

Guidelines

Environmental Clearance and Handover of Mission / Field Entity / Field Entity Sites

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GUIDELINES FOR ENVIRONMENTAL CLEARANCE AND

HANDOVER OF MISSION / FIELD ENTITY / FIELD ENTITY SITES

1. INTRODUCTION

These guidelines are an Annex of the Closure DOS' Guide for Senior Leadership on Field entity closure (2018.08) and are specifically intended to assist United Nations management and personnel with the implementation of the environmental actions required for the successful environmental clearance and handover of Mission / Field entity sites during the closure phase of a Mission / Field entity or when for operational reasons a Mission / Field entity site is to be handed over. The guidelines provide first a succinct outline of the three phases of a United Nations Peace Operation & other operations or presences ("Mission / Field entity") and a brief description of the environmental management mandate from Governing bodies that underpins these actions for closure. Thereafter the guideline provides details of the key steps and reporting required to conduct an Environmental Baseline Study (EBS) and an Environmental Unit that may aid in this assessment. It then finally outlines the environmental site closure and environmental clearance procedures to appropriately handover Mission / Field entity sites. Example checklists, survey description key, a risk matrix, and environmental clearance certificates are provided as a part of these guidelines. Some of these actions are also relevant and to be undertaken by other sections/units than the Mission / Field entity' Environmental units.

2. THE THREE PHASES OF A PEACEKEEPING MISSION / FIELD ENTITY

United Nations peace operations or Mission / Field entities have three broad deployment phases:

Phase I - Mission / Field entity Start Up:

- 2.1 The first phase for the establishment of a United Nations peace operation / presence begins, after a period of pre-deployment planning and organization, with the deployment of an advance team and resources to set up headquarter premises, other initial infrastructure and the required administrative and logistic systems for the Mission / Field entity. Once the advance tasks are complete further substantive and support personnel and troop and police contingents are deployed to develop the joint structures of the Mission / Field entity, the managerial, command and control systems and the necessary functional components of a peacekeeping Mission / Field entity such as finance, security, engineering, facilities management, procurement, environment, electoral assistance and political or civil affairs.
- 2.2 The main objective of the Start-up phase is to achieve, in as short a period as possible, Initial Operating Capability (IOC) which signifies the Mission / Field entity has attained a sufficient level of resources and capability to begin limited mandate implementation.
- 2.3 The Start Up Phase further represents an important environmental assessment threshold during which, the majority of Environmental Baseline Surveys (EBS) are conducted for the various Mission / Field entity sites used for Troop and Police Contingents and UN facilities and operations. EBS's are important for providing the environmental reference on which environmental operational impacts are measured, and later site closures during the closure phase are remediated against.

Phase II - Mission / Field entity Sustainment:

- 2.4 Following on from the achievement of the IOC in the Start Up phase, the Mission / Field entity focus shifts in the sustainment phase to mandate implementation and the drive towards Full Operational Capability (FOC). FOC is achieved when sufficient resources to implement the mandated tasks are available, all key personnel positions are filled, the required equipment and infrastructure are in place, and all supporting plans, budgets, structures and procedures are developed and functioning accordingly.
- 2.5 Important environmental actions during this phase are recurring environmental compliance inspections (including civilian, contingents and contractors' sites), environmental incidence reporting, registration of all hazardous materials at both UN facilities and contingent camps and the prevention of accumulated legacy waste through ongoing and appropriate disposal of all waste materials in line with international and national regulations. It should be noted that during long term Mission / Field entity, both EBS's or site closures may be required during the sustainment phase, as plans or operations change and sites may be added or closed in response to these changes.

Phase III - Mission / Field entity Closure and Handover phase:

- 2.6 This phase is activated following a decision by the Security Council to terminate the mandate and therefore the activities of a Mission / Field entity. The Closure and handover tasks are derived from a clear written plan containing the parameters of the Mission / Field entity's closure and generally involves the withdrawal of civilians, military and police units, the repatriation of personnel, the closure of regional offices and medical clinics, the hand-over of all remaining tasks to partners, and the final withdrawal and disposal of the Mission / Field entity's UN owned assets and infrastructure either through their sale, donation or direct handover to the host government in accordance with United Nations rules and regulations.
- 2.7 A major component of this phase is the final disposal of all Mission / Field entity waste materials and the environmental clearance and handover of sites previously used for military and police contingents and/or UN facilities and operations. It is this latter task that is the primary focus for the guidelines in this annex.

3. ENVIRONMENTAL FRAMEWORK

Environmental Management Mandate from Governing Bodies

3.1 The lifecycle view of environmental management is clearly outlined in the DPKO/DOS Environmental Policy for UN Field Mission (Ref. 2009.06) which includes, inter alia, requirements on establishing a list of potentially hazardous installations (para 23.6), on conducting an Environmental Baseline Study (para 24), and on managing hazardous substances (para 40). The DPKO/DOS Waste Management Policy (Ref. 2015.06) is also relevant; especially its rationale on reducing the Mission / Field entity's clean-up requirements upon closure (para 10) and its aim to return sites to their natural state during closure (para 65). Such policy objectives are incorporated into the DOS Environment Strategy (2017-2023) which aims to deploy responsible Missions / Field entities that operate at maximum efficiency and minimum risk, leaving a positive legacy, wherever possible. In recent mandates from Member States, the overall need to reduce each field Mission's / Field entity's environmental footprint is a central tenet. Such mandates and institutional framework are described in the Annex A of the Guide for Senior Leadership on Field entity closure (2018.08). In addition, the article 7 of the template MOU of T/PCCs in the COE manual states that "National contingents undertake that they will "do no harm" to the local environment (including wild plants and animals) and, upon departure, will leave the premises and physical environment in the condition it was provided to them."

4. ENVIRONMENTAL BASE STUDY (EBS)

- 4.1 The DPKO/DOS Environmental Policy for UN Field missions requires, in paragraph 24, that for all Mission / Field entity locations/sites an environmental baseline study (EBS) is undertaken to assess the initial environmental conditions of the identified locations prior to their use. The EBS identifies all existing environmental hazards and sensitivities of the site at a specific moment in time to determine its suitability for its intended purpose (e.g. base camp) and if shown that the site poses serious environmental risks, alternative sites may be considered. The EBS also serves as the baseline against which potential environmental changes resulting from Mission / Field entity operations are measured and any required remedial actions will be developed and implemented prior to the handover of these sites back to the host government as required or during the final closure phase of the Mission / Field entity.
- 4.2 The EBS is documented in a written report that is held on file and may be used to address unfounded claims by the host country or landowner for pre-existing environmental damage or pollution. An example EBS checklist and survey description keys are provided at the end of this guideline as Sheet I and II.
- 4.3 Personnel to conduct the EBS should include, but not limited to, an Environmental Officer or the Mission / Field entity Environmental Unit representative, the Waste Management Officer if present at the Mission / Field entity, a representative from the Engineering Section, the project/camp manager and the owner of the land or his/her representative. If the proposed site is owned by the Government, a Government representative, ideally from the Ministry of the Environment should be included. In a particular situation, when a high number of EBS's are required to be completed, other possible solutions could be contracting qualified consultants, looking at possible stand-by capacities and/or existing partnerships with other UN agencies and/or Member States.

Key steps of an Environmental Baseline Study

The four key steps of an EBS are as follows;

a. Site Description

Information is gathered to describe the history, the current use and the environmental condition of the site. Some initial desk analysis could be done using existing maps provided by GIS. The historical and current land use of the site is established through review and analysis of reports, maps and other documents, and with interviews with persons in the area who are familiar with the site location. Any specific chemicals or materials associated with the site are identified and any spills or clean-up actions that may have taken place are verified. Access to the site, the existence of environmental resources and the proximity of the site to sensitive or scarce ecosystems such as water bodies, forest, protected area or any cultural or religious monuments or artefacts of historical importance should be determined. Where necessary, such as when an evident degree of pollution is observed or conversely, is suspected yet no obvious signs are present, water and/or soil sampling using a standard sampling regime may be conducted with the samples appropriately tested at a qualified laboratory.

b. Project/camp Description

Details of the project/camp to be developed at the proposed site need to be provided by the project manager. Information should include the proposed layout and description for each stage of the project (e.g. commissioning, operations and decommissioning) and outline such items as the equipment to be used, expected construction activities, placement of fuel storage, refuelling areas, wastewater treatment, waste storage and disposal (if in the site) and any expected hazardous material use and storage. This information is used to guide analysis of the level of environmental risk or the expected impacts that may occur as a result of the project.

c. Environmental Risk/Impact Analysis

Based on the findings of part a, and the type of project that is to be developed at the site, the level of risk and the potential impacts, both positive and negative, on the environment, personnel or surrounding communities that may result from the project, needs to be determined. The hazard probability and the measure of the impact or consequence of the hazard should be ascertained for each risk level using a simple risk matrix format (see template below in sheet II). If the risk assessment indicates any high-risk negative impacts on the health and or safety of the environment, personnel, or the surrounding communities, specific mitigation measures and actions aimed at reducing the identified risk and impacts to acceptable levels should be developed. Alternatively, additional sampling may be undertaken to enable a more thorough and in-depth risk assessment to be conducted. An example risk matrix is provided at the end of this guideline as Sheet III.

d. Qualification Statement and Proposed Mitigation Measures

The result of the environmental risk/impact analysis should enable a site qualification to be established in respect of the suitability of the site for the proposed project. Based on the EBS three environmental statements are generally possible;

- i. The level of environmental risk and/ or potential negative impacts that are identified are considered too great therefore the site is regarded as not suitable for the intended project and that alternative sites should be considered,
- ii. The level of environmental risks and potential negative impacts are considered high but applicable mitigation measures are regarded as within the scope of the intended project, are at a reasonable cost and represent a realistic time frame for implementation,
- iii. Only minor risks and/or potential negative impacts are identified and appropriate mitigation measures are proposed in the EBS document so that the project is considered safe to implement at the site.

Environmental Baseline Study Report

Depending on the complexity of the intended project and the nature of the identified site, the EBS report should at minimum include the following sections;

i. Introduction

Specify the objective and purpose of the EBS and the scope of the study.

ii. Survey Methodology

Describe the methodology used to conduct the EBS including all sampling techniques, document review and interviews with personnel familiar with the selected site.

iii. General Site Setting

- Specify the location of the site/property using the physical address and GPS position and list any existing infrastructure such as access roads, water supplies and wastewater disposal systems. A map can be added.
- Describe the past and current uses of the site/property, all existing facilities and for the surrounding area.
- General description of hydrogeological, hydrological or topographic conditions of the site/property and its surrounding area, identifying any hazardous sources or pathways that may be relevant for contaminant migration to or from the site and possible water scarcity if identified.
- Specify any natural disasters that may have affected the site and its facilities and examine any evidence for flooding and/or sedimentation on the site/property.

iv. Environmental Conditions

- Identify and describe the environmental conditions of the site through visual and physical observations and sampling, from interview with persons familiar with the site and through extensive document reviews. Information should be gathered for hazardous materials and petroleum products, storage tanks, odors, pools of liquids, contaminated soils, hazardous wastes and waste petroleum products, medical/biohazards and accumulation of any solid wastes on the site. Particular emphasis, should be placed on any recognized adverse environmental conditions and negative impacts.
- Further information should be provided on adjacent waterways such as ponds, lagoons and rivers, stress vegetation, wastewater, water wells (or lack of), waste pits, ambient air quality, noise hazards, natural resources including any threatened or endangered animals or plants, and resources of cultural, religious and historical importance that are present onsite or within the surrounding area of the property.
- If soil or water samples have been taken, the obtained laboratory results should be indicated here.

v. Risk Assessment and Impact analysis

All potential risks should be identified and assessed using a simple risk matrix identifying both the likelihood of the risk and the degree of impact or consequence. Potential impacts resulting from the project, both positive and negative should be listed and analysed (including cumulative impacts defined as "changes to the environment that are caused by an action in combination with other past, present and future actions.").

vi. Risk/Impact mitigation measures

- Risk and impact mitigation measures are developed for all identified risks and impacts.
- Emphasise any positive impacts that may result from the project.

vii. Site Qualification Statement

Based on the above findings a site qualification will be made identifying if the site is suitable or not for the proposed project, if alternative locations should be sought and whether any mitigation actions are required or not over the project cycle.

viii. Conclusion

A summary of the key environmental impacts, considerations and recommended actions to address any issues.

ix. References

List the sources of information and SOP and Guidelines utilized.

x. Annexes

Add relevant annexes, photographs, records of interview, copies of important documents, site assessment forms, summaries of analytical and laboratory results.

5. MISSION / FIELD ENTITY ENVIRONMENTAL UNIT DOCUMENTS

There are several documents from actions of the Mission / Field entity Environmental Unit that are relevant for Mission / Field entity Closure and more specifically for the Environmental Close Out Assessment (ECOA)-see below;

a. Environmental – Hazardous Material Records

Hazardous materials and hazardous waste stored or produced by the UN Mission / Field entity, including military and police contingents should be recorded in the hazardous material and waste registration record or taken from procurement or vendor sales. These records should be referred to for the ECOA to indicate whether any potential impacts or contamination from these materials may have occurred at the site being assessed.

b. Environmental Assessments/Inspections reports

Environmental assessments/inspections should be conducted at regular intervals (e.g. every 3-6 months, or at least once a year, where sites are hard to access) at all Mission / Field entity sites. The findings from these inspections may reveal whether any indicated non-performance or environmental compliance has

resulted in adverse conditions, contamination or negative impacts being incurred and proposed corrective actions.

c. Environmental Incident Form

Any environmental incidents reported at the site under assessment should be reviewed to provide details on the type of incident and the resulting environmental impacts that were identified and any corrective actions that were taken to address the issue as well as the success of these actions

6. ENVIRONMENTAL CLOSE OUT ASSESSMENT (ECOA)

The DOS Guide for Senior Leadership on Field entity closure (2018.08) requires, in paragraph 8 of Annex A, to undertake an Environmental Close Out Assessment (ECOA) for all Mission / Field entity locations to evaluate the state of the environment and to identify environmental issues, which will have to be addressed for closure and to enable site closure and handover to the host government or landowner. If an environmental baseline study (EBS) was conducted for the site, the ECOA will document what the pre-existing conditions were and what environmental alterations were caused by the Mission / Field entity during its lifespan and what actions are required to address these issues. If an EBS was not conducted for a site, alternatively information may be gleaned from any environmental inspections that were previously conducted. Otherwise it shall be assumed that the site had minimal adverse environmental conditions prior to Mission / Field entity related and Mission / Field entity liable (see below). An example ECOA sheet is provided at the end of this guideline in Sheet IV.

The ECOA is documented in a written report that is held on file and may be used to demonstrate the actions taken to address environmental alterations (environmental damage or pollution) against the pre-existing environmental conditions outlined in the EBS to the host country or other interested parties.

The ECOA may be conducted once the schedule for the closure of the Mission / Field entity is provided by the Mission / Field entity Management Team and should ideally begin in the pre-closure phase. The sequence of ECOA's will be determined by the schedule of site close out both for UN operations and facilities and military and troop contingents. A preliminary visit with the private owner or government representative may be required for military and police contingent camps prior to the ECOA being conducted. This will be to agree on any specific requirements such as the owner retaining any improvements or buildings that have been made at the site, conditional on full agreement between the parties, or requesting the full clearance of the site, which is generally conducted following the evacuation of the contingents from the location.

Personnel to conduct the ECOA should include, but not limited to, an Environmental Officer or the Mission / Field entity Environmental Unit representative, the Waste Management Officer if present at the Mission / Field entity, a representative from the Engineering Section, the owner of the land or his/her representative. If the proposed site is owned by the Government a Government representative, preferably from the Ministry of the Environment should be included. In a particular situation, when a high number of ECOA's are required to be completed it may be necessary to look at other possible options such as contracting qualified consultants, looking at possible stand-by capacities and/or existing partnerships with other UN agencies and/or Member States.

Three key steps of an ECOA

The three key steps of an ECOA are as follows;

a. Pre-existing Conditions

Information on the pre-existing conditions for the site being assessed are outlined from the EBS report and represent the baseline for which current environmental conditions will be compared against. If an EBS was not conducted, prior to the site being used by the Mission / Field entity, alternatively, information gleaned from environmental site inspections may be used. If no historical environmental data or information is

available, it shall be assumed that the site had minimal adverse environmental conditions prior to Mission / Field entity activities so that any current negative conditions will have to be viewed as Mission / Field entity related and Mission / Field entity liable.

b. Current Environmental Conditions and Identified Environmental Alterations

Surveys, inspections and physical sampling where necessary will be conducted to ascertain the current environmental conditions for the site and any environmental alterations, contamination or negative impacts that have occurred as a result of Mission / Field entity activities over the period the site was used. Use of GIS maps and comparison with initial maps of the site could also be relevant. Environmental aspects that may be evaluated included vegetational clearance, construction or excavations for Mission / Field entity infrastructure that will include all wastewater and solid waste facilities, health care facilities, waste storage and disposal areas, generators and fuel storage and vehicle refuelling areas and maintenance workshops. Attention should be paid to hazardous materials and waste, communication and information technology installations and storage, use or destruction areas for ammunition. Environmental inspection reports, environmental incidence reports and the hazardous materials and waste registration record should be examined to indicate any specific negative environmental performance, environmental damage or pollution events that may have occurred at the site. Information gleaned from the above data gathering and sampling exercise will be used to guide the type of remedial and mitigation actions required to address identified adverse conditions, contamination, negative impacts or issues.

c. Remedial Actions for Mitigating Adverse Impacts and Returning the Site to an Acceptable Environmental Condition.

Based on the findings of part a and b, remedial actions and mitigation measures will be developed to address any adverse environmental conditions, contamination, negative impacts or issues that have been identified as a result of Mission / Field entity operations at the site. The remedial actions and mitigation measures highlighted in the ECOA report will guide the development of the Mission / Field entity closure plan and what environmental actions will be required.

Environmental Close Out Assessment Report (can be for a single site or group of sites)

The ECOA report should include the following sections;

i. Introduction

- Specify the objective and purpose of the ECOA and the scope of the study.
- ii. Survey Methodology
 - Describe the methodology used to conduct the ECOA including all sampling techniques and EBS and other document review for the selected site.

iii. Pre-Existing Environmental Conditions

- Specify the pre-existing conditions of the site as outlined in the EBS and the initial mitigating measures that were implemented to ensure negative impacts of the project at the site were minimised,
- Indicate whether the use of the site has changed over the period of the Mission / Field entity,
- General description of the historic hydrogeological, hydrological or topographic conditions of the site/property and its surrounding area, identifying any hazardous sources or pathways that were considered relevant in the EBS for contaminant migration to or from the site,
- Specify any natural disasters that may have affected the site and its facilities and examine any evidence for flooding and/or sedimentation on the site/property.

iv. Current Environmental Conditions

Identify and describe the current environmental conditions of the site through visual and physical observations and where necessary sampling as well as through examination of environmental inspection and environmental incidence reports and hazardous materials and waste records. Information should be gathered for hazardous materials and petroleum products, storage tanks, odors, pools of liquids, contaminated soils, hazardous wastes and waste petroleum products, medical/biohazards and accumulation of any solid wastes on the site. Particular emphasis should be placed on any recognized adverse environmental conditions, contamination or negative impacts,

- Further information should be provided on adjacent waterways such as ponds, lagoons and rivers, stress vegetation or vegetation clearance, wastewater, water wells, waste pits, ambient air quality, natural resources including animals or plants, and resources of cultural and historical importance that are present onsite or within the surrounding area of the property,
- ✤ If soil or water samples have been taken, the obtained laboratory results should be indicated here.
- v. Impact Assessment
 - All negative impacts and adverse conditions over and above those identified in the EBS report should be listed and analysed (including cumulative impacts).

vi. Remedial actions and mitigation measures

- Remedial actions and impact mitigation measures are developed for all negative impacts identified at the site as a result of Mission / Field entity operations and respective roles of components/sections/units/parties in charge of remedial actions.
- vii. Conclusion
 - ✤ A summary of the key environmental impacts, considerations and recommended actions to address any issues for closure.

viii. Environmental Site Closure Addendum (ESCA)

An ESCA should be prepared and added to the ECOA report for either each site, or when suitable a group of sites, undergoing environmental clearance and handover (see below section).

ix. References

- List the sources of information and SOP and Guidelines utilized.
- x. Annexes
 - Add relevant annexes, photographs, records of interview, copies of important documents.

7. ENVIRONMENTAL SITE CLOSURE AND ENVIRONMENTAL CLEARANCE

The environmental site closure and clearance of sites used for Mission / Field entity facilities or operations and military or police contingents represents one of the final stages of the Mission / Field entity closure process and is required to be completed prior to or as an integral part of the formal handover of the sites back to the landowners and/or host government.

Key Steps for Environmental Site Closure and Environmental Clearance

There are four key steps to achieve environmental site closure and formal environmental clearance:

a. Remedial actions

The remedial actions and mitigation measures recommended in the ECOA report are implemented by the responsible components/sections/units/parties and monitored through regular site inspections until all actions are deemed fully implemented, successful and complete.

b. Remedial Action sign off

A final inspection will be conducted with the site closure team, the landowner, and/or host government environmental representative and other relevant parties where agreement will be reached that all remedial actions and mitigation measures are complete and the site is accepted to be in a satisfactory environmental condition to be handed over to the landowner or host government.

c. Environmental Clearance and formal handover of sites

Following the final environmental inspection and all-party agreement that the site is now acceptable for formal environmental clearance and handover, the last step in this process is reached with the signing of the Handover Certificate (see Sheet IV) for that site. The certificate is signed by the landowner and/or the host government representative and a UN management official and thereafter the site is formally accepted as

released from UN control and liability. All Handover Certificates are filed as proof of the formal completion of this process. An example of an approved Handover Certificate for individual sites by the UN HQ Office of Legal Affairs is provided in Sheet V.

Environmental Site Closure Addendum (ESCA) for the ECOA report

An ESCA should be prepared and added to the ECOA report for either each site, or when suitable a group of sites, undergoing environmental clearance and handover. The ESCA should include the following sections;

- i. Implemented Remedial Actions and Mitigation Measures
- List the type of remedial actions and mitigation measures that were implemented to bring the site/s to a satisfactory environmental condition for handover with timelines.
- ii. Environmental Inspections and Remedial Sign Off
 - Provide details of the number of environmental inspections that were conducted during the period that remedial actions were implemented and the progress achieved therein. Indicate when all remedial actions were completed for each site and if any outstanding issues remain.

iii. Environmental Clearance and Handover

Provide details of the steps taken following the completion of remedial actions to achieve environmental clearance by the parties for an individual site or group of sites and the process of final handover that was thereafter followed.

iv. Handover Certificate

✤ All Handover Certificates should be included at the end of the ESCA.

ANNEXES:

- Annex A: Example Environmental Baseline Study Sheet
- Annex B: Survey Category Description Keys
- Annex C: ERM Risk Matrix System, Risk Ratings and Example Environmental Risk Matrix for EBS
- Annex D: Example of an Environmental Risk Matrix for EBS
- Annex E: Environmental Site Closure Assessment Sheet
- Annex F: Example Handover Certificate for Individual Sites

Annex A: Example Environmental Baseline Study Sheet. (Relevant descriptions will be added and Yes/No answers with detailed comments provided for each category being assessed).

Environmental Baseline Study Sheet							
MISSION / FIELD							
ENTITY		Region/sector					
Environmental Baseline Study of							
Datast	Adminis	strative data	Quality is the formation				
Date of Survey	Name of Surveyor/s	Duty Position	Contact Information				
Name of Site	Physica	l Address	GPS location				
	General S	ite Description					
Soil Turo	Land Cover	Topographical, Hydro	ological and Geological				
Soli Type		rea	alures				
Site Sketch (a senarat	e sheet may be used)	Property/Infrastructure	Adjacent Land LIsage				
			Aujacent Land Osage				
	Draiget Dag	printian/Cita Llas					
L avout	Type of operations	Porconnol Canacity	Equipmont Lico				
Layout	Type of operations	Personner Capacity	Equipment Use				
	HAZMAT	Vehicles	Other				
Current Environm	antal Condition Accord	smant (cao kay far data	ils on each catagony)				
Soil	Vegetation	Natural resources	Wildlife				
001	Vegetation		VVIIdine				
Waterbodies	HAZMAT	HAZ Waste	Solid Waste				
Medical Waste	Petroleum	Drinking Water	Waste Water				
Unexploded							
ordnance	Electrical Hazards	Biohazards	Radiological Hazards				

Other Hazards	Soil Samples/No.	Water sample/No.	Other Samples

Annex B: Survey Category Description Keys (the following list is not exhaustive)

Environmental Condition Assessment					
Soil	Vegetation	Natural resources	Wildlife		
Describe soil type and	Scrubland	Indications of valuable	Animals observed		
condition-	Trees	natural resources?	Use faunal lists		
Gravel	Grasses	e.g. oil, minerals,	Endangered or rare		
Sand	Other	timber, quarry	species?		
Loamy soil	Land cover of each %	materials, agricultural	Migration zones?		
Clay	Any rare or sensitive	crops	Breeding sites?		
Rock	vegetation?	Protected areas?			
Contaminated soil (with					
what?)	HAZMAT	HAZ Waste	Solid Waste		
Area contaminated m ² ?	Any hazardous materials	Any Haz waste stored	Any solid waste stored		
Soil drainage	stored onsite?	or dumped on site?	or dumped on site? -		
characteristics?	Correct segregation?	e.g. Bitumen, ash	type, in containers, on		
	MSDS?	waste, chemicals,	soil surface etc-		
	Evidence of pollution or	asbestos sheets,	Evidence of pollution?		
	hazards?	other? Correct			
		segregation? Evidence			
		of pollution?			
Water bodies	Medical Waste	Petroleum	Drinking water		
Onsite or adjacent water	Evidence of medical	Evidence of current or	Any onsite water		
bodies?	waste or ash stored or	past storage of	supplies?		
Rivers, streams, ponds,	dumped at site?	petroleum products?	Water wells artisanal?		
lakes, floodplains?	Type of waste?	Stored correctly?	Depth of well?		
Distance from site?	Evidence of pollution or	Evidence of pollution or	Water wells - industrial?		
Evidence of recent	hazards?	hazards?	Depth of well?		
flooding?		Contaminated soil?	Broken water supply?		
			What is depth of		
			groundwater?		
Waste water	Unexploded ordnance	Electrical hazards	Biohazards		
Current or past waste	Provide type and GPS	Provide the size and	Current or past		
water disposal onsite?	coordinates for any UXO	location of high-power	evidence of		
Septic tanks, Filter beds,	in the area?	lines and transformers,	biohazards?		
sewage works?	Evidence of past UXO	Other electrical	Biomedical wastes?		
Evidence of pollution or	use?	hazards?	Storage of		
hazards?			biohazardous		
			materials?		
Radiological hazards	Other hazards	Soil samples/no.	Water samples/no.		
Current or past	Any other hazards	No. of samples?	No. of samples		
presence of radioactive	identified?	Sample ref no.s?	Sample ref no.s		
substances?		No. of replicates?	No. of replicates		
Depleted uranium?		Sampling methods?	Sampling methods		
		Sampling design?	Sampling design		
		Sampling depth range?	Sampling depth range?		
		Parameters analysed?	Parameters analysed?		
Other samples	Archaeological/Cultural				
No. of samples?	Any important				
Sample ref no.s?	archaeological, religious				
No. of replicates?	or cultural artefacts				
Sampling methods?	onsite?				
Sampling design?	Explain history?				
Sampling depth range?	Taboos?				
Parameters analysed?	Graves/Cemeteries?				

				Recovery				
Score	Rating	Safety and security	Duration	Organizational and operational scope	Reputational impact	Impact on operations	Financial impact (measured in terms of budget)	Required action to recover
5	Critical	Loss of life (staff, partners, general population)	Potentially irrecoverable impact	Organization-wide: inability to continue normal business operations across the Organization.	Reports in key international media for more than one week	Inability to perform Mission / Field entity or operations for more than one month	>5 per cent >\$500 million	Requires significant attention and intervention from General Assembly and Member States
4	Significant	Loss of life due to accidents/ non- hostile activities	Recoverable in the long term (i.e., 24- 36months)	Two (2) or more departments/offices or locations: significant, ongoing interruptions to business operations within 2 or more departments/ offices or locations	Comments in international media/forum	Disruption in operations for one week or longer	3-5 per cent \$300 million- \$500 million	Requires attention from senior management
3	High	Injury to United Nations staff, partners and general population	Recoverable in the short term (i.e., 12-24months)	One (1) or more departments/offices or locations: moderate impact within one or more departments/offices or locations	Several external comments within a country	Disruption in operations for less than one week	<2-3 per cent \$200 million- \$300 million	Requires intervention from middle management
2	Moderate	Loss of infrastructure, equipment or other assets	Temporary (i.e., less than 12 months)	One (1) department/office or location: limited impact within department/office or location	Isolated external comments within a country	Moderate disruption to operations	<1-2 per cent \$100 million- \$200 million	Issues delegated to junior management and staff to resolve
1	Low	Damage to infrastructure, equipment or other assets	Not applicable or limited impact <1 per cent <\$100 million			Not applicable or limited impact		

Annex C: ERM Risk Matrix System, Risk Ratings and Example Environmental Risk Matrix for EBS

Probability/Likelihood ratings

Score	Rating	Certainty	Frequency
5	Expected	>90 percent	At least yearly and/or multiple occurrences within the year
4	Highly likely	<90 per cent	Approximately every 1-3 years
3	Likely	<60 per cent	Approximately every 3-7 years
2	Unlikely	<30 per cent	Approximately every 7-10 years
1	Rare	<10 per cent	Every 10 years and beyond or rarely

Annex D: Example of an Environmental Risk Matrix for EBS

Area of Environmental Concern (i.e. Risk or Impact)	Impact S	everity						Probability
Notes: Refer Impact Table and assign value for each Impact type Refer Likelihood table and assign value for event probability	Safety and Security	Duration (recoverability)	Organizational Scope (breadth)	Reputational	Impact on Operational (time)	Fiscal impact	Remedial actions for recovery	Likelihood of Event
e.g. Discharge of sewerage onto site noted from adjacent property resulting in historic contamination of local water body and direct human health impacts. Risk of repeat event	Critical	Significant	High	Critical	Moderate	Low	Significant	Unlikely
e.g. Waste toxic bitumen piles in corner of site – potential for successful clean-up.	Low	Low	Low	Low	Low	Moderate	Low	Highly Likely
e.g. Site was used as a historical landfill with no record of wastes disposed at the site – contamination of site and potential health impacts	High	Significant	Significant	High	High	High	Significant	Expected

Note: The ratings shown here are adapted from the United Nations Enterprise Risk Management and exchanged from numbers to words and given colour ratings

Annex E: Environmental Site Closure Assessment Sheet. (Relevant descriptions will be added and Yes/No answers with detailed comments provided for each category being assessed).

Environmental Site Closure Assessment Checklist							
MISSION / FIELD							
ENTITY	Region/Sector						
Environmental Site Closure Assessment of							
	Admir	histrative data					
Date of Survey	Name of Surveyor/s	Duty Position	Contact Information				
	D		-				
Name of Site	Physica	IAddress	GPS location				
	General	Site Description					
Soil Type	Land Cover	Topographical Hydrolog	nical and Geological Features				
		ropograpinoai, riyarolo					
Site S	ketch	Property/Infrastructure	Adjacent Land Usage				
			, ,				
	Project De	escription/Site Use					
Layout	Type of operations	Personnel Capacity	Equipment Use				
	HAZMAT	Vehicles	Other				
	Pre-Exisiting Environme	ntal Condition (taken from	EBS)				
Soil	Vegetation	Natural resources	Wildlife				
			• • • • • •				
Waterbodies	HAZMAT	HAZ Waste	Solid Waste				
MadiaalWaata	Detroloum	Drinking Water	Monto Motor				
	Petroleum	Dinking water	vvasie vvaler				
Unexploded ordnance	Electrical Hazards	Biohazards	Radiological Hazards				
	Lioothoarriazarao	Dionazarao	rtadiological riazardo				
Other	Soil Samples/No.	Water sample/No.	Other				
	l l	1					
Current Environr	mental Condition Asse	ssment (see key for det	ails on each category)				
Soil	Vegetation	Natural resources	Wildlife				
Waterbodies	HAZMAT	HAZ Waste	Solid Waste				
Medical Waste	Petroleum	Drinking Water	Waste Water				
		Diskarask	Dedialariast				
Unexploded ordnance	Electrical Hazards	Bionazards	Radiological Hazards				
Other hazarda	Soil Samples/No	Water cample/No	Other camples				
Other hazalus	Son Samples/NO.	Water Sample/NO.	Other samples				

Annex F: Example Handover Certificate for Individual Sites

HANDOVER CERTIFICATE¹

WHEREAS, *[entity]* provided to *[Mission / Field entity]* the use of the *[land/buildings/premises]* described in Annex 1² of this Certificate (hereinafter, the "Premises") pursuant to *[inserf]* described in Annex 2 (hereinafter, the "[insert]");³

WHEREAS, [Mission / Field entity], on behalf of the United Nations, wishes to return the Premises to [entity], on the terms and conditions set forth in this Certificate;

NOW, THEREFORE, [Mission / Field entity], duly represented by [title of the Mission / Field entity representative] and [entity], duly represented by [title of entity's representative] hereby agree as follows:

1. *[Name of Mission / Field entity]* hereby returns the Premises to *[entity]* and *[entity]* hereby acknowledges and accepts the return of the Premises.

2. *[Entity]* acknowledges and agrees that the Premises are returned on an "as is" basis and that the United Nations, including *[Mission / Field entity]*, makes no warranties or representations, express or implied, as to the condition of the Premises.

3. *[Entity]* confirms that, prior to the signature of this Certificate, [*entity*] has inspected the Premises and has satisfied itself as to the condition of the Premises. Without prejudice to the generality of the foregoing, [*entity*] acknowledges and agrees that:

a) the Premises are in a satisfactory condition, free from waste and hazardous substances and accord with all environmental requirements (as described in Annex 3 below);

b) the Premises comply with the terms and conditions set out in the [*inserf*]; and

c) [*Mission / Field entity*] has no obligation to carry out any repairs, remedial or other works, or to restore the Premises to the condition that existed before [*Mission / Field entity*] occupied the Premises.⁴

4. *[Entity]* acknowledges and agrees that the United Nations, including *[Mission / Field entity]*, shall not be liable for any claims, demands, losses or liability arising from or in connection with the Premises and that *[entity]* shall be responsible for dealing with, and shall indemnify, hold and save harmless, the United Nations, including *[Mission / Field entity]*, from and against all claims, demands, losses and liability of any nature or kind, including third party claims, arising from or in connection with [*Mission / Field entity*]'s use and occupation of the Premises.

For the United Nations:	For the [<i>entity</i>]:
Name:	Name:
Title:	Title:
Date:	Date:

Annex 1

[insert detailed description of the Premises]

Annex 2

[insert detailed description of the arrangement under which the Premises were provided]

¹ This is a template only. Please amend, as necessary, to suit the particular circumstances of each case.

² Include detailed description of the Premises in Annex 1.

³ Include detailed description of the arrangement pursuant to which the Premises were provided in Annex 2 – e.g., SOMA/SOFA, lease, etc.

⁴ If the UN is to be compensated for any improvements it has made to the Premises, additional text should be added in here.

Annex 3

[insert ECOA report]

A. TERMS AND DEFINITIONS

1. For terms and definitions see DOS Guide for Senior Leadership on Field entity closure (2018.08).

B. REFERENCES

• DOS Guide for Senior Leadership on Field entity closure (2018.08).

C. MONITORING AND COMPLIANCE

2. Compliance with these Guidelines shall be monitored by DOS/DSA/OPS.

D. CONTACT

3. The contact for these Guidelines shall be DOS/DSA/OPS.

E. HISTORY

4. This is the first version of these Guidelines, they shall be revised in three years.

F. APPROVAL

Mr. Atul Khare Under-Secretary-General for Operational Support Department of Operational Support (DOS)

Date of approval 2 January 2019