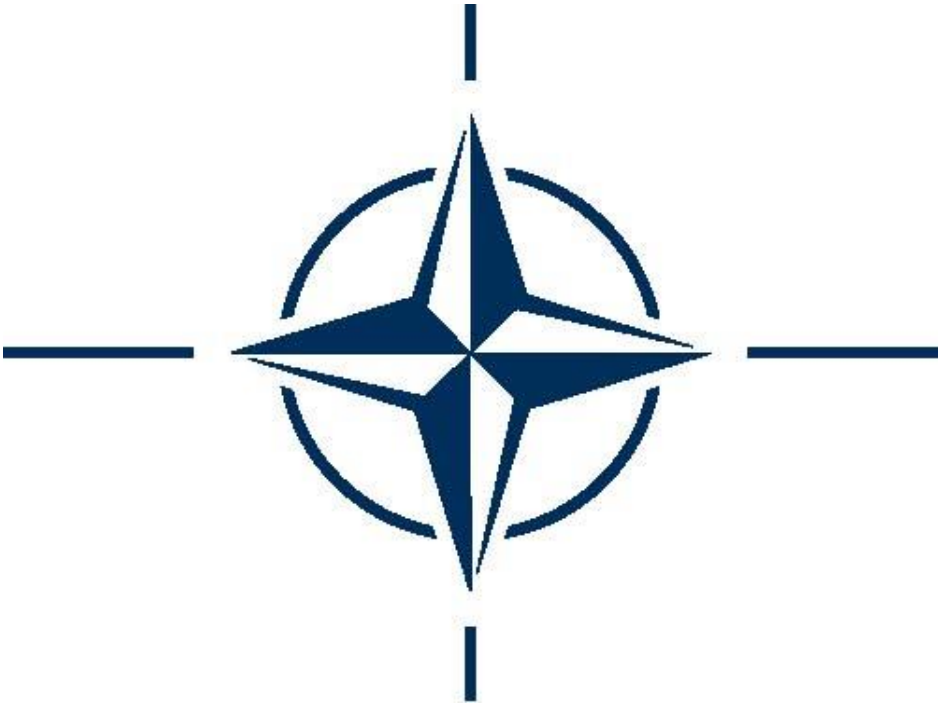
NATO STANDARD

AJEPP-3

ENVIRONMENTAL MANAGEMENT SYSTEM IN NATO MILITARY ACTIVITIES

Edition A, Version 2

APRIL 2023



NORTH ATLANTIC TREATY ORGANIZATION

ALLIED JOINT ENVIRONMENTAL PROTECTION PUBLICATION

Published by the
NATO STANDARDIZATION OFFICE (NSO)

INTENTIONALLY BLANK

NORTH ATLANTIC TREATY ORGANIZATION (NATO)

NATO STANDARDIZATION OFFICE (NSO)

NATO LETTER OF PROMULGATION

4 April 2023

1. The enclosed Allied Joint Environmental Protection Publication AJEPP-3, Edition A, Version 2, ENVIRONMENTAL MANAGEMENT SYSTEM IN NATO MILITARY ACTIVITIES, which has been approved by the nations in the Military Committee Joint Standardization Board, is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 2583.

2. AJEPP-3, Edition A, Version 2, is effective upon receipt. It supersedes AJEPP-3, Edition A, Version 1, which shall be destroyed in accordance with the local procedure for the destruction of documents.

3. This NATO standardization document is issued by NATO. In case of reproduction, NATO is to be acknowledged. NATO does not charge any fee for its standardization documents at any stage, which are not intended to be sold. They can be retrieved from the NATO Standardization Document Database (https://nso.nato.int/nso/) or through your national standardization authorities.

4. This publication shall be handled in accordance with C-M(2002)60.

Dimitrios SIGOULAKIS
Lieutenant General, GRC A
Director, NATO Standardization Office

INTENTIONALLY BLANK

RESERVED FOR NATIONAL LETTER OF PROMULGATION

INTENTIONALLY BLANK

RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATION BY NATIONS
Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.	

INTENTIONALLY BLANK

RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
BGR	In conducting NATO trainings, exercises and operations on the Bulgarian territory, the national requirements of environmental protection should be observed in case they are stricter than the norms stated in the standardization document.
CZE	The new Waste Act No. 541/2021(On waste), with effect from 2021, does not have ready-made implementing regulations. Thus, waste management obligations and exemptions for end of life products cannot be established.
DEU	DEU considered STANAG 2583 (AJEPP 3) as a tool to provide EP officers with an understanding of how to integrate an EMS into the NATO operations planning process during NATO military activities. The implementation of an EMS and its integration into the EP Appendix of the OPLAN depends on the intent of the commander.
GBR	It is unclear to the UK who should be responsible for providing 2nd Party Assurance that these requirements are being met. Section 4.2 states that: 2. There are a number of performance evaluation options, including but not limited to the following: a. strategic EP evaluations carried out by national (external) EP experts or a higher NATO HQ, such as SHAPE or a Joint Force Command (JFC); b. tactical EP evaluations carried by the deployed EP officer; c. unit EP evaluations carried out by unit EP officers (self-assessment); and d. targeted EP evaluations, which are assessments of performance of specific areas measured against, for example, HN EP standards such as soil pollution or waste disposal. 3. Key to the evaluation process is consistency. Therefore, the HQ of the NATO-led military force is responsible for developing a protocol and set of questions to facilitate a mission-wide EP performance evaluation.
GRC	AJEPP-3 is to be considered a non-mandatory document to use depending on the specific operative situation.
ITA	In accordance with the policies contained in MC 469/1, the Environmental Management System described in this publication must necessarily be adapted on the specific operative situation

SVN	SVN considers STANAG 2583(2) as a tool to provide EP officers and commanders with an understanding of how to integrate an EMS into the NATO operations planning process. AJEPP-3 Ed. A V1 is to be considered a non-mandatory document to use depending on situation.
USA	ratifying this document. Nothing in AJEPP-3 supersedes existing SOFAs. This reservation will be removed when the appropriate correction is made to para 1.1. (2) The USA maintains that the level of effort expended towards EMS is subject to Commander discretion as required. Although this standard is informed by international EMS best practices, neither ISO 14001:2015 compliance nor certification is directed. This reservation will be removed when the appropriate correction is made to para 1.2.
Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.	

TABLE OF CONTENTS

INTENTIONALLY BLANK

CHAPTER 1 – INTRODUCTION TO ENVIRONMENTAL MANAGEMENT SYSTEM AND THE NATO OPERATIONS PLANNING PROCESS

1.1. INTRODUCTION

1. NATO's policy on environmental protection (MC 469/1, reference A) states that environmental protection (EP) will be integrated into all NATO military activities, consistent with operational imperatives. The intent of the policy is to ensure that adverse environmental impacts are minimized. Effective EP also enhances mission success by contributing to force protection, supporting operations primacy and upholding the mission and commanders' direction. It supports NATO's reputation and protects NATO from current and future environmental legal action.

2. NATO commanders must know how military activities affect, and are affected by, the environment, i.e. they must be aware of the environmental aspects and risks of their activities. It is the responsibility of commanders and planners to include environmental considerations in their planning processes in accordance with NATO policy (MC 469/1) and doctrine, particularly STANAG 7141 (AJEPP-4), Joint NATO Doctrine for Environmental Protection during NATO-Led Military Activities (reference E).

3. An environmental management system (EMS) is a systematic management approach that enables NATO commanders to improve environmental performance, achieve established environmental objectives and monitor conformity during a NATO military activity. This includes identifying environmental aspects pertaining to the mission and reducing adverse environmental impacts of military activities. The identification of potential environmental impacts as early as possible in the planning process will ensure the effective development of mitigation and control measures.

4. NATO commanders are supported by EP officers in all aspects of an EMS. The requirements of an EMS and the associated duties of an EP officer are detailed in this publication.

1.2. AIM

The aim of AJEPP-3 is to provide EP officers with an understanding of how to integrate an EMS into the NATO operations planning process (OPP) during NATO military activities.

1.3. SCOPE

1. AJEPP-3 is intended to apply to NATO military activities. Any nation that desires to apply AJEPP-3 to non-NATO military activities is encouraged to do so.

2. Environmental management systems are tools and methods meant to ensure compliance and a continued effort to optimize environmental performance in the frame of the activity; they are not an ambition in themselves. AJEPP 3 does not specify which EMS

standard to use, nor does it state absolute requirements for an EMS; it details best practice in incorporating EMS into the OPP.

3. This standard is part of a larger family of NATO Environmental Protection Publications:

a. MC 0469/1 details principles and policies that define the responsibilities of NATO Commanders, Commanders of units from all participating NATO Nations and non-NATO Troop Contributing Nations for EP during the preparation for and execution of military activities;

b. STANAG 2582 (AJEPP-2) provides NATO commanders and environmental protection (EP) officers with best EP practices and standards for military camps to minimize adverse environmental impacts during NATO-led operations;

c. STANAG 7141 (AJEPP-4) provides EP doctrine, guidance for environmental planning and risk management, commanders' environmental responsibilities and recommendations for environmental education and training;

d. STANAG 6500 (AJEPP-6) describes all the components of the environmental file during NATO-led activities; and

e. STANAG 2594 (AJEPP-7) provides best practices for the sustainability of national military training areas.

1.4. NATO OPERATIONS PLANNING PROCESS

1. To understand how the EMS is to be integrated into the NATO OPP, the EP officer must first have a clear understanding of the OPP. The OPP is a logical military problem solving process that draws together all factors to enable the development of a feasible course of action (COA) and the subsequent development of the operation plan (OPLAN). NATO's OPP is described in detail in the Allied Command Operations Comprehensive Operations Planning Directive (COPD) Interim V2.0 (reference G) and STANAG 2526 (AJP-5), Allied Joint Doctrine for Operational-Level Planning (reference C). Set within the context of a NATO contribution to a comprehensive approach, the COPD outlines the military procedures and responsibilities governing the preparation, approval, assessment, implementation and review of OPLANs. The EP officer should consult these references and may consider additional education in NATO's OPP, specifically as it relates to EP.

2. At the operational level, NATO's OPP entails the following six phases[1]:

a. Phase 1 – initial situational awareness of potential or actual crisis;

b. Phase 2 – operational appreciation of the strategic environment;

c. Phase 3 – operational estimate (including two sub-phases of mission analysis and COA development);

[1] Operational-level OPP phases as identified in COPD v2.0.

d. Phase 4 – operational plan development (including two sub-phases of operational concept of operations (CONOPS) development and operational OPLAN development);

e. Phase 5 – execution; and

f. Phase 6 – transition.

1.5. EMS AND OPP INTERRELATIONSHIPS

1. The traditional EMS model has been defined using the Deming Circle of plan-do-check-act (PDCA). The NATO EMS follows the same PDCA structure. It provides a systematic series of steps for implementing effective environmental management and for gathering lessons observed with a view to achieving continual improvement. In order to understand the connection between NATO OPP and the EMS model, Figure 1.1 illustrates the interrelationships between the two processes. The main EMS planning effort will be during Phases 1 to 4 of the OPP, after which the PDCA cycle will occur during Phase 5 (possibly more than once for a long deployment). The PDCA cycle may also occur during Phase 6.

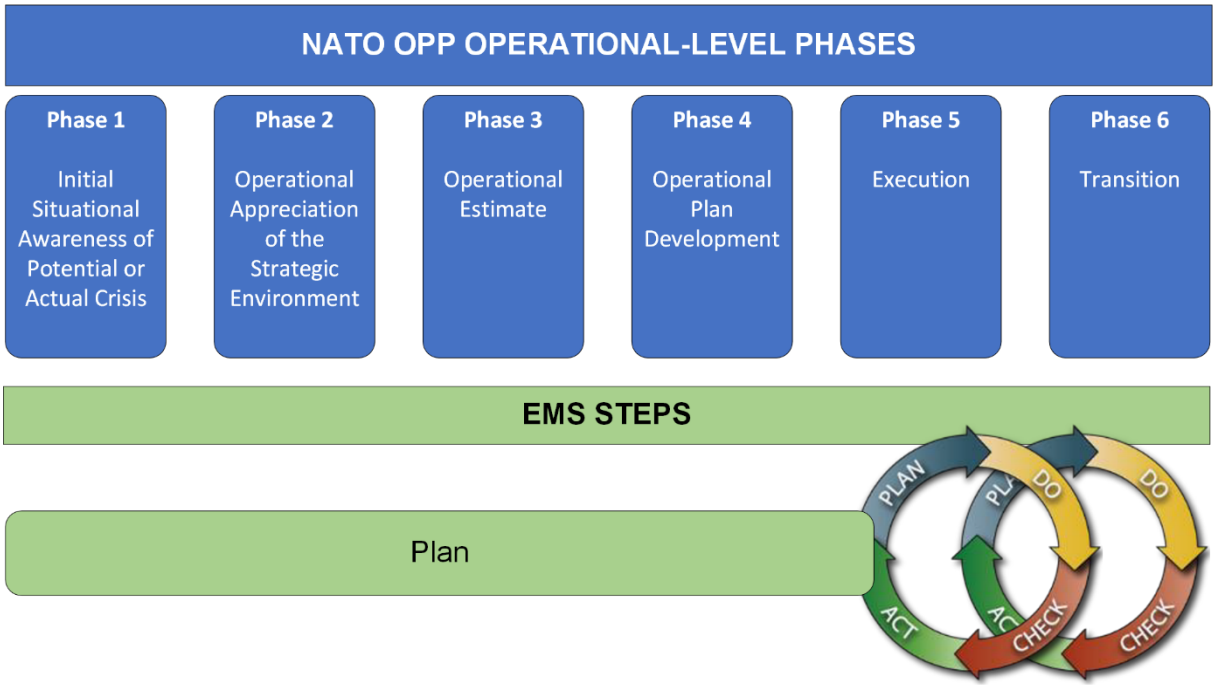


Figure 1.1: Relationships between OPP Phases and EMS Steps.

2. The tasks of the EP officer will vary not only at each phase of the NATO OPP but also depending on the level of the organization (strategic, operational or tactical). Often, EP officers at the strategic and operational levels will be more involved in Phases 1-4, whereas the tactical-level EP officer will be more involved in Phases 5-6. Strong communication and effective handover between the EP officers at the various levels will be important to the success of an EMS. Table 1.1 provides some of the potential tasks of the EP officer during each phase at the operational level.

NATO OPP Phase			
Phase 1	**Phases 2-3**	**Phase 4**	**Phase 5-6**
Initial Situational Awareness of Potential or Actual Crisis	Operational Appreciation of the Strategic Environment and Operational Estimate	Operational Plan Development	Execution and Transition
Participate in planning team. Develop environmental intelligence products in conjunction with other subject matter experts (SMEs). Research local environmental regulations, standards and practices.	Provide ongoing EP advice and support to planning team. Identify potential environmental aspects and impacts of the mission.	Participate in recce and establish contact with host nation (HN) EP personnel. Conduct environmental impact assessments (EIAs). Confirm environmental aspects and impacts. Produce EP Appendix to Military Engineering (MILENG) Annex[2] to OPLAN. Provide mission-specific EP education and training.	Conduct environmental studies and reports. Prepare EP products in support of the OPLAN. Continue to communicate and assess EP plan. Establish, review and monitor EMS. Advise and assist in hand over or closure.

Table 1.1: Potential Tasks of the EP Officer in Support of the OPP

[2] In NATO, the EP Appendix is part of the MILENG Annex to the OPLAN. Nations may organize or template OPLANs differently.

CHAPTER 2 – PLANNING (EMS PLAN)

2.1. INTRODUCTION

The EMS cycle begins with the planning step. According to ISO 14001:2015, Environmental management systems (reference H), this step comprises establishing environmental objectives and processes necessary to deliver results in accordance with the organization's environmental policy. In the context of the OPP, this involves identifying the environmental aspects during the development of the OPLAN, assessing the associated environmental impacts and risks, and developing measures and objectives to mitigate the risks and ensure that adverse environmental impacts are minimized.

2.2. ENVIRONMENTAL ASPECTS

One of the first actions in the planning process is the identification of environmental aspects relative to the specific military activity. These have been outlined in tabular format in Annex A and will form the basis of the EMS for the majority of NATO military activities. Guidance on identifying environmental aspects and impacts is also provided in AJEPP-4. It will be through such aspects that subsequent environmental impacts will be identified. Environmental aspects may also result in opportunities for beneficial environmental impacts. While the EP officer may lead or coordinate this action, input from SMEs of the various activities may be required in order to ensure a comprehensive identification of environmental aspects.

2.3. COMMANDERS INTENT

In accordance with MC 469/1, and as detailed in AJEPP-4, the Commander should provide clear guidance on EP for the military activities as early as possible in the planning process. The EP officer will need to provide advice in drafting the Commander's Intent. The EP officer will incorporate this into the EP Appendix of the OPLAN and provide details on how the EMS will be managed during the deployment. It also sets out the Commander's commitment to EP and sustainable development within the Commander's EMS policy statement. It is from this that the EP officer will derive the authority to implement the EMS.

2.4. LEGAL REQUIREMENTS

The EP officer must be aware of the legal requirements associated with a specific military activity. These aspects of the EMS will be developed based on the HN and troop-contributing nation (TCN) legislative and policy requirements, as well as those of the Status of Forces Agreement (SOFA), Military Technical Agreement (MTA) or similar agreement established with the HN for the mission. In accordance with MC 469/1, HN environmental laws must be respected and TCN's EP standards that are more stringent should be applied as long as not contravening HN laws and as far as is reasonably practicable. Legal aspects incorporated in a multinational EMS, and its associated orders, should consider not only

HN and each TCN's environmental regulations, but also TCNs' capabilities of meeting the requirements. The EMS should set the minimum legal requirements, while TCNs may apply higher standards in accordance with their national policy. The applicability of environmental legislation will be important in the development of the EMS and will guide many of the regulatory conditions of the activity. In all cases, it is the responsibility of the EP officer to seek the advice of the Legal Advisor (LEGAD) prior to final development, and in many cases the legal requirements will need to be established at the strategic level.

2.5. CONDUCTING A RISK ASSESSMENT

1. Once the environmental aspects and impacts of the activities have been determined, a risk assessment should be made in order to facilitate decision making concerning threat prioritization and the provision of resources to manage them. Table 2.1 provides an example method of quantifying a risk assessment of an activity. It is based on the probability and severity of an environmental incident. (Probability and severity definitions are provided below.) The higher the probability and severity of an environmental incident, the higher the risk estimate of the event and the greater attention required to mitigate it. Other methods of risk assessment, such as Fine- Kinney, involve assigning weighted numerical values to probability and severity (or similar terms) in order to determine a hierarchy of numerical scores which are used to identify the threats which require a prioritized response.

	Hazard Probability				
Hazard Severity	**Frequent**	**Likely**	**Occasional**	**Seldom**	**Unlikely**
Catastrophic	**Extremely High**	**Extremely High**	**High**	**High**	**Moderate**
Critical	**Extremely High**	**High**	**High**	**Moderate**	**Low**
Marginal	**High**	**Moderate**	**Moderate**	**Low**	**Low**
Negligible	**Moderate**	**Low**	**Low**	**Low**	**Low**
Risk Estimate Based on Hazard Probability and Severity					

Table 2.1: Risk Assessment Matrix

2. In using Table 2.1 above, the following risk definitions should be applied[3]:

   a. Extremely High Risk. If these threats occur during the mission, it will most likely fail with severe consequences to personnel and equipment or operational objective. The ability to accomplish the mission will be lost.

   b. High Risk. If these threats occur during the mission, a significant degradation of capability in terms of achieving the required operational objective, accomplishing all parts of the mission, or completing the mission to the desired standard will occur.

   c. Moderate Risk. If these threats occur during the mission, a degradation of capability in terms of achieving the required operational objective, accomplishing all parts of the mission, or completing the mission to the desired standard will occur.

   d. Low Risk. Expected losses or effects will have little or no impact on accomplishing the mission.

3. The following probability definitions should be applied:

   a. Frequent. Occurs very often, continuously experienced.

   b. Likely. Occurs several times.

   c. Occasional. Occurs sporadically.

   d. Seldom. Remotely possible, could occur at some time.

   e. Unlikely. Can assume will not occur, but not impossible.

4. The following severity definitions should be applied:

   a. Catastrophic. Loss of ability to accomplish the mission or mission failure. Death or permanent disability. Loss of political support or coalition effectiveness. Loss of major or mission-critical system or equipment. Major property or facility damage. **Severe environmental damage**. Mission- critical security failure. Unacceptable collateral damage.

   b. Critical. Significantly degraded mission capability, unit readiness or personal disability. Damage to political support or coalition effectiveness. Extensive damage to equipment or systems. **Significant damage to property or the environment**. Security failure. Significant collateral damage

   c. Marginal. Degraded mission capability or unit readiness. Minor impact on political support of coalition effectiveness. **Minor damage to equipment or systems, property or the environment**. Injury or illness of personnel.

[3] Risk, probability and severity definitions are derived from B-GJ-005-502/FP-000, Risk Management for Canadian Forces Operations, November 2007.

d. Negligible. Little or no adverse impact on mission capability. No adverse effect on political support or coalition effectiveness. First aid or minor medical treatment. Slight equipment or system damage, but fully functional and serviceable. **Little or no property or environmental damage**.

2.6. DEVELOPING OBJECTIVES AND TARGETS

1. The EP officer will use the information derived during aspect identification and risk assessment as a basis for the development of objectives and targets for the activity being planned. The objectives and targets will be prioritized based on resource availability and the Commander's priorities. As in the case of identifying environmental aspects, the EP officer may require input from various SMEs to develop appropriate objectives and targets. As well, it is important to cooperate with other TCN's and develop (where possible) common goals and objectives, certainly in a multinational activity.

2. The process of setting objectives and targets, supported by key performance indicators (KPI) is a way of improving environmental performance and achieving continual improvement. An objective is an overall goal, which may be made up of smaller targets. A target is a more detailed performance requirement that needs to be met in order to achieve the objective. For example, if a reduction of water consumption is the objective, the target is by "how much" over set time frames. Environmental objectives and targets should follow the SMART (specific, measurable, achievable, relevant, time-bound) process detailed below:

a. Specific. Well defined and clear to those responsible for meeting and monitoring objectives. The process of specifying a goal should identify requirements and constraints and consider questions such as what to accomplish, why accomplish it, who is involved and where it will happen.

b. Measurable. To determine whether objectives and targets have been attained they must be measurable. This also applies when setting guidelines to determine continual improvement within the EMS. A measurable goal will answer questions such as how many or how much and how will it be known when it's accomplished.

c. Achievable. Must be within the availability of resources, knowledge and capability of the NATO-led military forces. HN culture and behaviour toward EP must also be taken into consideration; however NATO's standard (or the more stringent HN or TCN standard) must be applied as far as practicable.

d. Relevant. Must be pertinent to supporting the mission while protecting the environment and all stakeholders must agree on the goals.

e. Time-Bound. Environmental objectives and targets must be appropriate to the stage of the military activity and must have an implementation deadline. It is unrealistic to set strict environmental objectives in the early phases when sites and environmental procedures are at early stages of development.

CHAPTER 3 – EXECUTION (EMS DO)

3.1. INTRODUCTION

During the second step of the EMS process, the plan must be implemented. As part of the execution phase of a NATO military activity, the EMS is focused on organizational development and the management of the objectives and targets developed in the planning phase. The NATO-led military force will also develop training and documentation processes within the EMS. As a final topic, control measures will be institutionalized across the NATO-led military force.

3.2. ORGANIZATIONAL CONTEXT

1. The management and execution of EP on deployments entails a range of responsibilities and tasks distributed throughout the chain of command from EP officers in the HQ of the NATO-led military force to TCN commanders and down to the individual soldiers. This structure will be contained in the relevant OPLAN. Proper consideration and effort should be made to ensure that the appropriate training and qualifications are provided to the personnel managing the EMS at each level. At the tactical level, the EMS may be supported by subordinate unit or camp environmental management plans.

2. Environmental Management Board (EMB). It is recommended that an EMB be established at the tactical (camp) level to manage, coordinate and report on the implementation of the EMS, on behalf of the NATO Commander. The EMB should report to the designated NATO Commander, who in turn is responsible to a higher NATO Commander (at the tactical, operational or even strategic level) for the environmental performance of the activities under his or her command. The EMB is usually comprised of the following personnel:

   a. Chairperson. A senior officer, typically the senior military engineer as described in MC 560/1, MC Policy for Military Engineering (reference B).

   b. Regular Members. The organization's senior EP officer and representatives from operations (J3), logistics (J4), planning (J5), MILENG (JEngr), medical (JMed) and civil-military interaction (CMI) (J9).

   c. Special Members (as required[4]). TCN EP officers and representatives from personnel (J1), intelligence (J2), finance and contracting (J8), public affairs, LEGAD, political advisor (POLAD) and HN.

3. In general, the EMB's terms of reference are to:

   a. identify environmental aspects and impacts;

   b. identify mitigation and control measures;

[4] Special members should participate in the EMB when required for their expertise or action, but need not participate on a regular basis.

c. set performance standards and KPI (performance measurement);

d. set key environmental decision points throughout the operation;

e. ensure ongoing requirements of the EMS are conducted, including audits and corrective actions (check), revisions (act) and associated reporting; and

f. report on implementation of the EMS to the NATO Commander.

3.3. TRAINING

The training requirements to meet the goals of the EMS will require a structured approach, to include individual, collective and specialist training across the NATO-led military force. This training should start as soon as possible at all levels, preferably when the generated force starts its pre-deployment training, and will be most effective if integrated with this training. Additional guidance on EP training is provided in AJEPP- 4.

3.4. DOCUMENTATION

An effective EMS requires the ability to record conformance across the NATO-led military force and to measure performance through audits and inspections. For NATO military activities, the EMS documentation will be largely based on the environmental file guidelines outlined in STANAG 6500 (AJEPP-6), NATO Camp Environmental File during NATO-Led Operations (reference F). However, specific reporting and documentation will be within the EMS and are key elements of the system.

3.5. CONTROL MEASURES

Many control measures can be integrated into the design of deployed force infrastructure, such as water treatment plants and incinerators. Control measures should be implemented as soon as possible in the camp development. Control measures may also be processes, established in standard operating procedures (SOPs), to follow the guidelines established in the EMS. (Examples are SOPs on fuel handling and hazardous waste disposal.) This will require close liaison with the HN, MILENG and logistics specialists, or contractors, as a minimum. When advising camp design staff and developing control measures, the EP officer should take into account information contained in STANAG 2582 (AJEPP-2), Environmental Protection Best Practices and Standards for Military Camps in NATO Operations (reference D).

CHAPTER 4 – ASSESSMENT (EMS CHECK)

4.1. INTRODUCTION

After the EMS has been developed (plan) and implemented (do), its effectiveness must be evaluated (check). According to ISO 14001:2015, the organization shall monitor, measure, analyze and evaluate its environmental performance. This involves determining what needs to be monitored and measured, when and how it will be done, and the criteria against which performance indicators will be evaluated. Auditing and taking subsequent appropriate corrective actions are key components of the performance evaluation.

4.2. PERFORMANCE EVALUATION

1. Environmental performance evaluation is a process designed to provide the NATO Commander with assurance that the NATO-led military force is meeting its environmental responsibilities effectively. The process will enable the commanders to evaluate both their organization's environmental performance and the effectiveness of its EMS. It will provide the performance benchmarks that allow commanders and EP officers to identify areas of improvement and to ensure that environmental measures conform to the organization's requirements and are working optimally.

2. There are a number of performance evaluation options, including but not limited to the following:

   a. strategic EP evaluations carried out by national (external) EP experts or a higher NATO HQ, such as SHAPE or a Joint Force Command (JFC);

   b. tactical EP evaluations carried by the deployed EP officer;

   c. unit EP evaluations carried out by unit EP officers (self-assessment); and

   d. targeted EP evaluations, which are assessments of performance of specific areas measured against, for example, HN EP standards such as soil pollution or waste disposal.

3. Key to the evaluation process is consistency. Therefore, the HQ of the NATO- led military force is responsible for developing a protocol and set of questions to facilitate a mission-wide EP performance evaluation. TCNs and EP officers at each level are responsible for consistent application of the protocol and questions, without changing them. The data gathered as a result of the questions shall be forwarded to the NATO-led military force HQ. TCNs are required to evaluate and review their EP performance in accordance with the agreed NATO standards, and take the appropriate action in response.

4.3. EMS AUDITING

The primary performance evaluation tool is the audit. The audit is a systematic, independent and documented process for obtaining audit evidence (verifiable records, statements of fact or other relevant information) and evaluating it objectively to determine the extent to which the audit criteria (set of policies, procedures or requirements used as a reference) are fulfilled[5]. In other words, it is a process for verifying the conformity of the units to the established EMS, and for determining its effectiveness. An audit can be conducted internally or through an external entity, such as a higher HQ. The audit will be a documented record of EMS performance. Details of EMS auditing can be found in ISO 19011:2011, Guidelines for auditing management systems (reference I).

4.4. DOCUMENTATION

The environmental audit or review will be conducted in a systematic manner. The process will lead to an audit report and subsequently a corrective action plan. The following graphic (Figure 4.1) illustrates one recommended process in the development of this documentation.

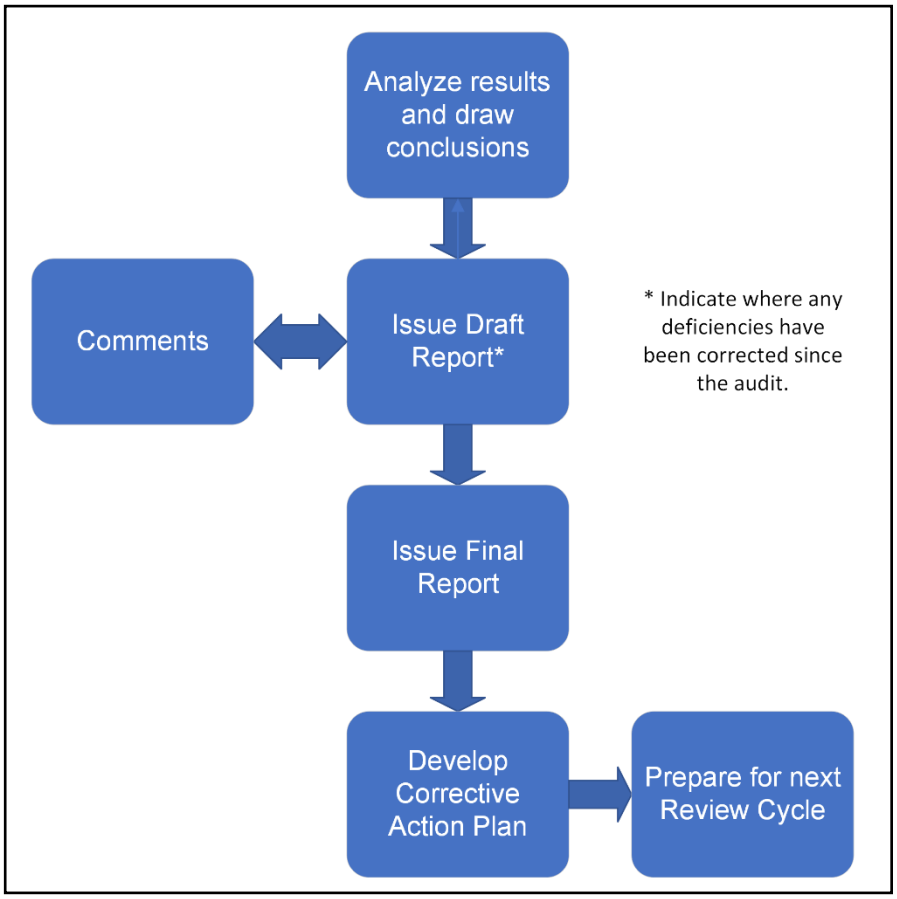


Figure 4.1: Audit Report Development

[5] Derived from ISO 19011:2011, Guidelines for auditing management systems.

4.5. CORRECTIVE ACTION PLAN

1. Nonconformity identification will require a process to take action to control and correct the nonconformity, as directed by the Commander. In a NATO military activity, the deficiencies will be monitored by the EP officer as the primary advisor on environmental matters to the Commander. As part of the auditing protocol, the development of a deficiency report or template will ensure standardization across the NATO-led military force.

2. The corrective action plan will be developed following the audit process. The goal of the corrective action plan will be to determine a way ahead to resolve the nonconformities, based on clear statements of observed problems developed during the audit. It will be important to develop achievable control measures and monitor progress of corrective actions being taken by the responsible TCN. Progress of corrective actions will be reported to the EMB, with subsequent reporting up through the NATO chain of command as required (see EMB in Chapter 3). The following is one possibility of a sequence for a corrective action plan:

a. identify the areas of concern or opportunities for improvement during the audit process;

b. develop a methodology to resolve the problem and establish a timeframe for its resolution;

c. identify who will be responsible for the action to be taken; and

d. monitor and report progress of the corrective actions.

3. The corrective action plan will be based on commonly understood KPI which need to be coordinated within the EMS. For example, a KPI may be associated with an increase or decrease in percentage of personnel who have received EP awareness training. Other KPIs in an operational environment could relate to fuel management, environmental documentation and record keeping, waste reduction, environmental incidents or energy efficiency.

INTENTIONALLY BLANK

CHAPTER 5 – COMMANDERS REVIEW

5.1. COMMANDERS REVIEW OF EMS

The EMS is a “living” system and throughout the operation it will require review at planned intervals and updates as operational conditions change or mature. Much of this will be based on the results obtained from the EMS evaluations and audits. A key principle in this step is to evaluate due diligence throughout the process. While the EMB will be the primary organization managing the review, it is important to provide the review conclusions to the NATO Commander for direction and guidance.

5.2. CONTINUAL IMPROVEMENT

The EMS review may be followed by an update of the EMS and possibly its associated objectives and targets. The intent is to achieve continual improvement. The corrective action plan described in Chapter 4 is an effective tool to assist in achieving this goal.

INTENTIONALLY BLANK

ANNEX A – ENVIRONMENTAL ASPECTS AND POTENTIAL IMPACTS

A-1. The table on the following page, although not comprehensive, is a guide to developing a list of relevant environmental aspects and potential related environmental impacts. Table A.1 focuses solely on environmental impacts, and excludes impacts on human health and other operational impacts such as personnel requirements, public support, fuel availability, financial, logistical and legal. For further information on identifying environmental aspects, see AJEPP-4 (reference E). For further information on managing environmental aspects and implementing mitigation or control measures, see AJEPP-2 (reference D).

A-2. Note that these activities, aspects and impacts on the environment are only a few of the potential ways military activities can affect the environment. In addition, the interactions between the environment and other aspects of military activities, such as camp management and maintenance, should be considered. For instance, consider the impact of water erosion on infrastructure sustainability or the effect of fauna on viral transmission of communicable diseases.

Activity	Environmental Aspect	Environmental Impact
Operation of vehicles, aircraft, ships and support equipment	Use of POL, POL spills. Exhaust gas emissions. Noise emissions.	Soil, water or air pollution. Climate change. Disturbance or harm to flora, fauna or habitat.
Camp beddown (siting, ground preparation, construction)	POL spills. Use of resources. Production of solid waste and waste water.	Soil, water or air pollution. Depletion of natural resources (e.g. groundwater extraction, removal of vegetation). Storm water discharge. Habitat destruction. Cultural property disturbance.
Camp operation (heating, cooling, lighting, use of equipment, computers, etc.)	Use of POL for generators. POL spills. Release of coolants. Emission of exhaust gas. Emission of noise. Production of solid waste and waste water. Firefighting effluent.	Soil, water or air pollution. Climate change. Disturbance or harm to flora, fauna or habitat. Vector and pest control.
Medical services	Infectious (health care) waste.	Soil, water or air pollution. Harm to fauna or habitat. Vector and pest control.
Maintenance services	POL or HAZMAT spills. Production of waste.	Soil, water or air pollution. Harm to flora, fauna or habitat.
POL and HAZMAT storage and transportation	POL spills. HAZMAT spills.	Soil, water or air pollution. Harm to flora, fauna or habitat.
Military activities in general	Impact on cultural property[6]. Use of natural resources.	Damage to cultural property, including religious, historical or archaeological sites or structures. Depletion of non- renewable resources. Reduced biodiversity. Impaired sustainability.

Table A.1: Activities and Associated Environmental Aspects and Potential Impacts.

[6] In NATO, cultural property protection (CPP) is the purview of CIMIC; however the EP officer must have an awareness of CPP in order to offer apt advice concerning camp siting and to effectively consider EMS relations to cultural property.

ANNEX B – SAMPLE EMS TEMPLATE FOR A NATO MILITARY ACTIVITY

B-1. Table of Contents

B-2. General Requirements

1. Environmental Policy

The environmental policy will be that outlined by the relevant commander and will demonstrate commitment to EP for the NATO military activity. It will cover topics such as sustainability, training, pollution prevention, waste reduction, energy efficiency and adherence to legislative requirements.

2. Planning (PLAN)

2.1. Environmental Aspects and Impacts

All environmental aspects and associated environmental impacts for the specific NATO military activity will be evaluated and mitigation measures will be developed. Aspects include those which are incorporated as Annexes in AJEPP-2. Only those aspects that the organization can control and influence are identified.

2.2. Legal and Other Requirements

The legal requirements will include those HN, NATO, national and international regulations and conventions for the NATO military activity. The EP officer responsible for the EMS shall maintain a register of legal requirements.

2.3. Objectives, Targets and Programmes

The NATO-led military force will establish objectives and targets across its organization. These will be specific and measurable based on the type of activity and operation. They will follow applicable legal requirements and must be quantifiable in order to measure progress.

3. Implementation and Operation (DO)

3.1. Resources, Roles, Responsibility and Authority

Commanders will ensure that resources, both personnel and equipment, are made available to manage the EMS. Roles, responsibilities and authorities will be clearly defined in the EMS. These will include a reporting mechanism across the organization and up to the command level.

3.2. Competence, Training and Awareness

The EMS will ensure that those personnel who have a role to play in the environmental aspects receive relevant training and awareness. This information will be documented and updated based on changes in training requirements.

3.3. Communication

Consider what, when, to whom and how to communicate. The goal and means of implementation of the EMS must be communicated to those who impact it, or are impacted by it. In particular, it must be communicated at key moments such as the start of the operation and after an audit. Consider internal and external audiences.

3.4. Documentation

Documentation will be a key aspect of the EMS as this will be the record of performance and conformity. The EMS will contain documents related to processes, organizations, emergency plans and documents required from TCNs which apply to the specific EMS.

3.5. Control of Documents

A procedure for the reception, control and updating of documents will be required in the EMS. Version control will be important as the operation matures and changes.

3.6. Operational Control

Those areas that have been identified as having significant environmental impacts require controls to be in place. This may include maintenance procedures, storage of material, waste management, etc.

3.7. Emergency Preparedness and Response

The EMS will have identified areas where significant incidents could occur. These may require emergency plans or response plans, such as spill response. These plans will be established and practiced to ensure preparedness. Areas such as HAZMAT management and spill prevention, containment and response are common areas on a deployed camp.

4. Checking (Check)

4.1. Monitoring and Measurement

The EMS will contain relevant monitoring and measurement for the significant aspects. These may include monitoring of emissions for solid waste management, soil sampling for fuel management, etc. The EMS will indicate the type of monitoring or measurement, location of sampling, frequency of monitoring and responsibilities.

4.2. Evaluation of Compliance

The EMS will contain details on how to evaluate compliance with applicable regulations, and records to demonstrate compliance. This may be in the form of an internal audit or

external audit. A regular compliance audit must be carried out and will be defined in the EMS.

4.3. Nonconformity, Corrective Action and Preventive Action

The EMS will contain a list of items of nonconformity and the corrective or preventive actions to be taken on these items. Procedures for reporting areas of nonconformity will be established and documented to ensure follow-up. The nonconformity items will normally be measured against established objectives and targets.

4.4. Control of Records

The EMS will contain procedures for the control of all records related to the EMS. This will include details on storage, protection, retrieval and disposal of records. These records may include details on training, audits, maintenance and nonconformity reports.

4.5. Internal Audit

The EMS will contain details on the internal audit, to include frequency and responsibilities. The audit will evaluate conformance to the EMS and measures to improve performance. Procedures will be established to train qualified auditors for internal purposes.

5. Management Review (ACT)

Similar to internal audits, top management (commanders) will also conduct a management review of the EMS and recommend changes to the procedures if needed. The goal of the review in to ensure continual improvement of the EMS.

INTENTIONALLY BLANK

REFERENCES AND RELATED DOCUMENTS

A. MC 469/1, NATO Military Principles and Policies for Environmental Protection

B. MC 560/2, MC Policy for Military Engineering

C. STANAG 2526, Allied Joint Doctrine for the Planning of Operations (AJP-5)

D. STANAG 2582, Environmental Protection for Military Camps in NATO Operations (AJEPP-2)

E. STANAG 7141, Joint NATO Doctrine for Environmental Protection during NATO-Led Military Activities (AJEPP-4)

F. STANAG 6500, NATO Environmental File during NATO-Led Activities (AJEPP-6)

G. AJEPP-6.1 Manual for Environmental Sampling Protocols

H. STANAG 2594 Best Environmental Protection Practices for Sustainability of Military Training Areas (AJEPP-7)

I. Allied Command Operations Comprehensive Operations Planning Directive (COPD) Interim V2.0

J. ISO 14001:2015, Environmental management systems

K. ISO 19011:2011, Guidelines for audits of management systems

INTENTIONALLY BLANK

LEXICON

PART I – ACRONYMS AND ABBREVIATIONS

AJEPP	Allied Joint Environmental Protection Publication
AJP	Allied Joint Publication
CMI	Civil-Military Interaction
COA	Course of Action
CONOPS	Concept of Operations
COPD	Comprehensive Operations Planning Directive
EIA	Environmental Impact Assessment
EMB	Environmental Management Board
EMS	Environmental Management System
EP	Environmental Protection
HAZMAT	Hazardous Material
HN	Host Nation
HQ	Headquarters
ISO	International Organization for Standardization
JFC	Joint Force Command
KPI	Key Performance Indicator
LEGAD	Legal Advisor
MC	Military Committee
MILENG	Military Engineering
MTA	Military Technical Agreement
OPLAN	Operation Plan
OPP	Operations Planning Process
PDCA	Plan-Do-Check-Act
POL	Petroleum, Oils and Lubricants
POLAD	Political Advisor
SHAPE	Supreme Headquarters Allied Powers Europe
SMART	Specific, Measureable, Achievable, Relevant, Time-Bound
SME	Subject Matter Expert
SOFA	Status of Forces Agreement
SOP	Standard Operating Procedure
STANAG	Standardization Agreement
TCN	Troop-Contributing Nation

PART II – TERMS AND DEFINTIONS

Camp
A location or military installation from which operations are projected and/or supported. (NATO Agreed)

Compliance obligations
Legal requirements that an organization has to comply with and other requirements that an organization has to or chooses to comply with. (ISO 14001:2015)

Conformity
Fulfillment of a requirement. Note: conformity relates to EMS requirements that an organization establishes for itself. (ISO 14001:2015)

Corrective action
Action to eliminate the cause of a nonconformity and to prevent recurrence. (ISO 14001:2015)

Environment
The surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelations. (NATO Agreed)

Environmental aspect
An element of an organization's activities, products or services that can interact with the environment. (NATO Agreed)

Environmental baseline study
A study of the environmental conditions in a defined area prior to the commencement of military activities. (NATO Agreed)

Environmental closeout study
A study of the environmental conditions in a defined area at the cessation of military activities. (NATO Agreed)

Environmental impact
Any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organization’s environmental aspects. (NATO Agreed)

Environmental impact assessment
Study of the environmental impact of an activity or project. (NATO Agreed)

Environmental management plan
A document that identifies actions and responsibilities to protect the environment, before, during and after an operation. (NATO Agreed)

Environmental management system
The part of an overall management system that includes organizational structures, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy.

(NATO Agreed)

Environmental policy
A statement by an organization of its intentions and principles in relation to its overall environmental performance and which provides a framework for action and for the setting of its environmental objectives and targets. (NATO Agreed)

Environmental protection
The prevention or mitigation of adverse environmental impacts. (NATO Agreed)

Environmental protection officer
An officer, non-commissioned officer or civilian to whom environmental protection responsibilities have been assigned by a commander. (NATO Agreed)

Environmental risk
The potential for an activity to have adverse impacts on the environment. Note: environmental risk may be caused by effluents, emissions, wastes, accidental chemical releases, energy use, and actions that result in the depletion of natural resources or the degradation of flora, fauna and natural habitats. (NATO Agreed)

AJEPP-3(A)(2)