



101074108 LIFE21-GIE-PL-INF-ARMY

„Supporting users of military areas in managing Natura 2000 Areas”

After- LIFE Conservation Plan

Beneficiary: Ministry of National Defense, Infrastructure Department

Represented by the Director of the Infrastructure Department



The project is co-financed by the European Union under the LIFE Programme and the National Fund for Environmental Protection and Water Management.

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1. Project Information

1.1. Project Details

Project Number: 101074108-LIFE21-GIE-PL-INF-ARMY

Title: "Supporting users of military areas in managing Natura 2000 Areas" (Polish: „Wspieranie użytkowników terenów wojskowych w zarządzaniu obszarami Natura 2000”).

Acronym: INF ARMY

1.2. Introduction

The INF ARMY Project began on September 1, 2022. The agreement with the European Commission, represented by the Climate, Infrastructure, and Environment Executive Agency (CINEA), was signed on August 17, 2022. The agreement with the National Fund for Environmental Protection and Water Management (NFOŚiGW) was signed on January 18, 2023.

The Ministry of National Defense’s Infrastructure Department was the project applicant, while the Coordinating Beneficiary was the Regional Infrastructure Directorate in Krakow. This organization brings extensive experience in implementing projects co-financed by the European Commission.

The role of the Regional Infrastructure Directorate in Krakow focused on coordinating and collaborating closely with project stakeholders, as well as promoting project activities among other entities.

For more information: www.inf-army.pl

Project Location:

The project encompasses 116 Natura 2000 areas located on military lands in Poland.

Pilot sites where project activities were implemented include the following Natura 2000 areas:

- PLH180013 Ostoja Góry Słonne
- PLH300001 Biedrusko
- PLC 140001 Puszcza Kampinoska
- PLH 320068 Jezioro Wicko i Modelskie Wydmy
- PLB 280014 Ostoja Poligon Orzysz
- PLB 020005 Bory Dolnośląskie
- PLH 080008 Buczyny Łagowsko-Sulęcińskie
- PLB 320010 Wybrzeże Trzebiatowskie
- PLH 040041 Wydmy Kotliny Toruńskiej
- PLH 120014 Pustynia Błędowska

Project Duration

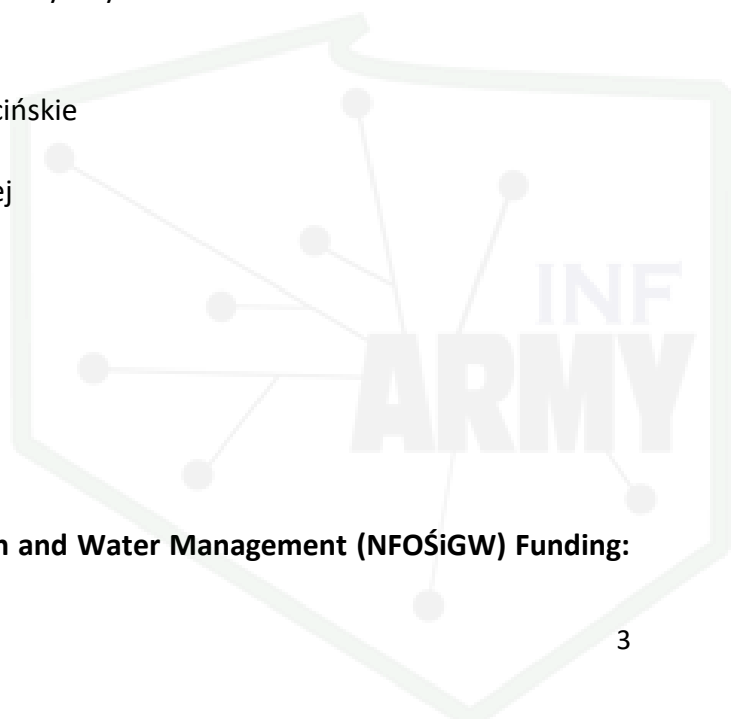
01/10/2022 – 31/12/2024

Project Budget

Total Budget: €1,426,998

European Commission Funding: €855,490

National Fund for Environmental Protection and Water Management (NFOŚiGW) Funding: €571,508



1.3. Objectives and Assumptions of the Project

1. **Strengthening the Capacity of Regional Infrastructure Management (RZI) Personnel:**
Enhance the knowledge and skills of RZI staff in nature and environmental protection through the establishment of a permanent system of training and consultations for managers of Natura 2000 areas on military grounds.
2. **Data Collection and Updates for Natura 2000 Areas:**
Gather and update biological data for Natura 2000 areas, create habitat maps, and monitor the conservation status of natural habitats and species for which the areas were designated. This work focuses on 10 selected military areas designated as pilot sites in the project.
3. **Supporting Management Systems for Natura 2000 Areas:**
Develop and integrate a Natura 2000 module into military IT systems to support effective management.
4. **Increasing the Role of the Military in Environmental Actions:**
Enhance the military's role in implementing nature conservation activities, contributing to the Natura 2000 network, and adhering to EU directives on nature and environmental protection in Poland.
5. **Strengthening Military-Civilian Cooperation:**
Foster stronger collaboration between military and civilian authorities in managing Natura 2000 areas.
6. **Establishing Long-Term Partnerships for Nature Conservation:**
Build lasting partnerships for nature conservation on military grounds at international, national, and regional levels.

1.4. Actions and results

1.4.1. Implemented actions :

1. Development of a database and IT tools:

- Creation of a specialized IT system INF ARMY, which enables the collection, processing, and analysis of data on Natura 2000 areas in military areas.
- Facilitating access to information on the environmental status and protective requirements in areas managed by the Ministry of National Defense.

2. Mapping Natura 2000 areas:

- Identification of key habitats and protected species in 10 selected military areas covered by the Natura 2000 network.
- Development of detailed ecological maps that support management and protection activities.

3. Training and raising awareness:

- Organization of workshops and training sessions for Ministry of National Defense employees, military area users, and other stakeholders.

- Promotion of sustainable military land management practices in harmony with nature conservation requirements.

4. Construction of supporting infrastructure:

- Establishment of a Training and Information Center equipped with modern multimedia equipment, serving the organization of training sessions, videoconferences, and workshops.

5. Communication and promotion of the project:

- Regular publications, updates to the INF ARMY website, and promotional activities on social media platforms.
 - Preparation of informational and educational materials that inspire and engage users.
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1.4.2. Achieved results:

1. Creation of the innovative INF ARMY system:

- A modern tool supporting the management of Natura 2000 areas, enhancing the effectiveness of protection and management activities.

2. Increased knowledge and competencies of users:

- Training of several hundred people on how to use the system, understanding environmental protection requirements, and managing Natura 2000 areas.

3. Better coordination of actions:

- Collaboration between military, civilian institutions, and non-governmental organizations, resulting in more effective conservation efforts.

4. Increased environmental awareness:

- Promoting best practices and increasing engagement in environmental protection among both Ministry of National Defense employees and local communities.

5. Sustainable supporting infrastructure:

- The Training and Information Center as a key element supporting long-term educational and informational activities.

6. Foundations for future After LIFE actions

- Preparation of an After LIFE plan to ensure the sustainability of the project's results and continued support for managing Natura 2000 areas in military zones.

The INF ARMY project is an important step towards sustainable environmental management in military areas, and its outcomes have a significant impact on nature conservation and the efficient use of resources.

2. Situation Analysis

2.1. SWOT Analysis

Poniższa tabela prezentuje wyniki analizy SWOT po wdrożeniu projektu INF ARMY.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Advanced IT tool: Creation and implementation of a comprehensive system that enables the collection, processing, and analysis of data concerning Natura 2000 areas on military lands. • Increased management efficiency: The system allows quick access to data, facilitating decision-making regarding conservation and management actions. • Support for multiple stakeholders: The portal provides an intuitive user interface aimed at representatives from the Ministry of Defense, civilian institutions, scientists, and non-governmental organizations. • Promotion of environmental protection: The project strengthens the Ministry of National Defense's commitment to nature conservation and sustainable resource management on military lands. • Sustainable training and informational infrastructure: The Training and Information Center supports system users and facilitates the organization of training sessions and workshops. 	<ul style="list-style-type: none"> • Limited initial scope: The project focuses on 10 Natura 2000 areas, which may be perceived as insufficient on a national scale. • Dependency on technology: The system's operation is highly dependent on the stability of the IT infrastructure and its maintenance. • Need for continuous support: The need for ongoing user training and system updates may incur additional costs. • Complexity of the system: For new users, the interface may be difficult to master without proper training. • Limited awareness among local stakeholders: The lack of a broad informational campaign may limit the use of the system by smaller organizations and local communities.

<ul style="list-style-type: none"> ● International potential: Publications in Polish and English, along with cooperation with foreign institutions, increase the project's visibility on the international stage. 	
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Opportunities	Threats
<ul style="list-style-type: none"> ● Expansion to other Natura 2000 areas: The possibility of applying the system to additional military areas and beyond. ● Further financial support: Obtaining funding from European environmental programs or national funding sources for system development. ● Integration with other IT systems: The potential to connect with other databases and analytical tools to increase functionality. ● Education and collaboration: Training and workshops can raise environmental awareness among both military and civilian personnel. ● International exchange of experiences: The project could serve as a model for other countries, creating opportunities for international cooperation and the exchange of best practices. 	<ul style="list-style-type: none"> ● Risk of cyberattacks: The system, based on IT infrastructure, may become a target for hacking activities. ● Changes in legal regulations: Possible changes in environmental protection regulations or Natura 2000 areas could require adjustments to the system. ● Lack of sufficient funding: The maintenance and development of the system could be at risk if financial resources are limited. ● Organizational resistance: Some stakeholders may be reluctant to use the new system due to familiarity with previous working methods. ● Decline in interest: After the project's completion, there may be a decrease in engagement regarding its continuation and further development.

Summary: The INF ARMY project, once implemented, brings significant value to the management of Natura 2000 areas on military lands, enhancing nature conservation and supporting decision-making processes. Key challenges include ensuring the sustainability of the system, its further development, and securing appropriate funding. Leveraging opportunities and minimizing threats will allow for the maximum utilization of the potential of this innovative tool.

3. After LIFE Actions

The actions implemented under the After-LIFE Plan for the LIFE21-GIE-PL-INF-ARMY project are driven by the need to ensure the sustainability of the results achieved and the continuation of the solutions introduced after the project's completion. They are a key component of the nature conservation strategy on military lands covered by the Natura 2000 network.

The After-LIFE Plan focuses on maintaining and expanding the project's results through:

- Maintaining and monitoring infrastructure and tools developed within the project, such as the INF ARMY IT system and the Training and Information Center.
- Disseminating the solutions developed, including replicating them on other military lands and within institutions managing Natura 2000 areas.
- Continuing educational and promotional activities that increase ecological awareness and promote best practices in military land management.

These actions will ensure that the project's impact continues beyond its duration and contributes to the long-term conservation and management of Natura 2000 areas in military environments.

3.1. After LIFE Actions for Strategic Tasks

3.1.1. Task T.2.1- Collecting Environmental Data

The goal of the actions during the After LIFE period is to replicate the data collection scheme developed in the project for Natura 2000 areas on military lands. The actions aim to extend the scope of inventory and environmental monitoring to other Natura 2000 areas managed by the military, ensuring the collection of information about these areas in line with the project's assumptions.

Scope of Actions:

Replication of the action scheme.

- Transfer of the documentation templates, contracts, and procedures developed within the project to the Managers (RZI/SZI/WZI).
- Development of instructions for task implementation based on the experiences gained from the completed project.

Implementation of Actions in New Locations:

- Collecting environmental data on other Natura 2000 areas located on military lands that were not covered by the project activities
- Utilizing the GIS standards and monitoring methodology developed in the project.

Coordination of Actions:

- The Infrastructure Management Boards will be responsible for planning and implementing actions within their areas of responsibility.
- Regular exchange of experiences and best practices between RZI/SZI/WZI.
- Instructions and document templates useful for replicating the task will be provided to the Managers along with the developed Results Utilization Plan.

Expert Support and Supervision

- Central oversight and expert support from the Ministry of National Defense's Infrastructure Department in the areas of environmental monitoring and Natura 2000 area protection - Regional Infrastructure Management Board in Krakow.

Implementation Period:

The actions will be carried out over a period of 5 years from the completion of the project.

Responsible Entities:

- Central Coordination: Ministry of National Defense, Infrastructure Department.
- Provision of financial resources for task implementation: Inspectorate for Armed Forces Support Added
- Local Action Implementation: Infrastructure Management Boards (RZI, SZI, WZI).

Estimated Costs and Funding Sources:

- The costs of actions in individual RZI areas will depend on the number and specifics of the Natura 2000 areas.
- Funding sources: RZI's own resources, potential co-financing from national and EU environmental funds.

Effects and Significance of the Actions:

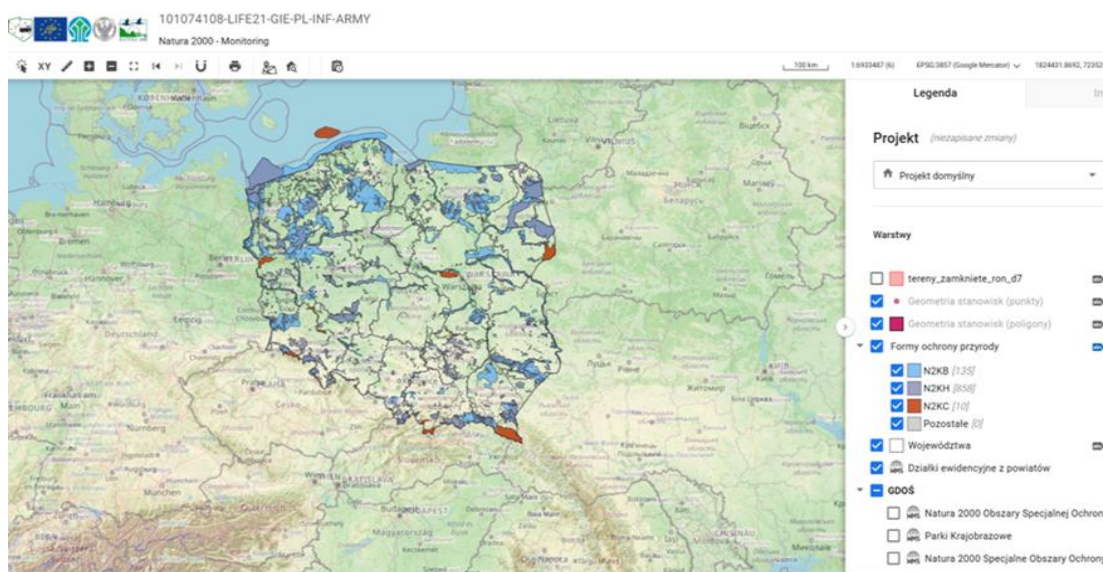
- Expansion of environmental monitoring to new Natura 2000 areas.
- Standardization and improvement of the quality of environmental data for military lands.
- Increased effectiveness of conservation actions through a unified implementation and monitoring scheme
- Support for biodiversity conservation efforts and the achievement of the Ministry of National Defense's strategic environmental protection goals.

The After LIFE actions will contribute to the further development and maintenance of the project's outcomes, ensuring the sustainability of results and the ability to adapt to future challenges.

3.1.2. T.2.2- Creation and Implementation of an IT System

Maintenance and Development of the Life21 System in the Integrated Environment of the Ministry of National Defense (DI MON).

The Life21 system will be migrated to the cloud and integrated with the Ministry of National Defense's (DI MON) IT ecosystem, coexisting consistently within this environment with the SIP RON system and the future e-infrastructureMON platform. Although these are separate systems, they are based on a well-thought-out, cohesive, and compatible technology, which allows for their effective collaboration within a shared cloud-based operational environment. The use of unified technological foundations such as Kubernetes, CloudNativePG, and GIS.Box ensures full architectural compatibility and facilitates integration.



The migration of Life21 will proceed in the following stages:

- Pre-Implementation Analysis: Identification of key system components, such as applications, databases, and communication interfaces, and the development of a detailed migration plan, taking into account risks, resources, and the schedule.
- Cloud Environment Preparation: Allocation of resources in the Kubernetes cluster, considering the requirements of CloudNativePG and GIS.Box, and preparation of testing and production environments with redundancy and scaling mechanisms.
- Data and Application Migration: Export of spatial and descriptive data, validation of integrity, and transfer to CloudNativePG with PostGIS extension, as well as adaptation of applications to work in Kubernetes, including containerization of microservices.
- Integration with DI MON Ecosystem: Configuration of data exchange mechanisms between the Life21 system, SIP RON, and e-InfrastructureMON using RESTful APIs and WMS/WMTS services, along with functional and integration testing in the production environment.
- Deployment and Optimization: Deployment of the Life21 system in the cloud environment and monitoring of performance, with real-time resource optimization.

- Ongoing Maintenance and Development: The DI MON DevSecOps team will be responsible for implementing new functionalities, monitoring performance, and maintaining a high level of system security.

The Life21 system will retain its functional distinctiveness while collaborating with other systems within a unified technological architecture. Interoperability and efficient data exchange will be ensured. The migration to the cloud will guarantee the system's durability, enable its further development, and allow for modernization in response to evolving operational requirements. Kubernetes and the DevSecOps approach will provide dynamic system scaling and high data protection. Shared infrastructure resources and unified CI/CD pipelines will reduce operational costs and increase management efficiency. Life21, with its advanced GIS capabilities, will support activities related to managing Natura 2000 areas, including their protection and environmental planning actions.

As a distinct system, but technologically integrated with other elements of the DI MON ecosystem, Life21 will become an integral part, leveraging shared technological and operational infrastructure. The migration to the cloud and integration with SIP RON will provide Life21 with durability, flexibility, and operational efficiency. This process will be executed by the DI MON DevSecOps team.

The further maintenance and development of the system are meticulously planned, ensuring its stability and adaptability in response to future operational and technological challenges. Integration within a unified technological environment will enable more efficient management of military infrastructure and environmental protection, supporting the strategic objectives of the Ministry of National Defense.

The expansion of the Natura 2000 information system on military areas.

The Regional Infrastructure Management Board in Krakow, as a co-beneficiary of the project titled "Management and Monitoring System for Natura 2000 Areas in State Forests and Military Areas," along with the State Forests and the Forest Research Institute, has submitted an application under the FENIKS 2021–2027 program, Action FENX.01.05. Nature Protection and Green Infrastructure Development, Type FENX.01.05.4 Development of Capacities and Improvement of Management of Protected Areas. Remote Sensing and Development of Geoinformation Infrastructure, as well as Digitization of Resources, Call No. FENX.01.05-IW.01-002/24. The application aims to utilize external funds to expand the existing digital infrastructure and add new functionalities that will streamline the management of Natura 2000 areas on military lands.

Planned Actions Scope – New Functionalities

- Expansion of tools for analyzing environmental data.
- Automation of reporting for monitoring and assessing the effectiveness of conservation actions.

Implementation Period:

- The actions will be undertaken within the framework of the FEnIKS project, with a timeline covering 2025–2027.

Funding Amount:

- 760,240.00 PLN, of which 291,540.00 PLN will be allocated to the expansion of the system developed under the INF-ARMY project.

Source of Funding:

- The planned work will be financed with external funds obtained through the FEnIKS program, allowing further development of the system without burdening the internal budget.

Importance for After LIFE Plans:

The expansion of the IT system is a key element in ensuring the sustainability of the results of the LIFE21-GIE-PL-INF-ARMY project. It will enable further effective management of Natura 2000 areas on military grounds and integration with other environmental protection systems at both national and international levels. With the new functionalities, the system will become an even more useful tool supporting the implementation of After LIFE activities and interinstitutional cooperation.

3.1.3. Educational tasks, promotional activities, and supporting initiatives.

Educational and promotional activities

As part of the After LIFE actions, there are plans to continue educational, promotional, and instructional activities aimed at raising ecological awareness and promoting knowledge about nature and environmental protection, with particular emphasis on military areas within the Natura 2000 network.

Training and Information Center

A key role in the implementation of these activities will be played by the Training and Information Center established during the project, which will serve as a place for:

- organizing workshops and training sessions for Ministry of National Defense employees,
- promoting best practices in Natura 2000 area management and biodiversity protection.

Planned educational and promotional activities:**Workshops and training sessions.**

- Conducting training on the management of Natura 2000 areas.

Educational and promotional materials

- Dissemination of promotional materials purchased during the project.
- Distribution of books and the Laika Report developed during the project.

Supporting initiatives

- Participation in events organized by military institutions to disseminate the experiences and results of the project.
- Participation in conferences organized by other LIFE projects or organizations related to nature conservation.

Promotion in the media

- Actively conducting promotional activities on social media.
- Sharing multimedia materials and updates about the progress of After LIFE activities on the project website.

Significance of educational activities

These activities aim not only to solidify the project's results but also to develop environmental awareness in society. Disseminating promotional materials and books created during the project will allow reaching a wide audience and help to understand the role of the military in nature conservation. The Training and Information Center will serve as a lasting center of knowledge and inspiration for future actions to protect Natura 2000 areas.

Supporting other LIFE projects

As part of After LIFE activities, there are plans to actively support other projects, especially those implemented under the LIFE program, such as in the areas of project promotion, the LIFE fund, the Natura 2000 ecological network, and obtaining additional funds for active conservation and educational activities.

The task will be carried out through:

- Sharing promotional materials developed during the project, such as books and promotional gadgets, to support the informational activities of other projects.
- Participation in organized events, conferences, and workshops as part of collaboration with other institutions.
- Promotion of the achievements of the LIFE project and emphasizing the importance of the Natura 2000 network.
- Exchange of experiences and good practices through meetings and consultations with other project teams, to share knowledge on managing LIFE projects, particularly in the areas of nature conservation and environmental education.

- Participation in networking platforms of the LIFE program, such as thematic workshops and international conferences, to present project results and establish collaborations.
- Obtaining additional funding.
- Supporting other projects in applying for EU and national funds for activities related to nature conservation and education.
- Developing joint project proposals to expand the scope of conservation and educational actions.
- Creating educational materials, such as presentations on the LIFE program and Natura 2000, which can be used by other project teams.

The significance of cooperation:

These activities aim to increase synergy between LIFE projects, enhance their impact on nature conservation, and build a positive image of the program in Poland and abroad. Cooperation will allow for more effective use of available resources, strengthen the support network for LIFE projects, and contribute to more effective biodiversity conservation within the Natura 2000 network.

4. After LIFE Action Plan

4.1. After LIFE Activities

The action plan aims to ensure the sustainability and effectiveness of the project's objectives, as well as the continued protection of Natura 2000 areas on military lands.

Action	Scope	Implementation Period	Responsible Entity	Estimated Cost (PLN)	Source of Funding
T.1.1 Project Management	The task has been fully completed within the project, and there is no need for continuation.				
T.1.2 Establishment of Steering Committee	The task has been fully completed within the project, and there is no need for continuation.				
T.1.3 Creation of a network with other projects	Collaboration with national and international projects in the	2025–2029	DI MON RZI w Krakowie Environmental Protection Section	10,000.00 PLN/year	MON funds

	field of nature conservation.				
T.1.4 External Audit	The task has been fully completed within the project, and there is no need for continuation.				
T.1.5 Establishment of the Project Office	The task has been fully completed within the project, and there is no need for continuation.				
T.2.1 Collection of Environmental Data	Monitoring of Natura 2000 habitats and species	2025–2029	DI MON IWsp SZ RZI,SZI,WZI	3 400 000,00 PLN/year	National funds, Ministry of National Defence resources
T.2.2 Creation and Implementation of the IT System	Updates and maintenance of the Natura 2000 system on military areas	2025–2029	DI MON RZI,SZI,WZI	2025-2027: funds from the FENIKS project – 300,000.00 PLN - RZI w Krakowie 2027-2029: own funds of the Ministry of National Defense	EU funds, Ministry of National Defense funds, national funds
T.2.3 Organization of Training and Workshops	Continuation of educational activities	2025–2029	DI MON RZI w Krakowie Environmental Protection Section	10 000,00 PLN/year	External funds, MON funds
T.2.4 Development of the Handbook	The task has been fully completed within the project, and there is no need for continuation.				
T.2.5 Creation of the Training and Information Center	The task has been fully completed within the project, and there is no need for continuation.				
T.2.6 Socio-economic	The task has been fully completed within the project, and there is no need for continuation.				

Impact Assessment					
T.3.1 Creation and Maintenance of the Website	Updating and maintaining the project website	2025–2029	DI MON RZI w Krakowie Environmental Protection Section 35 WOG	5 000,00 PLN/year	MON funds
T.3.2 Organization of Conferences	The task has been fully completed within the project, and there is no need for continuation.				
T.3.3 Dissemination of Project Information in Media and Press	The task has been fully completed within the project, and there is no need for continuation.				
T.3.4 Layman's Reports	The task has been fully completed within the project, and there is no need for continuation.				
T.3.5 Information Boards	The task has been fully completed within the project, and there is no need for continuation.				
T.4.1 Results Utilization Plan	Implementation of the Replication and Results Utilization Plan	2025–2029	MON RZI,SZI,WZI	-	-
T.4.2 After Life Plan	The task has been fully completed within the project, and there is no need for continuation.				
T.5.1 KPI Indicator Reporting	Regular Reporting of Action Effectiveness Indicators	2025–2029	DI MON RZI w Krakowie Environmental Protection Section	-	-

Dictionary:

DI MON - Ministry of National Defence Infrastructure Department

RZI – Regional Infrastructure Management

SZI – Warsaw Infrastructure Management Board

WZI – Military Infrastructure Management Board

4.2. Costs of Activities

The costs associated with maintaining the sustainability of project outcomes are challenging to estimate accurately, primarily due to variable economic factors such as inflation, fluctuations in service pricing, and labor costs. However, preliminary estimates for expenditures over a 5-year period have been prepared, which can serve as a reference point for further budget planning.

Regular updates to the budget and the pursuit of additional funding sources will be critical for effective cost management and ensuring the sustainability of project outcomes.

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