

THE ENVIRONMENTAL MANAGEMENT SYSTEM WITHIN THE COMPETENCE OF THE ARMY OF THE CZECH REPUBLIC

Jan IVANCO, Jaromir MARES

University of Defence, Brno, Czech Republic
jan.ivanco@unob.cz, jaromir.mares@unob.cz

***Abstract:** The article deals with the implementation of an ecologically oriented tool in the form of an Environmental Management System in the conditions of the Army of the Czech Republic. Generally, through the system, better results in the field of environmental care are achieved. The article provides the bases for the implementation of the ecological system in relation to the legislative and legal standards, which are obligatory in compliance with environmental protection principles within the legal order of the Czech Republic. As a result of the research, the benefits of the environmental system for the Army, interconnected with the civilian sector, are presented. Emphasis is placed on the attributes of sustainable development that are essential for preserving the lives of future generations.*

Keywords: ecology, Environmental Management System, environmental care, environmental protection, reducing the environmental impact

1. Introduction

In the implementation process of environmental protection (EP), an individual, a person who creates his / her attitude towards the environment through his / her analysis and behaviour plays the most important role. Environmental protection should be one of the most monitored areas to provide the basic conditions for the preservation and evolution of life on Earth.

Without creating adequate conditions directly proportional to the lifestyle of the current technocratic and technological society, it is not possible to realize the sustainability and viability of the current ecosystem as a whole.

2. Factors affecting the state of current environmental protection

This is a significant dynamic expansion of technological progress that has given rise to a disproportionate burdening of the

environment in the form of disproportionate consumption of raw materials and energy resources. This is caused by the abnormal creation of wealth (goods) to ensure the demand of consumers, which is the substance of lifestyle of today's consumer society.

A. The pressure of society on the technological development of everything, which surrounds it, does not correspond to the level of dealing with the issues of environmental protection. This qualitative disproportion is not sustainable in the long term from the viewpoint of the time factor.

B. The only and exclusive value creating the society today is a financial gain only, even at the cost of reducing the quality of the environment. Everything is subordinated to a single goal, i.e. raising the standard of living that is based on the principle "after us, the deluge". This is related to the loss of values and non-observance of unwritten rules, thus

increasing the degradation, destruction and reduction of environmental protection creation.

C. Disproportionate and ineffective measures, which are often inadequate for current living conditions, are often implemented to prevent environmental damage. As a result, the substance of a given measure cannot be applied and put in practice.

The result of the measures issued is not only the fact that the problem is not tackled but also that deepening the deteriorating ecological situation occurs and thus a waste of time that is often insufficient to reverse the already existing degradation process.

D. There is no clear and comprehensive conceptual goal for a long time to come, a goal that would specify which ecological problems are necessary to deal with to maintain the sustainability of ecosystem development. The durability and accomplishment of a given goal is heavily dependent on and associated with defining the value ladder of today's society.

E. In the field of environmental issues, the education system is inconsistent and fragmented. It is not possible to ensure environmental protection without the quality and effective training of professionals in the given field. The output with a high level of informative value cannot be a solution to environmental issues without the quality input. In order to achieve a high measure of efficiency to deal with ecological issues at the global level, it is necessary to ensure the unification of the education system.

F. Society has not learned from history; this applies to all areas of life, including science, the humanities and the environment. This fact is heavily dependent on the quality of the education system.

It is not possible to solve the improvement of the present state of the environment without changing the society's approach to the given issues, including the set-up of an effective environmental safety system. Currently, there are too many problems in the field of environmental protection; some

of the impacts of ongoing ecological degradation processes in terms of the time factor will be very difficult to reverse. It concerns the fate of future generations.

3. Research aim and methods used

The aim of the research is to propose a procedure for the implementation process of the Environmental Management System (EMS) within the ACR.

Valid STANDARDS and their legal implementation in the conditions of the ACR have been analyzed. Through the comparative method, the current valid legal framework is compared with the requirements set by ISO 14001, the international standard, but also with the fulfilment of the requirements of the STANAG standard, both from the viewpoint of external and internal levels.

In order to fulfil the conditions of validity and reliability within the scope of the scientific research, it is necessary to include the questionnaire survey, modelling and statistical processing. Within the elaboration of a model implementation process, it is necessary to include both the descriptive analysis for describing the EMS and the explanation for clarifying all the relations.

Through the methods mentioned, it is possible to achieve real results, especially the intended model procedure for the implementation process within the ACR.

4. The Army of the Czech Republic and the Environmental Management System

The Environmental Management System (EMS) is one of few globally recognized, effective and comprehensive tools to achieve significantly better results in the field of environmental protection in relation to the elimination or minimization of the adverse impacts of the organization's activities. Although this environmentally-oriented system is constantly developing, vast array of positive experience from many fields of activity has been noted to the present.

The EMS is used at national level in the field of production or services in semi-state and state organizations as well as in the private sector. At a supranational level, the tool is used in an organization such as the North Atlantic Treaty Organization (NATO), where it is implemented in the conditions of some states of the organization mentioned, especially in the Armed Forces of the Slovak Republic or the United States.

NATO Armed Forces represent a significant part of contemporary society. They are fully integrated into the social course of events and, therefore, they are also responsible for dealing with current social problems. One of them is the issues of environmental pollution, which happens due to the diverse military activities [1].

The EMS implementation in the conditions of the above-mentioned states has ensured a high qualitative level of the systematic management approach within the environmental care, thus creating adequate conditions for achieving better results in relation to the activities within their competence.

The Army of the Czech Republic (ACR) is also one of the main components of the society, which is considerably involved in the state of the environment from the viewpoint of its activities. Therefore, it is necessary to create such conditions within the framework of its activities that would ensure a high level of environmental care in order to eliminate or minimize any adverse impacts on the ecosystem.

The EMS can be implemented via two environmental tools:

- ✓ The EMAS (Eco-Management and Audit Scheme) regulation; and

- ✓ *ISO 14001, the international standard* (Environmental Management System - Requirements with Guidance for Use).

From the viewpoint of the EMS implementation, the article is aimed at ISO 14001, the international standard. The standard mentioned has been translated and is used in the conditions of the Czech Republic within the Czech national standard as ČSN EN ISO 14001. The tool is completely voluntary and is thus used beyond the legislation.

The fundamental differences between the ISO 14001 standard and the EMAS regulation are as follows:

The ISO 14001 standard

International validity;

- The possibility of implementing the system in individual parts of an organization;
- The support in international documents within NATO;
- As far as the documentation is concerned, it is less demanding within the implementation process;

The EMAS regulation

- In force within the European Union (EU) only;
- Implementing the system only for an organization as a whole.

ISO 14001, the international standard, is a basic initial document dealing with the conditions of implementation of the given environmental system in the conditions of a given organization. Additional standards are derived from the above mentioned standard from the viewpoint of implementing and managing the EMS in the competence of a given organization. *Table 1* gives an overview of ISO standards.

Table 1 Overview of current ISO standards [2]

Standard number	Standard name
ČSN ISO 14015:2003	Environmental management – Environmental assessment of sites and organizations
ČSN ISO 14020:1999	Environmental labels and declarations – Type I environmental labelling - Principles and procedures
ČSN ISO 14021:2000	Environmental labels and declarations – Self-declared environmental claims (Type II environmental labelling)
ČSN ISO 14024:2000	Environmental labels and declarations – Type I environmental labelling - Principles and procedures
ČSN ISO 14025:2001	Environmental labels and declarations – Type III environmental declarations
ČSN EN ISO 14031:2000	Environmental management – Environmental performance evaluation - Guidance
ČS EN ISO 14040:1998	Environmental management – Life cycle assessment – Principles and framework
ČSN EN ISO 14041:1999	Environmental management – Life cycle assessment – Goal and scope definition and inventory analysis
ČSN EN ISO 14042:2001	Environmental management – Life cycle assessment – Life cycle impact assessment
ČSN EN ISO 14043:2001	Environmental management – Life cycle assessment – Life cycle interpretation
ČSN EN ISO 14047:2004	Environmental management – Life cycle assessment – Examples of the ISO 14042 application
ČSN ISO/TR 14049:2001	Environmental management – Life cycle assessment – Examples of the ISO 14041 application for goal and scope definition and inventory analysis
ČSN EN ISO 14050:2004	Environmental management – Vocabulary

4.1. The environmental Management System versus legislation in the ACR

The EMS is a completely voluntary tool applied beyond the scope of the legislative obligation, which stems from the Czech legal system. This means that the EMS can be implemented in the sphere of action of the ACR only on condition that all internal legal standards are observed. According to the legislative level, they are divided into internal regulations, orders of the Minister of Defence, normative decrees of the Minister of Defence, professional, methodological and organizational instructions, resulting from the activities.

The current mandatory legislative framework from the viewpoint of environmental protection within the ACR is

considerably extensive and interferes in other legal standards that are not directly related to the environmental issues, which significantly complicates all processes related to environmental protection.

The internal legal standards according to the legislative level of management in the conditions of the ACR form a basic instrument in the field of environmental protection, which defines the conditions for the elimination or minimization of potential or real adverse impacts on the environment. Another standard-setting body within the framework of environmental protection at the supranational level is the EU, and the Czech Republic is a member of the EU. The EU creates a sort of second legislative boundary tightening many legal standards

in the conditions of individual states, which are obliged to apply the given legislation to the legal order.

Currently, the state environmental policy points toward the requirements for preserving and, if possible, improving the environment for the quality of life of the next generations of the Czech Republic. At the same time, the commitments resulting from the membership in the EU and the existing duties associated with the membership in the UN must be respected. The Czech Republic as an economically developed country must fulfil its international commitments to the sustainable development and share the global and regional responsibility while respecting the specificities and interests of the Czech Republic [3].

4.2. Environmental protection within NATO

Other significant legal standards, which the Czech Republic, as a full member of NATO, is subject to from the viewpoint of environmental protection, are the standardization agreements or STANAGs with the international competence.

These are standardization agreements listed below:

- Standardization Agreement (STANAG) 7141: Joint NATO Doctrine for Environmental Protection during NATO-Led Military Activities;
- Standardization Agreement (STANAG) 7102: Environmental Protection Requirements for Petroleum Facilities and Equipment and, if need be, other NATO environmental standardization agreements; and
- Standardization Agreement (STANAG) 2510: Joint NATO Waste Management Requirements during NATO-Led Military Activities [4].

STANAG 7141 is the most important standardization agreement from the viewpoint of the EMS, which refers to ISO 14001, the international technical standard, entitled “Environmental Management Systems - Requirements with Guidance for

Use” within the documentation mentioned above.

Although the STANAG mentioned is applicable to all NATO members, the application of the EMS is not an obligation for individual states. It is entirely up to a given state to decide whether or not to implement the EMS elements within its armed forces.

STANAG 7141 is divided into several parts that deal with the following:

- Planning environmental protection when conducting military activities;
- Environmental risk management;
- Responsibility of commanders for environmental protection;
- Education and training for environmental protection; and
- Opportunities for education in the field of environmental protection [5].

The EMS has also been a point of primary interest of the Committee on the Challenges of Modern Society (CCMS / NATO), which has dealt with a special project - the pilot study on the subject of Environmental Management Systems within the defence departments. The CCMS / NATO has recommended the use of ISO 14000 international standards as the most appropriate for the purposes of the armed forces; thus, the adaptation of the existing EMSs used in different armies will be solved [6].

Based on the study performed, individual STANAGs dealing with environmental issues have been created not only in relation to the implementation of joint exercises within NATO, but also from the viewpoint of supporting foreign units in their own territory (HNS - Host Nation Support).

Logistic support, which is an integral part of dealing with environmental issues, is essential to ensure all the tasks, arising from the above mentioned standards, to be met.

4.3. Use of other recommendations within the ISO 14001 standard

Other standards, which could be usable within the implementation process

according to the ISO 14001 standard, are related to the occupational health and safety issues. Their use could increase the level of the whole implemented system. Although it is not an international standard according to the ISO standards, it is currently widely used in all the areas of activity (production, services).

These are mainly the following standards:

- OHSAS 18001 Occupational Health and Safety Management Systems; and
- OHSAS 18002 *Occupational Health and Safety Management Systems – Guidelines for the Implementation of OHSAS 18001* (Occupational Health and Safety Assessment Series) [7].

The above-mentioned recommendations are analogous in structure to the international standard ISO 14001. Although the standard mentioned has not been developed and published by the International Standards Organization (ISO), it is applied by a large number of organizations aiming at different areas of business (production, services).

5. Added value of EMS implementation within the ACR competence

In order to fulfil the conditions of the implementation process defined by ISO 14001, the international standard, it will be beneficial for the ACR in the defined areas as follows:

- Improving the environmental profile of the Army of the Czech Republic as a whole;
- Contributing to raising awareness of the environmental aspects of the armed forces activities;
- Improving the public relations and awareness of the Czech Army's relationship to the environmental issues;
- Standing up for the philosophy and methodology of NATO to ensure compatibility in the field of environmental security of armed forces;
- Extending the logistics procedures by applying the methods in the area of environmental issues;

- Within the framework of scientific activities, it will be beneficial for the generalization of procedures; the procedures for selected facilities and premises of the ACR will be applicable;
- Their usability is understood as a basis for the future methodology for maintaining environmental safety and for the use in teaching in the master study and the non-accredited courses organized by the Department of Logistics;
- The elimination of fines and fees for non-observance of legal standards;
- Ensuring harmony between the ACR and the state administration; and
- Increasing the awareness of the ACR employees related to environmental protection, thereby reducing the adverse impacts on their health.

6. Conclusions

In the future, it will depend on two aspects that will be decisive for the implementation of the environmental system, i.e. the level of social pressure on the improvement of environmental protection and the decision of the ACR whether it commits itself to apply the system.

Ensuring environmental and human safety can be achieved through the consistent application of environmental safety tools and principles, which contribute to the prevention of occurrence of threats, their faster, more efficient and more reliable prediction and the elimination of consequences, including the subsequent territory rehabilitation [8].

The current state of the environment reflects the attitude of not only an individual, but also an organization, which is directly related to the causes in the field of the environment. The application of the EMS could fundamentally contribute to a gradual reversal of the long-lasting environmental degradation trend. One of the ways to achieve this is the implementation of the EMS through the international technical standard according

to ČSN EN ISO 14001, which is one of the most effective and complex tools in achieving better results within the field of environmental protection. [2]

The care for improving the environment forces everyone to search for new ways and opportunities to ensure the protection of water, soil and air from the adverse effects of harmful substances and military

activities. In the past, ecological requirements were not fully respected in society or in the military and, therefore, it is extremely important that there is a turning point in this direction [9].

The change of the behaviour of an individual or an organization towards the environment is the only way to remedy the already difficult environmental situation.

References

- [1] ŘEHÁK, David a Aleš KOMÁR. *Environmentální bezpečnost vojenských aktivit*. Brno: Univerzita obrany, 2008. ISBN 978-80-7231-310-5.
- [2] FILDÁN, Zdeněk, *Příručka pro Environmentální management (EMS) podle normy ČSN EN ISO 14001*, Tachov: Envi Group, 2016.
- [3] ČERNÍKOVÁ, Martina a David PUR. *Management environmentálních aktivit podniků*. Liberec: VÚTS, 2011. ISBN 978-80-87184-23-3.
- [4] ŠAROCH, Viktor. *Environmentální pasportizace vojenských objektů jako součást řízení ochrany vojsk a obyvatelstva*: Dissertation thesis. Vyškov: VVŠ PV, 2004.
- [5] KOMÁR, Aleš a Jiří DVOŘÁK. *Environmental Training: Study book*. Brno: Univerzita obrany, 2010. ISBN 978-80-7231-709-7.
- [6] KOMÁR, Aleš. *Ekologizace společného stravování*. Vyškov: VVŠ PV, 1999. ISBN 80-7231-046-1.
- [7] FILDÁN, Zdeněk. *Environmental Management Guide (EMS) by Standard ISO 14001*, Tachov: Envi Group, 2016.
- [8] OULEHLOVÁ, Alena. *Hrozby environmentální bezpečnosti*: studijní text. Brno: Univerzita obrany, 2015. ISBN 978-80-7231-430-0.
- [9] CEMPÍREK, Miroslav. *Ekologie v armádě*. Brno: Vojenská akademie, 1992.