HADTUDOMÁNYI SZEMLE

2018. XI. évfolyam 2. szám

GERGELY GÖNCZI[1]

Some Environmental Aspects and Considerations of Military Activities [2]

A haderők tevékenységeihez köthető néhány környezetvédelmi vonatkozás és szempont

Abstract

In the military the concept of environmental awareness is becoming more and more important. It manifests itself in the environment aware thinking of the leadership, in the environment conscious education of the staff and generally in all activities pertaining to the armed forces.

The present article wants to demonstrate that how the environment awareness and protection is realized within a developed military force, what tasks must be fulfilled at different levels of leadership and how it integrates into the education of the personnel. Further it would introduce settlings that are necessary to perform at certain stages of operations.

Keywords: armed forces, environment state, impact examination, preparation, environment protection

Absztrakt

A haderőkben a környezettudatosság, mint fogalom egyre nagyobb jelentőséggel bír. Ez megnyilvánul a vezetés környezettudatos gondolkodásában, az állomány környezettudatosságra való nevelésében, a műveletek életciklusának alakulásában, a műveletek tervezésében és összességében szinte minden, a haderőkhöz köthető tevékenységben.

Jelen cikk azt szeretné bemutatni első körben, hogy a környezettudatosságra és környezetvédelemre való nevelés hogyan is valósul meg egy fejlett haderőben, a vezetés különböző szintjén milyen feladatokat kell ellátni ennek érvényesítésére, illetve az állomány képzésében ez hogyan is integrálódik. Továbbá olyan

[1] Nemzeti Közszolgálati Egyetem, Hadtudományi és Honvédtisztképző Kar, Tanszéki mérnök – National University of Public Service, Faculty of Military Science and Officer Training, Department Engineer, E-mail: gonczi.gergely@uni-nke.hu, ORCID: 0000-0003-2026-9237

[2] The work was created in commission of the National University of Public Service under the priority project KÖFOP-2.1.2-VEKOP-15-2016-00001 titled „Public Service Development Establishing Good Governance” in the Győző Concha Doctoral Program.

megoldásokat ismertet, melyeket környezetvédelmi szempontból mindenképp el kell végezni a műveletek adott szakaszaiban.

Kulcsszavak: haderő, környezetállapot, hatásvizsgálat, felkészítés, környezetvédelem

INTRODUCTION OF THE TOPIC

Environmental thinking is present in several areas of our lives, so it is not surprising that it plays a pivotal role on the operation of the armed forces as well. The reason for this is that in the developed militaries the staff gets acquainted with the protection of the environment, ecology and environmental thinking already during their basic and advanced trainings, officer education which stays with them till the end of their carriers. On top of that their everyday work they have to manage the fulfillment of their tasks that they contain sustainability and the green thinking.

It is enough to mention the process of operation planning since here, in different phases, starting with the establishment of the base to its everyday maintenance, to the missions and exercises, this thinking is present everywhere.

Consequently, in the first part, this kind of training system will be introduced illustrating how is possible to benefit from this knowledge at different levels of commanding. In the second part we will show the methods of how to measure the state of some important environments which are applied at the armed forces.

THE EDUCATION FOR ENVIRONMENT AWARENESS IN THE ARMED FORCES

Efforts taken to protect the environment, its sustainability and environmental awareness is a compulsory issue in today's developed military force. To support this existing educational program needs to include modules and subjects that are firmly connected to the above-mentioned issues. Another possibility is to comprise the curriculum in a way that it would already contain these environmental modules so the program can remain as it is. It is important to keep in mind that environmental requirements may differ in different countries so curricula must be coordinated accordingly or to motivate the given country that in case of NATO to support a certain type of educational program.[3]

The education concerning environment protection has to include the following aims:

- it needs to provide proper educational basis for the staff,
- even in the pre-deployment stage it is necessary to provide the proper level of education to deepen the environment awareness[4],

[3] NATO STANDARD AJEPP-4: Joint NATO Doctrine For Environmental Protection During Nato-Led Military Activities. Edition A Version 1, Published by NATO Standardization Agency (NSA), 2014, 21, 23–25. http://nso.nato.int/nso/nsdd/_CommonList.html

[4] Environmental Guidebook For Military operations. Printed in USA, 2008, 10–11, 19, 21–22, 23–24. https://www.defmin.fi/files/1256/Guidebook_final_printing_version.pdf

- it is necessary to examine who serves at what level and area and to plan the education accordingly,
- for the personnel serving in special areas it is necessary to provide material according to their field of work or specialization,
- it is important that during the entire time of training environment protection is present since it can provide a kind of routine with the personnel[5],
- during the building of the life carrier model the integration of environment awareness and responsibility should appear as soon as possible[6],
- during the process of teaching the personnel should be familiarized with concepts like the responsibility of the individual, proper military practice and global responsibility[7],
- to educate higher level commanders and leaders to for environmental awareness since it has a positive impact on areas of their responsibility on the other hand, they show an example to their subordinates,
- it is necessary to integrate environmental awareness and thinking into the everyday routine of the personnel[8] where the above-mentioned exemplary behavior of commanders plays an important part,
- the possibility for continuous studies and education as well as further education needs to be established,
- to emphasize environment protection asboth personal and professional responsibility[9].
- In general we can distinguish among the following educational forms:[10]
- Individual: for example commanders or personnel serving at special areas that need to acquire additional skills.
- Group or collective: acquisition of more general skills pertaining to a certain area.
- Continuous: an above-mentioned education period and depending on appointment the education is continuous.[11]

Looking at the above listing it is worth mentioning that for the members of the personnel not depending on their appointment and the level of command is important to get acquainted with their personal tasks and responsibility the sustainability from environmental point of view thus they can become ecological thinkers.[12] To accept this way of thinking it is crucial to get acquainted with the criteria of the environmental management pertaining to

[5] NATO STANDARD AJEPP-4 i. m. 21, 23–25. http://nso.nato.int/nso/nsdd/_CommonList.html
[6] Uo.
[7] Environmental Guidebook For Military operations i. m. 10–11, 19, 21–22, 23–24.
[8] NATO STANDARD AJEPP-4 i. m. 21, 23–25.
[9] Environmental Guidebook For Military operations i. m. 10–11, 19, 21–22, 23–24.
[10] Uo.
[11] Uo.
[12] Environmental Considerations atp3-34-5. Headquarters, Department Of The Army, Washington DC, 2015, 63–72, 114. https://fas.org/irp/doddir/army/atp3-34-5.pdf

the given area, to realise how can environmental issues can be included in the planning of the operations.[13]

After the familiarization with the aims of the training and education it is necessary to discuss some topics that need to be in the curriculum. These are the following: environment protection, nature protection, resource saving international and domestic environment protection guidelines and regulations.[14] In the first chart the main topics of the above-mentioned subjects will be introduced.

Topic	*Description*
Soil protection	soil massing, erosion,deflation, dryness, sources of soil pollution, pollution defence, soil degradation processes etc.
Protection of ground and underground water	protection of potable water sources, sustainable water management, protection of the quality of the water management of water supply, etc.
Protection of air cleanness	air pollutants, their sources, regulation of emission, odour materials, etc.
Protection against noise	sources of noise, noise dangers, methods for lessening of noise oscillation etc.
Protection of plants and animals	protected and highly protected entities, natural habitats
Protection and guard of power sources	protection of non-renewable sources, use of renewable sources etc. hasznosítása etc.
Landscape protection	preservation of the landscape, landscape diversion, landscape ecology etc.
Heritage protection	natural and man- made, historically important etc.
Pollution prevention	altogether all procedures mentioned in the points above
Waste management	management of waste, waste elimination, collection, storage, final placement, types of waste etc.

[13] Uo.
[14] NATO STANDARD AJEPP-4 i. m. 21, 23–25.

Topic	*Description*
Indemnification and remediation	exposition of the polluted area and the amount of pollution, assessment of damage, physical and chemical methods
Environmental regulation	domestic and international guidelines, regulations of the host nation, regulations of the contributing nation, NATO environmental politics.[15]

Chart 1: Topics included in the curriculum. [own editing]

ENVIRONMENTAL RESPONSIBILITY WITHIN THE FORCES

After we got an idea why it is important to integrate the question of environment protection into education of the military forces we can turn to areas and tasks of environmental responsibility for certain ranks of the personnel. It was mentioned earlier that the environmental responsibility of the personnel can change depending on appointment, position and rank. Altogether it can be said that each member of the personnel has some kind of environmental responsibility.[16]

Environment protection programs of brigade and battalion level provided that the environmental regulations are kept in the everyday operation of camps and during exercises. Further they give guidance for the commanders and their subordinates as well as for the entire personnel.[17] In the following listing we introduce the responsibilities belonging to different ranks, which are entirely connected to environment protection.

Commander:

- responsible for the integration of environmental issues into operations,[18]
- protects the environment as much as possible taking into consideration the requirements of operations,[19]
- ensures training preparing for environmental awareness[20] and shows example for the personnel,
- identifies areas of responsibility necessary to reach the aims of environment protection,[21]
- guarantees the careful usage of natural resources and energy sources[22]

[15] NATO STANDARD AJEPP-4: i. m. 21, 23–25.
[16] Environmental Considerations fm3-34-5. Headquarters, Department Of The Army, Washington DC, 2010, 65.
https://www.globalsecurity.org/military/library/policy/army/fm/3-34-5/fm3-34-5.pdf
[17] Environmental Considerations atp3-34-5, i. m. 63–72, 114.
[18] Environmental Guidebook For Military operations. Printed in USA, 2008, 10–11, 19, 21–22, 23–24.
https://www.defmin.fi/files/1256/Guidebook_final_printing_version.pdf
[19] David E. Mosher et. al.: Green Warriors, Army Environmental considerations for contingency operations from plannig through post-conflict. Arroyo Center, Rand Corporation, 2008, 36.
[20] Uo.
[21] NATO STANDARD AJEPP-4: i. m. 21, 23–25.
[22] Uo.

- Keeps the relations with the civilian communities in connection wi,th the environment protection,[23]
- Integrates the notion of pollution prevention,
- takes care to do environmental measurements during operation planning,[24]
- integrates questions of environment protection in the decision making processes[25],
- ensures that the Environmental Baseline Survey (EBS) is performed before the establishment of the camp,[26]
- follows the environment protection guidelines either domestic or international,
- supports sustainability,[27]
- nominate the proper persons for the given position,
- ensures the evaluation of results,[28]
- all in all, he ensures all personal and material conditions that are required by the environment protection and the sustainability.

Environmental officer

The main task of the environmental officer is to support the decisions of commanders in environment protection and sustainability, in all phases of the operations. He needs to know about relevant environmental protection regulations whether they are international or domestic and he must follow them.[29] He needs to handle and archive all documents connected with environment protection[30] such as the Environment Management Plan, the Environmental Baseline Survey or the Environmental Impact Assessment. He needs to check tasks of fire protection and waste management as well.[31] This way he needs to be in connection with the personnel and he needs to be available in connection with environmental issues.

Executive officer

He has to coordinate the tasks of the personnel and provide quick and effective work. He has to assure that the personnel continuously keeps track the impacts of operations on the environment taking into consideration the state of the environment.[32] Furthermore, he is responsible for the integration of the risk assessment into the process of operation planning.[33]

[23] Uo.
[24] Environmental Considerations atp3-34-5. i. m. 63–72, 114.
[25] Uo.
[26] Uo.
[27] Uo.
[28] Uo.
[29] Krátai Róbert: Mindenre kiterjed a figyelmük. https://honvedelem.hu/nyomtat/21404
[30] Environmental Guidebook For Military operations. i. m. 10–11, 19, 21–22, 23–24.
[31] Krátai: i. m.
[32] Environmental Considerations atp3-34-5. i. m. 63–72, 114.
[33] Uo.

Command Sergeant Major

He enforces the environmental guidelines and norms and secures their following. He also ensures for the new members of the personnel to acquaint them the commanding guidelines and regulations.[34] He gives advice and recommendations for the personnel in connection with sustainability.[35] He supervises the process of education and records the shortcomings.[36]

Personnel Staff Officer

He is responsible for all the tasks in connection with the personnel. He ensures that in the commandment the environmental thinking is continuously present. He supervises both the civilian and the military personnel.[37]

Intelligence Staff Officer

He is responsible for the elements that are connected to the environment protection. These are the following: key traffic junctions, industrial areas, military equipment storages, agricultural areas, hospitals, places of cultural heritage[38] and altogether, areas of critical infrastructure.

Operation Staff Officer

During operational planning he sheds light upon possible environmental vulnerability and the impacts of the environmental damage, thus supporting decision making. He takes part in the preparation and supervision of the (environmental) curriculum. With others he coordinates the elaboration of the Environmental Baseline Survey and the Environmental Closure Report He can appoint special missions to defend some sensitive areas or critical infrastructure.[39]

Logistics Staff Officer

Among pothers he is tasked with the transport, storage, limitation of its quantity and supervision of waste, including dangerous waste. He also deals with the question of sewage.[40]

Civil Affairs Staff Officer

He envisions the relationship of the civil population and their surroundings. He informs the commander about the short time and longtime impact of a given operation on the civilians (economic, environmental and medical).[41]

[34] Uo.
[35] Uo.
[36] Uo.
[37] Uo.
[38] Uo.
[39] Uo.
[40] Environmental Considerations atp3-34-5. i. m. :63–72, 114.
[41] Uo.

Medical Officer

He observes health dangers arising from the place of work, food, potable water. He informs about health threats, he takes care of documenting of medical waste.[42]

Chemical, Biological, Radiological and Nuclear Officer

He can be found at all levels of commandment. He integrates the methods of chemical recce to help perform measurements of the area. He is also responsible for the protection of these devices.[43]

Engineer Staff Officer

He cooperates with other officers thus it is easier to establish the impact of operations on the environment, population, resources. They also help the commanders in the integration of environmental issues. He makes technical appreciation where he includes environmental aspects. He also examines the environmental issues of transport of dangerous waste.[44]

Transportation Officer

Art the transportation of the dangerous waste he prepares the personnel at proper level as well as supervises whether all regulations are kept. He secures the equipment and he documents the cargo.[45]

Maintenance Officer

He ensures that the dangerous materials appearing during the process og maintenance are identified, separated to proper levels, their storage, their inactivation.[46]

Weather Officer

Meteorological information is indispensable elements in the process of the strategic planning and analysis.[47]

Staff Judge Advocate

He gives advice to the commander in connection with the compliance to the laws of environmental protection, regulations and guidelines. He gives legal advice in health issues, in environmental issues, and in compensation issues. He helps other officers to understand legal questions pertaining to their territories.[48]

Public Affairs Officer

He informs the commander about the methods of information dissemination and how to handle information distribution for the public.[49]

[42] Uo.
[43] Uo.
[44] Uo.
[45] Uo.
[46] Uo.
[47] Uo.
[48] Uo.
[49] Uo.

HADTUDOMÁNYI SZEMLE

2018. XI. évfolyam 2. szám

ENVIRONMENTAL MEASURES DURING THE OPERATIONS OF THE MILITARY FORCES

During the process of the planning of the operations it has already been mentioned before that the protection of the environment plays an important role. In the following we are going to examine several procedures that applied by the military forces (both internationally and domestically), but at the same time they have connection to the civilian life as well. Chart 2 shows them.

International	*Domestic*
Environmental Baseline Survey (EBS)	Environmental Survey
Environmental Baseline Study	Environmental Assessment
Environmental Impact Assessment (EIA)	Environmental Impact Assessment

Chart 2: Procedures in environment protection [own editing]

ENVIRONMENTAL BASELINE SURVEY (EBS)

It is abbreviated as EBS is a method of measurement and assessment with its application we can identify the existing dangers,[50] we can shed light upon changes in the environment during operations,[51] and it is a basis for the beginning of any activity, whether it is of military or civilian origin.

In another formulation the EBS is the so-called technical assessment of many other environmental performance programs combined with the assessment of the soil, the ground and underground water, which includes, among others, examination of records in connection with the topic, personal interviews, photographed documentation, lab examinations performed at more serious cases, the assessment of the samples and other examinations.[52]

Its aims are the following:[53]

- It identifies, characterizes and records the presence or the possible presence of some dangerous material, which influenced the given area during the previous usage of the territory or originates from the neighbouring areas,
- provides basis for the takeover or rent of the given territory,
- from trade point of view provides territorial information that helps to trade with the given area.

[50] Environmental Guidebook For Military operations. i. m. 10–11, 19, 21–22, 23–24.
[51] Uo.
[52] David M. Wilkins: Conducting an Environmental Baseline Survey in Contingency Operations, EBS3 2004, 1–3. http://www.wood.army.mil/engrmag/PDFs%20for%20Oct-Dec%2004/Wilkins.pdf
[53] Environmental Baseline Surveys, Negotiating the EBS Process. http://proceedings.ndia.org/jsem2007/3806_Fox.pdf

The main tasks are the following:[54]

- area inspection (the given state needs to be assessed, people present or working on the territory need to be interviewed or it is necessary to evaluate the neighbouring territories)
- searching for records, protocols, their examination (previous studies air photographs, real possession records, technical drawings, maps from the area of the water areas and from geological point of view, data of the public utilities, the examination of the national and state environment protection database, search for documents),
- the examination of the environmental data: climate, geology, endangered species, cultural sources
- examination of the potential pollutants
- tracking
- preparation of the briefing.

The following four steps illustrate the execution of the EBS:[55]

1. Examinations at the site must be performed:
2. Personal interviews with people who work there.
3. Examination of the documentation and legal regulations pertaining to the area.
4. Documentation of the examinations.

Altogether it needs to contain the following:[56]

- the description of the facility and the general operational conditions,
- use of the neighbouring territory, including potential physical involvement,
- suggested missions/functions,
- topographical, hydrological, geological characteristics,
- type of terrain, terrain coverage,
- climatic and pertaining seasonal views,
- previous usage of the territory and of the direct neighbouring areas (environment recce),
- the source of the water supply and its state,
- electricity supply,
- medical waste management and its endangerment,
- waste endangerment,
- existing ground and underground containers,
- visible signs of a potential environment pollution,
- quality of the air,
- natural resources,

[54] Uo.
[55] Wilkins: i. m. 1–3.
[56] Environmental Guidebook For Military operations. i. m. 10–11, 19, 21–22, 23–24.

- historic and cultural resources,
- known illnesses and vectors,
- presence of UXOs,
- legal matters, including regulatory interventions,
- comprehensive general sustainability evaluation,
- records of samples and their analysis,
- specific area directions.

ENVIRONMENTAL BASELINE STUDY

Describes the following elements:

- the report being prepared concentrates on what, why it is necessary to prepare the report,[57]
- in the totality of the area where the examination is conducted as a subject of the examination,
- the environmental state of the area(its previous and present use)
- remediation possibilities if the area is polluted (independently from the fact that it happened in the past or in the present).

It is built up from the following elements:

1. Introductory phase:[58]
   - the detection of the aims of the examination,
   - the method of the examination of the area.[59]
2. Marking of the examined territory, indication of its geographical position.[60]
3. Picture of the site (personal viewing as with the Environmental Baseline Survey):
   - what the area was used for in the past,
   - in the present what the area will be used for,
   - measurement of the neighbouring territories,
   - hydrological, geological, topographic measurements,
   - the measure of the utility services in the area and their state.
3. Expedient environment protection examinations:[61]
   - examination of dangerous materials (if there are any on the examined area),
   - dangerous waste, other waste from illegal placement,
   - examination of possible storage containers,
   - examination of all cases indicating pollution.
5. Taking environment samples.[62]

[57] Environmental Baseline Study Anywhere. https://postconflict.unep.ch/publications/UNEP_2011-08_EBSreport_Template_withInstructions.pdf
[58] Uo.
[59] Uo.
[60] Uo.
[61] Uo.

6. Determinations and conclusions.[63]
7. Classification.[64]

We could see from the above-mentioned that the Environmental Baseline Survey and the Environmental Baseline Study show several similarities. In their build and their methods of procedures there are smaller differences and complements but altogether both methods are based on the same principle and their aims are the same, too.

BASIC REQUIREMENTS FOR THE ESTABLISHMENT OF A CAMP/BASE (EXAMPLE)

This part is taken out as an ex ample because EBS can be best illustrated from the point of view of the military forces. When a new facility is established such as a military base the EBS must be performed. When a civilian or a military facility is established the foundations connected with environment protection may be the same, only the previous one need to be supplemented with extra criteria pertaining to its character.

Some of the following elements were taken from the planning of a military-related dangerous waste storage unit. This shows that what other criteria need to be taken into consideration beyond the ones mentioned in the EBS.

The more important elements of the planning phase:

- geological information serves the purpose of the identification of the breakage points in the vicinity of the facility being built,[65]
- we can make assumptions from the character of the ground if there is a likely pollution,
- how the ground can keep the pollution in,[66]
- by monitoring of the underground water we can establish the direction of the water movement, so in case of a possible leakage we can assess which water supplies are likely to be polluted[67],
- monitoring of the ground waters(the measure of how possible floods may endanger the given facility,[68]
- meteorological data can help to choose structural and mechanical criteria,[69]
- the place and accessibility of the facility
- evaluation of the neighbouring territories if they are populated areas, industrial parks, etc.
- utilities supply and proper ensurement of the infrastructure,

[62] Uo.
[63] Uo.
[64] Uo.
[65] Unified Facilities Criteria (UFC), Design, Hazardous Waste Storage, 17–24. https://www.wbdg.org/ccb/DOD/UFC/ufc_4_451_10n.pdf
[66] Uo.
[67] Uo.
[68] Uo.
[69] Uo.

- establishment of the communication system (telephones, inner communication net, alarm system),
- establishment of the proper level of security(security systems, manned security, mechanical security, application of technical devices),
- during the planning of fire defence when there is waste that reacts with water so gas or hard type of extinguishing needs to be used there. In other area it is allowed to use water-based extinguishing,[70]
- within methods used against explosions there are devices such as light structured walls, light structured roofs, windows, roof windows,[71]
- protection of our natural and cultural values,
- planning should be in accordance with sustainability.

ENVIRONMENTAL SURVEY

In broader sense the measurement of the state of the environment deals with the complex system of our environment, on the other hand, in a narrower sense it concentrates on the condition of the environment, on the influencing factors and impacts.[72]

According to another formulation "the task of the measurement of the state of environment (previous measurement) is in connection of the economic assessment of a given workshop, establishment or settlement the definition of the environmental burden (environmental factors), in other words the identification of activities and their price that is necessary to satisfy the environmental or nature protection legal laws or authority regulations".[73]

During the measurement of the state of the environment it is necessary to examine the elements found in Chart 3:

State of the soil	soil massing, erosion, deflation, dryness, soil pollution sources, defence against pollution, soil degradation processes
Quality of the water	systematic examination, assessment, qualification
Quality of the air	air pollutants, their sources, emission regulation, odour materials, etc.
Protection of the nature	protection of the natural habitats, protection of the plants and animals and endangered species

[70] Uo.
[71] Uo.
[72] Bánhidi Olivér, Hutkainé Göndör Zsuzsa: A környezetállapot-értékelés szerepe, jelentősége a környezetpolitikában. Miskolci Egyetem, Kémiai Intézet, 5–8.
http://midra.uni-miskolc.hu/document/12564/4639.pdf
[73] Dr. Bulla Miklós et. al.: Környezetállapot-értékelés, Magyarország környezeti állapota, monitorozás. 2008, 111, 113, 123–124.
http://www.sze.hu/~radicsa/HALLGATOK/17-KAE-080101.pdf

Environment security	natural or man-made accidents that endanger our environment, pollution, natural disasters
Waste management	examination of how waste is collected, managed, stored, inactivation, its final placement or its polluting effects
Noise protection	sources of noise, noise effects, methods of noise and oscillation, etc.

Chart 3. The most important state indicators examined during environment state measurement [own editing]

We can perform the assessment with the help of this data for the environment state measurement the following 3 methods are the most frequent:

- Stochastic method: repetitive measurement is emphasized, on its basis the change can be introduced by the differences in measurements.[74]
- Method of determination: it is a complex method of examination that checks a given ongoing process.[75]
- Holistic method: ”the system supports the preparation of prognosis known in the consequences of the alternatives and in the regulation and development intervention for their elaboration”.[76]

The measurement of the environment state is composed of the following phases:[77]

1. The introduction of the area needed to be examined.
2. Preparation work.
3. Carrying out exploration operations.
4. Laboratory testing methods used.
5. Analysis of soil samples.
6. Analysis of ground water.
7. Final operations.

ENVIRONMENTAL ASSESSMENT

By using the data and measurements gained from an earlier conducted environmental survey, the environmental assessment can describe, evaluate and classify a given situation.[78]

[74] Bánhidi, Hutkainé Göndör: i. m. 5–8.
[75] Uo.
[76] Uo.
[77] Talajvédelem-talajremediáció, Agrár-környezetvédelmi Modul. Debreceni Egyetem, Pannon Egyetem. www.tankonyvtar.hu/en/tartalom/tamop425/0032.../048_talaj.ppt
[78] Bánhidi, Hutkainé Göndör: i. m. 5–8.

Therefore the survey and the assessment together provide the parameters used to describe the environment as a whole or some of its individual elements (soil, water, air, wildlife, land).[79]

It is advisable to use SWOT analysis during the environmental assessment, as the evaluated data can be grouped according to their favourable and unfavourable properties. Using the analysis, we can identify what the strengths and weaknesses are, and the presented risks and their solutions.[80]

ENVIRONMENTAL IMPACT ASSESSMENT

The common understanding of impact assessment is the process of evaluating the connection between events, processes and occurrences.[81]

According to a more accurate definition "Environmental Impact Assessments are regulated procedures with a role of identifying, assessing and presenting the environmental changescaused or potentially caused by human activities, constructions or products, in order to ensure that the environmental requirements are taken into consideration during the development consent procedure."[82] The assessment includes the information gathered during the impact assessment process, the description of the assessment subject and the emerging impacts.[83]

The environmental impact study, which is completed during the assessment and eases the decision-making process, is also part of the assessment.[84] [14] The study has to include background information, the technical aspects of the activity, individual impact factors, impact area, assessment of the environmental status, estimation and evaluation of the expected environmental impacts and transboundary environmental impacts.[85]

SUMMARY

In the first section we found out the role of the integration of environmental awareness in the training materials of the armed forces. It also appeared, that there are materials connected to special work areas, beyond the basic training (collective) of the rank and file, that are only relevant to the person/persons (individual) working in a particular area. Some of these have been presented through examples taken from different levels of the rank and file and the management. Overall, it can be said that this is a good exercise, the use of which gives a positive image of the armed forces to civil society.

[79] Uo.
[80] Uo.
[81] Dr. Bulla et. al.: i. m. 111, 113, 123–124.
[82] Uo.
[83] Katonáné Gombás Katalin: Birtokrendezési és tervezési ismeretek 15., Környezeti hatástanulmány mint a birtokrendezés része. Nyugat-Magyarországi Egyetem, 2010, 15.2, 15.8, 15.9. http://www.tankonyvtar.hu/hu/tartalom/tamop425/0027_BTRI15/ch01.html
[84] Uo.
[85] Uo.

In the second section, environmental protection related methods were demonstrated which are also used in the armed forces. The primary objective of the demonstration of these methods was to find out what similarities there are between some of the methods used in Hungary, such as Environmental Survey, Environmental Assessment and Environmental Impact Assessment, and the internationally used Environmental Baseline Survey (EBS), Environmental Baseline Study and Environmental Impact Assessment. We have seen, that the principle and the elements of the Environmental Impact Assessment are almost identical. The same can also be said about the Environmental Baseline Survey and Environmental Baseline Study methods. The Environmental Assessment and Environmental Baseline Survey used in Hungary are also identical in terms of their principle and elements. The small differences and deviations (in the methods used) resulted from country specific environmental regulations. The overall conclusion is, that there are not any significant differences in the context of their use in terms of their focus being on environmental protection and sustainability.

BIBLIOGRAPHY

1. Bánhidi Olivér, Hutkainé Göndör Zsuzsa: A környezetállapot-értékelés szerepe, jelentősége a környezetpolitikában. Miskolci Egyetem, Kémiai Intézet. http://midra.uni-miskolc.hu/document/12564/4639.pdf
2. Dr. Bulla Miklós et. al.: Környezetállapot-értékelés, Magyarország környezeti állapota, monitorozás.
3. 2008. http://www.sze.hu/~radicsa/HALLGATOK/17-KAE-080101.pdf
4. Environmental Baseline Surveys, Negotiating the EBS Process., http://proceedings.ndia.org/jsem2007/3806_Fox.pdf
5. Environmental Baseline Study Anywhere. https://postconflict.unep.ch/publications/UNEP_201108_EBSreport_Template_withInstructions.pdf
6. Unified Facilities Criteria (UFC), Design, Hazardous Waste Storage. https://www.wbdg.org/ccb/DOD/UFC/ufc_4_451_10n.pdf
7. Environmental Considerations fm3-34-5. Headquarters, Department Of The Army, Washington DC, 2010. https://www.globalsecurity.org/military/library/policy/army/fm/3-34-5/fm3-34-5.pdf
8. Environmental Considerations atp3-34-5. Headquarters, Department Of The Army, Washington DC, 2015. https://fas.org/irp/doddir/army/atp3-34-5.pdf
9. Environmental Guidebook For Military operations. Printed in USA, 2008. https://www.defmin.fi/files/1256/Guidebook_final_printing_version.pdf
10. Katonáné Gombás Katalin: Birtokrendezési és tervezési ismeretek 15. Környezeti hatástanulmány mint a birtokrendezés része. Nyugat-Magyarországi Egyetem, 2010. http://www.tankonyvtar.hu/hu/tartalom/tamop425/0027_BTRI15/ch01.html

11. Krátai Róbert: Mindenre kiterjed a figyelmük. https://honvedelem.hu/nyomtat/21404
12. Wilkins, David M.: Conducting an Environmental Baseline Survey in Contingency Operations, EBS3 2004,1–3. http://www.wood.army.mil/engrmag/PDFs%20for%20Oct-Dec%2004/Wilkins.pdf
13. Mosher, David E. et. al.: Green Warriors, Army Environmental considerations for contingency operations from plannig through post-conflict. Arroyo Center, Rand Corporation, 2008. https://books.google.hu/books?id=d_7eSd0o9XEC&pg=PA35&lpg=PA35&dq=commander%27s+responsibilities+environmental&source=bl&ots=lM24M9S6Yh&sig=sft5-agXTzS61vAt39jI-CAq0n0&hl=hu&sa=X&ved=0ahUKEwi_rMaai57aAhXFBiwKHcmhBBwQ6AEIXTAH#v=onepage&q=commander's%20responsibilities%20environmental&f=false
14. NATO STANDARD AJEPP-4: Joint NATO Doctrine For Environmental Protection During Nato-Led Military Activities. Edition A Version 1, Published by NATO Standardization Agency (NSA), 2014. http://nso.nato.int/nso/nsdd/_CommonList.html
15. Talajvédelem-talajremediáció, Agrár-környezetvédelmi Modul. Debreceni Egyetem, Pannon Egyetem. www.tankonyvtar.hu/en/tartalom/tamop425/0032.../048_talaj.ppt

http://webcache.googleusercontent.com/search?q=cache:kWZWZ3n8CJQJ:www.tankonyvtar.hu/en/tartalom/tamop425/0032_agrarkornyezetvedelem/046_talaj.ppt+&cd=1&hl=hu&ct=clnk&gl=hu