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GOVERNMENT NOTICE

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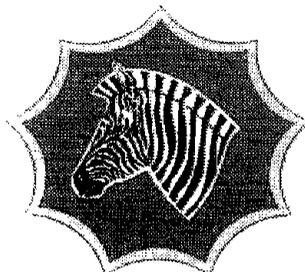
Government Notice

897 National Environment Management Act (107/1998): Environmental implementation plans and environmental management plans under section 15 (1)..... 3 31354

GOVERNMENT NOTICE

DEPARTMENT OF DEFENCE**No. 897****22 August 2008****NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998)****ENVIRONMENTAL IMPLEMENTATION PLANS AND ENVIRONMENTAL MANAGEMENT PLANS UNDER SECTION 15 (1) OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998)**

I, Mosiuoa Lekota, Minister of Defence, in terms of section 15 (1) and Schedule 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998), hereby promulgate the Second Edition Environmental Implementation Plan for Defence.

DEPARTMENT OF DEFENCE***SECOND EDITION******ENVIRONMENTAL IMPLEMENTATION PLAN******March 2008***

**SECOND EDITION
ENVIRONMENTAL IMPLEMENTATION PLAN FOR DEFENCE**

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GLOSSARY

Base Environmental Management means the management of the built-up and urban environment including the interaction between man and surrounding environment. This includes waste management and pollution control.

Cultural Resource Management means the management and conservation of cultural resources, including archaeological finds, graves, historical buildings and other structures on military properties.

Department of Defence refers collectively to the Secretariat of Defence and the Chief of the South African National Defence Force with the Chiefs of Corporate Divisions and their respective staffs.

Ecological Management means the management of the natural environment including the interaction between plants, animals, humans, their actions (military activities) and other elements in their natural environment.

Environmental Awareness means making all members of the Department of Defence aware of their environmental responsibility.

Environmental Planning means the process of integrating environmental considerations into the planning and execution of military activities.

Environmental Research means the monitoring and observing of the environmental impacts of military activities so as to develop scientific guidelines for environmental planning and ecological management.

Environmental Education means a formal, structured process, which aims at enabling and empowering all members of the Department of Defence to execute military activities within the parameters of Defence policy, national and international environmental legislation, as well as in an environmentally sustainable and responsible manner.

Policy means a general course of action or proposed overall direction that is being pursued and which guides continuous decision-making.

Plan means a purposeful, projected strategy or design, often with co-ordinated priorities, options and measures that elaborate and implement policy.

Programme means a coherent, organised agenda or schedule of commitments, proposal instruments and/or activities that elaborate and implement policy.

South African National Defence Force refers collectively to the Chief of the South African National Defence Force with the Chiefs of Services and Corporate Divisions and their respective staffs.

Sustainable Development means the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure that development serves present and future generations.

List of Acronyms

LIST OF ACRONYMS

ATNS	-	Air Traffic and Navigation Service
CARCOM	-	Civil Aviation Regulation Committee
CCMS	-	Committee on the Challenges of a Modern Society
CEC	-	Committee for Environmental Co-ordination
CFC	-	Chlorofluorocarbons
DE	-	Department of Education
DEA&T	-	Department of Environmental Affairs and Tourism
DHA	-	Department of Home Affairs
DME	-	Department of Minerals and Energy
DPLG	-	Department of Provincial and Local Government
DTI	-	Department of Trade and Industry
DOD	-	Department of Defence
DSS	-	Department of Safety and Security
DWAF	-	Department of Water Affairs and Forestry
DWIP	-	Declared Weeds and Invader Plants
ECOps	-	Environmental Considerations in Operations
EE&T	-	Environmental Education and Training
EH	-	Environmental Health
EIA	-	Environmental Impact Assessment
EIP	-	Environmental Implementation Plan
EMS	-	Environmental Management System
ERF	-	Environmental Review Forum
ESWG	-	Environmental Security Working Group
EWT	-	Endangered Wildlife Trust
FPA	-	Fire Protection Association
FSE	-	force structure element
GAAP	-	Generally Accepted Accounting Principles
GOC	-	General Officer Commanding
I&AP	-	interested and affected parties
IEM	-	Integrated Environmental Management
IMO	-	International Maritime Organisation
ISDSC	-	Inter-State Defence and Security Committee
ITAM	-	Integrated Training Area Management
IWM	-	Integrated Waste Management
JOps	-	Joint Operations
LOAC	-	Law on Armed Conflict
MARPOL	-	Marine Pollution
MEC	-	Member of Executive Council
MIEM	-	Military Integrated Environmental Management
NATO	-	North Atlantic Treaty Organisation
NDPW	-	National Department of Public Works
NEMA	-	National Environmental Management Act, 1998 (Act No 107 of 1998)
NERSA	-	National Energy Regulation of South Africa
NGO	-	Non-governmental Organisation
OAG	-	Office of the Auditor-General
OC	-	officer commanding
OHS	-	Occupational Health and Safety

LIST OF ACRONYMS (continues)

PDSC	-	Plenary Defence Staff Council
REAF	-	Regional Environmental Advisory Forum
RDP	-	Reconstruction and Development Programme
RFIM	-	Regional Facilities Interface Manager
SAAF	-	South African Air Force
SAASCo	-	South African Aviation Safety Council
SABS	-	South African Bureau of Standards
SACAA	-	South African Civil Aviation Authority
SADC	-	South African Development Community
SADF	-	South African Defence Force
SAHRA	-	South African Heritage Resources Agency
SAMHS	-	South African Medical Health Service
SAMOAC	-	South African Manual for Outdoor Advertising Control
SAN	-	South African Navy
SANAE	-	South African National Antarctic Expedition
SANAP	-	South African National Antarctic Programme
SANBI	-	South African Biodiversity Institute
SANDF	-	South African National Defence Force
SAPS	-	South African Police Service
SD	-	Strategic Direction
SOFA	-	Status of Forces Agreement
SLF	-	Standing Liaison Forum
SSO	-	Senior Staff Officer
UNCED	-	United Nations Conference on Environment and Development
UNCHR	-	United Nations Commission on Human Rights
WfW	-	Working for Water

Executive Summary

EXECUTIVE SUMMARY

The mandate and functions of the Department of Defence (DOD) are stated in the introduction as sourced from the White Paper on Defence and the Defence Review. This mandate and associated functions as encountered in the Constitution are stated in addition. The specific references in the mandate that drive environmental responsibility in the DOD are also discussed. Some indication is provided of the organisation in terms of the Environmental Services function responsible for planning, formulating policy, execution and monitoring of environmental management within the DOD.

The concept of Military Integrated Environmental Management (MIEM) advocated in the Strategy and Functional Strategies for Military Integrated Environmental Management (1992) as discussed in chapter 1 already deals with the aspect of integrated environmental management. The Environmental Implementation Plan (EIP) strongly re-enforces the objectives of this strategy throughout its content and translates these to the new force design and structure. The integration of environmental considerations in the process of decision-making is further secured in a recommendation that environmental responsibility be included in the management directives and performance agreements of all General Officers Commanding (GOCs), Commanding Officers (COs) and Commanders in the DOD. The magnitude of such a recommendation demanded that in addition, the required capacity be developed within the organisation through accredited environmental education and awareness training programmes in MIEM in order to empower Commanders to exercise environmental responsibility. A section has been included in chapter 1 to define the environmental management capacity of the DOD as an element of resources. All actions contained in the EIP however, have been incorporated to allow for execution within the four-year time frame in which this EIP is valid. Although the EIP process is most opportune in terms of incorporating measures and mechanisms for environmental management at a critical phase of transformation of the DOD, the process of transformation simultaneously creates uncertainties in such aspects as environmental capacity on the ground and available budget in the longer term.

In chapter 2, the measures and mechanisms instituted by the DOD are evaluated against each of the Section 2 Principles of the National Environmental Management Act, 1998 (Act No 107 of 1998) (NEMA). Where deficiencies were isolated in the process of evaluation, these were listed as capacity gaps and limitations in chapter 3 and accordingly translated into appropriate recommendations in chapter 4. All the policies, plans and programmes of the DOD were listed in chapter 1 and those that foster the most significant potential for environmental impacts were identified and condensed to conform to three of the primary systems within Defence i.e. prepare forces, support forces and employ forces. These policies, plans and programmes are discussed in the context of the associated system followed by a list of some of the potential environmental impacts specific to each system. Owing to the vast spectrum of potential environmental impacts encountered in the business of Defence, concepts such as MIEM, Integrated Training Area Management (ITAM) and Environmental Considerations during Military Operations (ECOps) are cited as the collective measures and mechanisms employed to manage these impacts.

In chapter 3 the EIP issues an overview of the measures and mechanisms that are in place to address national and international statutory requirements in terms of the environment. Once more, any capacity gaps and limitations in this regard were listed in this chapter and accordingly translated into appropriate recommendations in chapter 4. Chapter 3 also deals with the aspect of external and internal relationships instituted by the DOD to address co-operative governance for the environment. The relationship between the DOD and the

Executive Summary

provincial departments are discussed in some detail and reference is made to liaison with local government.

An action plan for implementation of mechanisms to implement integrated environmental management were developed in Chapter 5 as part of the implementation of the Environmental Management System (EMS) for Defence with additional mechanisms for monitoring implementation, performance monitoring indicators and the responsible implementing agent. All of these actions are strongly recommended in Chapter 4 of this EIP.

Second Edition EIP for Defence

INTRODUCTION

1. The primary aim of the First Edition Environmental Implementation Plan (EIP) for Defence was to represent an instrument for the promotion of co-operative governance around environmental management. It took the first steps in the quest to align environmental management between the Department of Defence (DOD) and other national departments as well as provincial government. The ultimate pursuit has been to secure protection of the environment within the context of the national objectives for sustainable development whilst simultaneously achieving the primary aim and objectives of the DOD. The Second Edition EIP for Defence will build on the efforts and commitments made in the First Edition EIP as well as fill in the gaps that were identified during this process.

DESCRIPTION OF MANDATE IN RESPECT OF CORE FUNCTIONS

2. The Constitution of the Republic of South Africa, 1996 (Act No 108 of 1996) (section 200 to 204), the Defence Act, 2002 (Act No 42 of 2002) as amended, the White Paper on Defence and the Defence Review mandate the DOD. These laws and policies both direct and guide the execution of the defence function of the DOD and the South African National Defence Force (SANDF). All departmental policies and plans are derived from and executed in accordance with such direction.

3. The primary object of the DOD is to defend and protect the Republic, its territorial integrity and its people in accordance with the Constitution and the principles of international law regulating the use of force.

Constitution of the Republic of South Africa, 1996 (Act No 108 of 1996)

4. According to the Constitution:

- a. "The defence force is the only lawful military force in the Republic",
- b. "The defence force must be structured and managed as a disciplined military force",
- c. "The primary object of the defence force is to defend and protect the Republic, its territorial integrity and its people in accordance with the Constitution and the principles of international law regulating the use of force",
- d. "The President as head of the national executive is Commander-in-Chief of the defence force, and must appoint the Military Command of the force", and
- e. "Command of the Defence Force must be exercised in accordance with the directions of the Minister of Defence under the authority of the President".

Defence Act, 2002 (Act No 42 of 2002) as amended

5. The Defence Act regulates and provides for the defence of the Republic, the powers and responsibilities of the Chief of the SANDF and the Secretary for Defence and for matters incidental thereto.

White Paper on Defence, 1996

6. The White Paper on Defence makes provision for:

- a. The overarching challenge of transforming defence policy and the armed forces in the context of the Constitution, national security policy, the Reconstruction and Development Programme (RDP), and international law on armed conflict.
- b. Civil-military relations, with reference to the constitutional provisions on defence,

transparency and freedom of information, defence intelligence, the structure of the DOD, military professionalism, civic education, responsibilities of government towards the SANDF and the rights and duties of military personnel.

- c. The external and internal strategic environment and the importance of promoting regional security.
- d. The primary and secondary functions of the SANDF.
- e. Human resources issues, including integration, maintenance of an all-volunteer force, rationalisation and demobilisation, equal opportunity, affirmative action, non-discrimination and gender relations and defence labour relations.
- f. Budgetary considerations.
- g. Arms control and the defence industry.
- h. Land and environmental issues.

Defence Review, 1998

7. The Defence Review addresses the following issues:
 - a. Options with respect to the size, roles and structure of the SANDF.
 - b. Addresses the implications of the core force approach for the size, doctrine, posture, weaponry, equipment and other features of the SANDF.
 - c. Addresses the strategic and technical implications of the constitutional provision that the SANDF shall be primarily defensive in the exercise or performance of its powers and functions.
 - d. Deals with the implications of the principles of defence in a democracy for the orientation and posture of the SANDF.
 - e. Presents detailed and well-motivated budgetary forecasts and proposals, specific policies regarding the provisioning of logistic resources and the identification of appropriate technology to optimise the cost-effectiveness of the core force.
 - f. Deals with the size and structure of the Part-time Component.
 - g. Includes an examination of prevailing conditions in the SANDF with the view to rationalise current spending, eliminating waste, and unnecessary duplication and determining the most cost-effective means of managing human and material resources.
 - h. Provides details on the rationalisation, redesign and right sizing of the SANDF given the absence of a foreseeable conventional military threat.
 - i. Outlines a formula and guidelines for ensuring that the former statutory and non-statutory forces are equitably represented in the SANDF, in the context of demobilisation and rationalisation.
 - j. Land and Environmental Issues.

TRANSFORMATION

8. In the new South Africa, national security is no longer viewed as a predominantly military and police problem. It has been broadened to incorporate political, economic, social and environmental matters. At the heart of this new approach is a paramount concern with the security of people. This new approach to security does not imply an expanded role for the armed forces. The SANDF may be employed in a range of secondary roles as mentioned

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previously, but its primary and essential function is service in defence of South Africa.

9. The SANDF, therefore, remains an important security instrument of last resort but is no longer the dominant security institution. The responsibility for ensuring the security of South Africa's people is now shared by many departments of government and ultimately vests in Parliament. In the light of these democratic changes, the new strategic international, regional and domestic environments and the history of the armed forces in the country, the formulation of a new defence policy and the transformation of the DOD were necessitated.

10. The transformation of the DOD takes place against the broader backdrop of the transformation process in South Africa generally. This includes aspects such as:

- a. Civil-military relations including constitutional and legal transformation and mechanisms for oversight,
- b. Normative and cultural transformation, and
- c. Organisational restructuring.

DESCRIPTION OF MANDATE IN RESPECT OF ENVIRONMENTAL MANAGEMENT

11. Prior to 1978, the SANDF has been involved in environmental matters, however on an informal basis. Soldiers are intimately dependent on the environment in which they operate to ensure survival. This is particularly relevant to the African context.

12. The Environmental Services function in the department was initiated in 1978 after the first instruction to the then SA Defence Force (SADF) to look after the environment on its properties in an organised manner. Over the ensuing years, this function has steadily developed from a nature conservation focus to include a wide range of sub-functions such as ecological management of training areas, the management of the built-up environment, cultural resources management, research and education and awareness. The focus of Environmental Services has moved towards integrating environmental considerations in all aspects of military activities.

Constitution of the Republic of South Africa, 1996 (Act No 108 of 1996)

13. The Constitution mandates responsible environmental management to all citizens of the Republic and states that, "everyone has the right –

- a. to an environment that is not harmful to their health and well-being; and
- b. to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that –
 - i. prevent pollution and ecological degradation;
 - ii. promote conservation; and
 - iii. secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development".

White Paper on Defence, 1996

14. Chapter 8 of the White Paper on Defence relates to Land and Environmental Issues, mandating the environmentally responsible management of the environment under the control of the DOD. It states that the Minister of Defence, as well as the Chief of the SANDF "are responsible for ensuring the exercise of proper ecological management and control of military properties". The responsibility and accountability to ensure that "the planning and execution of military activities will take account of the environmental implications and not

jeopardise the long-term potential of the land and other natural resources" are directly transferred to Commanding Officers of military installations.

Defence Review, 1998

15. Chapter 12 of the Defence Review, 1998 on Land and Environment, addresses the environmentally responsible management of DOD controlled land in terms of clean-up of training areas, graves and burial sites, utilisation of external expertise, multiple use of facilities and disposal and closure of defence facilities.

Broad Strategy and Functional Strategies for Environmental Services in the SANDF, 1992

16. The Broad Strategy for Environmental Services as well as Functional Strategies on Environmental Planning, Environmental Research, Environmental Education & Awareness Training, Base Environmental Management, Ecological Management and Cultural Resource Management serves as the basis for the development and implementation of Environmental Services in the DOD. It was developed in 1992 to direct the environmental function in the DOD through the development of policies and capacities in terms of functional areas. Actions recommended have led to the development of monitoring and compliance mechanisms.

POLICY FRAMEWORK

17. Defence policy on the environment is consistent with national policy and includes the following guidelines:

- a. the protection of species and habitats and the conservation of biodiversity and natural resources;
- b. the protection of the environment against disturbance, deterioration, poisoning or destruction as a result of human activity and structures;
- c. the maintenance and improvement of environments which contribute to the quality of life of South African citizens; and
- d. the provision of a healthy working environment for its personnel.

GUIDING PRINCIPLES FOR ENVIRONMENTAL MANAGEMENT

18. The DOD accepts the responsibility of stewardship for the environment under its control and within which it operates.

19. Land under military control is considered a National Asset. It is entrusted to the department by the nation and should therefore be used and managed wisely for as long as it is required for military purposes.

20. The handling of environmental matters should take place within the parameters of international, national and regional agreements, legislation and regulations, and should support national environmental objectives as well as the military mission.

21. The emphasis in environmental management should be on integrating environmental considerations into all military planning and activities, which could have an impact on the environment.

22. Environmental aspects should be included in all relevant military and functional training programmes in accordance with DOD training policy.

23. Every commanding officer is responsible to ensure that the activities, which take place under his/her control are carried out in an environmentally responsible manner.

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24. Defence will have to accept responsibility for the environmental impacts of its activities over their entire life cycle.
25. Military utilisation of facilities should take place in such a way that the long-term suitability of these facilities for sustained military use as well as other use is not jeopardised.
26. Maximum use is to be made of external expertise.
27. All military properties are in principle considered as multiple-use conservation areas and should contribute to national biodiversity objectives.
28. A recognised applicable Environmental Management System (EMS) should be implemented to ensure proper execution of Integrated Environmental Management.

CORPORATE ENVIRONMENTAL POLICY STATEMENT

29. The Corporate Environmental Policy Statement for Defence states that:

The Department of Defence shall, in compliance with the environmental obligations placed upon it by the Constitution, national and international regulatory provisions and within the constraints imposed from time to time by nature of its business,

protect the environment through pro-active measures of Military Integrated Environmental Management;

accept responsibility for sustainable use of the environment entrusted to it;

minimise the impacts of its operations on the environment by means of a programme of continual improvement;

promote open communication on military-related environmental issues to all interested and affected parties;

train and motivate its members to regard environmental considerations as an integral and vital element of their day-to-day activities

MISSION OF ENVIRONMENTAL SERVICES

30. The mission of Environmental Services is to ensure the environmentally sustainable management of military activities and facilities.

CHAPTER 1: IDENTIFICATION AND DESCRIPTION OF DEPARTMENTAL POLICIES, PLANS AND PROGRAMMES**INTRODUCTION**

1. This chapter addresses and briefly describes the important policies, plans and programmes associated with the priority functions of the DOD. An indication is also provided about the potential environmental impacts associated with key policies, plans and programmes, as well as resources, responsibilities and timeframes for implementing these policies, plans and programmes.

KEY POLICIES, PLANS AND PROGRAMMES

2. The primary function of the department is to defend South Africa against external military aggression, to protect the sovereignty and the territory and the people of South Africa in accordance with the Constitution as well as the principles of international law regulating the use of force, in order to secure an environment of peace and prosperity for all. In order to execute this task, the DOD requires a variety of resources including land to accommodate infrastructure, to test weaponry and to train personnel.

3. The core functions of the DOD all have some effect on the environment as it includes activities such as military training, the execution of military operations and exercises. The functions mentioned and discussed in this chapter are very broad and therefore the impacts are diverse and differ for each of the following programmes:

4. **Programme 1: Provide forces by integrating and converting force components into combat ready forces.** Defence is conducted jointly, with each Combat Service providing specialised capabilities to Landward, Air and Maritime Defence. The process of providing forces by integrating and converting force components into combat ready forces includes several associated processes, activities and equipment as described in the extended policy. It should be understood that the environmental impacts associated with providing forces are mostly incurred within very clearly defined geographical boundaries that manifest as military training areas on land, in the airspace as well as at sea. The extent of environmental impacts associated with providing forces however, is amplified by the fact that these activities are repetitive by nature and are confined to the geographical boundaries that constitute military training areas within the Republic. The environmental impacts associated with providing forces are derived from very specific activities.

- a. **Provide a land defence capability.** Landward defence is conceptualised in terms of Conventional Defence (mobile operations) and Area Defence. Within the primary defensive posture of the SANDF, a high premium is placed on firepower, night fighting ability, manoeuvring, quick reaction, surprise and tactical mobility. The basis for conventional defence is the Rapid Deployment Force, which comprises of a mechanised infantry brigade, a parachute brigade and a Special Forces brigade. Mobile conventional forces provide the first and main line of defence against external military threats. Area defence comprises border safeguarding (border protection and border control) and area protection.
- i. **Maintain main equipment associated with land defence.** Equipment associated with land defence such as battle tanks, armoured cars, anti-armoured missile systems, artillery systems, infantry combat and mine protected vehicles and vehicle mounted anti-aircraft guns are maintained and operated in providing combat ready forces.

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- ii. Prepare forces for land defence. The SANDF must be able to prepare its forces continuously for land defence. Force preparation concentrates on two categories namely formal training of personnel of all ranks for conventional operations as well as training and exercising force structure elements.
 - iii. Potential Environmental Impacts. The following impacts can be associated with providing a land defence capability:
 - (1) Terrestrial movement of combat vehicles on military training areas fosters the potential for disturbances in the physical environment. Evidence of such disturbance is observed as soil compaction and destruction of natural vegetation.
 - (2) Terrestrial movement and presence of personnel on military training areas creates potential for disturbances in the physical environment. Evidence of such disturbance is observed as generation of solid waste, disturbance of soil and natural vegetation. In the absence of healthy track discipline, the presence of personnel can introduce an element of disturbance to sensitive ecosystems located on military training areas.
 - (3) The erection of temporary deployment structures on military training areas during land defence exercises fosters the potential for disturbances in the physical environment. These disturbances manifest as accumulation of solid waste, other sources of pollution of the soil, water and atmosphere, localised disturbance of soil and natural vegetation.
 - (4) The deployment of main equipment for land defence during training exercises on military training areas entails inherently environmentally destructive activities. The primary source of disturbance is encountered in the use of the various calibres of firepower. The contamination of surface and sub-surface substrates by armament debris and unexploded ordnance is the major focus in impact management of these activities. In addition, noise generated through the use of firepower as well as certain implications of safety associated with the operational envelope of weapons are of constant concern to adjacent landowners and communities.
 - (5) Contamination of surface substrate and subterranean water resources with fuel is a potential impact at fuel storage and re-bunkering sites. Large quantities of fuel tend to accumulate beneath hard stands over prolonged periods of time if processes of monitoring are not maintained.
 - b. Provide an air defence capability. The use of the air for surveillance, mobility and firepower is a basic tenet of modern conventional warfare. Air superiority is the ability to make unhindered use of the air, while denying an enemy that capability. Air defence is the protection of assets against all forms of enemy air interference and involves both defensive and offensive measures. Flexible air defence is provided through a combination of airspace control radars (static and mobile), point defence missile systems and aircraft. The provision of an air capability is vital in land defence, defending land forces against air attack and providing surveillance, mobility (air transportation) and firepower in support of landward operations. Air participation in maritime defence provides enhanced surveillance capabilities, firepower and plays a significant role in layered defence.
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- i. Maintain main equipment associated with air defence. Equipment associated with air defence such as combat support helicopters, fighter aircraft, light reconnaissance aircraft, electronic warfare aircraft, remotely piloted aircraft, fixed wing aircraft, light and medium helicopters, multi-role fighter aircraft, maritime patrol aircraft, air defence missile systems, aircraft for in-flight refuelling and ship borne helicopters are maintained and operated in providing combat ready forces.
 - ii. Prepare forces for air defence. The SANDF must be able to prepare its forces continuously for air defence. Force preparation concentrates on two categories namely formal training of personnel at all ranks for air defence operations as well as training and exercising force structure elements.
 - iii. Potential Environmental Impacts. The following impacts can be associated with providing an air defence capability:
 - (1) The deployment of military aircraft in the airspace and on airfields during force preparation results in the generation of high levels of noise. Acoustic pollution impacts on, both military personnel as well as adjacent landowners and communities.
 - (2) The deployment of military aircraft in the airspace and on airfields during force preparation results in the generation of varying levels of atmospheric pollution mainly from aviation engine emissions.
 - (3) The extensive mobility of military aircraft affords possibilities for movement between distant geographical locations throughout the interior as well as abroad. This capability renders it possible also for various forms of terrestrial alien invasive species to make use of military aircraft as agents of dispersal.
 - (4) It is however, not always a matter of the impact of military activities on the environment but the environment may foster some constraints on military activities. Birds in the airspace and on airfields as well as quadruped game pose a significant threat to the movement of military aircraft. Collisions between aircraft and birds or small game result in the loss or damage of expensive military equipment and can be potentially fatal both for man and animal. Strategies are devised to focus on the management of habitats in order to anticipate populations and their behaviour on military land and in the airspace.
 - (5) The deployment of main equipment for air defence during training exercises on military training areas entails inherently environmentally destructive activities. The primary source of disturbance is encountered in the use of firepower. The contamination of surface and sub-surface substrates by armament debris and unexploded ordnance is the major focus of impact management of these activities. In addition, noise generated through the use of firepower as well as certain implications of safety associated with the operational envelope of weapons are of constant concern to adjacent landowners and communities.
 - (6) The erection of temporary deployment structures on military training areas during air defence exercises fosters the potential for disturbances in the physical environment. These disturbances manifest as accumulation of solid waste, other sources of pollution of the soil, water
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and atmosphere, localised disturbance of soil and natural vegetation.

- (7) Contamination of surface substrate and subterranean water resources with aviation fuel is a potential impact at fuel storage and re-bunkering sites. Large quantities of fuel tend to accumulate beneath hard stands and apron areas over prolonged periods of time if processes of monitoring are not maintained.
- c. Provide a maritime defence capability. The maritime defence is defence by means of a layered approach where vessels with different capabilities are used in concentric layers extending outward from harbours. Maritime warfare is multi-dimensional and effective maritime defence requires balanced air, surface and subsurface capabilities. The maritime defence capability can provide fire support to landward defence operations in coastal areas and can transport forces, equipment and supplies to harbours serving an area of operations. Maritime defence can support air defence by providing self-defence of maritime assets and harbour defence by ships in port.
- i. Maintain main equipment associated with maritime defence. Equipment associated with maritime defence such as patrol corvettes, submarines, inshore patrol vessels, harbour patrol vessels, strike craft, mine hunters, mine sweepers and combat support ships are maintained and operated in defence and providing combat ready forces.
- ii. Prepare forces for maritime defence. The SANDF must be able to prepare its forces continuously for maritime defence. Force preparation concentrates on two categories namely formal training of personnel at all ranks for maritime operations as well as training and exercising force structure elements.
- iii. Potential Environmental Impacts. The following impacts can be associated with providing a maritime defence capability:
- (1) Solid wastes, sewage, fossil fuels, oils, ozone depleting substances and toxins derived from paint associated with naval vessels at sea and alongside, are the most important polluting agents that are managed from a maritime perspective. Technological solutions and system adjustments are employed to reduce if not eliminate these polluting agents from contaminating the marine environment both in territorial waters and abroad.
 - (2) The decommissioning of obsolete naval vessels may include salvaging of all onboard systems in preparation of sinking of the hull. Regulatory guidelines regarding the preparation of the hull prior to sinking and a suitable location for sinking as issued by the Department of Environmental Affairs & Tourism (DEA&T) are followed in order to prevent adverse environmental impact.
 - (3) The SA Navy is occasionally requested to support DEA&T in expeditions to the Antarctic. The sensitivity of this environment demands that the precautions issued in the Antarctic Treaty, 1961 are meticulously followed to prevent any contamination or disturbance to the Antarctic environment by naval vessels or crew.
 - (4) The extensive mobility of naval vessels affords possibilities for movement between distant geographical locations throughout the world.

This capability renders it possible also for various forms of marine and terrestrial alien invasive species to make use of naval vessels as agents of dispersal.

- (5) The deployment of main equipment for maritime defence during training exercises at sea entails inherent environmentally destructive activities. The primary source of disturbance is encountered in the use of firepower. The acoustic properties of water as well as certain implications of safety associated with the operational envelope of weapon systems are a potential threat to marine life and are of concern to marine interest groups.
 - (6) Industrial activities in the Naval Dockyard in Simon's Town fosters potential impacts on the marine and adjacent urban environments. The main impacts that are managed in this regard are sources of noise pollution, atmospheric pollution and accumulation of heavy metals on bottom sediments of harbour basins. The potential exists for contamination of water surface by fossil fuels and oil during the process of re-bunkering of vessels.
- d. Provide a military health capability. Military health support entails operational health services during deployments of the three Combat Services including search and rescue missions and providing evacuation during missions. Direct support is supplied to landward rapid deployment through the provision of a full-time force medical battalion group. Early warning of chemical and biological agents against own forces and decontamination of personnel and equipment are also provided.
- i. Prepare forces for military health capabilities. The SANDF must be able to prepare its forces continuously for military health capabilities. Force preparation concentrates on two categories namely formal training of personnel at all ranks for military health operations as well as training and exercising force structure elements.
 - ii. Potential Environmental Impacts. The following impacts can be associated with providing a military health capability:
 - (1) The erection of temporary medical deployment structures on military training areas during training exercises fosters the potential for disturbances in the physical environment. These disturbances manifest mainly in accumulation of medical waste.
 - (2) Domestic activities associated with military health care facilities present a broad spectrum of potential environmental impacts. These impacts may be ascribed to various sources of contamination that arise from processes of incineration and disposal of medical waste and solid waste accumulation.

5. Programme 2: Support forces by procuring armament as well as providing matériel and equipment to the combat forces so that these can be used operationally.

The DOD must maintain effective support capabilities in support of the Combat Services by ensuring the acquisition and procurement of modern armament and the availability of matériel and logistic services as well as the movement of matériel and personnel in support of military operations. Military operations in a broader sense also include actions in support of non-military national objectives according to the Constitution.

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- a. Provide an optimal integrated logistic service to all elements of the DOD. The integrated logistic service provides for the effective management of each of the phases of the life cycle of logistic services. Logistic services are rendered in respect of the well being of personnel, to satisfy the military community needs and includes the following:
- i. Personnel Logistic Service includes barber, catering, shopping, tailoring, laundry and footwear repair, funds and institutions.
 - ii. General Logistic Service includes mapping, printing, photography, codification, cataloguing, postal, computerisation, fire-fighting services and military cemeteries.
 - iii. Transport includes the movement of personnel and matériel within rear/base areas, from rear areas to operational areas and back to rear areas. All modes of transportation and terminal operations such as bus terminals, harbours, airfields, railway stations and bridgeheads apply. It excludes tactical movement as a logistic function other than a design requirement for category 1 matériel and recovery of personnel and matériel.
 - iv. Potential Environmental Impacts. The following impacts can be associated with providing an optimal integrated logistic service:
 - (1) Hazardous wastes such as photographic chemical or fire arresting agents generated by general logistic services foster inherent dangers to the environment as contaminants when such substances are not handled and disposed of in an environmentally responsible manner. The impact on the environment in this regard is amplified by the fact that contamination of military facilities by these agents also restricts use of such facilities by personnel.
 - (2) The transportation, storage and handling of petroleum, oils and lubricants foster the potential for contamination of surface and sub-surface substrates as well as water resources in the event of spillage. In the absence of sound contingency planning for the isolation and cleansing of incidents of contamination, the environmental impacts could assume catastrophic proportions, the influence of which may extend far beyond the boundaries of military controlled properties.
- b. Provide an optimal integrated matériel service to all elements of the DOD. The integrated matériel service provides for the effective management of each of the phases of the life cycle of matériel that includes the procurement, receipt, storage, accounting, transferral, issue and disposal of matériel. Matériel includes equipment, maintenance, execution and support of all military activities whether for administration or use in combat. This service applies to matériel designed for military use or which conforms to military specifications (category 1) as well as matériel designed and developed primarily for the commercial orientated market needs without adaptation in the military operational environment (category 2) but does not apply to personnel and facilities.
- i. Potential Environmental Impacts. The following impacts can be associated with providing an optimal integrated matériel service:
 - (1) Inherent environmental impacts are posed mainly in the storage and disposal phases of both category 1 and category 2 hazardous matériel

- such as flammable, toxic and corrosive substances. The practice of disposing of obsolete clothing by means of incineration is a source of atmospheric pollution if regulatory requirements are not followed.
- (2) The disposal of category 1 material specifically obsolete ordnance, is particularly complex as this is regulated by the London Convention, 1972 that prohibits dumping of waste at sea. Obsolete ordnance therefore, must be disposed by alternative and responsible means that would render it inert in terms of any further effect on the environment. Such disposal is considered ideal when integrated waste management principles of re-use and reduce are applied.
- c. Provide for the acquisition and procurement of modern armament and equipment in order to maintain a combat ready capacity. For the SANDF to carry out its primary role, the availability of armaments is essential. Optimal modern armaments for the SANDF are obtained through a process of armament acquisition. It entails the management of the total spectrum of activities to be carried out by the participating organisations within the defence family to meet the armament requirements that will ensure that the SANDF has the necessary user systems for maintaining a combat ready capability. The process of acquisition and procurement includes:
- i. Direction and co-ordination of all acquisition and procurement activities by processing and satisfying the stated functional requirements for armaments from the Combat Services against the procurement plan.
 - ii. Appointment of a project team to translate functional needs into technical design and manufacturing parameters.
 - iii. Involvement of organised defence industry, all other stakeholders and interest groups in the acquisition process.
 - iv. Consideration of environmental issues in the form of a comprehensive environmental management plan are taken before any military industrial facilities for the manufacturing, demolition, test and evaluation of armaments are established, operated or closed down.
 - v. Execution of defence industry studies to indicate development, purchase or partnership options.
 - vi. Submission of project milestone documents to the three levels of approval committees and boards for acquisition programmes.
 - vii. Potential Environmental Impacts. The following impacts can be associated with providing for the acquisition and procurement of modern armament and equipment:
 - (1) The acquisition of outdated technology presents increased potential for environmental resource inefficiency as well as sources of noise and emissions pollution.
 - (2) In the acquisition of contemporary technology that does not comply with environmental specifications, inherent impacts are encountered during the phase of operation, maintenance and disposal of equipment. Such impacts may manifest in the incidence of ozone depleting or other hazardous substances, excessive emissions or noise levels, environmental resource inefficiency and impracticable recycling or re-

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use of components on disposal.

- (3) In testing new weapons systems to determine the dimensions of the operational envelope, environmental impacts may be encountered where the "Precautionary principle" is not applied.
- d. Provide an integrated facilities management service to all elements of the DOD. For the SANDF to carry out its primary function, land, buildings, infrastructure and associated services are required in order to provide, prepare and support forces. Facilities Management consists of Fixed Asset Management and Environmental Services. The integrated facilities management service provides for the collective management of buildings, land and the natural environment in an integrated manner so as to promote the success of the core activities of the department. Furthermore, it provides for the management of the impact of the DOD's activities on the environment in which these are carried out.
- i. Potential Environmental Impacts. The following impacts can be associated with providing an integrated facilities management service:
 - (1) The erection of permanent structures and infrastructure on military training areas results in varying degrees of transformation of land. Natural systems are displaced or permanently transfigured in the proximity of permanent structures and infrastructure on military training areas during construction, operation, maintenance and closure. The true extent of environmental impact linked to the erection of permanent structures and infrastructures on military training areas varies considerably for each property and can only be determined by means of an Environmental Impact Assessment (EIA).
 - (2) Modifications or renovations to military facilities foster inherent environmental impacts on land and infrastructure of cultural historic significance. The cultural historic significance of such military facilities is distorted if the necessary sensitivity is not observed.
 - (3) Environmental resource inefficient military facilities foster adverse impacts on consumption of water and energy.
 - (4) The cultivation of alien invasive plant species in domestic areas of a military installation increases the potential for introduction of such species to local ecosystems and habitats. Certain species cultivated in domestic areas of military installations are resource demanding in terms of water requirements and labour.

6. **Programme 3: Employ forces by deploying forces in an operational capacity.**

Combat ready forces provided by the different Combat Services are integrated and converted into combat-ready joint task forces and are used to accomplish specific territorial or regional operations, peace support and peace enforcement missions and military exercises.

- a. Potential Environmental Impacts. The following impacts can be associated with employing forces:
 - i. Environmental impacts in terms of waste, damage to cultural historic assets and natural resources may be sustained during deployment of forces if the appropriate environmental intelligence is not considered during the operational planning process.

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- ii. The erection of temporary deployment structures during mobilisation fosters the potential for disturbances in the physical environment. These disturbances manifest as accumulation of solid waste, other sources of pollution of the soil, water and atmosphere, localised disturbance of soil and natural vegetation.
 - iii. Damage to or disturbance of the environment as a result of the deployment of forces may result in deterioration of affected environmental resources and restrict the use of such resources by communities both locally and regionally in the absence of sound measures of rehabilitation.

PRIORITISATION OF CORE FUNCTIONS

7. The three programmes mentioned in the previous section are all high priority in terms of the core function of the department as well as its potential detrimental impact on the environment. No specific prioritisation is therefore provided.

CHAPTER 2: DESCRIPTION OF HOW THE POLICIES, PLANS AND PROGRAMMES WILL COMPLY WITH NEMA PRINCIPLES

INTRODUCTION

1. This chapter evaluates the important policies, plans and programmes associated with the priority functions of the DOD according to the Section 2 principles of the National Environmental Management Act, 1998 (Act No 107 of 1998) (NEMA).

EVALUATION OF POLICIES, PLANS AND PROGRAMMES

Ser No	Section 2 Principles of NEMA	Policies, Plans and Programmes
	a	b
01	(4)(a)(i) <i>“That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied.”</i>	In preparing and employing combat ready forces, potential impacts affecting the environment are inherent. The potential adverse impact of military activities as a threat to biodiversity can be anticipated during the processes of training of personnel, maintenance, support and deploying military personnel. Guidelines on Environmental Considerations during Military Operations (ECOps) are implemented in territorial as well as regional military operations. The military training areas used for force preparation are managed as multiple-use conservation areas, some of which have been granted additional forms of statutory or non-statutory conservation status. Management plans exist to account for ecological resources on these properties and to harmonise military activities with sensitive ecosystems.
02	(4)(a)(ii) <i>“That pollution and degradation of the environment are avoided, or, where these cannot be altogether avoided, are minimised and remedied.”</i>	In preparing and employing combat ready forces, potential impacts affecting the environment are inherent. The potential adverse impact of military activities as a source of pollution and environmental degradation can be anticipated during the processes of training of personnel, maintenance, support and deploying military personnel. The system of Integrated Training Area Management (ITAM) integrates military training activities with constraints posed by the natural environment. ITAM presents guidelines for managing the environmental impacts of such activities on the environment in compliance with regulatory obligations. It also provides guidelines for retaining the required military characteristics of military training areas through measures of management. It is a management tool, the principles of which are yet to be established for implementation. Guidelines on ECOps are implemented in territorial as well as regional military operations. The potential of projects, products, processes, services or activities, as elements of support, as a source of pollution can be anticipated and managed during the processes of acquisition, utilisation or operation, maintenance or support until and beyond decommissioning or disposal.

Ser No	Section 2 Principles of NEMA	Policies, Plans and Programmes
	a	b
03	(4)(a)(iii) <i>"That the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied."</i>	In preparing and employing combat ready forces, potential impacts that affect landscapes and cultural heritage sites are inherent. Landscapes and sites of cultural significance are located on various Defence controlled properties. This provides a powerful imperative to acknowledge these resources in the national interest. Various sites, located on Defence controlled properties, have been awarded statutory and non-statutory conservation status such as national monuments, cultural conservation areas and SA Natural Heritage Sites. Measures for the management and protection of these sites are implemented inclusive of the associated process of policy development. The DOD is bound by international legislative provisions regarding the protection of national and world heritage. Furthermore, the guidelines for ECOps, which are implemented in territorial as well as regional military operations, will apply to acknowledging cultural resource prior or during employing forces.
04	(4)(a)(iv) <i>"That waste is avoided, or, where it cannot be altogether avoided, minimised and re-used or recycled where possible and otherwise disposed of in a responsible manner."</i>	In providing and employing combat ready forces, potential impacts that effect the environment are inherent. The potential adverse impacts of military activities and exercises as a source of waste generation can be anticipated during the processes of training of personnel, maintenance, support and deploying military personnel. The potential of projects, products, processes, services or activities as a source of waste can be anticipated during the processes of acquisition, utilisation or operation, maintenance or support until and beyond decommissioning or disposal. Up to 1991, concession was granted to the DOD for the disposal of obsolete ammunition at sea. At present, the disposal of any solid waste at sea is prohibited by the London Convention (1972), to which South Africa is a signatory. Policy development by the DOD explores alternative options for disposal of obsolete ordnance in compliance with the guidelines of the International Maritime Organisation (IMO). The development of contemporary Defence policy on integrated waste management (IWM) is conducted consistent with national objectives set by the Department of Water Affairs and Forestry (DWAF) and in consultation with private enterprise. The most profound account of solid waste issues associated with providing forces is that of the accumulation of unexploded ordnance as well as the remains of discharged ammunition on military training areas. Policy development for clean-up of training areas is conducted in consultation with the responsible authorities in defence, South African Police Service (SAPS) expertise, environmental Non-governmental Organisations (NGO's) and neighbouring communities. Procedures for IWM on deployment are in development for consideration during pre-mobilisation for implementation during intervention, stabilisation and demobilisation phases of operations.

Ser No	Section 2 Principles of NEMA	Policies, Plans and Programmes
	a	b
05	(4)(a)(v) <i>“That the use and exploitation of non-renewable natural resources is responsible and equitable, and takes into account the consequences of the depletion of the resource.”</i>	Prepare forces represents the most prominent element of defence during peacetime and places a heavy burden on the non-renewable resources at the disposal of the DOD. The use of these resources such as land, water, fossil fuels and other energy sources however, is subject to provisions of policy developed by support forces and issued by the DOD. The prevailing budgetary climate provides an indisputable imperative for the conservation of non-renewable resources such as fossil fuel and land. Restrictions imposed by budgetary constraints drive the interests of conservation of such non-renewable resources and drastic measures are consistently demanded of the DOD to observe sustainable utilisation. The use of the non-renewable resources of water and energy must be advocated along the lines of an imperative of conservation as the DOD is not directly liable for costs associated with the utilisation of such resources. An imperative for more sustainable use of water and energy is gradually established through incentive and promotional programmes by Combat Services in collaboration with state or private enterprise. Employing forces places a heavy burden on the non-renewable resources during deployments. Procedures for use of non-renewable resources on deployment are implemented for consideration during pre-mobilisation for implementation during intervention, stabilisation and demobilisation phases of operations.
06	(4)(a)(vi) <i>“That the development, use and exploitation of renewable resources and the ecosystems of which they are part do not exceed the level beyond which their integrity is jeopardised.”</i>	Prepare forces represents the most prominent element of defence during peacetime and exercises a heavy burden on the renewable resources at the disposal of the DOD. The use and management of resources such as plant and animal populations are subject to provisions of policy developed by support forces and issued by the DOD. Renewable resources associated with military properties are of dichotomous nature. Such resources are of importance either as national assets such as Red Data Species or of more localised interest to defence. The populations of life forms that occur on these properties or that have been introduced are utilised as management tools to facilitate sustainable utilisation of military training areas i.e. by maintaining biodiversity and increasing the resilience of military properties toward prevailing disturbance regimes. Policy direction in terms of biodiversity emphasises this perspective. Employ forces places a heavy burden on the renewable resources during deployments. Procedures for use of renewable resources on deployment are applied for consideration during pre-mobilisation for implementation during intervention, stabilisation and demobilisation phases of operations. Adverse environmental influences may arise from provide and employ forces associated with the aforementioned plans where insufficient consideration is applied to environmental risks that have not been appreciated according to the most contemporary available knowledge.

Ser No	Section 2 Principles of NEMA	Policies, Plans and Programmes
	a	b
07	(4)(a)(vii) <i>“That a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions.”</i>	It is ultimately endeavoured through the process of ITAM to empower decision-makers in provide and employ forces to observe the environmental consequences of military activities during the processes of planning that precede these activities. The DOD is held accountable for the management of the environmental impacts of military activities irrespective of where these are sustained. It is ultimately endeavoured through guidelines on ECOps and associated procedures, which are in development, to follow a risk-averse and cautious approach in the planning of operations.
08	(4)(a)(viii) <i>“That negative impact on the environment and on people’s environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.”</i>	Landowners and communities adjacent to Defence controlled properties are subject to disturbance in terms of environmental rights. Prepare and employ forces are subject to provisions of policy developed by support forces and issued by the department. Policy development focuses on measures to minimise noise generated by military activities as well as potential sources of pollution of water, land and air, which may arise from these activities to affect neighbouring landowners and communities. Employ forces is subject to provisions of policy developed by support forces. The DOD subscribes to International Law on Armed Conflict (LOAC) and resolutions of the United Nations Commission on Human Rights (UNCHR) stipulate provisions on environmental rights of people during times of armed conflict.
09	(4)(b) <i>“Environmental management is integrated acknowledging that all elements of the environment are linked and interrelated, taking into account the effects of decisions on all aspects of the environment and all people by pursuing selection of the best practicable environmental option.”</i>	An approach of Military Integrated Environmental Management (MIEM) is followed by the DOD. MIEM will be further enforced through the establishment of the management tool represented by the process of ITAM. Environmental elements are integrated and taken into consideration during all phases of provide, support and employ forces in accordance with the most recent policy developments.

Ser No	Section 2 Principles of NEMA	Policies, Plans and Programmes
	a	b
10	(4)(c) <i>“Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in a such manner to unfairly discriminate against any person particularly vulnerable and disadvantaged persons.”</i>	In the spirit of healthy civil-military relations, the DOD is compelled to acknowledge the view of all sectors of the society, which is served during the process of planning military activities. In pursuit of sound regional co-operation, LOAC and resolutions of the United Nations Commission on Human Rights (UNCHR), the DOD is compelled to acknowledge the environmental rights of all peoples during times of armed conflict.
11	(4)(d) <i>“Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination.”</i>	Precedence is granted to prepare forces in peacetime to make optimal use of military properties. Patterns of land use alternative to military purposes are considered of subordinate priority. Equitable access to environmental resources is subject to provisions of policy developed by support forces. Natural resources on military properties are managed as national assets in trust of the DOD. It is acknowledged that these assets are regarded of significance to society, sectors of society or minorities. Measures are in place to provide access to such resources by non-military entities or interests groups through application of the principle of multiple-use. Procedures have been implemented to provide communities with access to traditional burial grounds and graves located on military properties. Multiple-use of military properties allows for public access to certain properties for purposes of tourist activities such as nature trails and wildlife viewing. These activities however, are subject to precedence of military activities. As part of the control of alien invasive vegetation certain military training areas are accessible to teams contracted as part of the Working for Water Programme and Operation Vuselela of DWAF. The stabilisation following military intervention would be the most appropriate stage during times of armed conflict to secure equitable access to environmental resources to meet basic human needs.
12	(4)(e) <i>“Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle.”</i>	Environmental health and occupational health and safety (OHS) considerations, is entrenched in policies governing provide, support and employ forces. A DOD Environmental Health Service capacity presiding over issues concerning environmental health, a DOD OHS capacity, addressing all OHS issues and a DOD Environmental Services capacity which addresses MIEM have evolved into distinct functions in the DOD. These three functions, despite their defined distinction, have supplemented and complemented each other in the past. Policy development toward environmental health and safety consequences in the life cycle of systems has commenced and requires further endeavour to ensure implementation. Furthermore, a pilot initiative has commenced to develop standard operating procedures for the safety, health and environmental consequences associated with military exercises on training areas. A Standing Liaison Forum (SLF) ensures co-ordination between these functions.

Ser No	Section 2 Principles of NEMA	Policies, Plans and Programmes
	a	b
13	(4)(f) "The participation of all I&AP in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills & capacity necessary for achieving equitable and effective participation, and participation by vulnerable & disadvantaged persons must be ensured."	In the spirit of healthy civil-military relations and the constitutional order, the DOD is compelled to promote the participation of all sectors of the society, which is served during the process of planning military activities. For regional operations beyond national borders, a Status of Forces Agreement (SOFA) or multi-national agreements are forged according to which military intervention will be conducted. The guidelines on ECOps acknowledge liaison with environment related interested and affected parties (I&AP) as part of environmental support during operations.
14	4)(g) "Decisions must take into account the interests, needs and values of all interested and affected parties, and this includes all forms of knowledge, including traditional and ordinary knowledge."	In the spirit of healthy civil-military relations and the constitutional order, the DOD is compelled to take into account the interests, needs, norms and values of I&AP in all sectors of the society during the process of decision-making. This principle of NEMA is consistent with the philosophy of the DOD concerning civil-military relations in which the military is subject to the standards, norms and values dictated by civil society. Environmental reporting will provide public access to relevant information concerning the environmental performance of the department. For regional operations beyond national borders, SOFAs or multi-national agreements are signed according to which military intervention will be conducted. The guidelines on ECOps acknowledge liaison with environment related I&AP, as part of environmental support during operations.
15	(4)(h) "Community well-being and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means."	Provide and employ forces is not mandated to promote as the primary functions of these systems, community well being and empowerment. The medium for these initiatives are however, created through intervention of support forces. The focus of empowerment through environmental education is primarily directed toward the military communities associated with Defence controlled properties utilised for provide forces. Interventions directed toward civilian or non-military communities are of an incidental nature.

Ser No	Section 2 Principles of NEMA	Policies, Plans and Programmes
	a	b
16	(4)(i) <i>“The social, economic and environmental impacts of activities, including costs and benefits are considered, assessed and evaluated, and decisions are appropriate in the light of such consideration and assessment.”</i>	Certain costs that are not visible when decisions are ruled in the execution of routine procedures associated with provide, support and employ forces may only become evident either during or following implementation. Such hidden costs may be overlooked during routine decisions when all environmental influences and impacts have not been sufficiently internalised by the organisation. During the process of operational planning in the pre-mobilisation phase, the guidelines on ECOps provides for consideration of social, economic and environmental impacts of operations.
17	(4)(j) <i>“The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected.”</i>	In the light of provisions of the Defence Act, this principle raises some debate on the obligations associated with soldiering. Evaluation in terms of this principle is suspended pending further exploration and investigation.
18	(4)(k) <i>“Decisions are taken in an open and transparent manner, and access is provided to information in accordance with the law.”</i>	This principle is consistent with the philosophy of the DOD concerning civil-military relations in which the military is subject to the standards, norms and values dictated by civil society. Environmental reporting will provide public access to relevant information concerning the environmental performance of the department. It will be most relevant in the process of demobilisation of armed forces at the conclusion of a military operation. If applicable, environmental information is accessible under Access to Information Act.
19	(4)(l) <i>“There is intergovernmental co-ordination and harmonisation of policies, legislation and actions relating to the environment.”</i>	The representation of the DOD on the Committee for Environmental Co-ordination (CEC) serves extensively as the primary mechanism to ensure inter-departmental co-ordination and harmonisation of policies, legislation and actions relating to the environment. At regional level, DOD Regional Environmental Advisory Forums (REAFs) have been established where consultation with regional offices of national departments, provincial governments, NGOs, tertiary institutions and other stakeholders takes place. The SA Air Force (SAAF) observes specific formalised liaisons with civil aviation authorities of the Department of Transport in terms of environmental issues such as the management of hazards posed to aviation safety by wildlife on airfields and in the airspace. Similar relationships exist for other environmental aspects and the mechanisms for co-operative governance are expected to expand even further. An aspect that features prominently in situations of armed conflict either territorial or regional, is local and international legal compliance. If circumstances allow, this aspect is contained in a SOFA.

Ser No	Section 2 Principles of NEMA	Policies, Plans and Programmes
	a	b
20	(4)(m) <i>“Actual or potential conflicts of interest between organs of state should be resolved through conflict resolution procedures.”</i>	In the process of providing forces, conflict of interest encountered will not be resolved at the hand of this capacity. A mandate in this regard is delegated to support forces. In supporting forces, there is potential for conflicting interests between the strategic objectives for Defence and those fostered by the lead agents in government. Conflict is averted, however through formal and informal liaison.
21	(4)(n) <i>“Global and international responsibilities relating to the environment must be discharged in the national interest.”</i>	In the process of providing forces, this principle will not be resolved at the hand of this capacity by virtue of the mandate in this regard being delegated to support forces. This principle is implicitly observed by the DOD in its position of acceding to global and international responsibilities relating to the environment that are pursued by the pertinent lead agents on such issues as transboundary national parks and Ramsar sites. Accession to these initiatives, however, is subject to conditions that will not significantly interfere with military objectives mandated to the DOD. Global and international responsibilities are taken into consideration during the operational planning process.
22	(4)(o) <i>“The environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as people’s common heritage.”</i>	This principle is thoroughly entrenched in environmental policy, philosophy and doctrine of the DOD. Provide, support and employ forces activities are executed in such a manner as to observe the provisions of departmental policy in this regard.
23	(4)(p) <i>“The costs of remedying pollution, environmental degradation and consequent adverse health effects and of preventing, controlling or minimising further pollution, environmental damage or adverse health effects are paid for by those responsible for harming the environment”.</i>	The DOD acknowledges its responsibilities in this regard. The risks of pollution, environmental degradation and consequent adverse health effects associated with provide and employ forces are potentially high. The principles of MIEM as observed by support forces is augmented by ITAM to secure closer co-operation and commitment to provide and employ forces toward preventing, controlling or minimising further pollution, environmental damage or adverse health effects. The primary motive for such decisive pro-active measures are seated in the fact that the DOD would be liable for costs incurred as a result of harm to the environment should such measures fail. Through the establishment of an environmental management function in 1978 and the subsequent adoption of MIEM in 1992, it is endeavoured to establish pro-active means of preventing such costs being reflected against financial statements of the DOD.

Ser No	Section 2 Principles of NEMA	Policies, Plans and Programmes
	a	b
24	(4)(q) <i>“The vital role of women and youth in environmental management and development must be recognised and their full participation be promoted.”</i>	The DOD subscribes to the national objectives for equal opportunities by means of active implementation of mechanisms to achieve the targets dictated by government in this regard. As some women are trained for combat and are ultimately deployed, others are utilised by support forces in the management of the environment.
25	(4)(r) <i>“Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.”</i>	In the process of provide forces, training of personnel is carried out on military training areas which have been selected and designated by virtue of specific physical characteristics. Military activities therefore, are executed with sufficient sensitivity toward sustaining the physical characteristics of properties. It is endeavoured through the pursuit of this perspective to convey to combat forces, an ethic that could be applied under operational conditions by employ forces. Multiple utilisation of these Defence controlled properties fosters a high potential for transformation of these physical characteristics as a result of military activities and associated impacts of environmental degradation. It is acknowledged that such transformation could distort the physical characteristics of such properties, which in turn, would defeat the motives for original designation as a military training area. In the most extreme instances the potential exists that such transformation would render properties obsolete for purposes of military utilisation. Environmental management is directed toward thwarting this risk. The motives of the DOD for implementing measure to protect sensitive, vulnerable, highly dynamic or stressed ecosystems are, however, not primarily utilitarian. The department recognises these environmental features as national assets entrusted into the custodianship of the DOD. Measures of protection are instituted therefore, for reasons pertaining to the public interest as well as compliance to regulation.

CHAPTER 3: MANNER IN WHICH THE POLICIES, PLANS AND PROGRAMMES WILL EXERCISE THE FUNCTION OF ENVIRONMENTAL MANAGEMENT**INTRODUCTION**

1. This chapter describes co-operative governance around environmental management within the DOD. It indicates the manner, in which the DOD will give effect to the priority policies, plans and programmes through exercising environmental management. This is achieved through indicating and briefly describing the environmental legislative provisions governing the priority functions of the DOD, together with a brief description of the management systems and procedures that have been implemented to ensure compliance.
2. The institutional arrangements around environmental management between the DOD and other organs of state are presented in a diagrammatic format. These relationships focus on the identified priority functions of the DOD in terms of their effect on the environment. The external relationships have been separated from those internal to the department for purposes of discussion. Internal and external relationships have been distinguished as those relating to environmental management and those that are necessary to exercise the priority functions of the department. An indication of the allocated responsibilities and available capacity to implement the mechanisms, management systems and procedures for co-operative governance are provided, identifying possible capacity gaps or limitations.

COMPLIANCE WITH ENVIRONMENTAL LEGISLATIVE PROVISIONS

3. The DOD is subject to governance by civil society represented by an elected legislative. The department in this sense, is subject to all legislation issued by government as well as any national norms and standards fostered by civil society in the spirit of healthy civil-military relations to which the department subscribes in no uncertain terms. Therefore, the DOD will apply all reasonable practicable means to comply with all relevant environmental legislative provisions that have a bearing on it, including the legislative provisions as listed in Table 1 and 2.
4. The responsibility for the environmental, health and safety consequences of any DOD policy, plan, programme, project, product, process, service or activity exists throughout its lifecycle.
5. The DOD has established an environmental policy capacity at corporate level to ensure compliance through the development, implementation and monitoring of internal environmental policy based on national and international legislative provisions.
6. In order to remain current with environmental legislative provisions, the department has acquired the services of an external consultant to establish and maintain a corporate database on all international, national and provincial environmental legislation as well as any relevant norms and standards.
7. Additional special management mechanisms and procedures have been implemented to ensure compliance with national and international environmental legislation. These management systems and procedures for compliance have all been implemented except where indicated otherwise. These include the following:

Table 1: National Environmental Legislative Provisions governing the DOD.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
01	Advertising on Roads and Ribbon Development Act, 1940 (Act No 21 of 1940) as it relates to the display of advertisements.	<ul style="list-style-type: none"> • The South African Manual for Outdoor Advertising Control (SAMOAC) is applied to advertising requests on DOD properties. • A Guide to Environmental Compliance for Officers Commanding (OCs) exists to assist in environmental legal compliance with regard to advertising on DOD properties.
02	Agricultural Pest Act, 1983 (Act No 36 of 1983) as it relates to the prevention and combating of agricultural pests.	<ul style="list-style-type: none"> • A corporate Botanical Service post exists to ensure and implement the prevention and combating of agricultural pests within the DOD. This is achieved by drafting operational instructions and procedural guidelines and as staff visits to the five Regional Facilities Interface Managers (RFIM) Offices to address and monitor the presence of agricultural pests at bases and units. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the prevention and combating of pests. • A Guidebook on Environmental Considerations during Military Operations (ECOps) exists to address the control of pests from foreign deployments.
03	Animal Diseases Act, 1984 (Act No 35 of 1984) as it relates to the control of animal diseases and parasites for measures to promote animal health.	<ul style="list-style-type: none"> • A corporate Animal Health capacity exists to ensure the implementation of this Act and to ensure the promotion of animal health and the control of animal diseases. This capacity is represented at the Regional Environmental Advisory Forums (REAFs) to provide expert advice regarding game management and to monitor the culling and removal of game on DOD properties. • A policy directive regarding Animal Health Services in the SANDF exists. • The corporate Animal Health capacity exists. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the control of animal diseases. • A policy on the management of game exists. • A Guidebook on ECOps exists to address the control of diseases from foreign deployments.
04	Animal Health Act, 1984 (Act No 35 of 1984) as it relates to the promotion of animal health, and the control of animal diseases.	<ul style="list-style-type: none"> • A corporate Animal Health Service capacity exists to ensure the implementation of this Act and to ensure the promotion of animal health and the control of animal diseases. This capacity is represented at the REAFs to provide expert advice regarding game management and to monitor the culling and removal of game on DOD controlled properties. • A policy directive regarding Animal Health Services in the SANDF exists. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the management of game. • A policy on the management of game exists.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
05	Antarctic Treaties Act, 1996 (Act No 60 of 1996) as it relates to activities carried out which could have an effect on the Antarctic environment.	<ul style="list-style-type: none"> • A corporate maritime capability exists to ensure the implementation of this Act. • The Department of Environmental Affairs and Tourism (DEA&T) is consulted in this regard. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the Antarctic environment. • General naval policy makes provision for the protection and preservation of the marine environment, oil pollution at sea and pollution of the air.
06	Atmospheric Pollution Prevention Act, 1965 (Act No 45 of 1965) as it relates to the prevention of the pollution of the atmosphere by smoke and dust.	<ul style="list-style-type: none"> • A corporate Pollution Control Service post exists to ensure and implement the control of air pollution within the DOD. This is achieved by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to address and monitor problems regarding the pollution of the atmosphere at unit level. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the prevention and control of air pollution. • A Guidebook on Integrated Training Area Management (ITAM) exists to manage the impacts of military training activities on the environment. • An operational instruction on the phasing out of ozone destructive substances in the DOD exists. • The DOD has applied for the licensing of all portable and fixed incinerators utilised in the DOD from the DEA&T. • A naval order on the phasing out of ozone depleting substances exists and has been implemented through adjustments to systems on larger vessels. • An Environmental Management Plan exists to manage industrial activities in the Naval Dockyard in Simon's Town.
07	Aviation Act, 1962 (Act No 74 of 1962) as it relates to noise and nuisance.	<ul style="list-style-type: none"> • A corporate Pollution Control Service post exists to ensure and implement the control of amongst others, noise pollution within the DOD. This is achieved by drafting operational instructions and procedural guidelines and staff visits to the five RFIM Offices to address and monitor problems regarding noise pollution. • A corporate Zoological Service post exists to ensure and implement aviation safety measures within the DOD. This is achieved by drafting operational instructions and procedural guidelines and staff visits to the five RFIM Offices to address and monitor aviation safety from an environmental perspective. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the prevention and control of noise and nuisance.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
	Serial No 07 continues	<ul style="list-style-type: none"> • A corporate database on bird strikes exists for management information purposes in order to improve aviation safety in the DOD. • A project on airfields has been introduced to improve aviation safety by controlling small game by cheetahs and controlling birds by manipulating their habitat. • Complaints from neighbouring communities are recorded, registered and investigated by dedicated staff officers at the bases and addressed through reasonable means. At regional level a capacity exists to register and address complaints from a health perspective.
08	Conservation of Agricultural Resources Act, 1983 (Act No 43 of 1983) as it relates to the conservation of soil, water sources and vegetation and the combating of weeds and invader plants.	<ul style="list-style-type: none"> • A corporate Botanical Service post exists to ensure and implement the protection and control of flora within the DOD. This is achieved by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to address and monitor the protection of flora and the combating of weeds and invader plants at bases and units. • A corporate Soil Service post exists to ensure and implement the protection of soil within the DOD. This is a new field in the DOD and the capacity has not yet been developed. Operational instructions and procedural guidelines however, exist and are applied. • A Guidebook on ITAM exists to manage the impacts of military training activities on the environment. • A Guidebook on ECOps exists to incorporate environmental considerations in planning peace support operations (including foreign countries). • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the conservation of soil, water resources, vegetation and the combating of weeds and invader plants. • Internal policy on nature and environmental management exists. • Procedural guidelines on the prevention and control of erosion exist. • Procedural guidelines on the control of problem plants exist. • Procedural guidelines on the leasing of DOD controlled property to be grazed for veld management purposes exist. • Procedural guidelines on the cost-effective control of alien invader plants exist. • Procedural guidelines on cutting of veldgrass for veld management purposes exist. • Naval ships and military aircraft returning from visits abroad are cleaned and fumigated on arrival to exterminate any alien invasive species. • Naval policy on the control of problem plants exists.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
	Serial No 08 continues	<ul style="list-style-type: none"> • Operation Vuselela, a sub-programme under the Working for Water Programme, has been implemented and is being jointly managed with DWAF. The programme aims at eradicating alien invasive plants on military properties by utilising unemployed military veterans.
09	Defence Act, 2002 (Act No 42 of 2002) as amended as it relates to defence activities.	<ul style="list-style-type: none"> • The Ministry of Defence consisting of 18 corporate divisions exists to ensure the implementation of this Act. • Numerous defence policy documents exist to regulate actions and activities relating to the priority function of the department. Policy documents in terms of activities that effect the environment are developed at Logistics Division and are promulgated by Policy and Planning Division. The DOD Logistic Support Formation ensures Implementation and monitoring of environmental policy.
10	Disaster Management Act, 2002 (Act No 57 of 2002) as it relates to preventing or reducing the risk of disasters, emergency preparedness and rapid, effective response to disasters.	<ul style="list-style-type: none"> • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to emergency preparedness and response. • A corporate Pollution Control Service post exists to ensure and implement contingency planning wrt environmental pollution within the DOD. This is achieved by drafting operational instructions and procedural guidelines and staff visits to the five RFIM Offices to address and monitor problems regarding noise pollution. • Internal policy on emergency grazing on DOD controlled properties exists. • A draft SA Air Force (SAAF) policy document on emergency preparedness and contingency planning exists.
11	Dumping at Sea Control Act, 1980 (Act No 73 of 1980) as it relates to the control of dumping of substances at sea.	<ul style="list-style-type: none"> • A corporate Waste Management Service post exists to ensure and implement the proper management of waste onboard ships within the DOD. This is achieved by drafting operational instructions and procedural guidelines and staff visits to the Durban and Cape Town RFIM Offices to monitor waste management onboard ships. • A policy document on Pollution Control on SA Navy (SAN) surface ships exists and has been implemented through systems changes to larger vessels in order to accommodate the IMO regulations. These changes are executed by the Naval Dockyard in Simon's Town. • A naval order on marine conservation by naval units and ships, which addresses the provisions for the dumping of substances at sea, exists. • General naval policy makes provision for the protection and preservation of the marine environment, oil pollution at sea and pollution of the air. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the coastal and marine environment.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
12	<p>Environment Conservation Act, 1989 (Act No 73 of 1989) relating to the effective protection and controlled utilisation of the environment including environmental pollution, noise, littering, waste management and environmental impact assessments (EIA's) (partly repealed by the National Environmental Management Act No 107 of 1998).</p>	<ul style="list-style-type: none"> • A broad strategy for Environmental Services including functional strategies on Environmental Planning, Research, Education and Awareness Training, Ecological Management, Base Environmental Management and Cultural Resource Management exists. It was developed in 1992 to direct Environmental Services in the DOD through developing policies in terms of functional strategies and capacities. Actions recommended have led to the development of different implementing and monitoring mechanisms at corporate level. • A corporate Environmental Planning post exists to ensure and implement the planning of environmental services, the implementation and integration of environmental issues such as EIAs into military activities. This is achieved by drafting operational instructions and procedural guidelines and staff visits to the five RFIM Offices to address and monitor the environmental management at bases/units. • A corporate Pollution Control Service post exists to ensure and implement the control of pollution within the DOD. This is achieved by drafting operational instructions and procedural guidelines and staff visits to the five RFIM Offices to address and monitor environmental pollution at bases and units. • A corporate Zoological Service post exists to ensure and implement the control and protection of game within the DOD. This is achieved by drafting operational instructions and procedural guidelines and staff visits to the five RFIM Offices to monitor the protection of game and other wild animals. • A corporate Waste Management Service post exists to ensure and implement the proper management of waste within the DOD. This is achieved by drafting operational instructions and procedural guidelines and staff visits to the five RFIM Offices to address and monitor the management of waste at bases and units. • A corporate Botanical Service post exists to ensure and implement the protection and control of flora within the DOD. This is ensured by drafting operational instructions and procedural guidelines and staff visits to the five RFIM Offices to monitor the protection of flora and the combating of weeds and invader plants at bases and units. • A corporate Environmental Education, Awareness and Training Service post exists to ensure and implement environmental education and awareness programmes within the DOD. This is achieved by developing <i>curricula</i> and procedural guidelines and staff visits to the five RFIM Offices to ensure that all military personnel is exposed to environmental education and awareness programmes.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
	Serial No 12 continues	<ul style="list-style-type: none"> • A corporate Cultural Resource Service post exists to ensure and implement the proper management of heritage resources within the DOD. This is achieved by drafting operational instructions and procedural guidelines and staff visits to the five RFIM Offices to facilitate and monitor the protection of cultural resources. • A corporate Soil Service post exists to ensure and implement the protection of soil within the DOD. This is a new field in the DOD and the capacity has not yet been developed, however, operational instructions and procedural guidelines exist and are applied. • A Guidebook on ITAM exists to manage the impacts of military training activities on the environment. • A Guidebook on EIAs in the military exists to assist in assessing the impacts on military activities. • A Guidebook on ECOps exists to incorporate environmental considerations in planning peace support operations (including foreign countries). • A Guidebook on the conversion of military bases in South Africa exists. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance. • Internal policy on nature and environmental management exists. • Internal policy on emergency grazing on DOD controlled properties exists. • Procedural guidelines for the compilation of military ecological management plans for SA Defence Force facilities exist. • Procedural guidelines on the establishment of a veld herbarium exist. • Procedural guidelines on the leasing of DOD controlled property to be grazed for veld management purposes exist. • Procedural guidelines on the control of problem plants exist. • Procedural guidelines on the cost-effective control of alien invader plants exist. • Procedural guidelines on cutting of veldgrass for veld management purposes exist. • Procedural guidelines on the control and prevention of erosion exist. • Procedural guidelines on the disposal of fluorescent light tubes exist. • A draft policy on waste disposal sites and other methods of waste disposal exist. • A corporate database on domestic waste incinerators exists for record keeping and management information purposes.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	B
	Serial No 12 continues	<ul style="list-style-type: none"> • A corporate database on waste disposal sites within the DOD exists for record keeping and management information purposes. • A policy document on the handling and disposal of waste materials within and from health care facilities are under development. • Procedural guidelines on incorporating environmental considerations in the planning of peace support operations (including foreign countries) exist. • Procedural guidelines on the participation in conservancies in the DOD exist. • Procedural guidelines on the completion and adjudication of the Annual Environmental Management Report and Awards Programme exist. • Interim procedures on the application of the EIA regulations within the DOD exist.
13	Fencing Act, 1963 (Act No 31 of 1963) as it relates to fences and the fencing of properties.	<ul style="list-style-type: none"> • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to fencing. • Internal policy on fencing of DOD controlled property exists.
14	Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No 36 of 1947) as it relates to use and disposal of chemical and biological substances.	<ul style="list-style-type: none"> • A corporate Waste Management Service post exists to ensure and implement the proper management of waste within the DOD. This is achieved by drafting operational instructions and procedural guidelines and staff visits to the five RFIM Offices to address and monitor the management of waste at bases and units. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the management of chemical and biological substances.
15	Forest Act, 1984 (Act No 122 of 1984) as it relates to the prevention and combating of veld, forest and mountain fires (partly repealed by the National Veld and Forest Fire Act No 101 of 1998).	<ul style="list-style-type: none"> • A corporate Botanical Service post exists to ensure and implement the protection and control of flora within the DOD. This is ensured through the drafting of operational instructions and procedural guidelines and staff visits to the five RFIM Offices to address and monitor the prevention and combating of veld fires at bases and units. • Procedural guidelines for the prevention of veldfires exist. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the management of veld fires. • Internal policy on fire belts exists. • Procedural guidelines for veld fires as a veld management tool have been compiled to guide environmental officers in the management of the veld. • Procedural guidelines for firebreaks using various methods including the use of weed killers exist.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
16	Game Theft Act, 1991 (Act No 105 of 1991) as it relates to the combating of theft and wrongful and unlawful hunting and taking into possession of game.	<ul style="list-style-type: none"> • A corporate Zoological Service post exists to ensure and implement the protection and control of game within the DOD. This is achieved by drafting operational instructions and procedural guidelines and staff visits to five RFIM Offices to address and monitor the protection of game and other wild animals. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the management of game. • Internal policy on the management of game exists.
17	Hazardous Substances Act, 1973 (Act No 15 of 1973) as it relates to the control, use, disposal and dumping of substances by reason of their toxic, corrosive, irritant, strongly sensitising and flammable nature.	<ul style="list-style-type: none"> • A corporate Waste Management Service post exists to ensure and implement the proper management of waste within the DOD. This is achieved by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to monitor the management of hazardous waste. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the management of hazardous substances. • Procedural guidelines for the disposal of fluorescent light tubes exist. • A policy document on handling and disposal of waste materials within and from health care facilities exists. • Procedural guidelines on incorporating environmental considerations in the planning of peace support operations (including foreign countries) are under development.
18	Marine Living Resources Act, 1998 (Act No 18 of 1998) as it relates to the protection of the marine environment and the long-term sustainable utilisation of marine living resources.	<ul style="list-style-type: none"> • A corporate maritime capability exists to ensure the implementation of this Act. • Procedures exist for the inspection and policing, in co-operation with Sea Fisheries, of the exploitation of marine resources on DOD controlled properties. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the protection of the coastal and marine environment.
19	Marine Pollution (Control and Civil Liability) Act, 1981 (Act No 6 of 1981) as it relates to the protection of the marine environment from pollution by oil and other harmful substances.	<ul style="list-style-type: none"> • A corporate maritime capability exists to ensure the implementation of this Act. • A corporate Pollution Control Service post exists to ensure and implement the control of pollution within the DOD. This is achieved by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to address and monitor pollution control by ships at sea. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the protection of the marine environment.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
	Serial No 19 continues	<ul style="list-style-type: none"> • General naval policy makes provision for the protection and preservation of the marine environment and oil pollution at sea. • Naval policy on marine conservation by naval units and ships, which addresses the provisions for the discharging of oil and other substances at sea, exists.
20	Marine Pollution (Intervention) Act, 1987 (Act No 64 of 1987) as it relates to the intervention on the high seas in cases of oil pollution casualties.	<ul style="list-style-type: none"> • A corporate maritime capability exists to ensure the implementation of this Act. • A corporate Pollution Control Service post exists to ensure and implement the control of marine pollution within the DOD. This is achieved by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to address and monitor environmental pollution at sea. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the protection of the marine environment. • General naval policy makes provision for the protection and preservation of the marine environment and oil pollution at sea. • Naval policy on marine conservation by naval units and ships, which addresses the provisions for the discharging of oil and other substances at sea, exists.
21	Marine Pollution (Prevention of Pollution from Ships) Act, 1986 (Act No 2 of 1986) as it relates to the protection of the sea from pollution by oil and other harmful substances discharged from ships.	<ul style="list-style-type: none"> • A corporate maritime capability exists to ensure the implementation of this Act. • A corporate Pollution Control Service post exists to ensure and implement the control of marine pollution within the DOD. This is achieved by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to monitor environmental pollution and the control of waste at sea. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the protection of the coastal and marine environment. • Naval policy on marine conservation by naval units and ships, which addresses the provisions for the discharging of oil and other substances at sea, exists. • General naval policy makes provision for the protection and preservation of the marine environment and oil pollution at sea. • A policy document on Pollution Control on SAN surface ships exists and has been implemented through systems changes to larger vessels in order to accommodate the IMO regulations. System changes are executed by the Naval Dockyard in Simon's Town. • Naval policy on marine conservation by naval units and ships, which addresses the provisions for the discharging of oil and other substances at sea, exists.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
22	Marine Traffic Act, 1981 (Act No 2 of 1981) as it relates to the sinking of obsolete vessels.	<ul style="list-style-type: none"> • A corporate maritime capability exists to ensure the implementation of this Act. • The Department of Environmental Affairs and Tourism is consulted regarding authority and location for the sinking of obsolete vessels. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the protection of the marine environment. • Naval policy on marine conservation by naval units and ships addressing the procedure for the sinking of obsolete naval vessels exists.
23	Marine Zones Act, 1994 (Act No 15 of 1994) as it relates to the protection and utilisation of the maritime zones of the Republic.	<ul style="list-style-type: none"> • A corporate maritime capability exists to ensure the implementation of this Act. • The Department of Environmental Affairs and Tourism is consulted in this regard. • General naval policy makes provision for the protection and preservation of the marine environment. • Naval policy on marine conservation by naval units and ships, which addresses the provisions for the discharging of oil and other substances at sea, exists.
24	Minerals Act, 1991 (Act No 50 of 1991) as it relates to the prospecting for minerals and the rehabilitation of the surface of the land during and after operations.	<ul style="list-style-type: none"> • The Department of Minerals and Energy (DME) and the Department of Public Works (NDPW) are consulted in this regard. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to prospecting on DOD controlled properties. • Internal policy on the handling of applications for prospecting rights on DOD properties exists.
25	Minerals and Petroleum Resources Development Act, 2002 (Act No 28 of 2002) as it relates to the equitable access to and sustainable development of mineral and petroleum resources.	<ul style="list-style-type: none"> • The DME and the NDPW are consulted in this regard. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to prospecting. • Internal policy on the handling of applications for prospecting rights on DOD properties exists. • Procedural guidelines on the control of erosion exist. • Procedural guidelines on the prevention of erosion exist.
26	National Environmental Management Act, 1998 (Act No 107 of 1998) as it relates to environmental management.	<ul style="list-style-type: none"> • Corporate Environmental Policy and Environmental Co-ordination capacities exist to ensure the development of internal policy on environmental management and compliance with national and international environmental legislative obligations within the DOD. This is achieved by utilising the corporate database on all national, international, provincial and local legislation applicable to the business of defence. • The Environmental Review Forum (ERF) has been established to ensure the implementation of the EIP for Defence and to develop an Environmental Management System (EMS) for the DOD.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
	Serial No 26 continues	<ul style="list-style-type: none"> • A Guidebook on the development and implementation of Environmental Education and Training in the Military exists. • A Guidebook on the conversion of military bases in South Africa exists.
27	National Environmental Management: Protected Areas Act, 2003 (Act No 57 of 2003) as it relates to the protection and conservation of ecologically viable areas representative of biological diversity and its natural landscapes and seascapes.	<ul style="list-style-type: none"> • A corporate Botanical Service post exists to ensure and implement the protection and control of flora within the DOD. This is ensured by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to implement biodiversity. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the conservation of habitats. • Procedural guidelines for the compilation of military ecological management plans for SA Defence Force facilities exist. • A naval order on marine conservation by naval units and ships, which addresses the provisions for the discharging of harmful substances, exists. • Procedures exist for the inspection and policing, in co-operation with Sea Fisheries, of the exploitation of marine resources on certain DOD controlled properties. • Procedural guidelines on the participation in conservancies in the DOD exist.
28	National Environmental Management: Biodiversity Act, 2004 (Act No 10 of 2004) as it relates to the management and conservation of biodiversity, the protection of species and ecosystems and the sustainable use of indigenous biological resources.	<ul style="list-style-type: none"> • A corporate Botanical Service post exists to ensure and implement the protection and control of flora within the DOD. This is ensured by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to implement and monitor the biodiversity. • A corporate Zoological Service post exists to ensure and implement the protection and control of game and other animal life within the DOD. This is achieved by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to address and monitor the protection of wild animals at unit level. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to conservation of habitats. • Procedural guidelines for the compilation of military ecological management plans for SA Defence Force facilities exist. • A draft policy on the management of game has been drafted and is in the process of promulgation. • Procedural guidelines on the establishment of a veld herbarium exist. • Procedural guidelines on the participation in conservancies in the DOD exist.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
29	National Environmental Management: Air Quality Act, 2005 (Act No 39 of 2005) as it relates to the protection of the environment by providing measures for prevention of pollution and ecological degradation, to provide for the regulating air quality monitoring management and control for specific air quality measures and for matters incidental thereto.	<ul style="list-style-type: none"> • A corporate Pollution Control Service post exists to ensure and implement the control of air pollution within the DOD. This is achieved by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to address and monitor problems regarding the pollution of the atmosphere at unit level. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the prevention and control of air pollution. • A Guidebook on ITAM exists to manage the impacts of military training activities on the environment. • An operational instruction on the phasing out of ozone destructive substances in the DOD exists. • A naval order on the phasing out of ozone depleting substances exists and has been implemented through adjustments to systems on larger vessels.
30	National Forest Act, 1998 (Act No 84 of 1998) as it relates to the protection of forests and trees.	<ul style="list-style-type: none"> • A corporate Botanical Service post exists to ensure and implement the protection and control of flora within the DOD. This is ensured by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to address, implement and monitor the protection of flora. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the conservation of habitats. • Procedural guidelines for the compilation of military ecological management plans for SA Defence Force facilities exist.
31	National Heritage Resources Act, 1999 (Act No 25 of 1999) as it relates to the management and conservation of heritage resources.	<ul style="list-style-type: none"> • A corporate Cultural Resource Service post exists to implement the proper management of heritage resources within the DOD. This is achieved by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to implement and monitor the protection of cultural resources. • A broad strategy for Environmental Services with a functional strategy on Cultural Resources Management exists. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the conservation of cultural resources. • A corporate database on cultural and historical resources is in process for record keeping and management information purposes. • A draft internal policy on national monuments and other heritage resources exists.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
	Serial No 31 continues	<ul style="list-style-type: none"> • A draft internal policy on civilian graves on DOD controlled property exists. • A corporate database on civilian graves on DOD properties exists for management information purposes.
32	National Veld and Forest Fire Act, 1998 (Act No 101 of 1998) as it relates to veld and forest fires.	<ul style="list-style-type: none"> • A corporate Botanical Service post exists to ensure and implement the protection and control of flora within the DOD. This is ensured by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to address, implement and monitor the protection of flora at bases and units. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the management of veld fires. • Internal policy on fire belts exists. • Procedural guidelines for the making of firebreaks by using various methods including the use of weed killers exist. • Procedural guidelines for the prevention of veld fires exist. • Procedural guidelines for veld fires as a veld management tool have been compiled to guide environmental officers in the management of the veld. • Active interaction with the Fire and Rescue section takes place regarding the management of the environment.
33	National Road Traffic Act, 1996 (Act No 93 of 1996) as it relates to noise pollution and the transportation of hazardous goods.	<ul style="list-style-type: none"> • A corporate Pollution Control Service post exists to ensure and implement the control of noise pollution within the DOD. This is achieved by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to address and monitor problems regarding the noise pollution and the handling of hazardous goods. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to noise pollution and the transportation of hazardous materials.
34	National Water Act, 1998 (Act No 36 of 1998) as it relates to the use of water and the protection of water resources.	<ul style="list-style-type: none"> • A corporate Pollution Control Service post exists to ensure and implement the control of noise pollution within the DOD. This is achieved by drafting operational instructions and procedural guidelines as well as staff visits to each of the five RFIM Offices in order to address and monitor environmental pollution of water resources at bases and units. • A Guide to Environmental Compliance for OCs exists to assist in environmental legal compliance with regard to the efficient use of water. • The NDPW is in process of registering water use on behalf of the DOD.

Ser No	National Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
	Serial No 34 continues	<ul style="list-style-type: none"> • A trilateral initiative has been established between the DOD, the NDPW, Rand Water and DWAF for the efficient use of water. • Procedural guidelines on the completion of the Water Efficiency section of the Annual Environmental Management Report and Award Programme exist.
35	Occupational Health and Safety Act, 1993 (Act No 85 of 1993) as it relates to the protection and the health and safety of persons at work.	<ul style="list-style-type: none"> • A corporate Occupational Health and Safety capacity exists with structures on strategic, operational and tactical levels to implement this Act within the DOD, as part of force preparation and force employment. • Regional Environmental Health Service capacities exist to ensure the protection of the health and safety of employees through a process of risk assessment (programmes of exposure monitoring, biological monitoring and medical surveillance). These capacities are represented on the REAFs to provide expert advice regarding occupational health and safety. • A Standing Liaison Forum (SLF) has been established between the functionalities of environmental management, environmental health and occupational health and safety to manage the boundary areas of these functions. An official agreement between these functionalities exists to manage the boundaries between these three functionalities.

8. Additional regional management mechanisms have been implemented to ensure environmental compliance of provincial environmental legislative provisions, including the following:

Table 2: Provincial Environmental Legislative Provisions governing the DOD

Ser No	Provincial Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
01	<p>Cape Nature and Environmental Conservation Ordinance No 19 of 1974 as it relates to nature reserves, the protection of wild animals, flora and control of noise.</p> <p>Problem Animal Control Ordinance No 26 of 1957 as it relates to combating of vermin and other animals doing damage.</p>	<ul style="list-style-type: none"> • Regional environmental posts consisting of two environmental management officers exist in Cape Town to implement and monitor the proper environmental management of DOD controlled properties in the Western Cape. This is achieved by providing expert advice on environmental management and monitoring progress during regional staff visits. These regional offices regularly liaise with provincial and local government regarding environmental compliance issues.

Ser No	Provincial Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
01 (cont)	<p>All provincial acts, regulations as well as local bylaws applicable to the Western Cape relating to environmental conservation, pollution and waste management.</p> <p>Cape Land Use Planning Ordinance 15 of 1985 and regulations made in terms of this ordinance as it relates to town planning and land use.</p>	<ul style="list-style-type: none"> • A town and regional planning post exists to ensure adherence to provincial planning legislation in the Western Cape.
02	<p>Natal Nature Conservation Ordinance No 15 of 1974 as it relates to nature reserves, the protection of game and indigenous plants.</p> <p>Eastern Cape Environmental Management Act, 2003 (Act No 13 of 2003) as it relates to environmental management.</p> <p>Eastern Cape Protected Areas Act, 2003 (Act No 12 of 2003) as it relates to the management of protected areas.</p> <p>Natal Local Authorities Ordinance No 25 of 1974 as it relates to nuisances and the removal of rubbish and refuse.</p> <p>Natal Prevention of Environmental Pollution Ordinance No 21 of 1981 as it relates to the prevention of littering and pollution.</p> <p>All provincial acts, regulations as well as local bylaws applicable to KwaZulu-Natal relating to nature conservation, environmental pollution and waste management.</p>	<ul style="list-style-type: none"> • Regional environmental posts consisting of two environmental management officers exist in Durban to implement and monitor the proper environmental management of DOD controlled properties in KwaZulu-Natal and the Eastern Cape Province. This is achieved by providing expert advice on environmental management and monitoring progress during regional staff visits. This regional office regularly liaises with provincial and local government regarding environmental compliance issues. • A formal REAF for the KwaZulu-Natal Province has been established to advise the DOD regarding the management of the natural and built-up environment under its control as well as to align the DOD with all environmental line function government departments and other role players. • A similar REAF for the Eastern Cape Province is in the process of being established.

Ser No	Provincial Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
02 (cont)	Natal Planning Ordinance No 27 of 1949 and regulations made in terms of this ordinance as it relates to town planning and land use	<ul style="list-style-type: none"> A regional town and regional planning post exists to ensure adherence to provincial planning legislation in the KwaZulu-Natal Province and the Eastern Cape Province.
03	<p>Orange Free State Nature Conservation Ordinance No 8 of 1969 as it relates to nature reserves and the protection of wild animals and indigenous.</p> <p>Orange Free State Dumping of Rubbish Ordinance No 8 of 1976 as it relates to the dumping of rubbish.</p> <p>All provincial acts, regulations as well as local bylaws applicable to the Free State relating to environmental conservation, environmental pollution and waste management.</p> <p>Town Planning and Townships Ordinance 15 of 1986 and regulations made in terms of this ordinance as it relates to town planning and land use</p>	<ul style="list-style-type: none"> Regional environmental posts consisting of two environmental management officers exist in Bloemfontein to implement and monitor the proper environmental management of DOD controlled properties in the Free State Province and the Northern Cape Province. This is achieved by providing expert advice on environmental management and monitoring progress during regional staff visits. These regional offices regularly liase with provincial and local government regarding environmental compliance issues. A formal REAF for the Free State Province has been established to advise the DOD regarding the management of the natural and built-up environment under its control as well as to align the DOD with all environmental line function government departments and other role players. A similar REAF for the Northern Cape Province is in the process of being established. A regional town and regional planning post exists to ensure adherence to provincial planning legislation in the Free State Province and the Northern Cape Province.
04	<p>Gauteng Nature Conservation Ordinance No 12 of 1983 and regulations as it relates to the conservation of wild animals, indigenous plants and endangered and rare fauna and flora.</p> <p>Problem Animal Control Ordinance No 26 of 1957 as it relates to combating of vermin and other animals doing damage.</p> <p>Waste Information Regulations, GN 3034 dated 15 September 2004.</p>	<ul style="list-style-type: none"> Regional environmental posts consisting of two environmental management officers exist in Pretoria to implement and monitor the proper environmental management of DOD controlled properties in Gauteng and the North West Province. This is achieved by providing expert advice on environmental management and monitoring progress during regional staff visits. These regional offices regularly liase with provincial and local government regarding environmental compliance issues.

Ser No	Provincial Legislation with Environmental Implications	Management Systems and Procedures for Compliance
	a	b
04 (cont)	<p>Health Care Waste Management Regulations, GN 3035 dated 15 September 2004.</p> <p>All provincial acts, regulations as well as local bylaws applicable to Gauteng, and the North West Province relating to environmental conservation, environmental pollution and waste management.</p> <p>Town Planning and Township Regulations, AN 858 dated 10 July 1987.</p>	<ul style="list-style-type: none"> • A regional town and regional planning post exists to ensure adherence to provincial planning legislation in Gauteng and the North West Province.
05	<p>Mpumalanga Nature Conservation Ordinance No 12 of 1983 as it relates to the conservation of wild animals, indigenous plants and endangered and rare fauna and flora.</p> <p>Mpumalanga Nature Conservation Act, 1998 (Act No 10 of 1998) as it relates to nature conservation within the province.</p> <p>Problem Animal Control Ordinance No 26 of 1957 as it relates to combating of vermin and other animals doing damage.</p> <p>All provincial acts, regulations as well as local bylaws applicable to the Limpopo Province and Mpumalanga relating to environmental conservation, environmental pollution and waste management.</p> <p>Town Planning and Townships Ordinance 15 of 1986 and regulations made in terms of this ordinance as it relates to town planning and land use.</p>	<ul style="list-style-type: none"> • Regional environmental posts consisting of two environmental management officers exist in Polokwane to implement and monitor the proper environmental management of DOD controlled properties in the Limpopo Province and Mpumalanga. This is achieved by providing expert advice on environmental management and monitoring progress during regional staff visits. These regional offices regularly liaise with provincial and local government regarding environmental compliance issues. • A formal REAF for the Limpopo Province has been established to advise the DOD regarding the management of the natural and built-up environment under its control and to align the DOD with all environmental line function government departments and other role players. • A regional town and regional planning post exists to ensure adherence to provincial planning legislation in the Limpopo Province and Mpumalanga.

INTERNATIONAL CONVENTIONS, TREATIES, AGREEMENTS AND PROTOCOLS

9. International conventions, treaties, agreements and protocols are complied with through incorporating such provisions in policy and guideline documents and procedures of compliance cited in the previous sections. The following international conventions, treaties, agreements and protocols relating to the core business of the DOD as well as its environmental responsibility apply to the department:

- a. Rio Declaration on Environment and Development and Agenda 21. Principle 24 of this declaration states that "Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and co-operate in its further development, if necessary". Furthermore, principle 25 states that "Peace, development and environmental protection are interdependent and indivisible".
- b. World Charter for Nature, 1982. This Charter contains General Principles of which one states that nature is to be respected and protected against warfare or other hostile activities, conservation must be practised, the reproductive capacity of organisms and ecosystems must be respected and responsibilities in the use of resources and for the discharge of pollutants must be exercised. Therefore "military activities damaging to nature shall be avoided".
- c. Framework Convention on Climatic Change. This convention provides for the protection of the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with common but differentiated responsibilities and respective capabilities by taking the lead in combating climate change and the adverse effects thereof.
- d. Resolution 1995/14: Human Rights and the Environment - United Nations Commission of Human Rights dated 24 Feb 1995. The natural and man-made environment is essential to the well being of a person and to the enjoyment of his/her basic human rights. Therefore, due to this close relationship between the environment and human rights, some human rights violations are allegedly the causes of or factors in environmental degradation. The opposite also applies where the deterioration of the environment affects the enjoyment of human rights such as life, health and the right to peace and security. The potential for purposeful or accidental environmental damage is a serious threat to peace and security, whether during war or in peacetime and is considered a crime against humanity by the international law commission. The principle of humanity imposes limits on war. The obligation to protect the environment during armed conflict is derived from the norms of international humanitarian law, which lays down restrictions on methods of conducting hostilities by asserting that "the only legitimate object which states should endeavour to accomplish during war is to weaken the military force of the enemy".
- e. International Health regulations (Part III) – Health Measures and Procedures applicable between Ports and Airports of Departure and Arrival. These regulations state that "no matter capable of causing any epidemic disease shall be thrown or allowed to fall from an aircraft when it is in flight".
- f. Convention on International Civil Aviation Annex 16 - Aircraft Noise. The annex addresses the noise generated by aircraft.

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- g. Vienna Convention for the Protection of the Ozone Layer, 1985 and the Montreal Protocol On Substances That Deplete The Ozone Layer, 1987 As Amended In 1989. This convention provides for protection of the ozone layer from harmful modification. The protocol and the amendment contain a list of chlorofluorocarbons (CFC) and provides for the control and limiting the consumption of CFC's.
- h. International Convention for the Safety of Human Life on the Sea, 1974. The second schedule provides for safety from radiation or other nuclear hazards at sea or in port to the crew, passengers or public, or to waterways, food or water resources.
- i. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, 1989. This convention aims to ensure that the generation of hazardous and other wastes is reduced to a minimum, the availability of adequate disposal facilities, for the environmentally sound management of hazardous and other wastes, that persons involved in the management of hazardous or other wastes take such steps as are necessary to prevent pollution due to hazardous and other wastes, to minimize the consequences of such pollution occurrence on human health and the environment; that the transboundary movement of hazardous and other wastes is reduced to the minimum consistent with the environmentally sound and efficient management of such wastes, and is conducted in a manner which will protect human health and the environment against the adverse effects which may result from such movement.
- j. International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978. The fifth schedule of this convention (chapter III) provides for basic principles for the protection of the environment by prevention of pollution. It also provides for knowledge of anti-pollution procedures to prevent pollution of the environment by smoke, oil, sewage and other pollutants. It also prescribes the use of pollution prevention equipment such as oily water separators, sludge tank systems and sewage disposal plants.
- k. Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space and Under Water, 1963. This treaty aims to prohibit or prevent the carrying out of any nuclear weapon test explosion, or any other nuclear explosion, at any place in the atmosphere; including outer space; or under water, including territorial waters or high seas; or in any other environment if such explosion causes radioactive debris to be present outside the territorial limits of the state under whose jurisdiction or control such explosion is conducted.
- l. The Antarctic Treaty, 1961 (Washington). Article V deals with nuclear explosions and disposal of radioactive waste material. The following protocol to the Antarctic Treaty also applies:
- i. Protocol to the Antarctic Treaty on Environmental Protection, 1991. Annex II of this protocol deals with the conservation of Antarctic fauna and flora. Article 3 with the taking of or harmful interference with animals or plants and article 4 with introducing foreign animals or plants into Antarctica. Annex III deals with waste disposal and waste management. Articles 2 to 6 with disposal or storage of waste and article 7 with introducing a prohibited product in Antarctica. Annex IV deals with the prevention of marine pollution. Article 3 with the discharge of oil or oily mixture into the sea, Article 4 with the
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discharge of noxious liquid or chemical substance into the sea, Article 5 with the disposal of garbage into the sea and Article 6 with the discharge of sewage into the sea. Annex V to the protocol deals with area protection and management with special emphasis on the damaging, removing or destroying a historic site or monument in article 8.

- m. Geneva Conventions of 12 August 1949 – Protocol 1 Additional to the Geneva Conventions of 12 August 1949 relating to the Protection of Victims of International Armed Conflicts, 1977. Article 35 - means and methods of warfare: basic rules. One of the basic rules prohibits the employment of methods and means of warfare, which are intended or may be expected, to cause widespread, long-term and severe damage to the natural environment. *Article 55 - protection of the natural environment.* In warfare, care shall be taken to protect the natural environment against widespread, long-term and severe damage. This includes a prohibition of the use of methods or means of warfare, which are intended or may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population. It also prohibits any attacks against the natural environment by way of reprisals. *Article 53 - Cultural objects and places of worship in general.* Historic monuments, works of art and places of worship which constitute the cultural or spiritual heritage of peoples enjoy full protection against acts of hostility, without prejudice to the provisions of The Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict dated 14 May 1954. It prohibits the use of such objects in support of military effort and making such objects the object of reprisals. Their immunity may not be withdrawn, contrary to that of marked cultural objects.
- n. Geneva Conventions of 12 August 1949 - Protocol II Additional To The Geneva Conventions of 12 August 1949 relating to the Protection of Victims of Non-International Armed Conflicts, 1977. This protocol contains no provisions relating to the environment, however, article 14 on the protection of objects indispensable to the survival of the civilian population, has direct impact on warfare and the environment, with its prohibition of attacks on agricultural areas, livestock, irrigation works and drinking water installations.
- o. The Hague Convention for the Protection of Cultural Property in the event of Armed Conflict, 1954. Article 1 - Marked cultural objects. Cultural objects under this convention enjoy general or special protection. Cultural objects under general protection means an object of great importance to the cultural heritage of every people such as monuments of architecture, art, history, archaeological sites, museums, large libraries, depositories of archives, shelters of cultural objects and centres containing a large amount of immovable cultural objects. Cultural objects under special protection means an object of exceptional value such as shelters of cultural objects, centres containing immovable cultural objects and other cultural objects of great importance. The distinctive sign of cultural objects consists of a blue and white shield and is used under the responsibility of the belligerent party. The sign must be large and visible. Cultural property personnel and objects under special protection can be marked with one sign. Cultural objects under special protection and cultural property transports can be marked with three signs in triangular formation with one sign below. Personnel assigned to guard cultural objects under special protection may be armed with light individual weapons.
- p. Regulations for the Execution of the Convention for the Protection of Cultural Property in the event of Armed Conflict, 1954. These regulations make provision

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for procedures for the special protection, obtaining immunity, transportation of cultural property and a distinctive emblem or sign for cultural property. The sign shall be visible from the ground at regular intervals sufficient to indicate clearly the perimeter of a centre containing monuments under special protection and at the entrance to other immovable cultural property under special protection. In the event of armed conflict, the sign shall be placed on vehicles of transport so as to be clearly visible in daylight from the air as well as from the ground.

- q. Convention concerning the Protection of the World Cultural and Natural Heritage, 1972. This convention aims to protect cultural and natural heritage of outstanding universal value by a system of collective protection. Cultural and natural heritage of each party are considered a world heritage. Cultural heritage includes monuments, groups of buildings, inscriptions, cave dwellings, archaeological sites or other sites or a combination of these features which are of outstanding value from a historic, artistic or scientific point of view. Natural heritage includes physical and biological formations which are of outstanding value from an aesthetic or scientific point of view or geological or physiographical formations or natural areas which constitute the habitat of threatened animals or plants of outstanding value from a scientific or conservation point of view.
- r. Convention on the High Seas, 1958 (Geneva). This convention charges the state with a duty to prevent the pollution of the seas from the discharge of oil or the dumping of radioactive waste.
- s. International Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 (Brussels). This convention provides for the prevention, mitigation or elimination of grave and imminent danger to the coastline or related interests from pollution or threat of pollution of the sea by oil, following on a maritime casualty that may reasonably be expected to result in major harmful consequences.
- t. International Convention for the Prevention of Pollution from Ships (MARPOL) as modified by the Protocol of 1978 (London). This convention provides for the prevention of pollution of the marine environment by the discharge of harmful substances or effluents. It includes provisions for the prevention of pollution by oil, sewage, garbage, and noxious liquid substances in bulk and harmful substances carried by sea in packaged form. An important requirement is the provision of waste reception facilities at port for oil residues and the listing of special areas where only clean ballast is permitted.
- u. International Convention on Civil Liability for Oil Pollution Damage, 1976 (Brussels). This convention provides for the prevention and combating of pollution of the sea by oil and determining liability in certain respects for loss or damage caused by the discharge of oil from ships.
- v. Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (London, Mexico, Moscow, Washington). This convention aims at controlling all sources of pollution of the marine environment. The dumping of radioactive wastes, biological and chemical warfare materials, persistent plastics, oils, synthetic materials and other chemical products are prohibited the second and third category may only be dumped in accordance with a general or special permit. This convention is amended by:
 - i. Amendments to the Annexes to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1981

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- ii. Amendments to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter concerning Incineration at Sea, 1979
 - w. United Nations Convention on Law of the Sea, 1982 (Geneva). This convention contains general provisions on dumping by adopting laws to prevent, reduce and control pollution by dumping which shall not be carried out without the permission of the competent authorities. Furthermore, the continental shelf and the exclusive economic zone must be protected against marine pollution resulting from seabed activities. This convention also imposes a duty on states to conserve the living marine resources of the exclusive economic zones. Article 303 imposes a duty on states to protect archaeological and historical objects found at the sea.
 - x. Convention on the Conservation of Antarctic Marine Living Resources, 1982 (Canberra). Article II deals with the harvesting of marine living resources in the Antarctic.
 - y. Convention for the Conservation of Antarctic Seals. Article 2 deals with the capturing or killing of seals in the Antarctic.
 - z. Convention on Fishing and Conservation of the Living Resources of the High Seas, 1966. These following two conventions developed international law with regard to fishing and conservation in the marine environment:
 - i. Convention on the Territorial Sea and the Contiguous Zone, 1958 (Geneva)
 - ii. Convention on the Continental Shelf, 1958 (Geneva)
10. The following treaties and conventions are primarily relevant to the environmental mandate:
- a. International Plant Protection Convention, 1951 (Rome)
 - b. Convention on the Conservation of Migratory Species of Wild Animals, 1991
 - c. Convention on Wetlands of International Importance especially as Waterfowl Habitat, 1971 (Ramsar)
 - i. Protocol to amend the Convention on Wetlands of International Importance especially as Waterfowl Habitat, 1986
 - ii. Amendments to Articles 6 and 7 of the Convention on Wetlands of International Importance especially as Waterfowl Habitat, 1994
 - d. Convention relating to the Preservation of Fauna and Flora in their Natural State, 1933 (London)
11. The following treaties and conventions are primarily relevant to the core business:
- a. Convention on the Prohibition or Restrictions on the Use of Certain Conventional Weapons which may be deemed to be Excessively Injurious or to have Indiscriminate Effects, 1980
 - b. Convention on the Physical Protection of Nuclear Material, 1981
 - c. Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, 1987
 - d. Treaty on the Non-Proliferation of Nuclear Weapons, 1968
 - e. Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil Thereof, 1971
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- f. Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (biological) and Toxin Weapons and on their Destruction, 1972
 - g. Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and their Destruction, 1993

MECHANISMS AND PROCEDURES FOR CO-OPERATIVE GOVERNANCE: EXTERNAL CO-OPERATIVE GOVERNANCE RELATIONSHIPS

12. The external co-operative governance relationships illustrated in Figure 1 are formal mechanisms of liaison between the DOD and other departments or spheres of government relating to environmental management as well as those relationships that are necessary to exercise the department's priority function. These relationships are discussed in more detail in the following section.

13. In the past, the DOD has established informal liaison with a number of national and provincial government departments relating to environmental management activities on DOD controlled properties. In this section however, only the formal mechanisms and procedures for co-operative governance will be discussed.

14. The following external co-operative governance relationships are formal co-ordinating mechanisms and procedures for co-operative governance within the DOD relating to environmental management:

- a. Department of Environmental Affairs and Tourism (DEA&T). The DOD has the following co-operative governance relationships with DEA&T:
 - i. Committee for Environmental Co-ordination (CEC). The DOD is represented on the CEC and its various sub-committees. The C SANDF has been appointed as the official representative and the Senior Staff Officer Environmental Services act as substitute, with the Staff Officer Environmental Policy and the Staff Officer Environmental Co-ordination represented on the *ad hoc* sub-committees on Law Reform and EIPs/EMPs respectively. This representation serves extensively as the primary mechanism to ensure inter-departmental co-ordination and harmonisation of policies, legislation and actions relating to the environment.
 - ii. DOD Environmental Awards Programme. A member of DEA&T is represented on the national adjudication panel as an adjudicator of the Base Environmental Management section of this programme. This proves to be an effective mechanism to formally liaise with DEA&T in order to address environmental management matters at the level of execution.
- b. Department of Arts and Culture. The DOD has the following co-operative governance relationships with the Department of Arts and Culture:
 - i. South African Museums Association. The Staff Officer Cultural Resource Services of the DOD Logistic Support Formation represents the DOD and is the Vice Chair of the Gauteng North Committee. The interests of this association are founded on developmental issues concerning cultural resources as defined in the concept of museums. Meetings are convened monthly. The DOD's involvement in this association is considered to be an effective co-operative governance mechanism.
 - ii. Regional Heritage Councils. These regional councils are established as part of the South African Heritage Resources Agency (SAHRA) to manage and

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conserve heritage resources at regional level. At present the KwaZulu-Natal Heritage Council is active but the DOD is not yet involved in the proceedings of the council. The DOD would be pursuing representation on all of these councils insofar as heritage resources on DOD controlled properties are concerned.

- iv. Commonwealth War Graves Commission. This commission is responsible for the management of the graves at Delville Wood. A DOD representative serves on the commission to oversee the management of the graves of South African soldiers who perished in the battle. The funds for the maintenance of these graves are provided by the National Department of Public Works (NDPW). This commission is also involved in the management of the Castle through representation on the Castle Control Board.

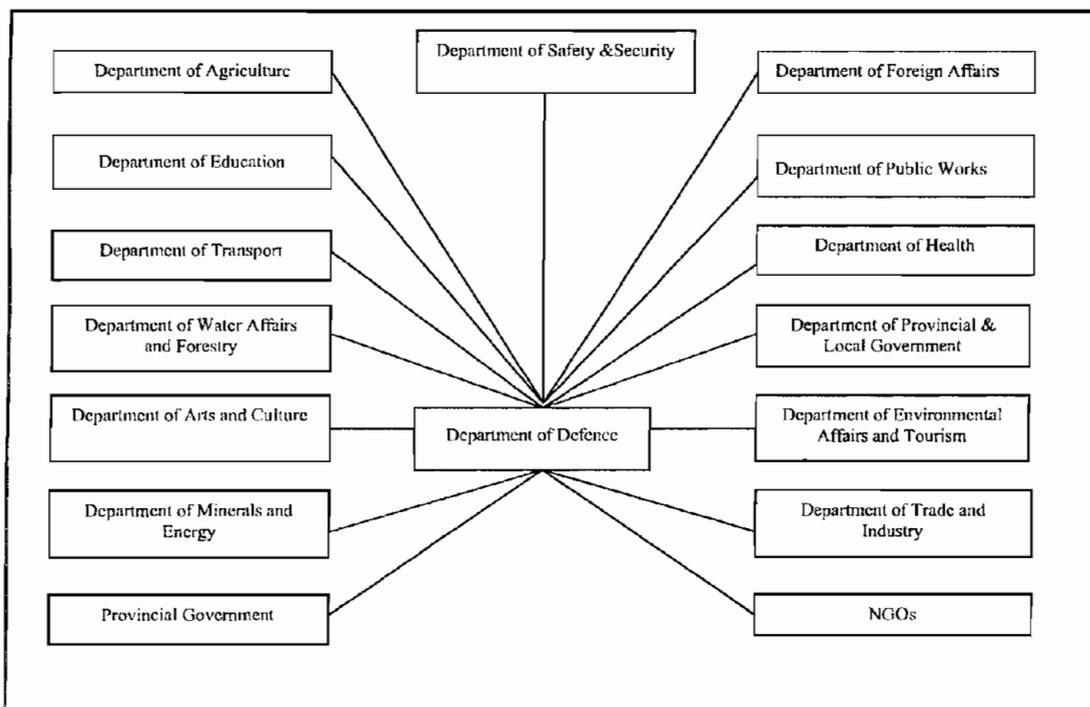


Figure 1: External Co-operative Governance Relationships for the DOD

- c. Department of Minerals & Energy (DME). The DOD has the following *ad hoc* co-operative governance relationships with the DME:
- i. Regional Communication Forums. The Regional Communication Forums are convened by the regional offices of the DME within the nine regions to facilitate communication between the different authorities and concerned parties on matters regarding environmental policy, legislation, and other matters relating to mining and prospecting. The forums meet four times per year in each region and representation on the forums may include the relevant national and provincial government departments, local authorities and other affected parties. At present the DOD does not actively participate in this forum, but would be pursuing representation insofar as DOD controlled properties are concerned.

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- ii. DOD Environmental Awards Programme. A member of DME is represented on the national adjudication panel as an adjudicator of the Energy Efficiency section of this programme. This proves to be an effective mechanism to formally liaise with DME in order to address environmental management matters at the level of execution.
 - d. Department of Water Affairs and Forestry (DWAF). The DOD has the following *ad hoc* co-operative governance relationships with the DWAF:
 - i. Working for Water (WfW) programme. A subprogram, called Operation Vuselela, aimed at eradication of alien invasive plants on military properties making use of unemployed military veterans was established and is being managed jointly between the DOD and DWAF at local, regional and national level.
 - ii. Water Efficiency Programme. A start has been made with the development of a water efficiency program for the DOD, involving the DOD, DWAF, NDPW and Rand Water.
 - iii. DOD Environmental Awards Programme. A member of DWAF is represented on the national adjudication panel as an adjudicator of the Water Efficiency section of this programme. This proves to be an effective mechanism to formally liaise with DWAF in order to address environmental management matters at the level of execution.
 - e. Department of Education (DE). The DOD has the following co-operative governance relationship with the DE:
 - i. DOD Environmental Awards Programme. A member of DE is represented on the national adjudication panel as an adjudicator of the Environmental Education and Awareness Training section of this programme. This proves to be an effective mechanism to formally liaise with DE in order to address environmental management matters at the level of execution.
 - f. Provincial Governments. The DOD has the following co-operative governance relationships with the different provincial governments:
 - i. DOD Regional Environmental Advisory Forums (REAFs). The REAFs were established in 1993. However, due to the transformation process within the DOD and external role players, staff shortages and turnover not all of these are currently operational. A start has been made to establish REAFs where they are not yet active. The primary objective of these forums is to involve Provincial Authorities in implementing and promoting Environmental Management at military facilities at regional level as well as to provide these authorities with insight into defence activities. Forums are chaired by the Senior Staff Officers at the Regional Facilities Interface Management (RFIM) Offices in the respective regions. Other representatives consist of the Base Environmental Managers, the Animal Health and Environmental Health officers in the respective regions, the Regional Directors and officials of the respective Provincial Environmental Authorities, representatives of other departments, non-governmental organisations and academic institutions. These forums meet quarterly or more frequently if required and address the following issues:

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- (1) Regional strategic issues regarding military environmental issues.
 - (2) Promoting the involvement of external expertise in military Environmental Management.
 - (3) Co-ordinating interdepartmental matters regarding Environmental Management.
- ii. Provincial Heritage Resources Authorities. These provincial authorities are established under the auspices of the SAHRA to take full responsibility for the management of the relevant heritage resources within the provinces. These authorities should be represented on the REAFs insofar as heritage resources on DOD controlled properties are concerned.
- g. Non-Governmental Organisations (NGO's). The DOD has the following co-operative governance relationships with NGO's:
 - i. DOD Environmental Awards Programme. Eight sub-committees constitute the national adjudication panel and are responsible for the adjudication of the eight categories of the DOD Environmental Awards Programme. The alliances forged with external organisations that are formally involved in the programme are significant insofar as environmental management information is exchanged amongst the organisations concerned. The moderating influence of alliances outside of the department in addition, serves as a prominent benchmarking mechanism. Representatives on these panels consist of various corporate DOD environmental services personnel and representatives of the following organisations:
 - (1) National Energy Efficiency Agency.
 - (2) National Energy Regulator of SA (NERSA)
 - (3) Rand Water
 - (3) Caltex Oil Pty Ltd
 - (4) SA National Parks
 - (5) Endangered Wildlife Trust
 - (6) Wildlife and Environment Society of SA
 - (7) SA National Biodiversity Institute (SANBI)
 - (8) Association of Clean Communities
 - (9) Institute for Waste Management
 - (10) Academic Institutions such as the University of Pretoria
 - (11) National Departments of Environmental Affairs and Tourism, Water Affairs and Forestry, Minerals and Energy and Public Works
 - ii. Endangered Wildlife Trust (EWT). The DOD has been an Honorary Fellow of EWT since 1980.
 - h. Local Governments. The DOD has no formal co-operative governance relationships with local governments, however, informal liaison regularly takes place with regard to environmental matters and compliance with local bylaws.
 - i. Tertiary Institutions. Apart from *ad hoc* consultation with various tertiary institutions, representatives of several tertiary institutions are involved on the

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adjudication panels of the DOD Environmental Award Programme and the DOD REAFs.

15. The following external co-operative governance relationships are formal co-ordinating mechanisms and procedures for co-operative governance within the DOD relating to the exercising of priority functions and may include the protection of the environment:

- a. Department of Agriculture. The DOD has the following co-operative governance relationship with the Department of Agriculture:
 - i. Inter-Governmental Technical Committee on Agriculture Veterinary Workgroup. This committee is active and the Director Animal Health of the SA Military Health Service represents the DOD on this workgroup.
 - ii. Declared Weeds and Invader Plants (DWIP) Committees. This committee has only been established in the Gauteng Province and convenes quarterly to discuss and co-ordinate efforts to ensure the eradication of emerging weeds and other invader plants. The Environmental Manager at the RFIM Pretoria represents the DOD at this committee. The environmental managers at the other regional offices will represent the DOD on the other DWIP meetings once such structures have been established by Agriculture.
- b. Department of Health. The DOD has the following co-operative governance relationship with the Department of Health:
 - i. National Environmental Health Forum. This forum is active and the Director Environmental Health of the SA Military Health Service represents the DOD on this forum.
 - ii. National Port Health Committee. The National Port Health Committee was instituted by the National Department of Health and has the responsibility to oversee the implementation of the International Health Regulation Act, 1974 (Act No 28 of 1974) at all approved sanitary air- and seaports in the RSA for example vector control on aircraft and ships. Director Environmental Health, who is responsible to address all issues in terms of the above-mentioned act at military ports of entry, represents the DOD on this committee.
- c. National Department of Public Works (NDPW). The DOD liases with NDPW on all matters regarding facilities as well as certain environmental issues. In this regard, the DOD has the following co-operative governance relationship with the NDPW:
 - i. NDPW/DOD Strategic and Operational Level Liaison Forums. Such forums exist on the strategic, operational and regional level. Quarterly meetings are held to discuss relevant policy and planning as well as the execution of facilities plans.
 - ii. Water Efficiency Programme. A start has been made with the development of a water efficiency program for the DOD, involving the DOD, DWAF, the NDPW and Rand Water.
 - iii. DOD Environmental Award Programme. A member of NDPW is represented on the national adjudication panel as an adjudicator of the Water Efficiency section of this programme. This proves to be an effective mechanism to formally liase with NDPW in order to address environmental management matters at the level of execution.
 - iv. Registration of Water Use. The NDPW has initiated a project to determine and register the DOD's water use requirements.

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- v. DOD REAFs. A member of regional offices of the NDPW is represented on the DOD REAFs.
 - d. Department of Trade and Industry (DTI). The DOD has the following co-operative governance relationship with the DTI:
 - i. Council for the Non-Proliferation of Weapons of Mass Destruction. This council is active and the DOD is represented by two members appointed by the Minister of Trade and Industry. The Chemical and Biological Defence Advisor of the SA Military Health Service acts as the technical advisor and resource person on the council. The CB Defence Advisor is also the Technical Advisor to the SA delegation to the Biological Weapons Convention.
 - e. Department of Transport. The DOD has the following co-operative governance relationships with the Department of Transport:
 - i. South African Aviation Safety Council (SAASCo). Two members of the SAAF represent the DOD at this statutory council, which was instated by the Department of Transport. The interests of this council surround matters concerning national aviation safety. The subcommittee of this council for aviation hazards posed by wildlife addresses environmental management of airfields and our airspace to control collisions of aircraft and wildlife.
 - ii. South African Air Force/South African Civil Aviation Authority/Air Traffic and Navigation Services (SAAF/SACAA/ATNS) Executive Committee. Four members of the SAAF present the DOD at this committee. The interests of the committee surround matters concerning national aviation. A subcommittee of this forum has been established to consider issues pertaining to aviation safety.
 - f. Department of Environmental Affairs and Tourism (DEA&T). The DOD has the following co-operative governance relationship with DEA&T:
 - i. South African National Antarctic Programme (SANAP) Agreement. The SA Military Health Services has an agreement entitled the SANAP Agreement that entails regular checking and maintenance of medical equipment used at bases such as South African National Antarctic Expedition (SANAE).
 - ii. Coastal Maritime Patrols. Air maritime patrols by the SAAF and sea patrols by the SAN are conducted regularly and environmental matters relating to oil spills, whale sightings, dolphin watches, illegal fishing activities and general environmental sightings are reported on a standard signal report to DEA&T or the relevant authorities.
 - g. Department of Provincial and Local Government (DPLG). The following co-operative governance relationships with DPLG:
 - i. Inter-Ministerial Committee for Disaster Management. The Ministers and Deputy Ministers of DPLG, Agriculture and Land Affairs, DEA&T, Welfare, Population and Development, Safety and Security, DOD, Finance, Public Works, Health, Housing and DWAF as well as the MECs for Local Government are represented on this committee.
 - ii. Inter-Departmental Disaster Management Committee (IDMC). This committee comprises of representatives from various national and provincial departments, business and NGOs. Director Military Strategy at Chief of
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Corporate Staff represents CSANDF on this committee.

- h. Department of Safety and Security (DSS). The following co-operative governance relationships with DSS:
- i. Foreign Deployment Change Over Meeting. This weekly meeting takes place before and after change over of deployment to and from foreign deployment areas in Africa. The confirmation of timings, procedures, searches, training, access control and problem areas with regard to deployments are discussed. The meeting consists of members from the SAPS, JOps, Military Police Contingent Commander, Operational Medical Officer, Area Military Health Officer, Intelligence and Operations Officer.
 - ii. Crime Prevention Forums. These forums meet monthly, sometimes more frequently to address crime prevention co-operation and co-ordination between the SAPS and DOD to plan police actions to prevent and combat crime and ensure crime awareness. The DOD is represented by the Area Provost Marshal as well as other role players such as Military Legal Services and JOps.
 - iii. Crime Combating Forums. These forums meet monthly, sometimes more frequently to address the streamlining of law enforcement and joint assistance between state departments. The DOD is represented by the Area Provost Marshal as well as other role players such as Military Legal Services, JOps, Maritime and Coastal Watches and the Department of Home Affairs with regard to border control.
- i. Local Government. The following co-operative governance relationships with local governments:
- i. Sea Patrol Co-ordinating Committee. These monthly meetings are convened among the local maritime communities in Cape Town, Durban and Port Elizabeth regions. The aim is to facilitate better co-ordination and co-operation between the functions and activities of members of the maritime security, law enforcement and conservation organisations as well as other NGOs and to advise the various organisations concerned on how to best utilise and pool their resources, services and powers in protecting the marine resources and infrastructure of the RSA.
 - j. Non-Governmental Organisations (NGO's). The following co-operative governance relationships with NGO's:
 - i. Coast Watch Organisation. The Coast Watch Organisation was re-established by the DOD to allow concerned citizens and NGOs to report unusual maritime incidents seen off the coast of the RSA. Reporting matters range from sightings of illegal fishing vessels, oil spills, red tide, floating drums and containers, distressed or dead marine mammals to the sightings of whales and dolphins. Observations or incidents are reported to the CJ Ops Tactical HQs and are forwarded for further action by the SA Navy, SAPS, Marine Coastal Management, National Ports Authority, National Sea Rescue Institute or other relevant organisations.

MECHANISMS AND PROCEDURES FOR ENVIRONMENTAL CO-OPERATIVE GOVERNANCE: INTERNAL CO-ORDINATING MECHANISMS

16. The internal relationships illustrated in Figure 2 are formal mechanisms of co-operation and liaison between the different corporate divisions and functions within the department. These relationships are discussed in more detail in the following section.

17. The following are formal co-ordinating mechanisms for internal relationships within the DOD relating environmental management:

- a. DOD Environmental Services Sub-Steering Group. This steering group is responsible for ensuring the overall co-ordination of Environmental Services in the DOD and is chaired by the Senior Staff Officer (SSO) Environmental Services of the Logistics Division. Other representatives consist of the members of the Environmental Services section of the DOD Logistic Support Formation, the Animal Health and Environmental Health directorates of the SA Military Health Services and the five RFIM Offices. The forum was established in 1989 and is inactive at present due to the transformation process. This forum meets quarterly or more frequently if required to do so and addresses the following issues:
 - i. Overall progress with departmental Environmental Services plans.
 - ii. New developments in the field of Environmental Services.
 - iii. Specific problem areas regarding Environmental Services.
 - iv. Co-ordinate aspects of common concern regarding Environmental Services amongst various role players.

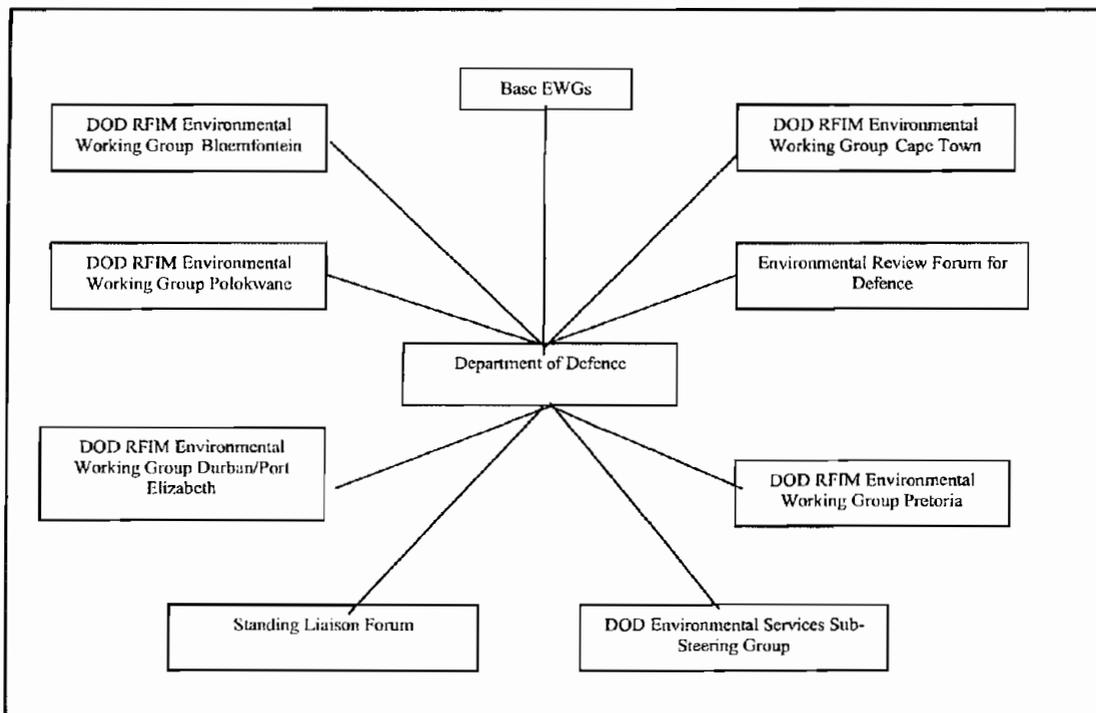


Figure 2: Internal Co-ordinating Mechanisms for the DOD

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- b. DOD RFIM Environmental Working Groups. Five of these working groups are responsible for co-ordinating Environmental matters between base and regional levels in the five regions and are chaired by the Environmental Management Staff Officers at the respective regions. Other representatives are the Base Environmental Managers, the Animal Health and Environmental Health officers in the respective regions. These forums meet monthly or more frequently if required to do so, to address the following issues:
- i. Specific problems and information with regard to environmental management.
 - ii. Integration of environmental factors in the military utilisation of military facilities.
 - iii. Completion of the Military Ecological, Base Environmental and Cultural Resources Management Plans for military facilities.
 - iv. Formulation of an Annual Environmental Goal Plan for all bases and units in the region.
 - v. Facilitate and play an advisory and capacity building role in the region.
 - vi. Completion of the Annual Environmental Management Report and to consolidate the entries for the DOD Annual Environmental Awards Programme within the region.
 - vii. New requirements with regard to environmental management, including the need for, recommendations and direct environmental research on military facilities in the region.
 - viii. Environmental management matters between bases on operational level.
 - ix. Progress with environmental management programmes.
- c. DOD Base Environmental Working Groups. These working groups are responsible for co-ordinating Environmental matters between the bases and its FSEs and are chaired by the Base Commander. Other representatives are the Base Satellite Environmental Officers at FSEs, FSE Commanders and environmental representatives as well as OHS and EH co-ordinators at the respective Area Military Health units. These forums meet monthly or more frequently if required to do so, to address the following issues:
- i. Progress with Environmental Management Programmes.
 - ii. Specific problem areas with regard to Environmental Management.
 - iii. New requirements with regard to Environmental Management.
 - iv. Co-ordinate Environmental Management matters between bases on an operational level.
- d. Environmental Review Forum (ERF). The ERF was established in 2001 following publication of the First Edition EIP for Defence. This forum is responsible for designing and developing an Environmental Management System (EMS) for Defence. Every corporate division and service within the DOD is officially represented on the forum. Once the EMS is established, the forum will assume a more traditional role of reviewing the department's environmental performance. The SSO Environmental Services at the Logistics Division chairs the forum and all the corporate divisions are represented on the forum.
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- e. Standing Liaison Forum (SLF). The SLF consists of representatives from Environmental Services (ES), Environmental Health (EH) and Occupational Health and Safety (OHS) and aims to effectively co-ordinate cooperation amongst the functions of these functionalities within the DOD whilst ensuring proper boundary management amongst their respective functions.

INTERNATIONAL RELATIONSHIPS

18. RSA-USA Defence Committee. As part of the RSA-USA Bi-National Commission (BNC), a Defence Committee was established in 1997. One of the Working Groups of the Defence Committee was constituted by late 1997 as the Environmental Security Working Group (ESWG). The object of the ESWG is to observe bi-lateral development of Military Integrated Environmental Management projects through the exchange of information and capacity.

19. The ESWG is co-chaired respectively by SA and USA military environmental functionaries whilst project teams for the joint projects undertaken as part of the proceedings of the ESWG are constituted of expertise extracted from both nations. The ESWG convenes annually and otherwise makes use of the electronic media to maintain constant communication. To date the ESWG has prospered in its objectives having completed various prominent bi-lateral projects, viz guidebooks on Integrated Training Area Management (ITAM), Base Conversion, Facilities Website Development, Environmental Education and Training (EE&T) for military commanders, Environmental Impact Assessment (EIA) in the Military and Integrated Waste Management (IWM) in the Military.

20. Inter-State Defence and Security Committee (ISDSC) Logistics Work Group. This work group a structure under South African Development Community (SADC) comprising of military members from SADC countries and the main function is to explore areas for multi-lateral defence co-operation on logistics. A staff officer on the structure of Directorate Logistic Management at Chief Logistics is represented on this work group.

MECHANISMS FOR MONITORING

21. The DOD has established the following mechanisms to monitor the implementation of environmental management within the department as well as its environmental performance:

- a. ERF. This forum as discussed in par 17(d) will be utilised to review the department's environmental performance through the review and continual improvement of the EMS for Defence.
- b. Steering Groups, Working Groups and Advisory Forums. The DOD Environmental Services Sub-Steering Group as discussed in par 17 is utilised as a tool to corporately implement and monitor the environmental performance of the DOD. The REAFs are considered a monitoring mechanism within and outside the department as it provides the RFIM personnel as well as those from the provincial authorities with insight and information as to the DOD activities and the management of its natural resources. The DOD Environmental Working Groups provide for an effective mechanism to monitor the department's environmental performance through providing expert advice and thereby ensuring effective implementation.
- c. Annual Environmental Management Report. The Annual Environmental Management Report was introduced in 1997 to assist and empower Commanding Officers to successfully meet the challenge of responsible and accountable environmental management in managing the natural environment, the base

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environment, environmental education and awareness, cultural resources, military integrated environmental management, water efficiency, energy efficiency and integrated waste management. The report is in the form of a questionnaire and the questions are structured to direct a Commanding Officer in complying with environmental requirements. Therefore, the aim of this report is to:

- i. devise a system whereby each military installation will be provided with a set of environmental management guidelines in the form of a compulsory annual report, and
 - ii. to utilise these guidelines as an auditing mechanism in order to measure the military installation's environmental performance, and
- d. DOD Environmental Awards Programme. The aim of the awards programme is to motivate and reward military installations and individuals for work well done with regard to environmental management by utilising the Annual Environmental Management Report as an official entry to the eight categories of this programme. The following trophies are awarded annually:
- i. "Endangered Wildlife Trust" Floating Trophy for Ecological Management. This competition was instituted in 1983 and the award donated by the Endangered Wildlife Trust. The competition is based on the ecological management of the natural environment. Normally these natural environments are terrains/training areas. The award goes to the unit that demonstrated the most progress with regard to ecological management during a calendar year.
 - ii. "Caltex" Floating Trophy for Base Environmental Management. This competition was instituted in 1983 and the award donated by Caltex Oil Pty (Ltd). The competition is based on the environmental management of the "built up" environment of the unit or terrain. Sometimes this also includes small sections of natural terrain. "Units" also include military hospitals, sickbays and naval ships. Sub-units, being part of a home unit, but located elsewhere and functioning as an entity, may also enter for this competition. The award goes to the unit that demonstrated the most progress with regard to base environmental management during a calendar year.
 - iii. "Professor Kristo Pienaar" Floating Trophy for Environmental Education and Awareness Training. This competition was originally instituted in 1987 and sponsored by the National Veld Trust. This organisation subsequently disbanded. During 1999, a new trophy was instituted and the sponsorship was taken over by the SA National Biodiversity Institute (SANBI) in 2004. The competition is based on creating an environmental awareness among military member's thus increasing environmental responsibility, as well as enabling military members to execute military activities in an environmentally responsible manner. The award goes to the unit that demonstrated the most progress with regard to environmental education and training during a calendar year.
 - iv. "Rand Water" Award for Water Efficiency. This competition was instituted in 1997 and the award was donated by the Environmentally Friendly Goods Trading Co. On the disbandment of this sponsor, Rand Water took over the sponsorship in 2003. The competition is based on the efficient use of water on military properties. The award goes to the unit that distinguished itself in the most to the efficient use of water during a calendar year.

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- v. "National Energy Efficiency Campaign" Award for Energy Efficiency. This competition was instituted in 1997 and the award was donated by ESKOM and is currently sponsored by the National Energy Efficiency Agency. The competition is based on the efficient use of energy on military properties. The award goes to the unit that contributed the most to the efficient use of energy during a calendar year.
 - vi. "SA National Parks" Floating Trophy for Integrated Environmental Management Systems. This competition was instituted in 1997 and the award was donated by the SA National Parks. The competition is based on the integration of environmental considerations in all aspects of the military organisation. The award goes to the unit that achieved the highest level of military integrated environmental management during a calendar year.
 - vii. "Conservamus" Floating Trophy for Individual/Team Contribution to Environmental Services. This competition was instituted in 1990 and the award donated by the then Deputy Minister of Defence, Mr Wynand Breytenbach. Any member employed within the DOD - whether permanent force, medium or short term, voluntary term service system, commando or citizen, as well as civilian members may be entered for this competition. The award goes to the individual or team that - by means of a specific project - contributed the most to Environmental Services in the DOD during a calendar year.
 - viii. "Keep eThekweni Beautiful" Award for Integrated Waste Management. This award was instituted in 1999 and was donated by the Association of Clean Communities (previously the Keep Durban Beautiful Association). The award is presented to the base or unit, which makes the best contribution towards the integrated management of waste in the department.
- e. Communication and *ad hoc* relations. Communication and *ad hoc* relations with other national and provincial departments are also considered mechanisms to monitor the department's environmental compliance.
 - f. Auditing. Three levels of auditing have been identified to monitor both the implementation of measures for environmental management by the DOD as well as monitoring of environmental performance and compliance.
 - i. Environmental Management System (EMS) Audit. As a constituent of the EMS, environmental audits will be carried out throughout the DOD by qualified DOD Environmental Services personnel. The process of establishing a capacity within the DOD for EMS audit was initiated in 1996. This precedes the establishment of a formal EMS for Defence to commence in 2001. This capacity will be further secured and expanded to audit environmental performance and compliance.
 - ii. Internal Audit. Capacity to undertake internal audit in the DOD is seated with the Defence Inspectorate. As part of the EIP for Defence a project is underway to develop instruments of measurement to audit the implementation of environmental management in the DOD.
 - iii. External Audit. The DOD has been involved since 1997 in a joint undertaking with the Office of the Auditor-General (OAG) aimed at establishing mechanisms for the auditing of environmental management implementation in the public sector as it pertains to the financial statements
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on the organisation. Such audits have been carried out in 1998, 2001 and 2002.

- g. Guide to Environmental Compliance for Commanding Officers. This guide provides an understanding of the environmental pressures relating to the DOD's core business, to comply with national, international and provincial environmental legislation and to ensure an acceptable level of environmental performance. It provides a summary of environmental legislation covering relevant military activities and provides guidance on what action(s) or possible action(s) should be taken. Amongst others, the aim of this document is to:
- i. provide the commander with a set of environmental management compliance guidelines,
 - ii. utilise these guidelines as a monitoring mechanism in order to ensure environmental performance,
 - iii. serve as a capacity building tool through developing an understanding for and participating in government's goal of sustainable development through empowerment and environmental education, and
 - iv. serve as a training aid for military and other short courses.

RESPONSIBILITIES AND CAPACITY FOR IMPLEMENTATION

22. The Secretary for Defence, as the accounting officer of the department, is responsible for ensuring the sustainable utilisation of land and facilities within the DOD. According to the White Paper on Defence, the Minister of Defence, as well as the C SANDF "is responsible for ensuring the exercise of proper ecological management and control of military properties."

23. The various Chiefs of Services are responsible to the C SANDF for ensuring the implementation of proper ecological management and control of military properties under their command in accordance with departmental policy and national environmental legislation.

24. The responsibility and accountability to ensure that "the planning and execution of military activities will take account of the environmental implications and not jeopardise the long-term potential of land and other natural resources" are directly transferred to the commanders of military installations. Therefore, the responsibility for compliance with environmental legislative provisions is largely placed on those commanders and personnel in control of military installations, operations and activities.

25. The responsibility for the co-operative governance mechanisms relating to specifically environmental management identified in this Chapter is allocated to the Logistics Division and the DOD Logistic Support Formation by virtue of its status as the seat of the environmental management capacity of the DOD. These structures have the available capacity to implement and maintain the identified mechanisms.

26. The responsibility for the co-operative governance mechanisms relating to priority functions identified in this document is allocated to the various corporate divisions and associated support structures, by virtue of their status as the seat of the capacity for the management and execution of the department's priority functions. These structures have the available capacity to implement and maintain these mechanisms.

27. The Strategic Direction (SD) Process of the DOD provides for procedures by which national legislative provisions are assimilated into departmental policy. The SD Process provides for mechanisms of planning, policy development, execution, monitoring and control.

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The corporate divisions associated with specific spheres of policy for instance Logistics Division, SA Navy or the SA Military Health Service etc would therefore, assume responsibility for all aspects of strategic direction pertinent to such specific policy. The management systems and procedures for compliance are integrated into the SD Process of the DOD.

28. For purposes of the monitoring of environmental management in the DOD, the three levels of auditing identified in the previous section with associated capacities will be instituted to gain management information for the implementation of corrective actions as well as monitoring progress in the deployment of the EIP for Defence.

CAPACITY GAPS AND LIMITATIONS

29. The following issues have been identified as capacity gaps and limitations with regard to environmental management in the department:

- a. Costs associated with environmental management in the DOD have not been sufficiently internalised or made visible and are integrated with expenditure associated with other functions. This prevents a true reflection of environmental expenditure by the DOD.
- b. Environmental Education and Awareness Training (EE&T) has not been formalised in DOD training policy and has not yet been incorporated in many formal military and functional training programmes.
- c. Existing departmental environmental policy is fragmented, some of which has become outdated and obsolete with new requirements for such policy arising continuously. The integrity of DOD environmental policy has a direct influence on the ability of the department to comply with environmental regulatory obligations.
- d. Enforcement and measurement of environmental compliance in accordance with regulatory obligations and measures for environmental performance within the DOD is inadequate.
- e. Environmental regulatory obligations are not included in the performance agreements of respective Divisional Chiefs, GOCs and OCs.
- f. Internal relationships as instituted in the ERF, the DOD Environmental Steering Groups and the DOD Environmental Working Groups are not completely operational as a result of incomplete restructuring and lack of capacity.
- g. On the departmental organisational structure at all levels, there are inadequate environmental management structures to implement integrated environmental management within the DOD.
- h. More adequate environmentally qualified staff and competent personnel are required to effectively implement integrated environmental management within the DOD. This is coupled to a lack of career pathing for environmental staff in the department.
- i. A severe lack of funding prevents the DOD from complying with international, national and provincial environmental legislation and the implementation of necessary environmental programmes within the department.
- j. There is a deteriorating availability of environmental expertise from other environmental line function departments to assist and advise the DOD.
- k. The formal integration of environmental considerations in the management of

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- training areas, the execution of deployments and the closure of bases are inadequate.
- l. The formal Environmental Management System (EMS) for Defence is not yet complete.
 - m. The DOD is not completely involved as members of the various Fire Protection Associations (FPAs) as required by the relevant legislation.
 - n. DOD Regional Environmental Advisory Forums (REAFs) have not been established in all regions.
 - o. Environmental considerations are not adequately included in the acquisition and disposal of systems, equipment and facilities.
 - p. There is no formal co-operative governance relationship with the Department of Customs and Excise at the Department of Home Affairs (DHA) regarding the control of foreign products entering the country through deployed military personnel returning from peace missions in foreign countries.

CHAPTER 4: RECOMMENDATIONS TO PROMOTE INTEGRATED ENVIRONMENTAL MANAGEMENT

INTRODUCTION

1. This chapter identifies and addresses appropriate mechanisms and makes recommendations about the most effective ways in which to ensure the implementation of effective integrated environmental management tools for the execution of military activities. These mechanisms and recommendations focus on priority functional areas and take account of existing mechanisms and procedures for co-operative governance, key policies, plans and programmes and possible capacity limitations discussed in previous chapters.

MECHANISMS TO ENSURE IMPLEMENTATION OF EFFECTIVE INTEGRATED ENVIRONMENTAL MANAGEMENT

2. The following actions are recommended to ensure the implementation of effective integrated environmental management for the activities under the jurisdiction of the DOD:
- a. Develop mechanisms and instruments within the DOD to isolate and measure the total costs, inclusive of internalised expenditure on the impacts that arise from departmental activities on the environment in accordance with the Generally Accepted Accounting Principles (GAAP). This may be accomplished in co-operation with the Office of the Auditor-General of the Department of Finance.
 - b. Structure Environmental Education and Awareness Training (EE&T) in the DOD in formally approved *curricula* either as specific EE&A programmes aimed at force preparation, force support and force employment or as EE&T programmes integrated with existing military and civilian developmental courses at all levels of the organisation in accordance with DOD training policy.
 - c. Continue with the total revision of environmental policy, procedures and guidelines for the DOD.
 - d. Develop a comprehensive environmental audit policy and capacity to audit the implementation measures for environmental compliance and performance within the context of Defence.
 - e. Continue to establish and complete an EMS for Defence through the integration with the core function and current structures and procedures within DOD, based on the guidelines of the NATO-CCMS Pilot Study on Environmental Management Systems in the Military Sector (2000), in order to control and improve environmental management performance of the organisation to ensure that the necessary controls are in place to understand the performance that is required, measure current performances, identify improvement potential, implement the improvement plan, and control and track critical activities.
 - f. Formally adopt and implement ITAM in departmental policy as an environmental management tool in the process of providing forces. This is to be facilitated by measures to develop capacity and empowerment of all departmental personnel in concern.
 - g. Ensure the implementation of departmental policy on the concept of Base Conversion as part of the process of Base Closure. This concept includes

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- environmental considerations during the process of closing down military installations for purposes of alternative use and the identifying of these environmental considerations contextually over its entire spectrum.
- h. Formalise the management of a comprehensive environmental aviation safety programme in order to minimise the threat of hazards posed by wildlife occurring in the vicinity of runways as well as birds in particular, to the movement of military aircraft in the airspace used for military air operations. This is to be accomplished in co-operation with the Department of Transport, relevant academic institutions, national environmental NGO's and the local and international aviation community.
 - i. Include environmental regulatory obligations in the performance agreements of respective Divisional Chiefs, GOCs and OCs.
 - j. Implement guidelines and operational instructions on Environmental Considerations during Military Operations (ECOps) to incorporate the relevant principles of NEMA into the deployment of forces during internal, territorial operations as well as external operations.
 - k. Subject the Section 2 Principle (4)(j) of NEMA concerning the right of workers to refuse work that is harmful to human health and the environment to further investigation within the DOD for the formulation of policy and procedure in this regard.
 - l. Establish adequate structures to implement integrated environmental management at all levels within the department.
 - m. Ensure the staffing of the environmental management structure within the DOD with suitably qualified and competent personnel. If necessary, a development programme must be implemented for current personnel that are not suitably qualified.
 - n. Through careful prioritisation and budgeting, adequate funding should be made available to ensure compliance with international, national and provincial environmental legislation and the implementation of necessary environmental programmes within the DOD.
 - o. Liaise with environmental line function departments to ensure that the necessary environmental expertise is made available to assist and advise the DOD.
 - p. Ensure the participation of the DOD in FPAs.
 - q. Ensure the establishment and continuation of DOD REAFs in all regions.
 - r. Environmental considerations must be included in the acquisition and disposal of all systems and equipment.
 - s. Ensure the establishment of a formal co-operative governance relationship with the Department of Customs and Excise at the DHA regarding the control of foreign products entering the country through deployed military personnel returning from peace missions in foreign countries.
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CHAPTER 5: ACTION PLAN FOR IMPLEMENTATION OF MECHANISMS TO IMPLEMENT INTEGRATED ENVIRONMENTAL MANAGEMENT

INTRODUCTION

1. The DOD requires a systematic approach to mainstream and sustain the policies, plans and programmes in the EIP for Defence in accordance with legal requirements as well as the appropriate parameters of environmental performance demanded of the department. An EMS must be integrated in the defence sector as comprehensively as possible into existing management systems, rather than dealing with the environment as a separate issue.

2. This averts the perception that environmental management is an obstacle that must be accommodated at the expense of operational priorities. A top-down approach of implementing broad strategies that promote a reduction in environmental impacts is more cost-effective and manageable than a bottom-up approach involving several small, localised or specific environmental plans. The DOD must consult with the respective internal process owners in order that environmental issues may be incorporated at the earliest stages of all policies, plans or programmes in such processes as for instance logistics, acquisition etc.

ACTION PLAN TO IMPLEMENT INTEGRATED ENVIRONMENTAL MANAGEMENT (IEM)

3. The action plan to implement IEM will be as follows:

Ser No	Activity	Task	Responsible/ Accountable	Target Date
	a	b	c	d
01	Policy Development	<ul style="list-style-type: none"> • Compile DODI on EMS • Compile DOD EMS Handbook • Compile Installation EMS Handbook 	Log Div ERF	2008
02	EMS Training	<ul style="list-style-type: none"> • Informal training and assistance • Formal training by external consultant 	RFIMs Log Div	Ongoing
03	Develop EMS at Military Installations	<ul style="list-style-type: none"> • Compile a comprehensive documented EMS 	OCs/Env Offs of all military installations	2009
04	Implement EMS at Military Installations	<ul style="list-style-type: none"> • Ensure above EMS is implemented 	OCs/Env Offs of all military installations	2010
05	Monitor Implementation of EMS at Military Installations	<ul style="list-style-type: none"> • RFIM EWG progress report to DFSM • DFSM and Services quarterly progress reports to ERF 	Services DOD Log Sup Fmn <ul style="list-style-type: none"> • DFSM (SES) • RFIMs 	2010 until implemented
06	Monitoring Implementation of EMS at DOD level	Feedback and continual improvement	ERF	Annual

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MONITORING THE IMPLEMENTATION

4. The progress report by the Services and DOD Log Sup Fmn (DFSM) must reach C Log (D Fac) by 1 April and 1 November annually until final implementation of the action plan has been completed. The report must include the following information:

- a. Progress on achievements of the objectives at level 3 and 4.
- b. Indication of the adherence to time scales.
- c. Reasons for the non-adherence to the implementation plan.
- d. Amended time scales for implementation if applicable.
- e. Suggested amendments to the policy and procedures.

PERFORMANCE MONITORING INDICATORS

5. The following performance indicators will be used to monitor the implementation of IEM in the DOD:

- a. Compliance with Statutory Environmental Management Requirements.
- b. Representation on Environmentally related Committees.
- c. Resource Allocation to Implement IEM.
- d. Timeframes for Implementation of IEM.
- e. Monitoring and Evaluation of Implementation of IEM.

RESPONSIBLE IMPLEMENTING AGENT

6. The responsibility for implementing and monitoring IEM in the DOD will reside with the ERF for Defence. The composition and representation of the ERF for Defence will secure inter-divisional participation under the Chairmanship of the Logistics Division.

CONCLUSION

7. The DOD will endeavour to execute this EIP within the financial and other constraints that prevails as well as the constraints imposed by the nature of the core mandate of the department.