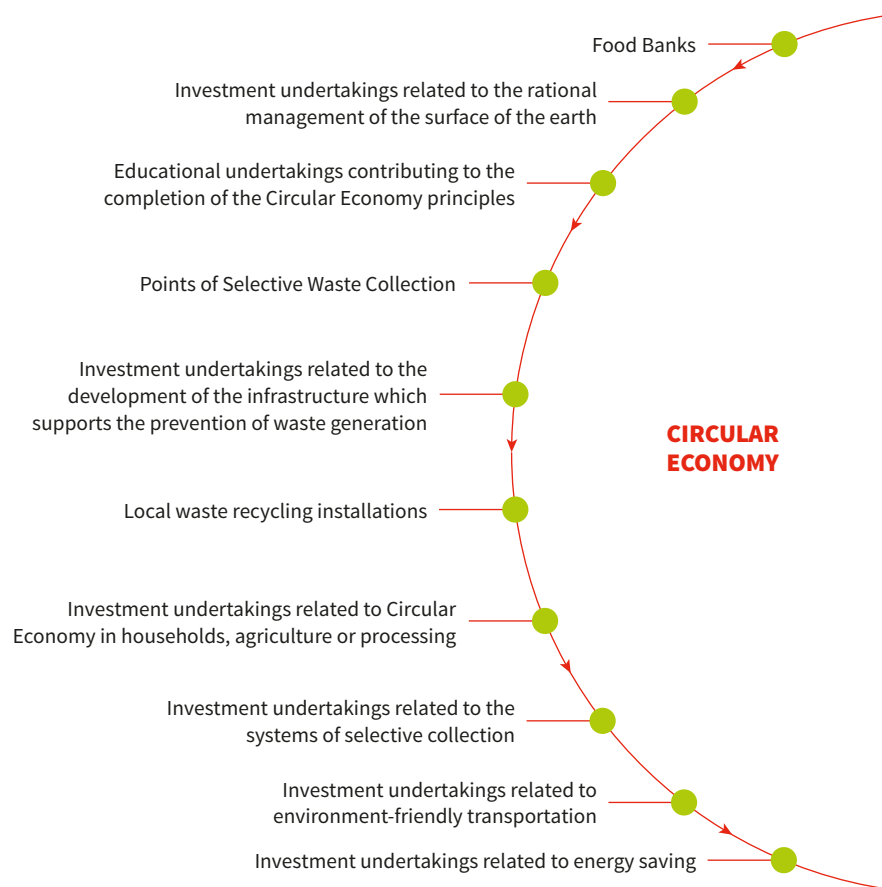
One of the primary challenges that our modern civilisation is facing is preserving the Earth, its minerals and resources for future generations. Thus, in the light of the significant problem of the resources shortage in the global economy, respecting the values of products, materials and resources as well as their preserving in the economy for as long as possible, reductions in the generation of waste to minimum, become most important. The NFEP&WM undertakes a number of activities in order to positively influence the future of our planet and supports these undertakings which propose solutions consistent not only with the regulations of the Polish law, but also with the basic principles of the ecological policy binding in the European Union, in terms of circular economy. It is presented in the scheme below.

FINANCING OF THE EARTH SURFACE PROTECTION BY THE EUROPEAN UNION

One of the basic goals of the European Union (EU) is an active environmental protection, which manifests for example in community activities for co-financing of the projects in this scope. The main objective of the Operational Programme Infrastructure and Environment 2014–2020 is supporting the economy which uses effectively the resources and is friendly to the environment and conducive to the territorial and social integrity.

The scope of this programme includes priority axis II: *Environmental protection, including adaptation to climate change.*

Within the framework of this axis the overarching objective in the completion of projects related to the protection of urban environment is the improvement of quality of people's lives (measure 2.5). An equally important task of the above-mentioned priority axis is the stimulation of implementing modern waste management, in accordance with the European Union hierarchy of waste management (measure 2.2). Ultimately, it should bring a positive economic effect (re-use of raw materials and energy recovery from



waste) and a better quality of life (liquidation of inconveniences related to waste storage).

The projects in the scope of the surface of the earth protection were also completed using financial resources of the Cohesion Fund 2004–2006 and the Operational Programme Infrastructure and Environment 2007–2013.

During the implementation period of the OPI&E 2007–2013 two measures were completed in terms of the earth's surface protection, i.e. measure 2.1 *Comprehensive undertakings in the scope of municipal waste management, with particular regard to hazardous waste*, due to which 19 municipal plants for waste management were constructed, including 6 incinerating plants (Kraków, Białystok, Szczecin, Bydgoszcz, Konin, Poznań). Following the support from the EU funds amounting to 1.62 billion PLN, the incinerating plants

of a total value of 3.83 billion PLN were constructed. As a result of that, since 2016 the incinerating plants have been functioning in the area of five voivodeships and they serve 3.5 million people. It should be emphasised that the Waste Thermal Treatment Plant in Poznań was constructed, as the first such plant in Poland, in the form of a public-private partnership. Through the measure 2.2: *Restoring natural values to degraded lands and protection of seashores*, the NFEP&WM has financed 4 projects which regarded mainly the rehabilitation of degraded areas.

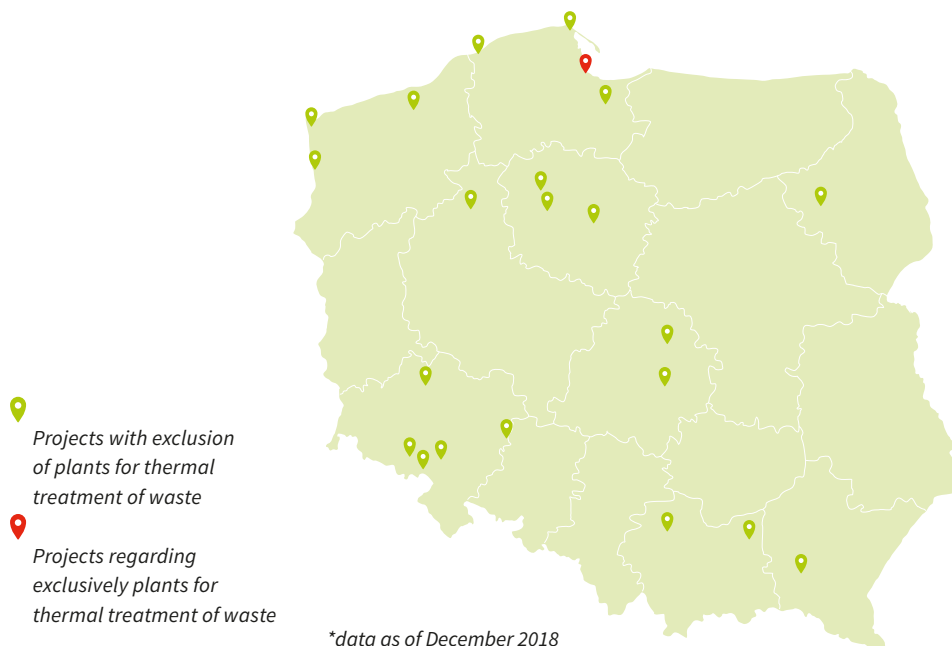
In the years 2015–2018 the National Fund – within the framework of the funds of the Operational Programme Infrastructure and Environment intended for the protection of earth surface – announced 11 calls for applications, the scope of which included the following activities:

- 2.2. *Municipal waste management*
- 2.5. *Improvement of the urban environment quality.*

Measure 2.2 Municipal waste management, OPI&E 2014–2020



Map of investments supported within measure 2.2 of the OPI&E 2014–2020*



As a result of the implementation of measure 2.2 of the OPI&E 2014–2020 by the NFEP&WM, the following results were achieved:

- 7 waste management plants, with a total capacity of 326,482 Mg/year were created
- 47 Points of Municipal Waste Selective Collection were supported
- 18 informational and educational campaigns regarding waste management were conducted
- 4.7 million people were covered by the system of waste management

Measure 2.5 Improvement of the urban environment quality, OPI&E 2014–2020

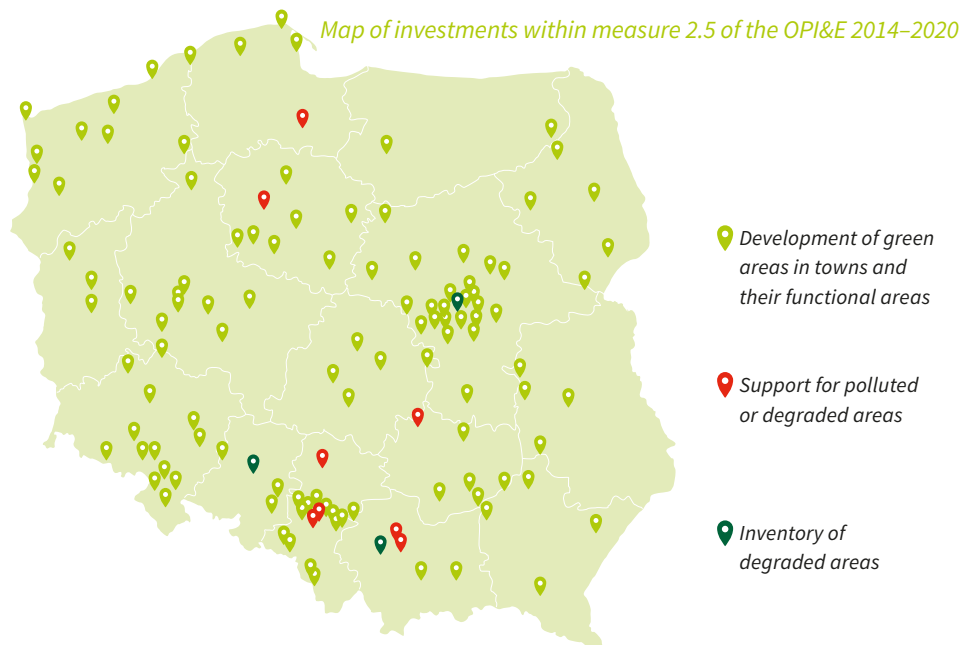


The completion of measure 2.5 of the OPI&E 2014–2020 had a significant impact on the condition of the environment in Polish towns:

- 154 projects regarding urban greenery
- 176 ha of reclaimed lands
- 707 ha of additional biologically active areas
- 1,800 ha of total areas covered by activities

Currently, the beneficiaries of measures 2.2 and 2.5 of the Operational Programme Infrastructure and Environment 2014–2020 may profit from the completion of financing by taking out loans under the domestic programme of the National Fund, titled: *Co-financing of projects completed within measures 2.2 and 2.5 of the OPI&E.*

Continuation of giving the options of financing activities related to the protection of the earth's surface, which have been conducted so far, in the new EU financial perspective 2021–2027 as well as the further development of financing from the NFEP&WM funds for supporting the Circular Economy and elimination of historical pollution of soil will be the most important matters in the nearest future.



Programme for Silesia in one of the key projects of the Responsible Development Strategy (RDS) adopted by the Council of Ministers on 14 February 2017.

Silesia is one of the economically strongest regions in Poland. However, the weakening of the growth rate and lowering the quality of residents' lives have been noted recently. These phenomena are to be counteracted by, *inter alia*, the *Programme for Silesia*, announced on 21 December 2017. This programme covers the completion of projects regarding rehabilitation of degraded areas, within the framework of measure 2.5: *Improvement of the urban environment quality.*

Moreover, measure 2.5 is a tool for implementation of the so-called package for medium towns, the task of which is equalizing the development opportunities of all areas, particularly those with the largest social and economic problems.

Rataje Park in Poznań

- The Rataje Park is the largest object of this type in Poland constructed after 1989. On can find not only new trees and bushes, footpaths or bicycle paths there, but also quiet corners – places of quiet recreation, a lane of Memory Trees, a square with a fountain in it, a garden of senses and recreational small squares with tables for chess and other board games. The open-air museum of Środa Poviati Railway will be situated in the area of the park. A trace of railway tracks has been reconstructed, commemorating their former, original route. A steam locomotive, a restaurant wagon and also a narrow-gauge locomotive, which complete the project, but are not included in the eligible scope, have been already placed in the park.
- **Beneficiary:** City of Poznań
- **Total cost of the project:** PLN 21,701,238.39
- **Co-financing:** PLN 11,882,619.69
- **Form:** subsidy
- **Source:** OPI&E 2014–2020, measure 2.5: Improvement of the urban environment quality
- **Date of contract conclusion:** 11.10.2016 r.
- **Project completion:** from 01.2014 to 03.2019
- The objective of the project completion is impeding the decline in the green areas in Rataje residential district and the increase of Poznań attractiveness as a green city, creating about 76% of additional, biologically active area, ensuring safety for visitors, adapting the elements of the park to disabled people needs by elimination of architectural and transport barriers, creating options for active and inactive recreation. The additional biologically active area obtained as a result of projects completion is 14.84 ha.
- In total, the project covered over 17 ha of green areas.



Fig. 25. The Rataje Park in Poznań, photo by Poznańskie Inwestycje Miejskie Sp. z o.o.

Construction of the Points of Municipal Waste Selective Collection in the area of gminas which are the members of the Intra-gmina Association “Piła Region of Municipal Waste Management”

- The project regards the construction of 13 Points of Municipal Waste Selective Collection (PMWSC) which will be located in the territory of gminas which are the members of the Intra-gmina Association “Piła Region of Municipal Waste Management”, in the following localities: Brzeźno, Grajewo, Drawsko, Jastrowie, Kaczory, Krajenka, Krzyż Wielkopolski, Miasteczko Krajeńskie, Okonek, Piła, Ujście, Wieleń, Wyrzysk. It is the largest contract of such type in Poland.
- **Beneficiary:** Intra-gmina Association “Piła Region of Municipal Waste Management” (Greater Poland Voivodeship)
- **Total cost of the project:** PLN 20,020,706.03
- **Co-financing:** PLN 13,835,447.24
- **Form:** subsidy
- **Source:** OPI&E 2014–2020, measure 2.2: Municipal waste management
- **Date of contract conclusion:** 31.08.2017 r.
- **Project completion:** from 01.2017 to 06.2019
- The effects of the project include the reduction of the amount of municipal waste which are deposited by ensuring a proper infrastructure for its management, ensuring the comprehensiveness of municipal waste management system in the territories of gminas by completing the existing system and ensuring the access to PMWSC for all residents, increasing the level of selective collection of municipal waste and reducing the amount of waste directed to storage, separating a fraction of problematic waste, produced in households, from the waste stream. The waste management system covers 173,489 people and 13 Points of Municipal Waste Selective Collection were supported.



Fig. 26. Krajenka, Jastrowie, Okonek, photo by Intra-gmina Association “Piła Region of Municipal Waste Management”.

Extension of the ECOPORTS network, including equipment and improvement of the system for

- New ECOPORT differs considerably from average Points of Municipal Waste Collection. Pro-ecological solutions were applied in the object, electrical energy for its operation is derived from solar batteries, and precipitation water is collected and stored in underground containers, and then distributed through the facility. Simultaneously, the frames, connected with sleepers, will be a support for climbing plants, which will, over time, hide two buildings under vegetation forming a green roof and green walls.
- **Beneficiary:** gmina Szczecin City

- **Total cost of the project:** PLN 5,475,114.44
- **Co-financing:** PLN 2,665,646.43
- **Form:** subsidy
- **Source:** OPI&E 2014–2020, measure 2.2: Municipal waste management
- **Date of contract conclusion:** 26.01.2017 r.
- **Project completion:** from 04.2016 to 12.2017
- The objective of the project was reducing the amount of deposited municipal waste and the extension of ECOPORTS (points of selective waste collection) network.



Fig. 27. Point of Waste Selective Collection – ECOPORT, at Arkońska Street in Szczecin, photo by Andrzej Kus

FINANCING FROM THE NATIONAL FUNDS

- reduction in the negative impact on the environment and restoration of the degraded lands by rehabilitation, including remediation, along with waste removal;
- completing the tasks of waste management, and in particular the hierarchy of methods of water management;
- dissemination of experience in implementing waste management in circular economy at the level of gminas, based on pilot, comprehensive concepts implemented in gminas: Łukowica, Tuczno and Wieluń. Waste, both municipal and industrial, was and unfortunately still is a serious hazard for the environment in Poland. Illegal and improper storage of waste is also a problem.

The first years of the National Fund activities in the field of soil protection were very modest – only one contract for financing in the form of a loan was signed.

The changes, which took place in the Polish economy at the beginning of the 90's of the 20th century, as a result of the political

transformation and in connection with the processes of adaptation to the requirements of the EU, also forced modifications in waste management.

With the passing of years the character of the undertakings co-financed by the NFEP&WM in terms of soil protection has been changing:

- In 1995 a multi-year process of elimination and rehabilitation of inactive and “wild” hazardous waste dumps, including the so-called burial grounds, i.e. old and insufficiently protected places where outdated and dangerous chemical agents were deposited, started. In total 191 burial grounds were eradicated due to financing from the NFEP&WM and this way the problem was resolved in the whole of Poland.
- In the years 2002–2005 the cleaning and rehabilitation of lands degraded by the army of former USSR took place. The largest objects, which were cleaned from oil derivatives under the contracts with the NFEP&WM, are located in: Świnoujście, Stargard Szczeciński, Bagicz, Borne Sulinowo, Świętoszewo, Żagań, Brzeg and Szprotawa. The dangerous results of the industrial activity of Krakowskie Zakłady Sodowe (Cracow

EXAMPLES OF GOOD PRACTICE

Construction of Waste Management Plant by Amest Kamieński Sp. z o.o.

- *Przedsięwzięcie polegało na budowie nowoczesnego zakładu, obejmującego dwie modułowe instalacje: instalację sortowania odpadów zmieszanych w celu odzysku surowców wtórnych oraz odseparowania frakcji biodegradowalnej o wydajności 75 000 Mg/rok oraz instalację kompostowania odpadów biodegradowalnych o wydajności 40 000 Mg/rok wraz z linią do produkcji paliwa alternatywnego.*
- **Beneficiary:** FBSerwis Kamieński Sp. z o.o.
- **Total cost of the project:** PLN 40,957,450.66
- **Co-financing:** PLN 30,718,087.01
- **Form:** subsidy
- **Source:** domestic funds, priority programme Rational Waste Management
- **Date of contract conclusion:** 27.06.2014 r.
- **Project completion:** from 11.2013 to 12.2015
- *The effect of the project completion was reducing the waste stream arriving at the dump by 32,868 Mg/year.*



Fig. 28. Fragment of technological line, rotary sieve, photo by FBSerwis Kamieński Sp. z o.o.

Construction of the Central Point of Municipal Waste Selective Collection

- *The Point of Municipal Waste Selective Collection, one of the most modern facilities in Poland, in addition to creating the conditions for free reception of selected fractions of waste from households also fulfils the functions related to the preparation of selected fractions of waste for reuse and serves the completion of an educational programme.*
- **Beneficiary:** Związek Gmin Zagłębia Miedziowego (Association of Copper Belt Gminas)
- **Total cost of the project:** PLN 893,716.76
- **Co-financing:** PLN 4,072,760
- **Form:** subsidy
- **Source:** domestic funds, 3.1 Municipal waste management, Part 2) Development of selective collection of waste
- **Date of contract conclusion:** 05.08.2013 r.
- **Project completion:** from 09.2014 to 03.2015
- *The effect of the project completion is reducing the amount of municipal waste arriving at the dump by 1 thousand Mg/year.*



Fig. 29. Polkowice, photo by the employees of ZGZM



Sodium Plant) were eliminated. A possibility of co-financing of those projects which eliminate dangerous PCB pollution was also created.

- Since 2007, the NFEP&WM has been supporting the system of collection and dismantling of end-of-life vehicles. A measurable effect of the support, provided for 10 years to the operators of such stations, is over twofold increase in the number of legally operating stations and the improvement of their standard. It found reflection in the growing number of vehicles which are dismantled in accordance with binding environmental protection regulations. In the years 2007–2016 the total amount of subsidies paid on the basis of 6,788 contracts regarding dismantling and collection of end-of-life vehicles was 1 billion PLN and 3 million vehicles were collected. The financial encouragement prepared in this manner caused the decrease in the number of abandoned end-of-life vehicles.
- The NFEP&WM allocated its own funds for co-financing the undertakings of the Cohesion Fund of the OPI&E 2007–2013. Sixteen contracts, for the amount of about 1.13 billion PLN, were concluded within measure 2.1: *Comprehensive undertak-*

ings in the scope of municipal waste management with particular regard to hazardous waste.

At present, the NFEP&WM support is focused on financing the changes in the waste management system. Comprehensive systems of waste management, including sorting, recycling and disposal of the waste are being implemented consistently. It is primarily co-financing the activities in relation to the adaptation of existing plants for the processing of selectively collected waste.

The most significant achievements of the NFEP&WM include supporting, since 2017, the operation of the Food Banks, the main idea of which is preventing the waste of food, with simultaneous aid for the poorest and supporting activities aiming at a consistent reduction of the poverty zones. It allows the implementation of the National Waste Prevention Programme, participating in the creation of the network of co-financing institutions that act for preventing the waste generation and also completing the system of circular economy. The NFEP&WM supports the creation of infrastructure necessary for the operation of these banks. Within the first call for proposals 14 undertakings were co-financed, for the total amount of over 4 million PLN. In 2018 the National Fund for Environmental Protection and Water Management transferred another 10 million PLN to the food banks for better storage and distribution of food benefiting the people who needed such supports.

The years 2016–2028 are the first years of operation of the Regional Waste Treatment Plants, the modern waste management plants constructed through the NFEP&WM funds, which are located, *inter alia*, in Kamięnsk, Sosnowiec, Tarnobrzeg, Tarnów, Częstochowa and Świdnica.



*data as of December 2018

Removal of basins for zinc sludge which do not meet the ecological standards in Huta Metali Nieżelaznych (Non-ferrous Metals Works) Szopienice SA and reclamation of lands after removal of the waste

- Waste in the form of zinc sludge as well as the progressive contamination of underground water and the surface of the earth have been accumulated since the end of 19th century in the basins and on the lands which now are held in the perpetual usufruct of Huta Metali Nieżelaznych (Non-Ferrous Metals Works) “Szopienice” under liquidation. In 2002 the decision on the liquidation of the Zinc Department was made, and the liquidation of the company started in 2008.
- **Beneficiary:** Huta Metali Nieżelaznych “Szopienice” SA Katowice

- **Total cost of the project:** PLN 30,811,000
- **Co-financing:** PLN 16,811,000
- **Form:** subsidy
- **Source:** domestic funds, reclamation of degraded lands and removal of sources of particularly negative environmental impact
- **Date of contract conclusion:** 28.12.2012 r.
- **Project completion:** from 12.2012 to 07.2016
- The result of the project completion was recovery and neutralisation of 190 thousand Mg of hazardous waste. The area of rehabilitated lands is 7.10 ha.

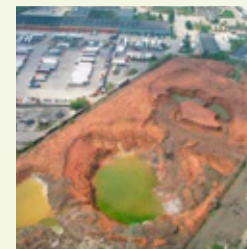


Fig. 30. Katowice Szopienice, photo by Krzysztof Sidło

GEOLOGY AND MINING

The activities of the NFEP&WM in terms of geology and mining were mainly focused on the recognition of the geological structure of the country and the management of mineral deposits and groundwater deposits as well as reducing the inconveniences resulting from mining of minerals.

- Eradication and reclamation operations in the areas degraded by sulphur mining were financed by the NFEP&WM in the years 1994–2016. In total, the amount of 901.76 million PLN was spent on financing these actions through the NFEP&WM funds.
- Reclamation and removal operations were carried in the areas degraded by hard coal mining. Moreover, an initiative regarding the modification of the drainage system provided by Zakład CZOK in the “Saturn” region was carried out primarily by the Spółka Restrukturyzacji Kopalń (Company for mining restructuring) SA and financed by the NFEP&WM in the years 2001–2018. About 81 million PLN was spent on financing these operations by the NFEP&WM funds, including about 65 million PLN spent by December 2018.
- Protective operations in Kopalnia Soli (Salt Mine) Wieliczka SA and Kopalnia Soli (Salt Mine) Bochnia Sp. z o.o., financed by the NFEP&WM since 1992. The amount of about 210 million PLN was awarded for financing these actions in the years 1992–2016, including about 196 million PLN spent by December 2018.
- Equipping the Centralna Stacja Ratownictwa Górniczego SA (Central Mine Rescue Station – CMRS) with rescue devices and equipment, which determine the strength of CMRS rescue teams, financed by the NFEP&WM since 2005. The

amount of co-financing from the NFEP&WM equals about 28 million PLN.

- Financing of equipment for the units responsible for carrying out rescue actions in mining, including rescue apparatus and other equipment.
- Since 1995 the NFEP&WM has been financing the undertakings related to prospection for and exploration of thermal water deposits, carried out by, *inter alia*, Geotermia Podhalańska SA, Geotermia Uniejów Sp. z o.o. or Geotermia Poddębice Sp. z o.o. and also the undertakings requested by the Minister for Environment, regarding, *inter alia*, preparation of atlases of geothermal water deposits in various regions of Poland. About 115 million PLN was spent on financing of these operations in the years 1995–2015, and in the years 2017–2019 over 170 million PLN was already spent on research activities.
- Since 2006 the NFEP&WM has been financing the Landslide Counteracting System (LCS): two stages for the total amount of 55.4 million PLN, and the third stage, still in progress, for the amount of over 44 million PLN.
- In the years 2012–2015, the NFEP&WM financed experimental research actions conducted by the Polish Geological Institute – National Research Institute within the undertaking: *Pre-mining methane removal from coal beds using surface bore-holes – the assessment of application in bed and mining conditions of the Upper Silesia Coal Field, including drilling an exploratory bore-hole*, for the amount of 30.3 million PLN.
- Financing the tasks of the Polish Hydrogeological Survey, Polish Geological Survey and the tasks of the National Administrator of Underground Carbon Dioxide Storage.

Accomplishments and achievements

- Reclamation of post-mining areas degraded by sulphur mining – 3,421 ha. This reclamation regarding, *inter alia*, the water resources, allowed creating decent conditions for the development of recreation and tourism in these areas.
- Protection of mine excavations in Bochnia and Wieliczka salt mines in order to protect the earth's surface and the deposits of underground and surface water from negative effects of collapsing mines.
- Financing of environmental research related to the exploration and identification of thermal water deposits and to the potential of using thermal energy of dry rocks – 9 contracts for drilling of 9 exploratory bore-holes have been concluded since 2017, with, *inter alia*: gmina Szaflary, municipal gmina Koło, Sochaczew town, gmina Łądek Zdrój and Sieradz town.

Currently implemented programmes

Domestic programmes

- Programme no. 2.3 *Geology and mining* (by the end of 2018), including:
 - Part 1) *Recognition of the geological structure of the country and management of mineral deposits and groundwater deposits*
 - Part 2) *Reducing the difficulties resulting from mining of minerals.*

From 2019 and in the next years the National Fund will be continuing the implementation of the priority programme as two separate programmes: 2.4 *Recognition of the geological structure of the country* and 2.5 *Reduction of the difficulties resulting from mining of minerals.*

DIRECTIONS IN THE PROTECTION OF THE EARTH SURFACE

The National Fund will continue supporting primarily those undertakings that prevent the generation of waste, aiming at the preparation of products for re-use. Other supported initiatives will include the following: activities related to the development of a network for repairs of broken and replacement of unwanted household equipment in the Points of Municipal Waste Selective Collection (PMWSC), tasks related to implementation and extension of effective systems of selective waste collection, in particular the PMWSCs, and the adaptation of the system of selective waste collection in gminas to the legal, technological and organisational requirements for Regional Municipal Waste Treatment Plants (RMWTP), regarding reclamation of landfills and reclamation and remediation of degraded areas, including post-industrial areas. In terms of geology the support for activities aiming at the examination of the geological structure of the country, with a particular regard to the tasks of the Polish Geological Survey and the National Administrator of Carbon Dioxide Underground Storage will be continued and the environmental survey related to the exploration and identification of thermal water deposits and the potential of using thermal energy of dry rocks, will be continued. In the scope of mining, the NFEP&WM will continue supporting the undertakings regarding, *inter alia*, reclamation of lands in the areas degraded by mining activities, implementation of technologies reducing the emission of greenhouse gases and production of waste from mining or processing of raw materials.



Fig. 31. Wieliczka, the Wessel Lake, photo by Rafał Stachurski

On 13 April 1992 the most serious water disaster in the 20th century took place in the Wieliczka Salt Mine – the inflow in the Mina Crosscorridor, located at the level IV. There was a danger of flooding of the entire mine, which is registered on the UNESCO World Heritage List, and of a great damage in the town, caused by a sudden settlement of the land. At that time the NFEP&WM supported financing of operations in this mine for the first time. Moreover, the funds from the NFEP&WM contributed to protecting, *inter alia*, the Gołuchowski Chamber and Margielnik workings (they could be seen in the “Sexmission” movie) and the chambers Michałowice and Wessel Lake (they served as a location in the “Round week” movie, among others).

Elimination of hazards and harmful emissions generated by a historical mine working of the Main Key Heritage Adit in the area of Zabrze town – stage I

- The undertaking aims to protect the Zabrze section of the longest drain adit in the European coal mining. The adit was constructed in the years 1799–1863, it was 14,250 m long and led from Zabrze to Chorzów. It fulfilled a role of a drain collector and drained all the neighbouring mines. It was used by the “Queen Louise” Mine for, inter alia, coal floating.
- **Beneficiary:** Zabrze town
- **Total cost of the project:** PLN 48,527,221.00
- **Co-financing:** PLN 48,232,600.35
- **Form:** subsidy
- **Source:** programme 2.4 Reducing the difficulties resulting from mining of minerals
- **Date of contract conclusion:** 20.03.2015 r.
- **Project completion:** from 01.2014 to 12.2020
- The objective of the project completion is the elimination of rising of continuous and discontinuous deformations in the area of 163 thousand m² above the mine workings, by securing the stability of chambers.

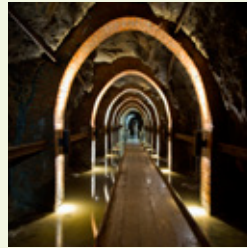


Fig. 32. Museum of Coal Mining in Zabrze, Main Key Heritage Adit (“Queen Louise” Adit), photo by Łukasz Zawada

The purchase of a mobile rescue hoist

- A mobile rescue hoist is used for providing help to trapped miners and removing the failures of power machinery occurring in the pit shafts. The rescuers use the hoist for the inspections of brickwork in pit shafts which are not fitted with hoisting devices. During one of the rescue actions the hoist played a crucial role because it was used for evacuating five miners through a ventilating shaft.
- **Beneficiary:** Centralna Stacja Ratownictwa SA (Central Rescue Station)
- **Total cost of the project:** PLN 5,490,000.00
- **Co-financing:** PLN 5,490,000.00
- **Form:** subsidy
- **Source:** programme 4.3 Reducing the difficulties resulting from mining of minerals
- **Date of contract conclusion:** 06.11.2013 r.
- **Project completion:** from 09.2014 to 10.2016
- The objective of the project completion is the increase in the level of safety in mines, because the purchased device is used in rescue actions related to the failures in the pit shafts or immobilizing the cages of main hoists and it is the only mean of transport allowing to get to immobilised cage – it serves for evacuation of people.



Fig. 33. CSRG SA, photo by Marek Rybicki

Tasks of the State performed by the Polish Geological Survey in the scope of geological hazards implemented since 2016

- The Landslide Counteracting System (LCS) is a project of a nationwide importance, implemented by the Polish Geological Institute – National Research Institute. This system is a platform for acquiring and processing information on the mass movements of the earth. Its basic objectives are identifying and documenting the landslides and the areas potentially endangered by the mass movements in Poland, establishing and keeping a system of depth and surface monitoring at 61 selected landslides and identifying the hazards and increasing the society awareness in the scope of geohazards. At present the third stage of the project is being completed.
- **Beneficiary:** Polish Geological Institute – National Research Institute
- **Total cost of the project:** PLN 44,402,336
- **Co-financing:** 44,402,336
- **Form:** subsidy
- **Source:** Priority Programme Geology and Mining Part 1) Recognition of the geological structure of the country and management of mineral deposits and groundwater deposits
- **Date of contract conclusion:** 23.12.2016 r.
- **Project completion:** from 04.2016 to 10.2023
- At present it is one of the most important geological projects, the results of which

- have a large impact on the economy and the finances of the state on one hand, and on the social and economic aspects on the other hand. So far over 65 thousand landslides have been recorded in the project and over 60 thousand of them are located in the Carpathians (by 2018 the inventory covered over 80% of the area of the Carpathians and a dozen or so poviats outside the Carpathians). The “significant” landslides, i.e. the landslides in the area of which the elements of infrastructure are located (buildings, roads, transmission lines) constitute about 13% of all landslides recorded in the Carpathians. Over 23 thousand residential buildings, about 20 thousand utility buildings, over 5 thousand sections of roads and the public utility buildings, sacral and historic buildings, hydrotechnical facilities and others are located in the landslide areas.
- Information on the needs of the LCS project is acquired during field cartographic operations, with the use of modern measurement methods (LIDAR, InSAR, GNSS and others) and is made available through a public access application SOPO (<http://osuwiska.pgi.gov.pl>). The data collected in this manner is a starting point for creating the maps of landslide susceptibility, and in the further stage, for developing a forecasting system, aiming at reduction of the landslide risk in Poland.



Fig. 34. Janowice, photo by Piotr Niecieruk

INNOVATIONS AND EXPERTISES

One of the most important dates regarding the development of innovative solutions for the environment is 28 September 2011, when an agreement between the NFEP&WM and the National Centre for Research and Development was concluded. On its basis the activities aiming to create a joint programme supporting the development of innovative pro-ecological technologies by financing the scientific research and development and implementation operations were undertaken.

In 2012 the NFEP&WM initiated an internal key project, titled: “Scientific research, development and implementation operations in the area of innovative pro-ecological technologies” and at the end of the same year the Management Board of the NFEP&WM approved the priority programme Gekon.

The first call for proposals within the Gekon Programme – *Generator of Ecological Concept* was announced on 23 January 2013.

For the last three years 47 trilateral contracts were executed within the research and development phase of the programme. On 28 October 2015 the Supervisory Board of the NFEP&WM

approved a new programme supporting the development of innovations: Falcon – the implementation of innovative environmental technologies. Until now four calls for proposals were carried out in the Falcon programme and 20 contracts for co-financing of the development and implementation operations were concluded.

Currently implemented programmes

Domestic

- Programme 5.11 *Gekon – Generator of Ecological Concepts*.
- Programme 5.12.1 *Support for innovations conducive to the resource efficient and low-carbon economy Part 1) Falcon – the implementation of innovative environmental technologies*.
- 5.12.2 *Support for innovations conducive to the resource efficient and low-carbon economy Part 2) Popularisation of technologies verified within the System of Environmental Technologies Verification (ETV)*.
- 3.2 *OWL – external lighting*

The National Fund considers launching of a new programme for financing research and development actions in the area of graphene utilisation.

SCIENTIFIC AND RESEARCH WORKS

In 1992 the National Fund concluded the first contracts regarding financing of science and from 1994 the area of expertise and scientific research activities was distinguished in the priority programmes of the NFEP&WM. Within this area also the tasks of the PHARE fund as well as resources of the Environmental Partnership Fund PHARE (EPF PHARE) were financed – in accordance with the agreement signed with the Minister of Environment on the preparation and completion of undertakings within the fifth Indicative Programme EPF PHARE.

The basic tasks in this area include the preparation of studies, reports, expertise, opinions, study works and scientific and research actions aiming at supporting and fulfilling the obligations of the Minister of Environment. Obligations resulting from international agreements in terms of environmental protection ratified or signed by Poland and deriving from Poland’s membership in international organisations and their agencies are also financed and the activities in the system of environmental impact assessment are supported.

The currently binding priority programme 5.1 *Support for the Minister of Environment in the scope of the implementation*

EXAMPLES OF GOOD PRACTICE

Development of a prototype of Mobile Solar Container by Solar Networks company – a mobile photovoltaic container which can provide power supply for a small village located in the wilderness, without access to electricity

- **Beneficiary:** Solar Networks Sp. z o.o.
- **Total cost of the project:** PLN 396,000
- **Co-financing:** PLN 240,000
- **Form:** subsidy
- **Source:** Programme 5.11.1 *Support for innovations conducive to the resource efficient and low-carbon economy Part 1) Falcon – the implementation of innovative environmental technologies*.
- **Date of contract conclusion:** 2.10.2017 r.
- **Project completion:** from 10.2017 to 04.2018
- **The result of the project completion is developing a device supplying settlement units (and not only) with electricity (both during a day and night). The device is fitted with built-in batteries using solar energy. It is fully mobile which means that it can be applied in not easily accessible places.**



Fig. 35. Leszno, photo by Solar Networks Sp. z o.o.

of environmental protection policy Part 1) Expertise, studies, fulfilment of international obligations was created in 2015 and will be implemented by 2025 (spending of funds).

The representatives of the National Fund participated in the operations of a team preparing the Act of 10 January 2018 on specific solutions related to the organisation of the session of the Conference of the Parties to the United Nations Framework Convention on Climate Change in the Republic of Poland, which came into force on 22 February 2018 (so-called “COP24 special law”).

Currently implemented programmes

Domestic

- Programme 5.1 *Support for the Minister of Environment in the scope of implementing the environmental protection policy Part 1) Expertise, studies, fulfilment of international obligations*
- Programme 5.2 *Tasks appointed by the legislator Part 4) Organisation of COP24 Conference*



COP24 • KATOWICE 2018

KONFERENCJA NARODÓW ZJEDNOCZONYCH W SPRAWIE ZMIAN KLIMATU

EXAMPLES OF GOOD PRACTICE

An analysis of adapting the River Vistula, on the section from Włocławek to its estuary to the Bay of Gdańsk, to a large and small cascade – a modelling study

- The section of the Vistula River which is covered by the task is over 260 km long part of Lower Vistula, from Włocławek to its estuary into the Bay of Gdańsk, located in the area of the Pomeranian and Kuyavian-Pomeranian voivodeships. The completion of the task consists in developing a concept of construction of barrages on the Lower Vistula, on the section administered by RZGW in Gdańsk and carrying out modelling studies (physical) of the operation of barrages with high and low swelling.
- **Beneficiary:** Państwowe Gospodarstwo Wodne Wody Polskie (National Water Management Authority)
- **Total cost of the project:** PLN 3,960,600
- **Co-financing:** PLN 3,960,600
- **Form:** subsidy
- **Source:** resources from the basic fund within the priority programme 5.1 Support for the Minister of Environment in the scope of implementing the environmental protection policy Part 1) Expertise, studies, fulfilment of international obligations

- **Date of contract conclusion:** 12.10.2016 r.
- **Project completion:** from 08.2016 to 11.2018
- The objective of the undertaking was developing a concept of obtaining on this section of the Vistula River an international water-way of class IV at least. The developed documents will be correlated with, inter alia, the Strategy of the development of inland water-ways in Poland in the years 2014–2020, with perspective by 2030. The following issues will be also included in the concept:

- providing flood protection;
- ensuring navigability as for a water-way (including navigability to the reservoir in Włocławek);
- analysis of economic and financial efficiency aspects, analysis of conditions in terms of the Water Framework Directive, proposed environmental solutions;
- other aspects of barrages use;
- manner of implementation of proposed solutions in relation to institutional, economic-financial, environmental and time conditions.

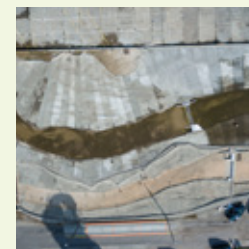


Fig. 36. Square at the Płocka Street 169, 87–800 Włocławek, photo by Wojciech Balczewski, PG Wodne Wody Polskie RZGW in Gdańsk

Completing and updating, according to the applicable legal acts, of a report on the environmental impact of the Kąty-Myscowa water reservoir on the Wisłoka River, in the area of gminas Krempna and Nowy Żmigród, including alternative solutions for the completion of undertaking

- Obtaining a report on the environmental impact of the reservoir is necessary for carrying out further procedures aiming at obtaining an environmental decision, and, subsequently, requesting the building permit designs and obtaining a permit for the construction of the Kąty-Myscowa reservoir.
- **Beneficiary:** Państwowe Gospodarstwo Wodne Wody Polskie (National Water Management Authority)
- **Total cost of the project:** PLN 1,795,800
- **Co-financing:** PLN 1,795,800
- **Form:** subsidy
- **Source:** Priority programme 5.1 Support for the Minister of Environment in the scope of implementing the environmental protection policy Part 1) Expertise, studies, fulfilment of international obligations
- **Date of contract conclusion:** 28.09.2017 r.
- **Project completion:** from 03.2017 to 03.2020
- The report allows determining the kind, range and intensity of harmful impact of the undertaking on the environment and possible effects of this impact. The completion of the project will allow increasing water resources of the Wisłoka River being at disposal for the fulfilment of water needs of Jasło and the area between Nowy Żmigród and Jasło and ensuring the flood protection in the basin of the Upper Vistula.

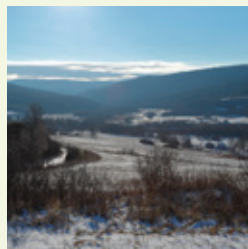


Fig.37. View from a slope towards the backwater of the planned reservoir, photo by Wojciech Skawiński, Regionalny Zarząd Gospodarki Wodnej (Regional Water Management Authority) in Rzeszów

Keeping the National System of Information on Wildfire in the years 2017–2019

- The objective of the project is ensuring further functioning of the National System of Information on Wildfire, created in 2006 in the Forest Research Institute on request of the Minister of Environment from the NFEP&WM funds. In this database information regarding fire in the forests, irrespectively of their type of ownership (state forests, national parks, private forests, forests owned by gminas or other entities) and fire on other natural surfaces are collected.
- **Beneficiary:** Ministry of Environment
- **Total cost of the project:** 299,800
- **Co-financing:** 299,800
- **Form:** transfer of funds (reserve no. 59)
- **Source:** Priority programme 5.1 Support for the Minister of Environment in the scope of implementing the environmental protection policy Part 1) Expertise, studies, fulfilment of international obligations
- **Date of contract conclusion:** 10.11.2016 r.
- **Project completion:** from 01.2017 to 11.2020
- The system allows quick and reliable generation of consistent information on fire and preparation of annual reports on wildfire for the needs of the Ministry of Environment, Statistics Poland and the European Commission. The database is available on the webpage of the Forest Research Institute. The availability of this information facilitates the elaboration and acquisition of data necessary for identifying potential fire hazards in the forests (also not owned by the State) where a constant trend of increasing number of fires is observed.



Fig. 38. Map of wildfire, Ministry of Environment

NATURE PROTECTION

The protection of biological diversity and nature consists of a number of activities which include: protection of species, ecosystems, landscapes and monuments, and particularly, since 1989, a continuous cooperation and support for the Polish national parks.

In 2007 the activities were expanded, as a result of the public aid notification, by co-financing of the projects of the State Forests in terms of reconstruction of forest stands with potential forest sites. Since 2008 the projects of the National Parks regarding a comprehensive thermo-modernisation and utilisation of renewable energy sources have been co-financed.

The most significant activities that are currently in the process of implementation include:

- putting the constructed European Bison Show Centre in the Białowiecki National Park into operation,

- revitalisation of a historic garden surrounding the Myślewicki Palace in the Royal Łazienki Museum in Warsaw,
- reducing the anthropopressure resulting from the development of tourism in the area of Błędné Skały through construction and modernisation of a small tourist infrastructure in the Stołowe Mountains National Park – return route.

Currently implemented programmes

Domestic Funds

- 4.1 Protection and restoring of biological and landscape biodiversity.
- W.4.3 Protection of valuable natural areas Part 3) Support of the activities of the Białowiecki National Park from the funds transferred by EkoFundusz.

- W.4.5 / W.4.6 Co-financing of priority axis V of the OPI&E – Nature protection and shaping ecological attitudes Part 1) and Part 2).

Foreign funds

- OPI&E 2014–2020 2.4 Nature Protection and Ecological Education

The objective of the programme is the introduction of a model management of environmental resources in the area of national parks, through reducing emissions of harmful substances and pollutants from the buildings located in national parks. This goal is to be achieved by thermo-modernisation, liquidation of ineffective heat sources, application of renewable energy sources, application of energy savings in internal and external lighting, proper water and sewage management, including rainwater management, rationalisation of the waste management system, removal of hazardous waste and asbestos-containing products and removal of illegal waste dumps from the areas of national parks.

Solutions reducing comprehensively the environmental loads within a construction site to the normative values, in accordance with the best available knowledge and practice, will be promoted.

It should result in the construction or modernisation of facilities which will become models to follow and will simultaneously fulfil an educational role as methods of environmental problems resolving.

Exceptional projects

- The NFEP&WM participates, through financial supports, in restitution of the Baltic sturgeon, this species was caught in Poland in the 60's of the 20th century for the last time.
- Project *Nature protection and limiting the anthropopressure resulting from the development of tourism in the area of Błędnę Skalę through the construction and modernisation of a small tourist infrastructure in the Stołowe Mountains National Park* was a finalist of the “Modernisation of year 2014” competition.
- PTTK mountain hut in the Five Polish Lakes Valley was modernised in the scope of the building thermo-modernisation, biological sewage treatment plant and construction of a small water-power plant MEW with the power of 80 kW.

The priority for the future is continuation of the programme 4.1, Part 3) *Reduction of pollutants emissions in national parks.*

EXAMPLES OF GOOD PRACTICE

Modernisation of the European Bison Show Reserve – construction of an educational pavilion

- A building serving for tourist and educational traffic was constructed in the Białowiecki National Park. It was constructed in the technology of a passive building, with broad use of renewable energy sources.
- **Beneficiary:** Białowiecki National Park
- **Total cost of the project:** PLN 12,806,995.50
- **Co-financing:** PLN 12,806,995.50
- **Form:** subsidy
- **Source:** Programme 4.3. Protection of valuable natural areas Part 3) Support of the activities of the Białowiecki National Park from the funds transferred by EkoFundusz; 6.1 Protection of Nature and Landscape
- **Date of contract conclusion:** 31.12.2014 r.
- **Project completion:** from 01.2015 to 12.2018
- The purpose of the project completion is increasing the standard of services for tourist traffic. A cinema and exhibitions, which serve for completing the educational programme on European bison and the Białowiecki National Park are located in the building. It is an example of a modern, low-emission building, using renewable energy sources (heat pumps, solar collectors, photovoltaic cells, ground air heat exchanger and air-conditioning system).



Fig. 39. European Bison Show Reserve, photo by Białowiecki National Park

Revitalisation of the historic garden surrounding the Myślewicki Palace in the Royal Łazienki Museum in Warsaw

- This undertaking is aimed at restoring natural values to the historic interior of the garden surrounding the Myślewicki Palace. The project of restoration of the historic garden's roads and greenery is aimed at arrangement of this area and exhibiting magnificent and valuable trees by introducing a new flower-bed system and enriching the existing flora with new planting.
- **Beneficiary:** Royal Łazienki Museum in Warsaw
- **Total cost of the project:** PLN 1,625,647
- **Co-financing:** PLN 1,463,082
- **Form:** subsidy
- **Source:** Programme 6.1 Protection of Nature and Landscape
- **Date of contract conclusion:** 08.03.2013 r.
- **Project completion:** from 03.2013 to 11.2014
- The purpose of the project completion was restoring the natural values to the interior of the historic garden surrounding the Myślewicki Palace. It is a particularly presentable place, where a great number of meetings between the representatives of diplomatic posts and Polish government take place.

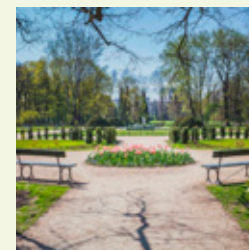


Fig. 40. Historic garden, photo by Royal Łazienki Museum in Warsaw

ECOLOGICAL EDUCATION



In 1994 an independent organisational unit, dealing with activities regarding ecological education was distinguished in the structure of the NFEP&WM. A development of operations related to co-financing of projects in this area took place. The number of co-financed projects has also increased.

In 1995 the Ministry of Environmental Protection, Natural Resources and Forestry and the Ministry of National Education signed an agreement on cooperation in the scope of ecological education. The main point of this agreement was an entry regarding the commencement of activities in terms of preparation of the *National Strategy for Ecological Education*. In June 1995 both ministries, with the support of the NFEP&WM and the British Environmental Know How Fund organised a conference in Miedzeszyn during which a community editorial team was established. Its task consisted in the development of an initial text of the strategy. In 1997 the document was approved by the Minister of Environmental Protection, Natural Resources and Forestry and the Ministry of National Education and in 1998 it was a subject of proceedings of the Sejm and Senate Committee for Environmental Protection which approved it. In 2001 the first edition of the *National Strategy for Ecological Education*, titled: “Through education to sustainable development”, was issued.

In 2006 the first training sessions of the cycle organised by the NFEP&WM for applicants applying for co-financing of undertakings in the area of ecological education and in 2009 the system of management through priority programmes was implemented.

The extended system of co-financing of educational activities was modified and taken into the frames of the priority programme *Ecological education*. In the subsequent year the first profiled calls for proposals, which were to be adapted to the current needs diagnosed in this area (since 2011 on the basis of a detailed analysis of educational awareness of the residents of Poland), were announced. The continuation of these studies in the following years allowed to track the changes occurring in this scope. The results were used for the development of the *NFEP&WM Strategy for Ecological Education*, modifying the programmes supporting educational activities co-financed from the NFEP&WM funds, assessing their effectiveness and developing the directions of future actions, including the conditions for subsequent calls for proposals.

In 2013 the Management Board and Supervisory Board of the NFEP&WM approved the *NFEP&WM Strategy for Ecological Education* for the years 2013–2016, with the timeframe up to 2020. The role of the ecological education as a horizontal measure, supporting the investment activities completed with the participation of the NFEP&WM funds, was increased.

After the year 2000 the period of the educational projects completion was prolonged from one to several years, with simultaneous increase of their range. Over a span of years the costs of completion of individual projects increased and the expenditures for activities in terms of ecological education increased several times.

ACHIEVED EFFECTS

ECOLOGICAL EDUCATION

material effects

over **100** educational undertakings

over **300** nationwide educational campaigns and programmes

construction, extension, repair, equipping of over **70** educational centres

over **300** movies and TV programmes, including

over **150** radio programmes

over **100** titles of periodicals with total circulation of over **2 million** copies

over **300** exhibitions and exhibits

over **1,700** events, thematic festivals, school contests and contests

a dozen or so editions of post-graduate studies

over **20,000** training sessions, conferences, seminars and workshops

over **350** teaching aids

over **3200** kinds of publications, in total circulation over **6.5 million** copies

a few hundred websites

over **200** actions in Internet and social media, including mobile applications

over **580** local initiatives

ecological effects

over **580** local ecological civil initiatives in the area of the entire country

reinforcing the activities of local communities for sustainable development

approx. **100** completed local civil initiatives

At the beginning of the programme operation, the ecological effects in the form of increasing ecological awareness, resulting from the undertakings co-financed by the NFEP&WM were unmeasurable. Then the index of the ecological effect, in the form of the number of people participating in educational actions co-financed by the NFEP&WM, was introduced. In the years 2010–2012 over **22 million people** were supported with these actions (over 7 million people a year on average). In 2013 a new index, in the form of the range of completed educational and informational undertakings (understood as the number of contracts with educational activities), came into force. In the years 2013–2018 this index achieved the value of over **800 million** people which means that on average each resident of Poland had experienced educational actions co-financed by the NFEP&WM more than 20 times.

ACHIEVEMENTS AND ACCOMPLISHMENTS



Educational base for ecological education

The NFEP&WM was one of the main partners influencing the extension and equipment of the educational base (centres, paths and other facilities serving for educational ecology) in Polish national parks and centres of a special importance at the country level (e.g. Seal Centre or Porpoise House in the Marine Station of Gdańsk University in Hel, Botanical Garden – Centre of Biological Diversity Preservation of the

Polish Academy of Sciences in Warsaw), regional centres of ecological education, including so-called “green schools” and educational centres in Promotional Forest Complexes. The National Fund also co-financed the equipment of “Jeżowóz” (“Hedgehog Bus”), which served for completing the programme of mobile education for students and teachers.



Movies, cyclical TV and radio programmes

The NFEP&WM co-financed a number of movies awarded at international festivals, broadcasted on nationwide antenna, including the film collection dedicated to Polish national parks (23 movies). The National Fund also supported the cycle “Closer to Europe”, considering the environmental issues from the point of view of planned integration with the European Union; “The Green Poland”, concerning all the aspects of environmental protection in rural areas, a cyclic programme “Walks with Grandfather” – addressed for people involved in ecological education on the primary school level, children and youth; “The Life of the Baltic

Sea” – a documental series about the biological resources and the condition of environment in the Baltic Sea; “With Beak and Claw” – a nature movie awarded at international festivals; “The Wild Poland” – a cycle of movies; “The Vistula River from the Sources to the Estuary” – 3-part movie; “The Eco Team” – series of programmes; “The Adventures of Pogodziaki” and “How Kaktus and Mały are saving the entire world” – a cycle of movies addressed to the youngest and “The Little Auk – a Big Matter” – an unusually interesting and very up-to-date in the context of climate change movie.



Educational aids

Educational aids co-financed from the NFEP&WM funds were often entered into an official list for schools. They included, *inter alia*, “Plants protected in Poland” and “Animals protected in Poland” – the charts which were frequently reissued by the League for Nature Conservation, “What is bred in the bone will (...)” – educational aid prepared by the employees of the Gorce National Park for children from classes I-III, “Electronic atlas of environment in Poland”, educational package

“Water”, wall map “Nature 2000 and other forms of environmental protection”, a key for identification of plants, intended for field work, reissued a number of times by the Bieszczady National Park, “The Young hydrologist” – an educational aid, “Film nature lessons” published on the webpage of the Polish Press Agency and “Nature atlas for the blind and sight-impaired people” – a publication unique on the global scale.



Training sessions, workshops

The training sessions for ecological educational animators are important activities, which were, over the span of years, co-financed by the NFEP&WM. Worth of noting are, *inter alia*, “Cascade training for animators – officers of the Border Guard in the scope of road transport of hazardous materials”, “Training sessions for specialists, animators of ecological education in the environment of small and medium handicraft enterprises”, “The Green Package” – a comprehensive set of didactic materials regarding all aspects of environmental protection, combined with a series of training sessions, implementing this package in schools (this project was considered as a model solution for implementation in the area of states in the Central and Eastern Europe), “Eco-mediator –

a promoter of sustainable development” – a comprehensive training programme for environmental protection negotiators and mediators, “Support for professional qualifications in the scope of the application of ecological and energy efficient solutions in the building industry”, “Low-energy houses are the future of the building industry – nationwide training sessions for regional leaders”, trainings: “Methods for designing energy efficient buildings and almost zero-energy buildings”, “The cycle of seminars regarding the manners of implementing a new system of municipal waste management”, “Those aware – for clean air – training sessions regarding counteracting low-stack emission”, etc.



Active education campaigns and programmes

The National Fund also supported financially a number of interesting educational campaigns and programmes. They included several years of edition of the Programme of Cleaner Production in Poland, GLOBE (Global Learning and Observation to Benefit the Environment) – an international programme involving students in observations regarding all the elements of the environment, Polish – American programme titled: “The Circle” – building a civil society and a network of cooperation for the environment”:

- campaigns and programmes related to the protection of water and proper management of water resources, such as, *inter alia*: “The clean Vistula and Rivers of Coastal Region”, “The Blue Thumb – a method for smart management of drinking water resources”, “General and National Coordination of the Baltic Sea Project”, “Adopt the River”, campaign “Vistula XXI”, a nationwide campaign “Water is life” and many others;
- educational campaigns and programmes related to the climate, rational energy management, RES and energy efficient building industry”, such as, *inter alia*: “Appetite for climate” – programme within the scope of which the Covenant of Mayors from the entire Poland was concluded, “A school teaching the rational energy management”, educational programmes “Economical home”, “Environment-friendly power used in residential buildings and public utility buildings”, informational and educational campaign “Energy efficient office”, etc.;
- educational and informational campaigns concerning the protection of air and low-stack emissions, such as, *inter alia*: “A nationwide campaign: Letters to the Earth – Clean Air, Healthy Man”, “»Clean Air« – a nationwide campaign increasing the society awareness of the impact of improper quality of air on human health and the condition of the environment”, educational programme “Take care of climate. Take care

of low-emission development in Poland”, “Thank you, I don’t poison! A nationwide informational and educational campaign in terms of reducing the issue of low-stack emission”, etc.

- programmes and campaigns related to the waste management, such as, *inter alia*: “Clean Up the World” – action which was carried out for many years and transformed in later years into an educational programme, campaign “Do not be disposable”, campaign “Do not waste food – think ecologically”, programme “We say NO to thoughtless shopping – we build the society of recycling”, “The Waste Academy”;
- programmes and campaigns regarding nature preservation, including the Nature 2000 networks, e.g. “Campaign for limiting illicit trade in species threatened with extinction”, “Nature 2000 is a driving force behind the sustainable development – a social dialogue on the management in the Nature 2000 areas”, “2010 – UN Global Year of Biodiversity” – a comprehensive programme fulfilling international obligations of Poland, “The deep waters of NATURE 2000”, etc.;
- activities designed for the construction of a cooperation network “Youth campaign of ecological activities”, such as, *inter alia*: programme of Eco-teams – activities involving schools and households in actions for environmental protection (comprehensive education “at source”), “Plan for Global Action for the Earth – a youth campaign for ecological lifestyle “Let us protect the Earth together”, programme “Schools for environmental sustainability – Centres of Ecological Activities – programme supporting the creation and development of local centres of ecological education”, which constitute simultaneously local centres of social activity, programme “Dialogue, compromise, participation – education in school for sustainable development of gminas”, etc.



Universities

In the 90’s of the 20th century the NFEP&WM supported the completion of educational programmes at universities, training specialists in the area of environmental protection, including the EU law and its implementation. The largest initiatives regard interdepartmental studies of environmental protection – the University of Warsaw, the Warsaw University of Life Sciences, the Catholic University of Lublin, the University of Agriculture in Cracow, the Maritime University of Szczecin, the Cracow University of Technology, the Silesian University of Technology, the Warsaw University of Technology, the Adam Mickiewicz University in Poznań, the Białystok University of Technology, the Lublin University of Technology, Mikołaj Kopernik University in Toruń, the University College of Enterprise and Regional Development in Falenty and Częstochowa University of Technology.

The beginning of the 21st century brought new sources of financing of ecological education, operated by the NFEP&WM. There were the funds of the Norwegian Financial Mechanism and EEA Financial Mechanism, as well as the funds within the OPI&E 2007–2013 and LIFE+ Financial Instrument. They were intended primarily for the education regarding the nature preservation understood broadly, including the protection of biological diversity and the network of Nature 2000 areas.

The funds allotted within the priority II of the OPI&E 2014–2020 constitute a significant financial injection. The educational projects regard mainly the development of the base for educational activities in national parks as well as for co-financing of so-called “soft actions”, related to the protection of biological diversity and education of residents of the protected areas.



Competitions and events promoting ecological knowledge

For many years the National Fund has been co-financing the following three types of contests – Biological, for New Agricultural Producers and for Young Inventors and Rationalisers; competitions: “A Leader of the Polish Ecology”, “A Recycling Cup” – organised by the Children’s Friend

Association; competitions: “I care of the beauty of my home – the Earth” and undertakings promoting ecological knowledge – celebrations of Global Days of Environmental Protection, Nationwide Festivals of Ecological Songs and Poems for Children, Festivals of Ecological and Nature Movies.



Awards

• 2014 – Maciej Łukowski, the Nationwide and International Festivals of Ecological Movies “Ecofilm” in Nowogard – honourable note for the movie “The Little Auk – a Big Matter” in “Ecofilm” category for: “attention to detail in extremely severe conditions of the Arctic”.

• 2015 – Włodzimierz Puchalski, the International Festival of Nature Movies in Łódź – award for the movie “The Little Auk – a Big Matter” for “presenting a hero that becomes great because of his survival strength a man could envy”.



EDUCATION

The National Fund co-financed a number of editions of post-graduate studies, organised by, inter alia: Warsaw University of Life Science in Warsaw, University of Warsaw, Adam Mickiewicz University in Poznań, Cardinal Stefan Wyszyński University in Warsaw, University of Warmia and Mazury in Olsztyn or the College of Media and Social Culture in Toruń.

In 2003 a new programme, titled: *Support of the activities of non-governmental ecological organisations*, within which the development of 63 organisations was supported, was launched. The last contracts completed in the scope of this programme were finished in 2013. The completion of 152 projects was co-financed within this programme over several years of its operation. The total amount of granted support was 7.6 million PLN.

HEALTH

Since the middle of the 90’s of the 20th century up to the beginning of the 21st century the NFEP&WM supported preventive health care activities for children and youth from the areas where the environmental quality limits are exceeded (mainly from the Upper Silesia and Copper Belt regions). Within these actions also tours for children from the areas affected by natural disasters were co-financed.

INFORMATION

Almost from the beginning of its existence the National Fund co-finances press publications that are dedicated entirely to environmental protection, i.e. “Przyroda Polska”, “Aura”, “Salamandra”, “Eko i My” and “Gospodarka Wodna”. Numerous publications that were supported earlier, such as “The Red List of Plants”, “The Red List of Animals”, “Avifauna of Poland”, albums about Polish national parks, etc. can be at present co-financed as an element of comprehensive educational activities.

PLANS AND ACHIEVEMENTS

In the upcoming years it is planned to continue co-financing of activities in the field of ecological education from domestic funds, adapting them to the current issues and needs in this scope (modification of the programme Ecological education – adapting it to the new demographic, social, economic and technological conditions). The main directions of actions include the following thematic areas:

- protection of water and proper water management;
- protection of atmosphere and climate;
- rational management of resources (including energy and natural resources);

- circular economy;
- ecological safety;
- waste management;
- rational development of urbanised areas;
- rational management in protected areas;
- ecological safety.

The overarching objective is a continuous increase of ecological awareness of the society in a systematic manner.

Modernisation of the Ecological Education Centre of the Tatra National Park, a project implemented within the OPI&E 2014–2020

- The objective of this project was the reconstruction of the Ecological Education Centre (EEC) of the Tatra National Park. The park is visited by almost 3 million people every year. The EEC is a place which allows, although only partially, to organise the traffic in the park and. Moreover, the visitors of the exhibition receive a package of information allowing for planned moving in the park, warning against dangers, information of the richness of the Tatra nature and instructions how to protect this nature while being on the route. The reconstruction of the centre was necessary because the building from 1979 was not adapted to current requirements.
- **Beneficiary:** Tatra National Park
- **Wartość wydatków ogółem:** PLN 12,004,899.71
- **Co-financing:** PLN 7,765,597.72
- **Source:** OPI&E 2014–2020, measure 2.4 Protection of Nature and ecological education
- **Data podpisania umowy:** 14.11.2016 r.
- **Termin realizacji:** from 03.2016 to 03.2018
- The main purpose of the project completion is nature education of the society by promoting knowledge on the protection of the most valuable natural areas in Poland, shaping the attitude of co-responsibility for the park among visitors, improvement of safety in the Tatra Mountains by encouraging a model of safe and aware tourism and sensitising to the beauty and needs of the Tatra nature.

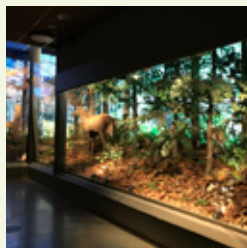


Fig. 41. Nature Education Centre, ul. Chałubińskiego 42 Zakopane, photo by the Tatra National Park

Mid-field afforestations for the protection of biodiversity and climate

- Co-financing from the NFEP&WM allowed the Ecological Foundation “Green Action” to conduct actions addressed to various groups of residents of rural areas (farmers, local governments, rural organisation). Due to these actions, the stakeholders became convinced that the mid-field afforestations are of a great importance for maintaining biological diversity and they mitigate the results of climate change.
- **Beneficiary:** Ecological Foundation “Green Action”
- **Koszt całkowity przedsięwzięcia:** PLN 558,721.05
- **Co-financing:** PLN 502,221.05
- **Form:** subsidy
- **Source:** Priority programme “Ecological education – domestic funds”
- **Date of contract conclusion:** 16.12.2015 r.
- **Realizacja przedsięwzięcia:** from 01.2016 to 05.2018
- The main results of the project completion are educational materials, articles in agricultural press, improvement of qualifications of educators, ecological workshops for the residents of rural areas, stimulation to acting, maintaining of valuable habitats, conducting mid-field afforestations, increase the knowledge of the population in terms of practical methods for mitigating climate change, enriching biodiversity.

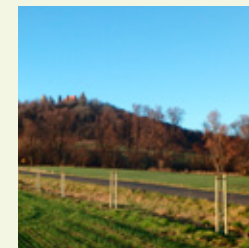


Fig. 42. Linden lane in Grodziec, photo by Ecological Foundation “Green Action”

A Little Auk – a Big Matter

- Within the undertaking completion, an almost one-hour long documental movie, titled “A Little Auk – a Big Matter” was produced. It was broadcasted on the nationwide TV antenna (TVP 1, TVP Polonia). Two premiere screenings were organised in cinemas and the movie was published also on DVD, with a circulation of 1 thousand copies.
- **Beneficiary:** Dorota Mitrus “International Link” (movie authors: Dorota Adamkiewicz and Joanna Pawlikowska-Łęska)
- **Koszt całkowity przedsięwzięcia:** PLN 507,012.45
- **Co-financing:** PLN 453,540.49

- **Form:** subsidy
- **Source:** Priority programme “Ecological education – domestic funds”
- **Date of contract conclusion:** 22.12.2011 r.
- **Realizacja przedsięwzięcia:** from 12.2011 to 04.2014
- Project objective: showing the beauty of Arctic nature and people who examine its transformation, showing relations between changing climate and the little auk – a bird living in large numbers on the sea. For years Polish scientists have been conducting internationally recognised research on little auk colonies, its food and sea currents which determine the feeding areas.

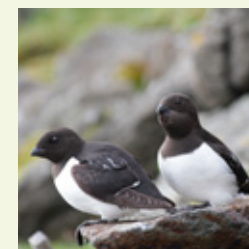


Fig. 43. Sopot, photo by Kajetan Dejda

LIFE FOR POLAND

The LIFE programme is the European Union's programme created in 1992, dedicated entirely to supporting activities related to the protection of nature, environment and climate. Contrary to the majority of the Union's funds currently available in Poland, LIFE is managed centrally, at the level of the European Commission.

Poland, as a member of the European Union, got actively involved in the LIFE Programme in 2007. Then the NFEP&WM, pursuant to the agreement with the Ministry of Environment, became a National Contract Point for the LIFE Programme. Next year the NFEP&WM started co-financing the projects which were granted support from the European Commission. The first contract of this type with the NFEP&WM was concluded on 16 September 2009. The Regional Water Management Authority in Warsaw, completing an innovative project entitled: "EKOROB Ecotonnes for reduction of aerial pollutions" was the beneficiary of this contract.

At present the NFEP&WM has a comprehensive and the most attractive offer of co-financing the LIFE projects in Europe. Due to

the support of the National Fund, the Polish entities have already completed or are in the process of completion of almost 80 projects with the total budget of approx. 800 million PLN.

The NFEP&WM is also a beneficiary of the LIFE Programme that is implementing a project aimed at increasing the potential of Polish applicants competing for finances from the LIFE Programme with entities from the entire European Union. Within the Capacity Building Project a nationwide LIFE Project Information Day is organised every year. A few dozen training sessions and workshops, conducted in the area of the entire country, hundreds of consultation sessions, promotion in media and a whole range of other initiatives are aimed at increasing the chances of Polish entities in the international competition for funds within the LIFE Programme.

It is planned to continue the actions, both in the information area and in terms of projects co-financing, as in the current financial phase. In the future phase of the Programme, which is now being prepared by the European Commission, a considerably more emphasis will be put on such issues as circular economy and clean energy sources. Preparation of an optimal offer for future beneficiaries of the LIFE Programme, considering new requirements of the European Commission, will be the most important challenge to the NFEP&WM in this area.

Every year the European Commission awards prizes for the best completed LIFE projects (Best LIFE Project). In 2018 the LIFE Best Project award was granted to six projects from Poland, co-financed by the NFEP&WM. The project implemented by the University of Łódź, titled: *EH-REK eco-hydrological rehabilitation of "Arturówek" (Łódź) recreational reservoirs as a model approach to the rehabilitation of municipal reservoirs* was considered as the best LIFE Project in Europe in 2018.



Following the support of the National Fund Polish entities have already completed almost **80 projects**

with the total budget of approx. **800 million PLN**

Proecological pilot installation for production of asphalt emulsions modified with nanostructures from waste polymers

- The project assumes implementation, testing and demonstration of the completely new, two-stage modification of asphalt emulsions with selected groups of waste polymers and with using polymer nanofibres.
- **Beneficiary:** FLUKAR Sp. z o.o.
- **Total cost of the project:** PLN 17,780,380
- **Co-financing:** PLN 2,733,836 (subsidy); PLN 4,000,000 (loan)
- **Form:** subsidy and loan
- **Source:** LIFE programme
- **Date of contract conclusion:** 11.12.2015 r.
- **Project completion:** from 08.2015 to 12.2019
- The effect of the project completion is a modern plant for waste processing which will process 176 Mg of polymer waste a year (in a pilot version) and in a full-scale version it will be capable of processing of 1,119 Mg of polymer waste per year. It is projected that the implementation of a new method of asphalt emulsions production will result in extending a life cycle of an asphalt surface by as much as 30%. It will impact on reducing the consumption of materials related to the repairs of roads, decrease the amount of crude oil used for production of asphalt and improve the safety of road traffic. Moreover, the application of nanofibres in the construction of roads, due to their specific properties (effective accumulation and emission of heat energy) may contribute to the prevention of surface icing in winter conditions, which is an additional element of innovativeness.



Fig. 44. Kędzierzyn-Koźle, photo by Lucyna Korzekwa/Dariusz Żłobiński

Active protection of a complex of priority on-sand habitats in the Natura 2000 area on the Błędów Desert

- The Błędów Desert is a unique and the largest area in Europe with dune sands, with rare, protected species of fauna and flora as well as psammophilic grasslands typical for the desert landscape. This desert, located in Jura Krakowsko-Częstochowska (Polish Jura), within the Natura 2000 area, is called the “Polish Sahara”. The area of the desert was artificially afforested in the middle of the 20th century. Within the project, the natural values of inland dunes and psammophilic grasslands were restored on almost 300 ha.
- **Beneficiary:** gmina Klucze
- **Total cost of the project:** PLN 8,359,272.65
- **Co-financing:** PLN 3,708,029.06
- **Form:** subsidy
- **Source:** co-financing of LIFE programme
- **Date of contract conclusion:** 22.09.2010 r.
- **Realizacja umowy:** from 09.2010 to 11.2014
- The main objective of the project completion was restoring the natural values of the Błędów Desert, the main tourist attraction of the region, which is also used at present by the local community.
- The project of gmina Klucze is a good example of consistency of activities for environmental protection, including the activities within the Natura 2000 network, with the interests of the local community. Without establishing the Natura 2000 area in this region it would be impossible to restore the natural values of the Błędów Desert. What is interesting, prior to starting the protective actions, it was necessary to remove over 3 thousand of unexploded shells and duds that remained in this area after the World War II. Moreover, the biomass produced during shrub removal and stubbing of trees was used for heating purposes of the nearby primary school. The cooperation between gmina Klucze, in the area where the Błędów Desert is located, and numerous other entities supporting the activities for environmental protection is an example of good practice and wakening of social awareness, which are also promoted within the LIFE Programme.

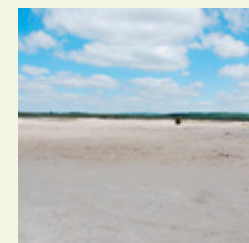


Fig. 45. Błędów Desert, photo by gmina Klucze

System of provision and exchange of information for strategic support of the implementation of climate and energy policy

- The CAKE Centre for Climate and Energy Analyses – was established within a project of the Chief Inspectorate of Environmental Protection. The Centre will examine the impact of implemented climate and energy policy on various sectors of the Polish economy. It is one of the most advanced activities in this respect in the world.
- **Beneficiary:** Chief Inspectorate of Environmental Protection
- **Total cost of the project:** PLN 10,398,258.00
- **Co-financing:** PLN 2,086,494.00
- **Form:** subsidy
- **Source:** co-financing from LIFE programme

- **Date of contract conclusion:** 27.07.2017 r.
- **Project completion:** from 09.2017 to 11.2020
- The objective of the project is creation of a system and analyses which will be used for supporting the process of reducing the greenhouse gas emissions and transformation of the Polish economy towards low-carbon economy. Comprehensive studies of CAKE will form a substantive basis for administration in determining national strategies and plans in terms of climate and energy.



Fig. 46. The team of the Centre for Climate and Energy Analyses with Sławomir Mazurek, Under-Secretary of State in the Ministry of Environment, photo by IOŚ-PIB/KOBiZE

NORWEGIAN FUNDS

The funds within the Financial Mechanism of the European Economic Area (FM EEA) and the Norwegian Financial Mechanism (NFM) are a form of non-repayable support granted by Norway, Iceland and Liechtenstein to less developed, poorest member countries of the European Union. In order to mobilise the funds within the financial perspective I, Poland signed agreements with the donor countries in 2004.

The main objectives of the Financial Mechanisms include the completion of pro-development undertakings, contributing to the reduction of economic and social differences within the European Economic Area and strengthening bilateral relations between the donor and beneficiary countries.

THE FIRST FINANCIAL PERSPECTIVE OF THE NORWEGIAN AND EEA FUNDS FOR THE YEARS 2004–2009

The NFEP&WM played a role of a Supporting Institution in the implementation of the first financial perspective which was successfully completed in 2012. Within three environmental priorities 158 projects were completed, during three calls for proposals. These funds contributed to reducing the environmental pollution by the protection of the air, protection of surface waters and rational waste management. Moreover, it allowed to promote and implement the principles of sustainable development, pro-ecological activities as well as to strengthen the abilities and

capabilities of acting by the administration and other entities responsible for implementing and enforcing the European Union's law in regards to environmental protection.

The interest in the projects was huge in Poland and the funds contributed to activate local governments, non-governmental organisations and private undertakings. The Financial Mechanisms became a perfect financial tool for small gminas and organisations completing the small- and medium-scale projects, which would have no chance for co-financing from the EU's structural funds.

THE SECOND FINANCIAL PERSPECTIVE OF THE NORWEGIAN AND EEA FUNDS FOR THE YEARS 2009–2014

The Ministry of Environment (the operator of the programmes), with the help of the NFEP&WM, was responsible for the preparation and implementation of three environmental Operational Programmes (OP) in the second financial perspective:


- PL02 *The protection of the biological diversity and ecosystems*
- PL03 *Improving environmental monitoring and inspection*
- PL04 *Saving energy and promoting renewable energy sources*

The number of applications was three times greater than available funds. The implementation of the second financial perspective for the years 2009–2014 was successfully completed in 2017.

Perspective I
2004–2009

158
projects for the amount of
439 million PLN

Iceland
Liechtenstein
Norway grants



Norway grants

219
projects for the
amount of
686.44 million PLN

Perspective II
2009–2014

ACHIEVEMENTS AND ACCOMPLISHMENTS

The first financial perspective of the Norwegian and EEA Funds for the years 2004–2009

Saving of energy and improvement of energy efficiency were achieved in over 300 public utility buildings, while the improvement of the quality of air was achieved by the reduction of CO₂, sulphur dioxide (SO₂), nitrogen oxides (NO_x) and dust emissions.

The second largest area of interest were the investments related to reducing water pollution and management of its resources. The undertaken actions were focused mainly on the

construction, reconstruction and modernisation of municipal sewage treatment plants and the systems of collective sewage system. Over 300 km of sewage system were constructed and the actions related to the improvement of sewage management were carried out for over 100 thousand PE.

The non-investments, so-called “soft” projects, which contributed mainly to increasing the protection of biological diversity in the territory of Poland, the increase of ecological awareness among the residents, promoted the “green” standards among entrepreneurs and contributed to better functioning of the environmental inspection service and regional water management authorities.



improvement of energy efficiency of
300 buildings



57 thousand tonnes/year
reduction of CO₂ emission



400 tonnes/year
reduction of SO₂ emission



150 tonnes/year
reduction of NO_x emission



1,000 tonnes/year
reduction of dust emission



300 km
of sewage system constructed



improvement of sewage management for
100 thousand PE

The second financial perspective of the Norwegian and EEA Funds for the years 2009–2014

OP PL02 The protection of the biological diversity and ecosystems:

- 27 plans of protection / plans of protective tasks for the Nature 2000 areas;
- 185 monitoring zones of the Natura 2000 areas;
- proper condition of ecosystems was restored or protected within over 77 thousand ha of the Nature 2000 areas;
- 49 inventories or monitoring sessions for the occurrence of 14 in-

vasive alien species were carried out; 5 invasive alien species were covered by the actions limiting their pressure on 285 ha;

- 95 movies and cyclical television and radio programmes, 39 books and 157 educational articles, 41 computer games, 13 guidebooks through educational paths, 63 websites or portals;
- 45 educational paths with the total length of over 100 km.

OP
PL02

over
10 thousand
of organised conferences,
seminars and workshops

for over
250 thousand
people

165
organised contests and
competitions regarding
the protection of
biological diversity

with almost
200 thousand
participants

Ecological education in terms of protection of biological diversity in the face of climate change, conducted in accordance with the mission of Wrocław Zoological Garden

- A multimedia pavilion, with year-round interactive educational exhibition dedicated to climate change, polar areas and animal species living there, melting of glaciers, floods, desertification and human impact on the natural environment.
- **Beneficiary:** ZOO Wrocław Sp. z o.o.
- **Total cost of the project:** PLN 4,179,847.82
- **Co-financing:** PLN 2,957,363.20
- **Form:** subsidy
- **Source:** OP PL02 *The protection of the biological diversity and ecosystems*
- **Date of contract conclusion:** 02.04.2015 r.
- **Project completion:** from 04.2014 to 12.2017
- The main objective of the project is increasing the social awareness concerning changes affecting the Earth's poles, creating the CLIMATE, PEOPLE, ANIMALS interactive pavilion, which allows to explore the issues of climate change in an interesting and diversified manner.

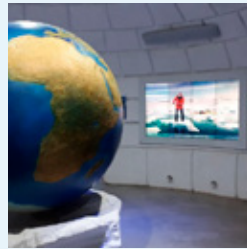


Fig. 47. Educational stand in an igloo, photo by ZOO Wrocław Sp. z o.o.

Protection of grey seal (*Halichoerus grypus*) and porpoise (*Phocoena phocoena*) habitats in the area of the Słowiński National Park

- A map of the Baltic's usage by the marine mammals within the borders of the park was created. With the help of boats and an underwater vehicle purchased within the project the lost/abandoned fishing gear was searched for and removed from the area of the park. Using data from hydroacoustic detectors, the presence of porpoise was detected in three locations. Moreover, the sounds of dolphins were recorded.
- **Beneficiary:** Słowiński National Park
- **Total cost of the project:** PLN 1,980,402.29
- **Co-financing:** PLN 1,396,334.18
- **Form:** subsidy
- **Source:** OP PL02 *The protection of the biological diversity and ecosystems*
- **Date of contract conclusion:** 18.08.2014 r.
- **Project completion:** from 03.2014 to 10.2017
- The main objective of the project is conducting monitoring of porpoise and grey seal in the sea area and beaches of the Słowiński National Park.



Fig. 48. Grey seal pup, photo by Słowiński National Park

- **OP PL03 Improving environmental monitoring and inspection:**
- the system of measurements, assessments and forecasts of the environment condition was improved; the system of collection, processing and distribution of information regarding the environment was improved; technical potential of institutions responsible for environment monitoring was strengthened (by purchase of new measuring and laboratory equipment and IT tools);

- the social awareness in terms of pollutants and environment quality was improved;
- the IT Control Support System (ISWK) and the Control System (CS) were modified;
- a model of the database of spatial records concerning the natural environment in Poland, including, in particular, hydrographical and hydrological data along with the management system, was created. It became an element of specialist and sectoral systems of spatial information, necessary for operations of various departments of the public administration and for undertaking current actions in the area of managing, planning, monitoring and strategic programming;
- measuring and laboratory infrastructure was improved in 16 voivodeship inspectorates of environmental protection and in the National Reference and Calibration Laboratory of the Chief Inspectorate of Environmental Protection, by purchase of modern measuring equipment

OP PL03

72 training sessions

concerning environment monitoring, integrated planning and control

in which almost 2.1 thousand people took part

OP PL04 Saving energy and promoting renewable energy sources:

<p>About 54.4% of allocations were used for projects concerning the improvement of energy efficiency and use of RES.</p>	<p>About 44.6% of allocations were spent on the undertakings concerning the reduction of waste production and emission of air, water and soil pollutants</p>	<p>1% of available funds was allocated to the activities increasing the social awareness and education</p>	<p>the CO₂ emission of approx. 490 thousand tonnes/year was limited or avoided.</p>
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The most significant plans for the future

The main objective at the moment is the implementation of the Operational Programme Environment – *Energy and Climate Change* within the third phase for the years 2014–2021 (allocation of 710 million PLN, the contribution of EEA FM – 603.6 million PLN). The key goal of this programme is counteracting climate change. A financial support is planned for the following areas:

- natural environment and ecosystems,
- mitigating climate change and limitation of exposure to such change,
- renewable energy, energy effectiveness, energy safety.

In addition to that, 3.88 million PLN will be allocated to the Fund for Bilateral Relations. So far, Poland has been receiving the largest amount of allocations in subsequent phases – about 30% of all resources intended for 12 countries.

EXAMPLES OF GOOD PRACTICE

Within OP PL03 Improving environmental monitoring and inspection

Improving the system of air quality assessment in Poland based on Norwegian experience

- *Launching the portal “Air quality” and a free application “Air Quality in Poland” for mobile devices. Presentation of the current and archival results of air quality measurements, information on the system for air quality measurements and assessments in Poland, results of analyses of air pollution and information on air protection programmes.*
- **Beneficiary:** Chief Inspectorate of Environmental Protection
- **Total cost of the project:** PLN 5,563,293.03
- **Co-financing:** PLN 4,728,799.05
- **Form:** subsidy
- **Date of contract conclusion:** 03.07.2013 r.
- **Project completion:** from 05.2013 to 04.2017
- *The main objective of the project is optimisation and modernisation of measurement networks for air quality monitoring in 16 Voivodeship Inspectorates of Environmental Protection and increasing the precision of air pollution measurements in monitoring networks.*

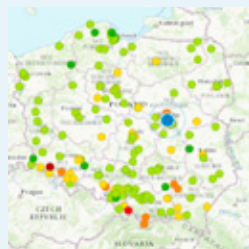


Fig. 49. Air Quality in Poland application, photo by the Chief Inspectorate of Environmental Protection

Within OP PL04 Saving energy and promoting renewable energy sources

Construction of gas based power generation units GT 50 in EDF Toruń (at present PGE Toruń)

- *Replacement of a coal-fired heat-generating plant with an innovative, low-emission gas-based heat and power generating plant, producing heat and electricity in the process of high-efficiency co-generation. The co-generation method of heat production increases the energy efficiency of the heating system in Toruń by 20%-30% in comparison to separate production of electricity and heat.*
- **Beneficiary:** PGE Gaz Toruń SA
- **Total cost of the project:** PLN 421,650,364.85
- **Co-financing:** : PLN 21,053,916.00
- **Form:** subsidy
- **Source:** OP PL04 Saving energy and promoting renewable energy sources
- **Date of contract conclusion:** 25.06.2014 r.
- **Project completion:** from 12.2014 to 05.2017
- *The objective of the project is ensuring the continuity of heat supplies for the residents of Toruń and improving the safety of electricity supplies in the region, reducing the level of sulphur oxides, nitrogen oxides and dust emissions by 95.8% on average and significant reduction of CO₂ which will contribute to a considerable improvement of air quality and have a positive impact on the health of residents and condition of monuments in Toruń.*



Fig. 50. PGE Toruń, Ceramiczna Street 6, photo Archive of PGE Energia Ciepła SA

COOPERATION

REGIONAL COOPERATION

This cooperation includes completion of joint local and regional programmes of the NFEP&WM and the VFEP&WMs as well as financial support for undertakings completed by the VFEP&WMs which cannot be financed within the priority programmes from the current offer of the NFEP&WM.

The main objective is the modification of the model of cooperation between the NFEP&WM and VFEP&WMs by consolidating the public funds for the completion of nationwide environmental programmes and facilitating the access to these funds by beneficiaries.

- Nationwide programme of water and sewage management outside the agglomerations included in the National Programme for Municipal Sewage Treatment,
- Improvement of air quality, *Part 2) Reduction of energy consumption in buildings,*
- *Czyste Powietrze (Clean Air),*
- *SYSTEM – Support for activities completed by external partners in the scope of environmental protection and water management – REGION*
- *Nationwide programme for financing of rescue service,*
- *Nationwide programme for financing the removal of products containing asbestos,*
- *Nationwide programme for environmental rehabilitation of soils by their liming.*

In the nearest future the NFEP&WM plans a further intensification of actions aiming at a full absorption of European funds intended for environmental protection and water management, including financing of the so-called national contribution within OPI&E, Regional Operational Programmes and Rural Development Programme.

The identification of new areas which are likely to receive

joint financing and the continuation of joint programmes of the NFEP&WM and the VFEP&WMs, depending on the needs are also envisaged.

COOPERATION WITH THE EAST

On 5 October 2017 a memorandum of cooperation between the NFEP&WM, the city of Lvov and Lvivvodokanal Communal Enterprise was signed, under the auspices of the Minister for Ecology and Natural Resources of Ukraine. The objective of this memorandum is completing joint undertakings in terms of ensuring effective treatment of sewage from the city of Lvov and minimizing the pollution of the trans-boundary Bug River.

***D*Co-financing of two investments in Belarus**

Reduction of ecological hazards caused by the accumulation of sludge in the sludge lagoons located on the flooded areas of the Bug River in the Brest sewage treatment plant

- Date of contract signing: 26.10.2009
- Amount of subsidy: 1.58 million PLN

Modernisation of secondary settling tanks in the Brest sewage treatment plant

- Date of contract signing: 21.11.2011
- Amount of subsidy: 3.86 million PLN

EUROPEAN COOPERATION

In the middle of 2017 the Team of Advisors was established, as an expert support for the NFEP&WM Management Board, in order to strengthen and extend the international cooperation of the National Fund. It is bringing benefits such as new ideas,

inspirations and innovative solutions, the implementation of which should contribute mainly to improving and extending the financial offer and effective spending of funds.

Participation in the activities of groups within the European Union is a great opportunity for promoting the NFEP&WM and the system of environmental protection financing in Poland.



The Urban Agenda for the European Union

The Urban Agenda for the European Union was established, along with twelve thematic partnerships, in May 2016 by the EU ministers responsible for urban policies, within the framework of so-called the Pact of Amsterdam. The objective of the Agenda is stimulating the growth and innovations in European cities as well as improving the quality of residents' lives. During the completion of these tasks three essential areas are to be taken into consideration: legal regulations and their implementation, methods of financing and improving the social knowledge and awareness.

The National Fund participates in the works of the Urban Agenda for the European Union – Partnership for Air Quality. It represents our country in this partnership, together with the Ministry of Energy. Other members of the Partnership come from three countries (Holland, Croatia and Czech Republic), six cities (Helsinki, London, Utrecht, Milan, Constanța and Duisburg), two organisations (EUROCITIES and HEAL) and the European Commission (including Directorate-General for Environment, Directorate-General for Research and Innovation, Joint Research Centre) and the URBACT programme – as an observer.

The main objective of the Partnership is improving the quality of air in cities and drawing a particular attention to the impact of pollutants on the residents' health.

In the course of meetings and teleconferences the *Action Plan*, approved by the ministers of EU member states responsible for urban policies, was developed at the end of 2017. In connection with that, the following activities were implemented in 2018:

- identification of gaps in both the legislation and methods of its implementation in regards with air pollutant emission sources,
- development of a Code of Good Practice for cities, regarding

the Air Quality Action Plans,

- development of a business model for financing of undertakings included in the Air Quality Action Plans, in cooperation with the European Investment Bank,
- creating a measurable instrument, in a form of an index, showing the impact of air quality on residents' health,
- preparation of a set of tools for communication with residents in terms of air quality, taking into consideration the examples of good practice.

The results of the partnership's actions were announced and presented during the European Week of Regions and Cities, held from 8 to 11 October 2018 in Brussels.

Ogłoszenie i zaprezentowanie wyników prac partnerstwa miało miejsce podczas Europejskiego Tygodnia Miast i Regionów w dniach 8–11 października 2018 r. w Brukseli.

THE COVENANT OF MAYORS

The Covenant of Mayors was initiated by the European Commission in 2008, after adopting the climate and energy package by the European Union. Its tasks included supporting the efforts undertaken by local authorities for the implementation of sustainable energy policies. Since 1 November 2015 the Covenant of Mayors was transformed into the Covenant of Mayors for Climate and Energy, integrating thus the activities related to sustainable energy and those regarding the adaptation to climate change.

Since October 2014 the National Fund for Environmental Protection and Water Management has been fulfilling the role of the National Coordinator of the Covenant of Mayors. The National Fund is promoting this important European initiative among the cities and gminas at, *inter alia*, various conferences and meetings throughout the whole of Poland. It provides technical support in fulfilling the procedure of joining the Covenant of Mayors as well as assistance in contacts with the Covenant of Mayor Office, representing the European Commission, to all interested entities. It helps the current signatories in the implementation of the Sustainable Energy Action Plans (SEAP), encouraging to declare and achieve even more ambitious goals.

On 16 October 2018, in the headquarters of the NFEP&WM, the Team of Advisors organised a training workshop with the participation of representatives of the European Commission, the Covenant of Mayors Office and the Joint Research Centre (JCR), in order to improve the competences of the NFEP&WM



**Porozumienie Burmistrzów
na rzecz klimatu i energii
EUROPA**

employees involved in promotion of this initiative. The energy advisors, working within the project titled *Nationwide system of advisory support for the public and housing sectors and enterprises in terms of energy efficiency and RES*, and the employees of the Department of Adaptation to Climate Change and Environmental Hazard took part in the training.

HORIZON 2020



The *Horizon 2020* programme is a financial instrument for the implementation of the Innovation Union, a flagship initiative of the Europe 2020 Strategy, which is aimed at ensuring competitiveness of Europe in the world. Simultaneously, with the budget of 78,631 million EUR available within 7 years (from 2014 to 2020), it is the largest research and innovation programme in the EU

Following a recommendation resulting from the *Sustainable Development Strategy*, the Team of Advisors undertook stimulating the Polish entities to participate in the programme, based on topics selected through a call for proposals from the *Horizon 2020* programme. Meetings were organised and information describing the topics of the calls and potential scope of projects were distributed.

The NFEP&WM decided, for the first time, to be a partner in a consortium applying for support from the *Horizon 2020* programme. In September 2018, on the NFEP&WM initiative, the project titled *Improving the system of financing of activities in the scope of energy efficiency* was submitted to the European Commission. This project is aimed at stimulating and develop-

ing the activities for EE by creating a concept of new financial instrument. The representatives of the Team of Advisors participate in the works of the advisory groups of the National Contact Point of the EU Research Programmes in the area of the environment and energy.

WORK GROUPS, EUROPEAN EVENTS, EXCHANGE OF EXPERIENCE

The representatives of the National Fund participate in the operations of the following groups, formed by the representatives of the EU member states:

- the Energy Efficiency Financial Institutions Group (EEFIG),
- the Concerted Action on the Energy Efficiency Directive (CA EED),
- the Concerted Action on the Energy Performance of Buildings Directive (CA EPBD),
- the Concerted Action on the Renewable Energy Sources (CA RES).

In June 2018, the NFEP&WM was, for the first time a co-organiser of a session during the EU Sustainable Energy Week in Brussels. This session, titled *Shaping an integrated market with hot findings and cool solutions* was dedicated to the opportunities for energy saving in the building industry through a deep thermo-modernisation, analysis of the present situation of the heating sector, taking into consideration a particular situation in Poland and the presentation of innovative European projects in this scope.

In the years 2017–2018 a number of visits of international guests, who wanted to acquaint with the Polish system of environmental protection financing and a special role of the National Fund in this system, were organised. Within the TAIEX REGIO and TAIEX PEER 2 PEER programmes we entertained the delegations from Estonia (Centre for Environmental Investments), Lithuania (VIPA – Public Investment Development Agency) and the Hungarian Ministry of Innovations and Technology.

The Team of Advisors cooperates also, in the scope of selected areas, with partners from, inter alia, Germany (KfW, Environmental Protection Office, German Energy Agency) and France (ADEME).

Since June 2017 cyclical meetings with the representatives of the ministries and other institutions, dedicated to the cooperation on the Union's forum, have been held in the NFEP&WM headquarters. They are a platform for exchanging experience and views on particularly important issues regarding environment and energy, such as, for instance, circular economy, increase in energy efficiency and energy mix in Poland.



Fig. 51. Study visit at Deutsche Bundesstiftung Umwelt Osnabrueck. From left: Zbigniew Kamieński, Ulrich Witte, Katarzyna Rutkowska, Adam Wadecki, photo by the NFEP&WM.

SOCIAL MEANING OF THE NFEP&WM ACTIVITIES

SOCIAL MEANING OF THE NFEP&WM ACTIVITIES

A new vision of the country development was adopted by the Council of Ministers in the *Strategy for Responsible Development*. A model of the strategy, objectives and priorities of the development of Poland, both in the economic and social areas, with the perspective by 2020 and 2030, included there, is of a significant importance for the NFEP&WM activities.

Therefore the increasing competitiveness of Poland, based on modern goods and services and through reindustrialisation as well as the increase in a degree of the advancement of technologically innovative solutions, are emphasised. The guidelines include supporting the territorially sustainable development of small and medium companies' potential, mobilising financial resources available for investments, including the private sector, and international expansion of Polish enterprises and technologies in terms of environmental protection.

In accordance with the foundations of the NFEP&WM strategy, the achievement of the above-mentioned economic objectives will be going hand in hand with the rational use of the natural environment potential, for the benefit of citizens and entrepreneurs. It should result in a systematic reduction of pollutants emission, increase in the amount of retention water, improvement in the condition of water bodies, improvement in management of Nature 2000 areas, reducing the conflicting potential of the natural resources protection and utilisation of municipal waste as raw materials. All these activities will contribute to improving the quality of Polish people's lives, condition of natural environment and preserving its values for future generations.

Fig. 52. Structure of the NFEP&WM revenues for 2017

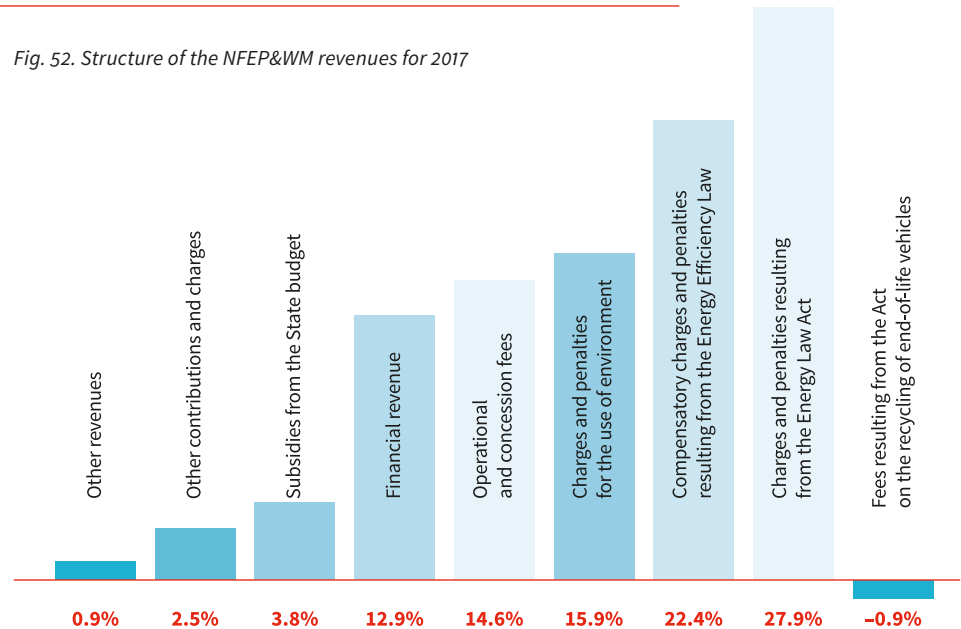


Fig. 53. The NFEP&WM contracts in the years 1989–2018 funded by domestic funds

Revenues from fees and penalties
27.9 billion PLN

Amount of signed contracts
50.9 billion PLN

Total value of co-financed investments
157.1 billion PLN

Financial leverage effect



The NFEP&WM in numbers¹



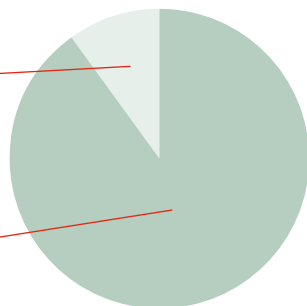
1989

2019

Number of signed contracts: **31,944**

International funds
3,148 contracts

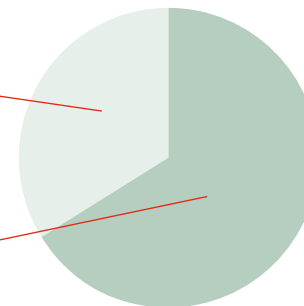
Own funds
28,796 contracts



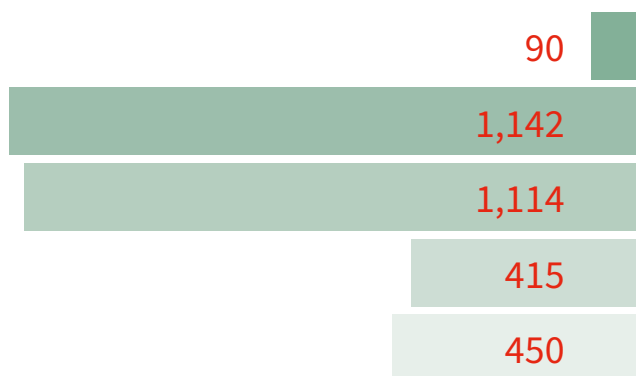
Value of signed contracts: **237 billion PLN**

International funds
80 billion PLN

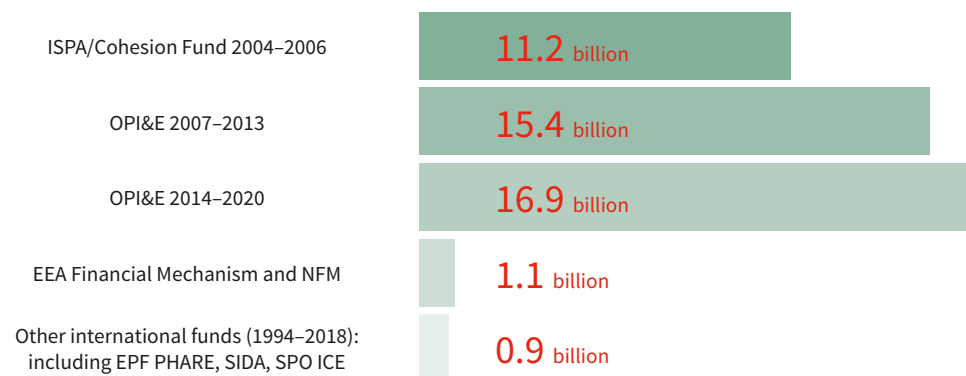
Own funds
157 billion PLN



Number of contracts from international funds



Amount of contracts from international funds



¹ Data as of 31.12.2018

Water and sewage management
4,125 projects,
 including:

Construction or modernisation
 of over **1,600** sewage
 treatment plants



Construction or modernisation
 of over **83 thousand** km
 of sewage system

Waste
 management
1,244 projects,
 including:

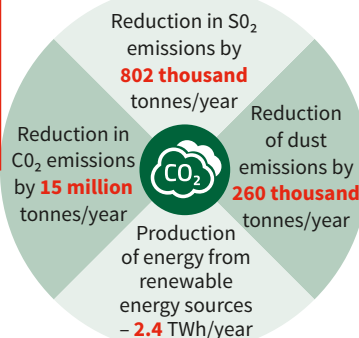
Construction of 7
 waste incineration plants
 with the capacity of
1.1 million tonnes/year



Increase of waste mass
 subjected to recovery
 (including recycling): **6.8
 million** tonnes/year

Protection of the air and climate: **4,076 projects**, including:

reduction of pollutant
 emissions into the air



increase of energy efficiency:

Energy saving
3.4 TWh/year



4,254 public utility buildings
 were subjected
 to thermo-modernisation

RECORDS IN THE NFEP&WM ACTIVITIES

The largest priority programme in the history of the National Fund for Environmental Protection and Water Management's activity - Clean Air

budget

103 billion PLN
 completion
2018-2029

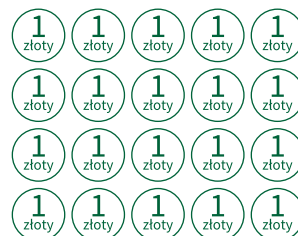


THE LARGEST CONTRACTS

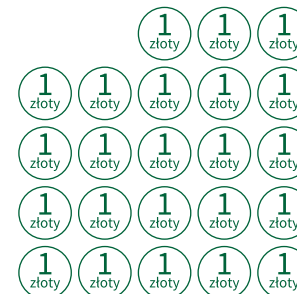
Projects of the highest value completed by the NFEP& WM



650 million PLN
 Protection of the Kłodzko
 Valley from flooding,
 with special regard to the
 protection of Kłodzko town



2 billion PLN
 Raciborz Dolny flood protection
 reservoir on the Oder River
 in Silesian Voivodeship



2.3 billion PLN
 Water supply and sewage
 treatment in Warsaw
 (Phases IV and V)

THE MAP OF ECO-INVESTMENTS OF THE NFEP&WM



Photo: own resources of ZWI&Sp. z o.o. w Szczecinie



Photo by PCW Wody Polskie



Photo by Toruńskie Wodociągi Sp. z o.o.



Photo by B. Biegowski



Photo by Łódzka Spółka Infrastrukturalna Sp. z o.o.



Photo by Regionalny Zarząd Gospodarki Wodnej we Wrocławiu

- **Project name:** Improvement of water quality in Szczecin
- **Beneficiary:** Zakład Wodociągów i Kanalizacji Sp. z o.o. w Szczecinie (Water and Sewage Company in Szczecin)
- **Investment value:** 1.297 billion PLN
- **Amount of co-financing by NFEP&WM:** 390.2 million PLN

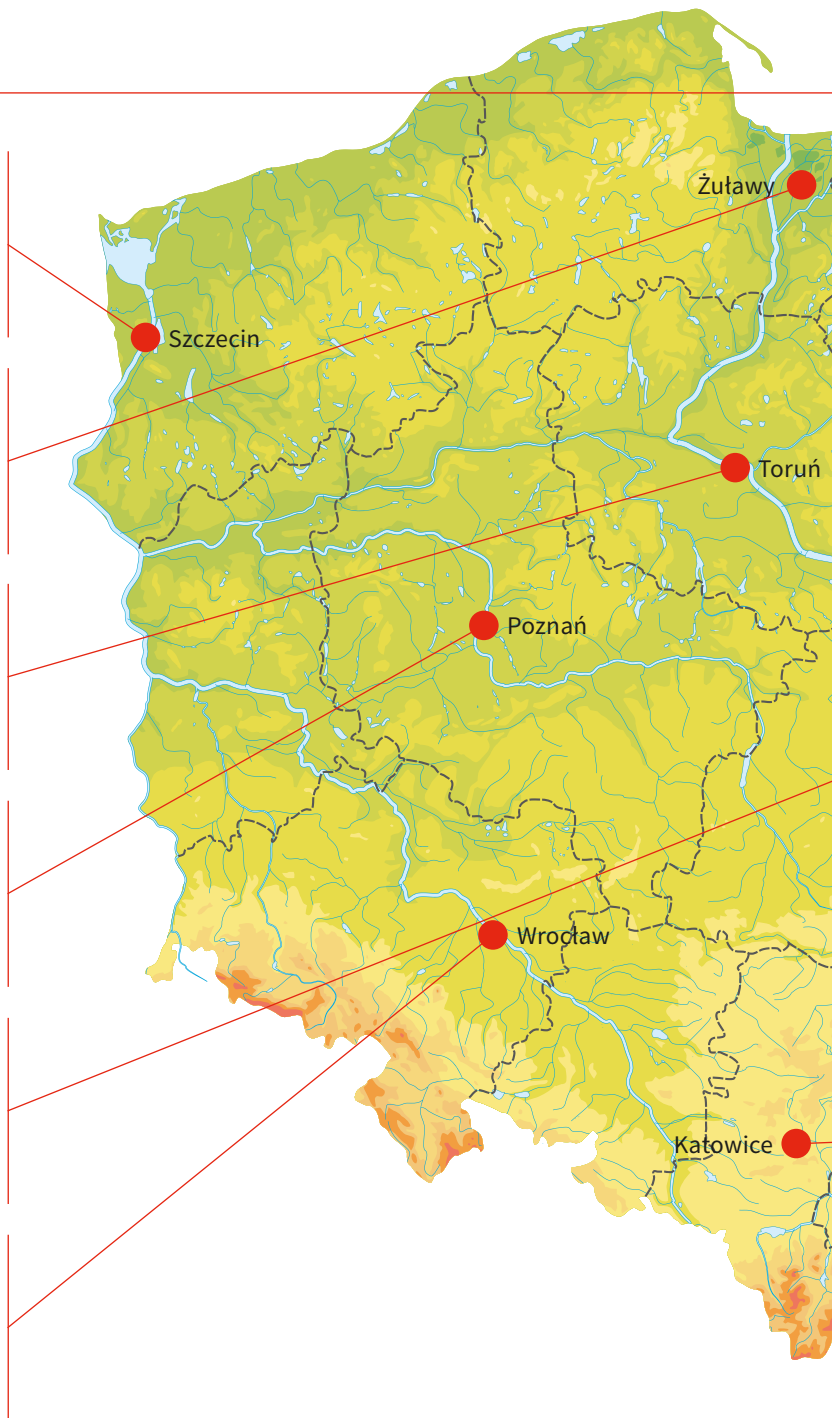
- **Project name:** Comprehensive flood protection of Żuławy – stage I
- **Beneficiary:** Regionalny Zarząd Gospodarki Wodnej w Gdańsku (Regional Water Management Authority in Gdansk), Zarząd Melioracji i Urządzeń Wodnych Województwa Pomorskiego (Pomeranian Voivodeship Land Melioration and Water Units Board), Żuławski Zarząd Melioracji i Urządzeń Wodnych w Elblągu (Żuławy Land Melioration and Water Units Board in Elbląg), Gdańsk powiat seated in Pruszcz Gdański, the City of Gdańsk, the town of Elbląg
- **Investment value:** approx. 502 million PLN
- **Amount of co-financing by NFEP&WM:** subsidy from the OPI&E 2007–2013 – approx. 435 million PLN

- **Project name:** Water and sewage management in the agglomeration of Toruń
- **Beneficiary:** Toruń City, Toruńskie Wodociągi Sp. Z O.O. (Water Supply Works in Toruń)
- **Investment value:** 617.46 million PLN
- **Amount of co-financing by NFEP&WM:** 112.19 million PLN

- **Project name:** 1) Sewage treatment and water supply for the City of Poznań and 2) Reorganizing waste and sewage management for the protection of water resources in Poznań and its surrounding area (stages I-V)
- **Beneficiary:** the City of Poznań and Aquanet SA
- **Investment value:** almost 1.8 billion PLN
- **Amount of co-financing by NFEP&WM:** subsidies from the ISPA Fund, OPI&E 2007–2013 and OPI&E 2014–2020 – almost 700 million PLN

- **Project name:** 1) Sewage treatment in Lodz, phases I and 2) Water lines and sewage treatment plant in Lodz II
- **Beneficiary:** the City of Lodz and Łódzka Spółka Infrastrukturalna Sp. Z O.O. (Łódź Infrastructural Company)
- **Investment value:** approx. 850 million PLN
- **Amount of co-financing by NFEP&WM:** loan from the NFEP&WM – approx. 110 million PLN

- **Project name:** Modernisation of the Wrocław Water Node
- **Beneficiary:** Regionalny Zarząd Gospodarki Wodnej we Wrocławiu (Regional Water Management Authority in Wrocław) and Dolnośląski Zarząd Melioracji i Urządzeń Wodnych (Lower Silesian Land Melioration and Water Units Board)
- **Investment value:** almost 1.1 billion PLN
- **Amount of co-financing by NFEP&WM:** subsidy from OPI&E 2007–2013 – over 800 million PLN





- **Project name:** Development of green areas, with regard to Nature and climate aspects in the town of Ostróda
- **Beneficiary:** gmina Ostróda
- **Investment value:** 1.79 million PLN
- **Amount of co-financing by NFEP&WM:** 1.45 million PLN



Photo by Gmina Miejska Ostróda

- **Project name:** Modernisation of the European Bison Show Reserve – construction of an educational pavilion
- **Beneficiary:** Białowieński National Park
- **Investment value:** over 12.8 million PLN
- **Amount of co-financing by NFEP&WM:** subsidy and loan from NFEP&WM – over 12.8 million PLN



Photo by Andrzej Boron

- **Project name:** Water supply and sewage treatment in Warsaw
- **Beneficiary:** Miejskie Przedsiębiorstwo Wodociągów i Kanalizacji W m. st. Warszawie SA (Municipal Water and Sewage Company in the Capital City of Warsaw)
- **Investment value:** almost 7.4 billion PLN
- **Amount of co-financing by NFEP&WM:** subsidies from the ISPA Fund, Cohesion Fund, OPI&E 2007–2013 and OPI&E 2014–2020 – approx. 3.4 billion PLN



Photo by Krzysztof Kuczek

- **Project name:** Restoration of natural values to historic park sites and palace-garden complexes entered into the register of monuments, National Inventory of Historical Monuments and the UNESCO World Heritage List
- **Beneficiary:** *inter alia*: the Zamoyski Museum in Kozłówka, the Pauline Fathers Friary in Częstochowa, the Polish Academy of Sciences, the town of Legnica, gmina Lublin, the National Heritage Board of Poland, gmina Pszczyna, the town of Bytom, gmina Wałbrzych, the Cathedral Chapter of Warmia in Frombork, the Royal Łazienki Park in Warsaw
- **Investment value:** approx. 64.3 million PLN
- **Amount of co-financing by NFEP&WM:** subsidy in the amount of approx. 45 million PLN



Photo from the Archive of the Zamoyski Museum in Kozłówka

- **Project name:** Preparation and service at the 24th Session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 24)
- **Beneficiary:** *inter alia*: Ministry of Environment, Ministry of the Interior and Administration, the City of Katowice, Silesian voivode
- **Amount of co-financing by NFEP&WM:** subsidy in the amount of approx. 229 million PLN



Photo: cop24.gov.pl

- **Project name:** Programme for Municipal Waste Management in Cracow
- **Beneficiary:** Krakowski Holding Komunalny SA w Krakowie
- **Investment value:** almost 819 million PLN
- **Amount of co-financing by NFEP&WM:** subsidy from the OPI&E 2007–2013 – almost 372 million PLN



Photo: press materials of HKH SA

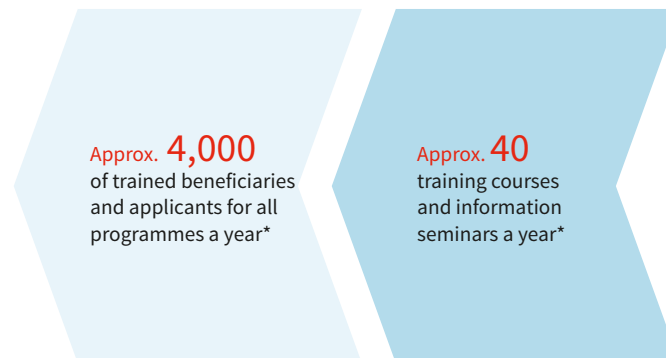
External relations of the NFEP&WM



Fig.54. Training for the beneficiaries of the OPI&E 2014–2020 in the NFEP&WM headquarters (2016), photo by the NFEP&WM

TRAINING FOR BENEFICIARIES AND APPLICANTS

The National Fund has been providing support, including financial assistance, for its beneficiaries and applicants nearly since the beginning of its existence. Special training cycles regarding projects financed by both domestic and the EU funds are organised before the calls for applications and during the implementation phase of projects. Courses provided during the first stage of projects are designed to assist the process of application preparation, provide information regarding the IT systems as well as the timetables, rules of the calls for applications and formal and practical requirements. During the implementation stage of projects, the beneficiaries receive useful support, from training courses, e-mail and phone consultations through to personal assistance of the contract coordinators. Experts and the NFEP&WM employees providing information in relation to projects are made available to beneficiaries during the training sessions, also on a one to one basis. This information and advice provided by the specialists include environmental protec-



* for the years 2014–2018

tion, finance, project claims, costs eligibility, public procurement, control measures, IT systems, communication and promotion.

FUNCTIONAL ACTIVITIES OF THE NFEP&WM

The National Fund for Environmental Protection and Water Management has been sponsoring and actively participating in various events regarding environmental protection and water management since its foundation.

For over twenty years the National Fund has been both a member and a crucial partner of the International Environmental Trade Fair “POL-ECO SYSTEM” – the largest exhibition of this kind in Poland and Central and Eastern Europe. Since 2017 this event is accompanied by “Eco-Sphere” organised by the Ministry of Environment, the National Fund for Environmental Protection and Water Management and Bank Ochrony Środowiska. Participant of this event have an opportunity to get acquainted with the trends forming the future of the environmental protection

sector during numerous training sessions, lectures and debates.

The National Fund also participates in one of the most prominent ecological events in Poland – the Nationwide Economic Summit in Siedlce. This conference is attended by political, economic, scientific and business leaders of the Polish state. The National Fund actively engages in the debates related to the protection of the Polish economy against risks deriving from the investment uncertainty, international circumstances, security (economic, energy and financial) and from the infrastructural and innovative potential.

For more than 25 years, the National Fund participates in the International Exhibition of Machinery and Equipment for Waterworks and Sewage Systems WOD-KAN in Bydgoszcz organised by the Chamber of Commerce “Polish Waterworks”. This is the most significant event dedicated to the water and sewage industry in Poland and one of the major exhibitions of this kind in Europe. Every year 400 exhibitors and 10 thousand visitors, mostly experts from the sector, including technical managers, designers, installers, operators, engineers and directors join in. This is a great opportunity to establish vital business connections with Polish and international partners. Due to its

long-standing tradition this exhibition became a professional platform for experts allowing participants to learn the latest technologies including those related to systems and devices for water purification, systems and devices for sewage treatment as well as machinery and equipment used for building, repairs and maintenance of the water and sewage networks.

Over the last several years the National Fund has been attending an annual international seminar in Krynica Zdrój where representatives of the business and political circles from the region of Central and Eastern Europe meet (Economic Forum). This event is organised by the Foundation Institute for Eastern Studies. This Economic Forum has expanded significantly since 1992 when only 100 participants attended this little conference, mainly from Poland. Today, this is the largest and most famous meeting of the financial and political world in Central and Eastern Europe. For a number of years important statements related to the economic policy are made in Krynica and opinions expressed there are quoted by international media and discussed by experts.

We also participate in Congress 590 – one of the most significant economic events in Poland – for the last three years. It is organised in Jasionka near Rzeszów and provides a space for actions that benefit economic development based on the growing importance of the Polish capital. Congress 590 became a forum for the exchange of thoughts, opinions and experiences of Polish entrepreneurs, managers, politicians, scientists and economic experts.



Fig.55. A debate with the presence of (on the right) Kazimierz Kujda, the President of the NFEP&WM, Henryk Kowalczyk, the Minister of Environment and Krzysztof Tchorzewski, the Minister of Energy during POL-ECO SYSTEM 2018, photo by the NFEP&WM

EKOSFERA – THE NFEP&WM AND MINISTRY FOR THE ENVIRONMENT INITIATIVE DURING THE MOST IMPORTANT TRADE FAIR FOR ENVIRONMENTAL PROTECTION POL-ECO SYSTEM

For the last two years the National Fund for Environmental Protection and Water Management, along with the Ministry of Environment, has been the key partner of the International Trade Fair for Environmental Protection POL-ECOSYSTEM in Poznań. In accordance with an initiative of the NFEP&WM, the event organiser designates a special platform for conference and exhibition purposes called “EkoSfera” where the launch of the fair is celebrated. This is also a place of all events involving the Ministry of Environment, the NFEP&WM, voivodeship funds, research and development institutes and other entities subordinated to the Ministry of Environment as well as chambers of commerce and other cooperating individuals, institutions and organisations.

EkoSfera provides a platform for the presentation of institutions of the environmental protection. The main message of the last year’s events organised in both *EkoSfera* and the entire trade fair was the following motto: *CLEAN AIR – out of concern for health, climate and the environment*. Stands, exhibitions and displays are presented in *EkoSfera* and it offers a wide spectrum of events. These events include the following: from contests and educational games, through thematic exhibitions (e.g. geology, forestry, electromobility) to professional seminars and thematic debates.

There is a number of regular events in *EkoSfera* organised by the NFEP&WM. They include: a training and information day for the National Fund’s applicants and beneficiaries, a press conference combined with the presentation of the results of the *Eco Journalist* competition, meeting of the Supervisory Board, meetings with foreign partners – individuals and institutions, a meeting with the Convention of the Presidents of the Management Boards of the

VFEP&WMs, and other events engaging experts engaged in the energy advisory project.

There were two remarkable events during the 30th POL-ECO SYSTEM trade fair last year: a panel debate entitled *Environmental issues facing the implementation of the strategy* for responsible development as a part of the opening ceremony and a meeting of the Youth Climate Congress (YCC) organised by the Poznań VFEP&WM and the NFEP&WM as a partner. Pietro Parolin, the Secretary of the State of Vatican, delivered a message to the participants of the youth congress on behalf of His Holiness Pope Francis. An exhibition entitled “25 years of voivodeship funds for environmental protection and water management” received a great deal of attention.

EkoSfera attracts well over one thousand visitors, including members of the political and socio-economic circles who come to have conversations, receive information, consultation or conduct interviews. New business acquaintances result in successful relations and projects. Journalists have an opportunity to submit information regarding the events and discussed issues as well as bring aspects of clean air, ecology and sustainable development closer to the general public – in the context of governmental *Strategy for Responsible Development*.

This idea worked out! It is going to be continued, developed and improved in the coming years.

AWARDS AND DISTINCTIONS FOR THE NFEP&WM

The National Fund for Environmental Protection and Water Management is undoubtedly the largest institution providing funding for ecological operations in Poland. It has been repeatedly awarded for its noble operations over the last 30 years of existence. Efforts made by the employees are noted and appreciated



Fig. 56. Prizes and awards for the NFEP&WM, photo by the NFEP&WM

not only by the representatives of the industry and national and local governments but also by other entities, including beneficiaries, scientific communities, associations and non-governmental organisations.

This milestone birthday of the National Fund offers a good moment to recall some of the awards, distinctions, diplomas, certificates, medals and statues filling the cabinets. It would be impossible to name all of them and therefore we are going to present only those received in the last few years.

The longstanding operations of the National Fund are widely appreciated in the ecology circles involving opinion-shaping institutions and media. The **prize from the Abrys Company** was an example of a recognition for promoting the best practice in regards to environmental protection and municipal economy in Poland. This prize was received during the International Congress of Environmental Protection ENVICON Environment 2018 in Warsaw where a Poznań editor of ecological magazines was also celebrating his 30th anniversary. “**An amber of Polish Economy 2017**” was yet another acknowledgement of the operation of the National Fund. This prize was received during the third edition of the Nationwide Economic Summit in Siedlce by the NFEP&WM President Kazimierz Kujda. This prestigious award was granted in recognition for coherent and efficient operations supporting the projects related to the Polish system of financing environmental protection and water management and implemented by local authorities, private companies, public entities and community organisations. The title of “**A Patron of Ecological Education – Promoter of Sustainable Development 2017**” from the editors of the Ekorynek.com website is also worth noting. It was awarded in acknowledgement of the significant role in terms of supporting educational actions for sustainable development and protection of the natural environment. It is a special award in the EKO INSPIRACJA 2017 competition. Furthermore, and this might not be a common knowledge, over the period of 2003–2016 the NFEP&WM has received “**ACANTHUS AUREUS**” (golden acanthus) more than a dozen of consecutive times. This is a prize awarded by the International Trade Fair in Poznań to exhibitors participating in the annual POL-ECO SYSTEM trade fair who show the best reflection of their marketing strategy in their exhibitions. The National Fund also won the “**MAPLE 2004**” award for remarkable achievements in the fields of economy and ecology accomplished in cooperation with the Bank Ochrony Środowiska.

The efforts of the National Fund employees do not remain unnoticed by the government and local authorities. It is demonstrated in many ways including the title of “**#ekoPARTNER 2017 in Malopolskie Voivodeship**” in the “ekoLEADERS 2017” competition for those institutions that contributed in an exceptional way to the improvement of natural environment in the Malopolska

region. Another example of an acknowledgement for the leader of financing of environmental protection in Poland is a prize in the **“Good practice in strategic management of development in Poland”** contest in 2012. This award was granted for consistent attempts to integrate the tasks related to the management of the development policy by the Ministry of Regional Development.

Trophies gained by the National Fund are also received from beneficiaries, scientific circles, associations and non-governmental organisations. Some of them that deserve to be mentioned are the **“Institution of the year 2018”** title awarded during the “PROEnergO” science conference of the Częstochowa University of Technology and **“Institution of the year 2016”** granted by the Environmental Support Centre Foundation for promotion of renewable energy sources. A statuette and a certificate for popularising of the renewable energy sources was received by Artur Michalski, the Deputy President of the the NFEP&WM during the Poznań POL-ECO SYSTEM trade fair in 2017. In the same year, the National Fund for Environmental Protection was honoured by the **“Distinction from Azoty Group”**, a commemorative medal during the celebrations of the 90th anniversary of the Azoty Group in Tarnów. This time the prize was collected by Dominik Bąk, the Deputy President. In addition, the employees of the National Fund were granted the following awards: an occasional award **“Together for the Environment”** (2016) from the UNEP/GRID Warsaw Centre for their long-standing and fruitful cooperation for the benefit of the Polish natural environment, a title **“A True Friend of Children”** (2010) from the “Silesian Town” Foundation and the **“Eco Friendship 2010”** prize from the Ekonatura Association granted to institutions promoting ecological education and environmental protection. The NFEP&WM is also in possession of the **“Friend of European Bison”** title (2004) for the long-standing substantial financial support for actions related to the breeding centres of European bison in the Białowieża Forest.

The long list of awards and distinctions of the NFEP&WM is complemented by, among other prizes: **“Green Office Certificate”** (2014) granted to institutions, private businesses, non-governmental organisations and local authorities willing to constantly improve, undertake new initiatives regarding environmental protection and reinforce their ecological image; **“Quality of the Year 2014”** certificate for funding operations in regards to environmental protection and water management.; **“Best Practice Certificate (EPSA) 2011”** for the programme of 45% co-funding of partial repayments of bank loans spent on purchasing and installing of solar panels.

All these awards might seem to be unimportant and temporary, however, they are a nice touch in the daily well performed work and they prove that the efforts are meaningful and noticed outside of the institution.



Fig.57. President of the NFEP&WM Kazimierz Kujda during the POWERPOL Conference, 2019, photo by the NWEF&WM



Fig.58. Deputy President of the NFEP&WM Artur Michalski during the Nationwide Economic Summit in Siedlce, 2017, photo by the NWEF&WM

HONORARY PATRONAGE OF THE NFEP&WM

The National Fund for Environmental Protection and Water Management has been providing honorary patronage over the most significant events and undertakings regarding environmental protection and water management both in Poland and internationally for nearly a quarter of a century. The NFEP&WM receives more than a hundred of applications every year. Although the current regulations regarding applications were only introduced in 2014, the National Fund had supported numerous important events before that, even at the end of the 20th century. These included the patronages over the following events: International Trade Fair POL-ECO, Recycling Cup Contest and POWERPOL. The honorary patronage of the NFEP&WM is a distinction and an indication of a high substantive level and the experts of the National Fund often participate in debates and presentations taking place during these events.

PUBLICATIONS OF THE NFEP&WM

Selection of informational and special publications of the NFEP&WM

In its 30 years of existence the NFEP&WM has published numerous materials written by experts, which are a valuable source of information on financing programmes, ecological phenomena, and natural environment. Below we present those published in the last several years – from the newest to the archival ones.



The Fund for the Environment – quarterly of the NFEP&WM

Published since 2017 periodical of the National Fund presenting information on current actions of the NFEP&WM and the most important ecological topics.



Let us take care of our future and the future of our children

Published in 2018 general folder presenting in a synthetic form the profile of the National Fund's activities, including forms and areas of financing.



LIFE and climate change mitigation
Published in 2015 by the NFEP&WM as a National LIFE Contact Point, this notebook written in Polish concerns projects related to climate change mitigation co-financed from the LIFE Programme.



Energy Advice Project

A folder (2015) informing about the “Nationwide system of advisory support for the public and housing sectors and enterprises in terms of energy efficiency and RES”, which is a project completed by the National Fund and its partners in 16 regions across the country.



OPI&E2014–2020. Smaller emissions – cleaner environment – better climate

A folder published in the autumn of 2015, prior to the announcement of the first calls for proposals, containing basic information on the role of the NFEP&WM in the implementation of the I and II priorities of the Operational Programme Infrastructure and Environment 2014–2020.



E-CUMULATOR – Ecological Accumulator for the Industry

Informational leaflet about a priority programme: “Support of undertakings in the scope of the low-carbon and resource-efficient economy, Part 1) E-KUMULATOR – Ecological Accumulator for Industry”, the goal of which is a reduction of negative environmental impact of the industry.



Guidebook for the beneficiary (2014). Local governments

Compiled in 2014 “Guidebook for the beneficiary” in a version aimed at local governments, which describes step by step how to apply for co-financing from the National Fund.



Guidebook for the beneficiary (2014). Companies

Compiled in 2014 “Guidebook for the beneficiary” in a version aimed at companies, which describes the course of action-when applying for co-financing from the National Fund.



Green Investment Scheme – GIS (2014)

A folder published in 2014 in the cooperation with the Ministry of Environment for the CARBON EXPO 2014 trade fair. It contains information on the Green Investment Scheme, in which the National Fund as the National GIS Operator offers money for projects’ co-financing.



The system of environmental protection financing in Poland

The publication entitled “The system of environmental protection financing in Poland” was prepared in an electronic form for the COP 19 in Warsaw. This synthetic study presenting the Polish system of environmental protection and water management financing was received by all attendees of the climate conference.



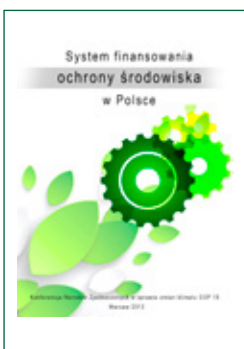
Grants with success- the Norwegian and EEA funds

This publication contains a summary of the implementation of the first edition of the Financial Mechanisms (the EEA FM and NFM) in environmental protection as well as a presentation of some of the projects which contributed to the increase of the quality of life in various parts of Poland.



GIS green projects – presentation of good practices (2013)

The folder presents examples of good practice in completion of investments supported by the GIS (Green Investment Scheme) system.



Distributed generation in modern energy policy

A publication from 2012, concerning issues of energy and environment. It is one of the products of the “Energy – Effect –Environment” forum, which the NFEP&WM has led for several years.



Public aid in environmental protection

Published in 2012 the handbook entitled “Public aid in environmental protection” was created on the basis of experiences of members of the Public Aid Team, collected during the process of evaluation of the applications sent to the NFEP&WM. Its goal is to explain the complicated issues of public aid, especially in those areas in which NFEP&WM offers its support to the applicants.



Euro-grants for the protection of Earth

The final issue in the series of a five-notebook series published in 2011–2012, presenting selected OPI&E 2007–2013 projects coordinated by the NFEP&WM. The notebook entitled “Euro-grants for the protection of Earth” contains a presentation of 15 selected projects, completed under the OP&IE’s priority II:



Waste management and the protection of Earth surface.

Environmental resources under good protection
Continuation of the series of publications presenting selected OPI&E 2007–2013 projects coordinated by the NFEP&WM. The notebook entitled “Environmental resources under good protection” contains a presentation of 17 projects completed under the OP&IE’s priority III.



Profit in energy. Effect in the environment

Continuation of the series of publications presenting selected projects under each of the OP&IE priorities, in which the NFEP&WM is the Implementing Body. The publication entitled “Profit in energy. Effect in the environment” describes 25 selected projects completed under the OP&IE’s priority axis IX.



Water and sewage management

Published in 2011, “Water and sewage management” presents 24 selected projects completed under the priority axis I of the Operational Programme Infrastructure and Environment. This richly illustrated publication was created in cooperation with beneficiaries.



Green grants for companies

Presentation of 20 selected projects, which were co-financed from the funds of the European Union and the NFEP&WM within the priority IV of the Operational Programme Infrastructure and Environment. Proof for the “greening” of the Polish industry.



Solar energy with grants

A description of the NFEP&WM programme for co-funding of partial repayments of bank loans spent on purchase and installation of complete sets of solar collectors started in the middle of 2010.



The NFEP&WM for energy efficiency

An updated (July 2010) version of a publication presented at the meeting of the Standing Committee of the Council of Ministers on March 10, 2010 as well as at the “Poland’s climate and energy policy – challenges, implementation, our voice in Europe” conference attended by the Deputy Prime Minister Waldemar Pawlak, the Minister of Environment Andrzej Kraszewski and the President of the NFEP&WM Management Board Jan Rączka.



Good practice in eco-development

A publication compiled in September 2010 in cooperation with all the voivodeship funds for environmental protection and water management. It presents the effects of the environmental protection financing system in Poland. A catalogue of several dozen undertakings chosen as examples of good practices in the policy and the practice of eco-development.



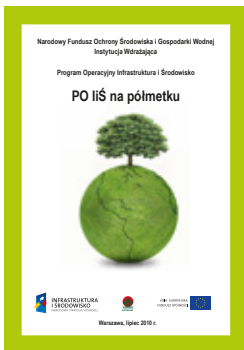
The role of the NFEP&WM in implementing the LIFE Fund

We present the LIFE+ Fund, the only financial instrument of the European Union focused solely on co-financing of projects concerning environmental protection. Since 2008 the National Fund for Environment Protection and Water Management has been the Implementing Institution of LIFE+ and plays the role of the National Contact Point of LIFE+.



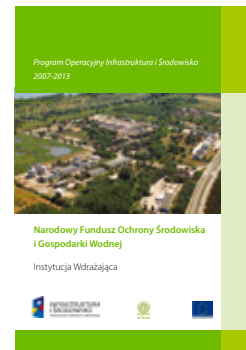
The role of the NFEP&WM in managing OPI&E 2007–2013

Basic information concerning the European Union's largest operational programme for the years 2007–2013 – Infrastructure and Environment. The National Fund, along with the voivodeship funds for environmental protection, in the implementing institution of the OP&IE for several priorities concerning environmental protection, water management, resource management and energy efficiency.



OPI&E 2007–2013 at its halfway point

This publication from July 2010 presents several dozen projects completed with the European Union's co-financing from the Cohesion Fund and the European Regional Development Fund under five priorities of the Operational Programme Infrastructure and Environment, implemented by the National Fund as well as a catalogue of good practice co-financed from the funds of the NFEP&WM.



Let us be pro-ecological

Educational leaflets published in 2010, promoting pro-ecological behaviours: “Each drop of water” – about saving water resources, “Be eco... and save” – about everyday eco-friendly behaviour and “Simple advice about waste”.

THE NFEP&WM'S LOGO – HISTORY AND MEANING

According to the description attached to the application filed in November 2007 with the Polish Patent Office, *the basis for the logotype [of the National Fund] are wavy green lines symbolising water surface, which then become vertical graphic elements symbolising trees – a forest. Green elements are placed on a red round background, which symbolises the Sun setting behind the water surface.* These symbolic themes present in the logo identifying the National Fund are universal and have accompanied us constantly for almost 30 years.

The patent for the logo described above permits for the current appearance of the graphic symbol. And it was created during a heated discussion, attended among others by Lesław Puczniewski (the first President of the National Fund and later its Deputy President in the years 1989–1993). The first drawing of the sunset over trees reflected in river waters was created by Andrzej Netzel. At the beginning the colours were a direct

Current logo



Archival logos



Fig. 59. Evolution of the NFEP&WM's logo

reference to those found in nature: the sun was orange, the trees were green and the water was blue. In the following years the logo underwent minor modifications, which consistently led to its simplification, but retained the symbolism. At the beginning of the 21st century the logo had already two colours: the Sun was red and the other elements were green. In 2009, during the National Fund's 20th anniversary, black and white versions were created, as well as those featuring the "NFOSiGW" acronym. In 2015 a professional book concerning the NFEP&WM visual identification was created, in which the final shape of the logotype – which is a combination of the logo and the National Fund's name – was described. In the book three basic versions of the sign were created: one with the full name on the right, another with the full name under the sign, and third with the acronym under the sign. Today we also use a version with the English name and the logotype with a writing reading „Co-financed from..." or "Financed from...", which were created the beneficiaries.

The logotype created for the 30th anniversary is a consistent continuation of this graphic line. The National Fund's logo is an element of our institution's identity and an integral symbol of our goals, according to the motto: *Let us all invest in the environment.*

We appreciate ecojournalists

In order to award certain publications and to honour journalists who popularise the National Fund's activities, accomplishments and achievements in ecology in the media, a nationwide competition called Eco Journalist was created in 2017.

The prize pool of the competition is 15 thousand PLN. Submitted articles should concern environmental protection and reference to the role of the NFEP&WM. The judges who pick the winners take into account: compliance with the topic, the idea, the message, and the goals of the competition, uniqueness of the journalistic material, aesthetic qualities and the authors' investment in collecting, verifying and processing of the information used in the material.

The contest had already two editions – in 2017 and 2018. It was met with significant interest. In total, over 200 works were submitted. For 2019 an additional category is planned, which will concern publications summarising 30 years of our institution's activity. The journalists awarded by the National Fund in the first two editions represented the Polish Press Agency, Polish Radio Program 1, trade journals "Środowisko" and "Wodociągi-Kanalizacja" as well as Portal Komunalny, teraz-srodowisko.pl and gramwzielone.pl.

Fund for the Environment Protection

Information and promotion activities are also done by the National Fund for the Environment Protection and Water Management in the quarterly "Fundusz dla Środowiska" ("The Fund for the Environment") and in the social media, which facilitate passing the knowledge concerning our institution to the outside world.

Eight issues of the "Fundusz dla Środowiska" were published, even though during the daily duties no one had the time to think about topics, and even less time to write, edit and typeset the paper. Today it is one of our organisation's reasons for pride. Why? Because today "Fundusz dla Środowiska" is full of articles documenting the activities of the NFEP&WM. We write about current job offers. We report trade events in which representatives of the National Fund participate. We talk about ecology with celebrities. We announce econews and ecofuture. We write the National Fund's history. We remind about what is happening in the press and in the changing law. And these are still not all of the regular segments found in the 44-page-long magazine.



The National Fund online

In the era of rapid development of the Internet and social media, the NFEP&WM has its website www.nfosigw.gov.pl. In 2017, it created accounts in social media as well: on Twitter in May and on Facebook in June.

Statistics for the years 2016–2018 show that the website is visited by approximately 530 thousand people per year, which translates to over 1450 people daily on average. The newest data for December 2018 shows that on Twitter we have over 1100 tweets and 931 followers. The average number of views of our tweets is 15 thousand per month. The NFEP&WM Facebook account is filled with over 550 posts, which are followed by 780 people. We try to increase these effects every day.

When talking about informational and promotional activities, the National Fund has an Instagram account as well (since May 2017), where it publishes mainly educational materials.

To communicate with the environment

Media relations involve not only editing and sending out press releases, initiating publications or answering questions whenever they may raise. It is above all a need for careful listening, reacting to needs and creating methods, which will benefit both journalists and our institution. Because it has to be remembered that without journalists communication with the environment is –difficult. This belief accompanies the team of the NFEP&WM’s spokesmen in their work.

SOCIAL ACTIVITIES OF THE NFEP&WM

Helping is a part of daily tasks of the National Fund’s employees. A significant number of them participate in various aid actions, as well as organise them themselves.

The action “People to people” – the NFEP&WM’s employees for victims of storms and pre-Christmas collections for the poor showed that people working for the NFEP&WM have good hearts. These actions were also a part of the National Fund’s strategy concerning corporate social responsibility (CSR).

Moreover, the NFEP&WM’s employees always respond to the appeals of their colleagues or their families who face illness or personal tragedies.

Tradition and memory

For the people, for the country, for the environment – the NFEP&WM in free Poland

In order to commemorate the 100th anniversary of Poland regaining its independence, the NFEP&WM presented in a special publication the evolution of modern law concerning environment protection in our country, as well as the role the National Fund plays in financing Poland’s eco-development. The publication reminds that Polish people showed an extraordinary determination in rebuilding their country, remembering about environmental protection and natural resources preservation, as well as shaping an ecological policy of the reborn country and a law system in this area.

Mentions of environment protection can be found in documents as early as dating back to the first Polish king, Bolesław I the Brave. In the following centuries it was gradually developed by Bolesław’s successors. The time of the industrial revolution of the 19th century, which had a tremendous effect on the national environment, was a time of the partitions of Poland, but it did not stop Polish people from laying the foundations – even though they did it differently in each partition – for the modern approach to caring for nature.

This was expressed during the interwar period (1918–1939) by the “green patriotism” motto. Starting to rebuild their country after 123 years of partitions, Polish people were aware that a good condition of the country’s natural environment is as important as freedom and independence. This is why the idea that “good patriot is a green patriot” was stressed since the very first years of independent Poland, and it became the theme for many concrete proecological legal, political, scholarly, social and organisational actions.

In this anniversary publication, the NFEP&WM wants to draw attention to the need to uphold this ecological tradition and to motivate Polish people to an even greater participation in activities regarding protection of the environment, which are one of the most important proofs of patriotism in the modern world.

100 thousand trees for the 100th anniversary of Polish independence 1918–2018

Almost 100 thousand tree saplings were given by the National Fund for the Environment Protection and Water Management as well as by the voivodeship funds to the citizens of Warsaw and about a dozen other cities on September 9, 2018. The patriotic and ecological action “100 thousand trees for the 100th anniversary of Polish independence 1918–2018” was met with considerable interest. In order to receive an anniversary sapling with a special certificate, a person needed to simply bring recyclable waste to a specific place: plastic PET bottles, aluminium cans or waste batteries.

This ecological celebration of independence was nationwide. The action was organised under the honorary auspices of the Prime Minister Mateusz Morawiecki and included in the series of official events signed with the “Niepodległa” (“Independent”) logotype. The official inauguration of the action –planting of the first tree, an oak, which symbolises longevity and dignity – took place in Warsaw in front of the NFEP&WM headquarters, during a press briefing attended by the Undersecretary of State in the Ministry of Environment Sławomir Mazurek, President of the Management Board of the Bank Ochrony Środowiska Bogusław Białowąs and the hosts of the event: the then President of the NFEP&WM Management Board Kazimierz Kujda and his two deputies – Anna Król and Dominik Bąk.

This nationwide action had a dual goal: celebration of the 100 years of Polish independence in this particular manner while drawing the attention of the Polish people to the need for constant care for the natural environment. Through this widespread action of planting trees the NFEP&WM and the regional funds stressed that every person’s actions for the natural environment matter and produce measurable ecological benefits at the same time.

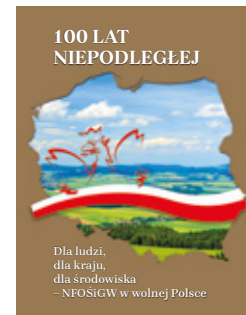


Fig. 60. The NFEP&WM jubilee brochure on the 100th anniversary of Poland regaining independence, 2018.



OBJECTIVES AND PLANS OF THE NFEP&WM ACTIVITIES FOR THE UPCOMING YEARS

The objectives of the National Fund are defined in the *National Fund for Environmental Protection and Water Management's Action Strategy for the years 2017–2020*, which was adopted by the NFEP&WM Supervisory Board in 2016. This document defines both the basic objectives of activities and main directions of financing of investments and ecological projects by the NFEP&WM.

In the ending perspective (both for the Action Strategy and European Union's programming), the financing of the pro-ecological projects by the NFEP&WM is defined in two essential documents. The first one is *Detailed description of the priority axes of the OPI&E 2014–2020* – in the scope of measures and submeasures of priority axes I and II for which the NFEP&WM is the Implementing Institution (II). In this scope, the National Fund concluded appropriate agreements with the Minister of Energy (priority axis I: Low-carbon economy) and the Minister of Environment (priority axis II: Environmental protection, including adaptation to climate change). The second document is the continuously updated List of priority programmes of the National Fund for Environmental Protection and Water Management.

The mission of the NFEP&WM, defined as “effective and efficient support of environmental activities, with particular reference to activities absorbing foreign resources, operated by the National Fund”, is fulfilled by achieving the following objectives:

- Achievement of environmental objectives in a manner ensuring full utilisation of foreign funds in the scope of priorities operated by the National Fund,
- Effective and efficient involvement of the National Fund's resources for the achievement of environmental objectives and priorities,
- Organisational development focused on maintaining the National Fund's leading role in the system of environmental protection financing.

The NFEP&WM is and will be completing undertakings in the following main areas: adaptation to climate and water management change, protection of the air, protection of waters, geology,

mine sites, the circular economy (including waste management) and biological diversity.

Since 2018, the NFEP&WM has been introducing a new practice that is driven by the enactment of actions resulting from prepared or still being prepared governmental documents:

- Strategy for Responsible Development
- State Ecological Policy until 2030
- Energy Policy of Poland until 2040
- National Energy and Climate Plan for the years 2021–2030.

The priority activities for the next decade are described below.

Implementing the Clean Air Programme

The Clean Air priority programme is a nationwide and common project (completed through the VFEP&WMS) of comprehensive thermo-modernisation, replacement of heat sources and development of distributed and renewable energy sources in detached housing. By 2019, it will have included 3.5–4 million beneficiaries. By the end of 2019, the programme will be modified by increasing the channels of financial resource distribution and broadening cooperation with local governments and the banking sector in this area. There is a big chance that as a result of the Clean Air programme's completion (combined with other activities, such as, for example, extending of the system heat network and implementing RES, including geothermal heat development and reduction of transport emissions), the problem of smog will be mitigated in Poland over the next decade. The improvement of air quality alone will have a positive impact on the residents' quality of lives and their health. The Clean Air programme involves tax allowances for individual beneficiaries that significantly increases its attractiveness. The effects of the programme will also include ensuring warmer and cheaper to operate detached housing. Moreover, the programme will contribute considerably to limiting the negative phenomenon of energy poverty.

Prime Minister Mateusz Morawiecki has emphasized that good

air quality and easement of energy poverty is a crucial civilisational challenge for our country.

The quality of air also will be improved through the following activities:

- Participation, as a shareholder (along with the BOS SA) of *Polskie Domy Drewniane* (Polish Wooden Houses) company, in the initiative of promoting wooden construction, which is being completed in accordance with the relevant act. This initiative is a new form of the NFEP&WM sponsored activity (2019). In the area of the construction sector, the National Fund will be also establishing its own programmes aiming at reducing energy consumption in the sector, including providing for thermo-modernisation of historic objects and ensuring public utility buildings meet low emission standards.
- Continuation and development of operations within the nationwide system of advisory support for the public and private housing sectors and enterprises in terms of energy efficiency and RES. This system also provides support for the low-carbon economy and for popularising knowledge and good practice in these areas among units of local governments and local society. Moreover, it serves to promote National Fund's activities for clean energy and pro-ecological changes in the area of energy.

The NFEP&WM activities for energy transformation

Energy transformation is an important challenge that Poland must overcome in the upcoming years. The NFEP&WM will participate in this challenge by establishing and completing tasks in the following areas: improving energy efficiency and enhancing energy saving, developing individual renewable energy sources (so-called prosumerism), boosting the energy self-sufficiency of gminas by ensuring full utilization of the local energy potential and energy storage potential, supporting the development of energy cooperatives and energy clusters, developing district heating networks (mainly at the poviats level) and bringing about full utilisation of geothermal resources. The aforementioned will be achieved through the NFEP&WM priority programmes. Some of the mentioned measures have already been implemented and those that are being prepared and developed, particularly the *Energy Plus* and *Polish Geothermal Energy Plus* are in their initial stages. The programmes offered by the NFEP&WM will contribute to sustainable utilisation of resources, improvement of air quality and limitation of energy poverty.

An example of such activities is the priority programme *My electricity*, launched in 2019, which is, so far, a unique instrument in Poland dedicated to the development of prosumer energy – photovoltaics. Within the call for proposals in 2019 (next calls are planned in the future) about 200 thousand people will benefit

from co-financing. It will allow installing photovoltaic panels with maximum power of 1,000 MW.

Today, over 85% of all heating systems in Poland are inefficient and over 75% of all heat is produced from mineral fuels. The project being prepared is aimed at increasing the degree of RES utilisation in the heating sector, as well as developing effective heating systems, i.e. such systems in which the energy used for the production of heat or cooling comes at least 50% from renewable sources or at least 50% from waste heat or at least 75% from co-generation or 50% from a combination of such energy and conventional heating. The beneficiaries should put into operation two sources of renewable energy (including one tailored to the weather changes) and a heat storage.

The objective of the pilot project *Powiat heating systems* is reducing the negative environmental impact of small and medium district heating companies (managed by local governments), including the improvement of air quality, through supporting investments undertakings. Within the project, the undertakings in the heating sector are to result in the reduction of primary raw materials consumption, the limiting or elimination of pollutant emissions to the atmosphere, the rationalization of electricity and conventional heat consumption, construction of new heat sources (including sources using geothermal and waste energy). Modernisation and extension of heating networks will be also supported.

The NFEP&WM will be supporting, as the operator of the Low-Carbon Transport Fund and from its own funds, electromobility and the development of transport means based on alternative energy sources, as well as the production of fuels, infrastructure and education in this area.

Sustainable waste management and implementation of circular economy

Waste management issues are a serious and growing civilisation challenge. This comes about by the increase of demand for consumer goods resulting from the improvement of life conditions and by technological and industrial progress.

In the nearest future, the NFEP&WM will be initiating (after pilot programme assessment) projects in the scope of the circular economy. It should be emphasised here that these projects will be enacted in all sectors of pro-environmental activity, such as, energy production in sewage treatment plants using sewage gas emissions and end products. Within the *Rational waste management* programme, we will promote (educational activities) and carry-out activity in accordance with the hierarchy of waste management. What is more, the priority programme *Removal of abandoned waste*, resumed in 2019, will contribute to cleaning up rural areas and rehabilitating post-industrial areas.

The NFEP&WM projects in rural areas

Until recently, this area of the NFEP&WM sponsored activities has been less promoted. However, since 2019, the National Fund has, in its palette, new programmes addressed to people living in rural areas. Here, the following programmes should be mentioned: *Nationwide programme for removal of agricultural foils and other waste from agricultural activities*, *Nationwide programme for environmental rehabilitation of soils by their liming*, *Nationwide programme for financing the removal of products containing asbestos*, *Removal of abandoned waste*. Included among these endeavours is the *Agroenergy* programme, which will be conducive to energy transformation in rural areas. These projects will be continued and gradually developed.

Implementation of innovative projects and technologies in the environmental protection

There is still much to be done in the sphere of innovativeness within Poland's economy. The NFEP&WM intends to consistently support innovative projects and activities. Therefore, applications that utilize modern techniques and technologies will be promoted in the qualification process. Furthermore, the National Fund will be supporting, within its own priority programmes, innovative environmental technologies aiming at reducing the impact of industry on the environment and at promoting green technologies, including technologies conducive to energy saving and resource saving. The stress is to be put on advancing sustainable energy, especially by applying technical solutions contributing to the improvement of air quality.

Foreign cooperation – training of energy auditors in Ukraine

Responding to a European Commission proposal, the National Fund has undertaken the task to provide support in training energy auditors in Ukraine. The improvement of energy efficiency of buildings is a very important element of Ukraine's strategy for energy safety. In response to the above challenge, the Energy Efficiency Fund was established in Ukraine. The condition for spending resources from this fund is to present an energy audit conducted by a qualified auditor. At present, Ukraine practically has no such personnel at its disposal, so the NFEP&WM has prepared a proposal of a programme for training the specialists needed. This proposal includes educating about 60 Ukrainians (so-called trainers) in Poland, who would then conduct training sessions in Ukraine with the support of Polish

experts. Simultaneously, the trainers trained in Poland will be carrying-out the audits for the initial projects.

Poland has very extensive experience in conducting such training sessions. Indeed, in the 90's, an efficient effective energy auditing system was created in our country, with the help of Danish experts. Poland, by aiding its neighbour Ukraine in deriving a systemic solution for training energy auditing will enhance its reputation and impact favourably on economic cooperation between Poland and Ukraine. The completion of the project will also indirectly contribute to reducing the emissions of air pollutants from the territory of Ukraine to Poland.

Challenges for the NFEP&WM for the upcoming years in the area of financing:

- Preparing a plan, simplifying implementation, settling procedures and securing own financial resources for establishing Operational Programme Infrastructure and Environment (OPI&E 2021–2027). The challenge lies, in particular, in securing and determining a demarcation line for the tasks of the Clean Air priority programme financed from European Union and domestic funds.
- Preparing and putting into action a procedure, as well as creating an effective financial and settling service for the Low-Carbon Transport Fund.
- Improving modern and uniform mechanisms for supporting and evaluating ecological projects (jointly with the VFEP&WMS).

In addition to ecological issues, environmental protection in Poland has great economic and social importance in the life of the State. Therefore, in setting up subsequent projects and programmes, the National Fund for Environmental Protection and Water Management will qualify them, paying attention not only to ecological effects, but also to their economic effectiveness in their creation of new jobs and in locating them in regions which have endured economic neglect. The well-developed cooperation with voivodeship funding agents for environmental protection and water management, and with local governments will also serve to advance these objectives. After three decades of operation (1989–2019), the National Fund for Environmental Protection and Water Management has adequate experience, qualified personnel, effective procedures and development strategies and the vision to strengthen its position as leader in environmental protection and water management financing in Poland – and to serve, even more comprehensively, to promote and expand the eco-development of the country.

CHAIRMEN OF THE NFEP&WM SUPERVISORY BOARD IN THE YEARS 1989–2019

- †Bronisław Kamiński
- Józef Koziół
- Józef Stanisław Zegar
- Bernard Błaszczyk
- Józef Stanisław Zegar
- Andrzej Walewski
- †Waldemar Michna
- Janina Józwiak
- Dorota Jakuta
- Józef Lubieniecki
- Krzysztof Szamatek
- Krzysztof Panas
- Krzysztof Szamatek
- Andrzej Skowroński
- †Sławomir Skrzypek
- †Tadeusz Żarski
- Stanisław Gawłowski
- Aneta Wilmańska
- Janusz Ostapiuk
- Roman Niznikowski (od 20.11.2015)

MINISTERS OF ENVIRONMENT (PROTECTION)¹ (IN THE YEARS 1983–2018)

1983–1985 Office for Environment Protection and Water Management

- †Stefan Jarzębski (22.11.1983–11.1985)

1985–1989 Ministry for Environment Protection and Natural Resources

- †Stefan Jarzębski (11.1985–23.10.1987)
- †Waldemar Michna (23.10.1987–19.09.1988)
- Józef Koziół (14.10.1988–1.08.1989)
- †Bronisław Kamiński (12.09.1989–20.12.1989)

1989–1999 Ministry for Environment Protection, Natural Resources and Forestry

- †Bronisław Kamiński (20.12.1989–14.12.1990)
- Maciej Nowicki (12.01.1991–5.12.1991)
- †Stefan Kozłowski (23.12.1991–5.06.1992)
- Zygmunt Hortmanowicz (11.07.1992–4.05.1993)
- Bernard Błaszczyk (05.1993–18.10.1993 kierownik resortu)
- Stanisław Żelichowski (26.10.1993–17.10.1997)
- Jan Szyszko (31.10.1997–19.10.1999)

1999–Ministry of Environment

- Antoni Tokarczuk (19.10.1999–19.10.2001)
- Stanisław Żelichowski (19.10.2001–3.03.2003)
- Czesław Śleziak (3.03.2003–2.05.2004)
- Jerzy Swatoń (2.05.2004–25.04.2005)
- Marek Belka (25.04.2005–24.05.2005 p.o. szefa resortu jako Prezes Rady Ministrów)
- Tomasz Podgajniak (24.05.2005–31.10.2005)
- Jan Szyszko (31.10.2005–16.11.2007)
- Maciej Nowicki (16.11.2007–1.02.2010)
- Andrzej Kraszewski (2.02.2010–18.11.2011)
- Marcin Korolec (18.11.2011–27.11.2013)
- Maciej Grabowski (27.11.2013–16.11.2015)
- Jan Szyszko (16.11.2015–9.01.2018)
- Henryk Kowalczyk (od 9.01.2018)

¹ The years 1972–1983 were omitted, when the environment protection was included in the Ministry of Administration, Land Management and Environment Protection. The period of acting as the minister of separated office is given in brackets.

MEMBERS OF THE NFEP&WM MANAGEMENT BOARD IN THE YEARS 1989–2019

Lesław Puczniewski

Vice-President of the Board
acting as President of the Board (until appointment of the
President of the Board) 01.07.1989 – 17.02.1993

†**Tadeusz Pusiak**

Deputy President of the Board 01.07.1989–01.08.1991

†**Bronisław Kamiński**

President of the Board 05.02.1991–13.03.1992

Władysław Jasiński

President of the Board 13.03.1992–17.02.1993

†**Kazimierz Chłopecki**

Deputy President of the Board 01.05.1992–14.12.1992

Jan Rey

Deputy President of the Board 15.12.1992–11.05.1993

Marek Gruchelski

President of the Board 17.02.1993–03.03.1994

Mariusz Popiótek

Deputy President of the Board 05.01.1993–12.07.1994

Jerzy Kędzierski

Deputy President of the Board 10.03.1993–22.12.1997
acting as President of the Board 22.12.1997–09.03.1998
Deputy President of the Board 09.03.1998–25.05.1999

†**Kazimierz Chłopecki**

Deputy President of the Board 01.02.1994–03.03.1994
acting as President of the Board 03.03.1994–20.07.1994
President of the Board 20.07.1994–25.06.1996

Jerzy Kędzierski

acting as President of the Board 26.06.1996–30.09.1996

Józef Zegar

President of the Board 01.10.1996–22.12.1997

Janusz Ostapiuk

Deputy President of the Board 06.05.1994–02.12.1997

Wojciech Bieńkowski

Deputy President of the Board 01.11.1995–30.01.1998

Maria Zajączkowska

President of the Board 09.03.1998–07.07.2002

†**Stawomir Skrzypek**

Deputy President of the Board 27.11.1997–29.03.2000

Lech Płotkowski

Deputy President of the Board 09.03.1998–17.01.2002

Zbigniew Myczkowski

Deputy President of the Board 17.06.1999–27.06.2000

Kazimierz Kujda

Deputy President of the Board 30.02.1998–07.07.2000
acting as President of the Board 07.07.2000–18.08.2000
President of the Board 18.08.2000–26.11.2001

Cezary Starczewski

Deputy President of the Board 01.04.2000–26.11.2001

Wiesław Longota

Deputy President of the Board 18.08.2000–21.11.2001

Zofia Hekiert

Deputy President of the Board 22.11.2000–26.11.2001

Jerzy Witold Pietrewicz

President of the Board 27.11.2001–30.03.2003

Jan Traczyk

Deputy President of the Board 14.12.2001–06.06.2002

Jerzy Małachowski

Deputy President of the Board 17.01.2002–21.11.2005.

Jerzy Swatoń

Deputy President of the Board 14.12.2001–20.03.2003
President of the Board 20.03.2003–02.05.2004
suspension of the function due to election to the function of
the Minister of Environment on 30.06.2004

†**Jan Hawrylewicz**

Deputy President of the Board 17.01.2002–21.03.2005
acting as President of the Board 05.05.2004–21.03.2005
President of the Board 22.03.2005–02.01.2006

Ryszard Ochwat

Deputy President of the Board 07.06.2002–20.03.2003

Jerzy Kędzierski

Deputy President of the Board 20.03.2003–17.01.2006

Janusz Stanisławski

Deputy President of the Board 19.07.2004–08.06.2006

Kazimierz Kujda

Deputy President of the Board 21.11.2005–02.01.2006
acting as President of the Board 02.01.2006–20.10.2006
President of the Board 20.10.2006–21.01.2008

Lech Płotkowski

Deputy President of the Board 21.11.2005–19.10.2006

Oskar Kowalewski

Deputy President of the Board 02.02.2006–19.10.2006

Bernadetta Czarska

Deputy President of the Board 12.06.2006–03.06.2008

Artur Michalski

Deputy President of the Board 25.09.2006–03.01.2008

Jerzy Wolski

Deputy President of the Board 20.10.2006–21.01.2008

Jan Rączka

President of the Board 28.01.2008–31.12.2012

Władysław Jan Majka

Deputy President of the Board 03.01.2008–31.12.2008

Małgorzata Skucha

Deputy President of the Board 21.01.2008–31.12.2012

Jan Wiater

Deputy President of the Board 03.06.2008–31.12.2012

Małgorzata Skucha

President of the Board 01.01.2013–18.12.2015

Jacek Gdański

Deputy President of the Board 01.01.2013–18.12.2015

Barbara Koszułap

Deputy President of the Board 01.01.2013–30.09.2014

Krzysztof Szczepański

Deputy President of the Board 01.01.2013–18.12.2015

Dorota Zawadzka-Stępnik

Deputy President of the Board 01.11.2014–18.12.2015

Kazimierz Kujda

President of the Board 18.12.2015–13.02.2019

Krzysztof Szczepański

Deputy President of the Board 18.12.2015–01.07.2016

Jacek Spyrka

Deputy President of the Board 08.02.2016–23.06.2017

Roman Wójcik

Deputy President of the Board 08.02.2016–30.04.2018

Artur Michalski

Deputy President of the Board od 18.12.2015

Dominik Bąk

Deputy President of the Board od 26.06.2017

Anna Ewa Król

Deputy President of the Board 26.02.2018–17.01.2019

Piotr Woźny

Deputy President of the Board 16.01.2018–17.01.2019

President of the Board from 30.08.2019

Marek Ryszka

Deputy President of the Board from 26.02.2019
acting as President of the Board 26.02.2019–30.08.2019

Anna Mańk

Deputy President of the Board od 26.02.2019

Artur Michalski

Deputy President of the Board od 18.12.2015

Dominik Bąk

Deputy President of the Board od 26.06.2017

CALENDAR OF 30 YEARS OF THE NFEP&WM

1989 (July)

Start of The NFEP&WM activity

1995

Moving The NFEP&WM's headquarters from the Ministry of Environment at Wawelska Street 52/54, to the present headquarters at Konstruktorska Street 3A

1999 (January)

Start of ISPA and PHARE projects implementation (pre-accession aid) by The NFEP&WM.

2009

The National Fund becomes the national operator of the *Green Investment Scheme* by virtue of the Act of 17 July 2009 on the System to Manage the Emissions of Greenhouse Gas and Other Substances

2011

The NFEP&WM, along with the Ministry of Environment, becomes responsible for PL02, PL03 and PL04 programmes of the new perspective of Norwegian and EEA funds for the years 2009–2014. First calls for proposal started in the first half of 2013.

2011

The NFEP&WM awarded Best Practice Certificate EPSA 2011 for the programme of 45% co-financing for partial repayment of bank loans intended for purchase and installation of solar collectors

2013 (December)

The National Fund becomes the National Contact Point for the LIFE programme in EU financial perspective 2014/2020

2014

The National Fund was awarded in the 9th Edition of the Quality of the Year programme, a Quality of the Year certificate in the ecology category for financing activities in the scope of environmental protection and water management.

2014/2015

The NFEP&WM became the implementing institution for OPI&E 2014–2020 in the scope of priority axis I *Low-carbon economy* (measures: 1.1, 1.2, 1.3, 1.5 and 1.6) and all measures of the priority axis II *Environmental protection, including adaptation to climate change*

2016 (May)

The launch of The NFEP&WM's official Twitter account

2016 (September)

Awarded "Together for the Environment" prize from the UNEP/GRID- Warsaw Centre for long-standing and fruitful cooperation for the benefit of Poland's natural environment

2017 (June)

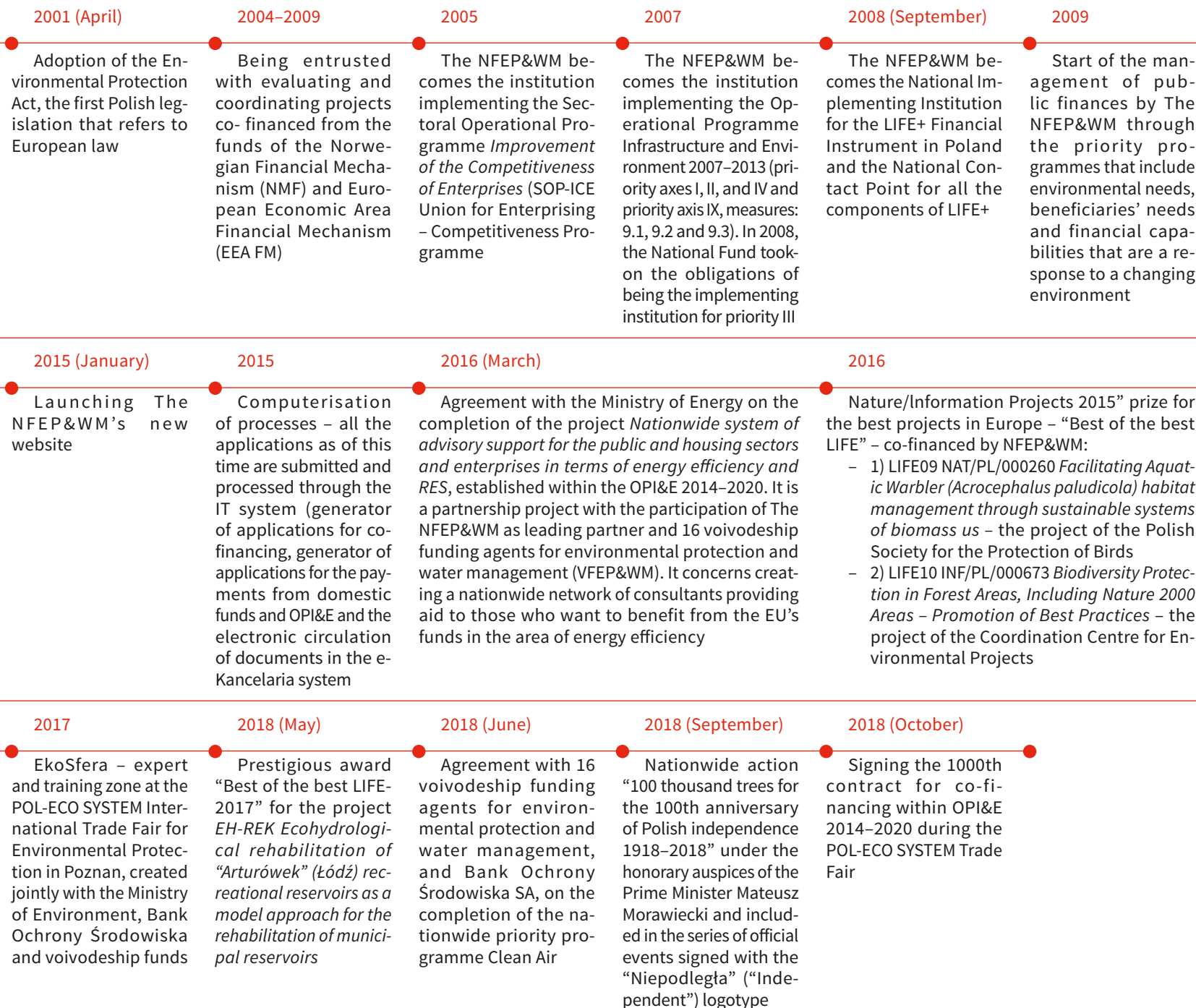
The launch of The NFEP&WM's official Facebook profile

2017 (October)

Awarded by the Environmental Support Centre Foundation for promoting renewable energy sources. Received during the POL-ECO SYSTEM trade fair in Poznan

2017 (October)

"An amber of Polish Economy 2017" prize for Kazimierz Kujda, the President of The NFEP&WM's Management Board. Received during the third edition of the Nationwide Economic Summit in Siedlce for coherent and efficient operations supporting projects related to the Polish system of financing environmental protection and water management, as implemented by local authorities, private companies, public entities and community organisations.



**WINNERS OF THE PHOTO COMPETITION FOR EMPLOYEES
POLAND ECO IN FOCUS ON THE 30TH ANNIVERSARY OF THE NFEP&WM**



Fig. 61. Grand Prix, *Loneliness*, photo by Andrzej Muter



Fig. 62. 4 seasons, *Winter charms*, photo by Janusz Topolski



Fig. 63. 4 elements, *Everywhere water*, photo by Izabela Dobrowolska



Fig. 64. Natural landscape, *Somewhere in the woods*, photo by Dorota Sypień



Fig. 65. Nature and man, *Picturesque cascades*, photo by Anita Wichniarek

TABLE OF CONTENTS

INTRODUCTION

Henryk Kowalczyk – Minister of Environment • 5
Professor, Ph. D. Roman Niżnikowski – Chairman
of the NFEP&WM Supervisory Board • 6
Piotr Woźny – President of the NFEP&WM
Management Board • 8
Environmental protection and its financing
before the NFEP&WM establishment • 9

PART I – HISTORY

30 years for environment • 11

PART II – THE PRESENT

***Managing the National Fund for Environmental
Protection and Water Management • 14***

NFEP&WM Authorities • 14

Mission: environmental protection • 15

Priorities in the NFEP&WM activity • 16

Characteristics of financing by the National Fund for
Environmental Protection and Water Management • 20

The last three years of thirty years of the NFEP&WM • 26

NFEP&WM Involvement • 28

NFEP&WM and NFEP&WM – system of financing
of environmental protection in Poland:
new opening and new projects • 28

Bank Ochrony Środowiska – Polish eco-bank for
people, business and environment • 30

Geotermia Podhalańska – example of successful
involvement of the NFEP&WM as a shareholder • 31

Policy actions • 33

AIR • 33

• Clean Air – the greatest priority
programme of the NFEP&WM • 33

• Ecomobility – Low-Carbon Transport Fund • 35
• Green Investment Scheme • 37

WATER AND CLIMATE • 39

• Protection of water – water and sewage management • 39
• Adaptation to climate change and counteracting
environmental hazards • 41

ENERGY • 45

• Renewable Energy Sources • 45

THE EARTH • 51

• Protection of the Earth Surface • 51
• Ecological education • 64

LIFE for Poland • 70

Norwegian Funds • 72

Cooperation • 76

Social meaning of the NFEP&WM activities • 79

The NFEP&WM in numbers • 80

The map of eco-investments of the NFEP&WM • 82

External relations of the NFEP&WM • 84

PART III – PERSPECTIVES

Objectives and plans of the NFEP&WM
activities for the upcoming years • 94

ANNEXES

Chairmen of the NFEP&WM Supervisory
Board in the years 1989–2019 • 97

Ministers of Environment (Protection)
(in the years 1983–2018) • 97

Members of the NFEP&WM Management
Board in the years 1989–2019 • 98

Calendar of 30 years of the NFEP&WM • 100

Winners of the photo competition for employees *Polish eco
in focus* on the 30th anniversary of the NFEP&WM • 102