



Government Gazette Staatskoerant

REPUBLIC OF SOUTH AFRICA
REPUBLIEK VAN SUID-AFRIKA

Vol. 582

Pretoria, 4 December 2013
Desember

No. 37112

N.B. The Government Printing Works will not be held responsible for the quality of "Hard Copies" or "Electronic Files" submitted for publication purposes



AIDS HELPLINE: 0800-0123-22 Prevention is the cure

IMPORTANT NOTICE

The Government Printing Works will not be held responsible for faxed documents not received due to errors on the fax machine or faxes received which are unclear or incomplete. Please be advised that an "OK" slip, received from a fax machine, will not be accepted as proof that documents were received by the GPW for printing. If documents are faxed to the GPW it will be the sender's responsibility to phone and confirm that the documents were received in good order.

Furthermore the Government Printing Works will also not be held responsible for cancellations and amendments which have not been done on original documents received from clients.

CONTENTS • INHOUD

No.

Page
No. Gazette
No.

GOVERNMENT NOTICE

Health, Department of
Government Notice

951	National Environmental Health Policy: For general information	3	37112
-----	---	---	-------

GOVERNMENT NOTICE

DEPARTMENT OF HEALTH

No. 951

4 December 2013

NATIONAL ENVIRONMENTAL HEALTH POLICY

This policy document serves as a broad guideline and provides a framework for the effective implementation of Environmental Health Services in South Africa.

NATIONAL ENVIRONMENTAL HEALTH POLICY

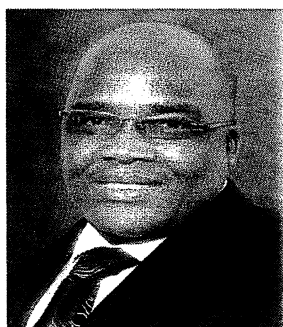


health

Department:
Health

REPUBLIC OF SOUTH AFRICA

Table of contents	Page
Preamble	3
Preface	5
List of acronyms	6
Definition of terms	6
Executive summary	9
Section 1: Introduction and Background	10
Section 2: Scope of Applicability	11
Section 3: Purpose of the Policy	11
Section 4: Policy Goal, Objectives and Guiding Principles	11
Section 5: Health Sector Mission	14
Section 6: Constraints and Opportunities	14
Section 7: Setting the Context	15
Section 8: Strategies to Achieve Policy Objective	23
Section 9: Governance and Institutional Framework for Policy Implementation	30
Section 10: Approaches for the implementation of Environmental Health Priority Programmes	33
Section 11: Environmental Health Forums	38
Section 12: Research and Development	38
Section 13: Monitoring and Evaluation	39
Section 14: Strategy for Policy Implementation	40

PREAMBLE by Minister of Health

The National Development Plan (NDP) of the country is aimed at eliminating poverty and reducing inequality by 2030, with the promotion of health and provision of quality health care for all South Africans being amongst the key priority areas. In 2010, the government adopted a new outcome based approach to accelerate the achievement of the objectives outlined in the Medium Term Strategic Framework (MTSF) for 2009-2014. Amongst the goals of the MTSF is *improving the health status of the South African Population*. As a result the National Department of Health adopted a 10-point plan for the health sector, aimed at promoting an accessible, caring and high quality health system that will contribute to government's vision of **"A Long and Healthy Life for All South Africans"**. This will only be possible by broadening and deepening the extent and scope of community involvement and social mobilisation in all aspects of health provision at local level.

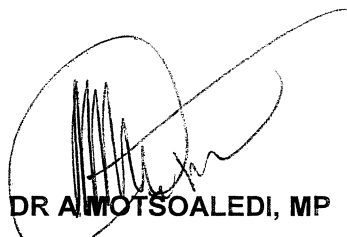
South Africa is a fast developing country with a growing economy, and to the rest of the world, this is a gateway into Africa. The country's health sector is however, still faced with challenges. South Africa currently faces a quadruple Burden of Disease (BoD) consisting of HIV and AIDS and TB, High Maternal and Child Mortality, Non-Communicable Diseases and Violence and Injuries. Diarrhoea and respiratory diseases are still amongst the top causes of death in the country, and Malaria, although being eradicated in most of the provinces, is still a problem in some parts of the country. Strengthened Environmental Health Services will contribute greatly to this focus. The contributing factors to environmental related diseases in South Africa include poor hygiene and sanitation practices due to lack of adequate sanitation facilities, poor management of waste, pollution of water and contaminated ambient air. The effects of climate change are becoming a global problem, and South Africa is not an exception. With a potential to impact negatively on food production, water availability, migration and political conflict, climate change requires global intervention.

The country's health system renewed focus on primary health care calls for effective health promotion and illness prevention interventions, as opposed to the previous curative focused health system which proved to be unsustainable, expensive and destructive as people tend to depend on the health system for better health rather than on improving own health. South Africa has both financial and technical resources to strengthen Environmental Health services as a critical preventative health programme to significantly contribute to addressing the MDGs, especially MDG 4, 5, 6, and 7. Adequate financial, human and material resources are very essential for effective environmental health services and the

achievement of policy objectives. Budgetary allocation to should be improved at all administrative levels, in order that the department can meet its health services obligation, especially on environmental health side.

The success of the department in delivery health services related to environmental health is dependent on improved cooperation and collaboration with other government departments, the private sector and the community at large.

This policy is a piece of wire that will assist in capitulating environmental health status to great heights. When environmental health receives attention, we are rest assured that the health and safety has been fortified. We cannot be successful in achieving a long and healthy life unless environmental health services receive the attention it deserves.



DR AMOTSOLEDI, MP
MINISTER OF HEALTH
DATE 2/8/2013

PREFACE

The National Environmental Health Policy will serve as a framework within which Environmental Health Services in South Africa should be rendered and implemented. The policy will also provide opportunity for guidance with regards to development of environmental health service delivery plans for Municipalities. The Policy was formulated through an extensive and participative consultation process with Provinces, Municipalities, Institutions of Higher Learning, WHO, and other organisations within the environmental health fraternity. The National Department of Health would like to express its gratitude and appreciation for their valuable and insightful contributions to the realisation of this document.

Environmental health aspects in South Africa are multi-sectoral, with some functions cutting across various government departments, which has in some cases resulted in duplication of institutional roles and responsibilities. The need to establish a Health and Environment Strategic Alliance to promote environmental cooperative governance amongst government departments is therefore justified. This will also give effect to the Libreville declaration of 2008 which was endorsed in the Luanda commitments by Ministries of Health and Environment in Africa in November 2010. These collaboration and coordination efforts will contribute towards meeting the MDGs related to environment and health. The Negotiated Service Delivery Agreement (NSDA) between Health and Water and Environmental Affairs was a step in the right direction towards achieving synergy in this regard.

DOH will furthermore engage in a process of strategy development to provide a supportive basis for achieving the environmental health policy requirements.

MS MP MATSOSO**DIRECTOR-GENERAL: HEALTH****DATE: 15/8/2013**

LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
CoGTA	Department of Cooperative Governance & Traditional Affairs
DAFF	Department of Agriculture, Forestry and Fisheries
DHIS	District Health Information System
DEA	Department of Environmental Affairs
DM	District Municipalities
DMR	Department of Mineral Resources
DOH	Department of Health
DOT	Department of Transport
DWA	Department Water Affairs
EH	Environmental Health
EHP	Environmental Health Practitioner
EHIS	Environmental Health Information System
EHS	Environmental Health Services
HIV	Human Immunodeficiency Virus
HPCSA	Health Professions Council of South Africa
IHR	International Health Regulations
ILO	International Labour Organisation
IDP	Integrated Development Plans
M&E	Monitoring and Evaluation
MDG	Millennium Development Goals
MDR-TB	Multi Drug Resistant Tuberculosis
MHS	Municipal Health Services
MM	Metropolitan Municipalities
MRC	Medical Research Commission
NEMA	National Environmental Management Act, Act 107 of 1998
NHA	National Health Act, Act 61 of 2003
NSDA	National Service Delivery Agreement
PHAST	Participatory Health and Sanitation Transformation
PHC	Primary Health Care
RDP	Reconstruction Development Programme
SADC	Southern African Development Community
SANA	Situation Analysis and Needs Assessment
SDBIP	Service Delivery and Budget Implementation Plans
SETA	Sector, Education and Training Authority
STATSSA	Statistics South Africa
TB	Tuberculosis

UNEP	United Nations Environment Programme
WHO	World Health Organization
WIL	Work Integrated Learning
WSSD	World Summit on Sustainable Development
XDR-TB	Extensively Drug Resistant Tuberculosis

DEFINITION OF TERMS

For the purpose of this Policy, herein referred to as the National Environmental Health Policy, the following definitions will apply;

Communicable Disease means communicable disease as defined in the National Health Act, 2003, (Act No. 61 of 2003);

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

Environment means the surroundings within which humans exist and that are made up of:

- a) The land, water and atmosphere of the earth,
- b) Micro-organisms, plant and animal life,
- c) Any part or combination of (a) and (b) and the interrelationships among and between them,
- d) The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being;

Environmental Health encompasses those aspects of human health, including quality of life that is determined by physical, chemical, biological, social and psychosocial factors in the environment. It also refers to the theory and practice of assessing, correcting, controlling and preventing those factors in the environment that can potentially affect adversely the health of present and future generations.

Environmental Health Assistant means, subject to the provisions of the Health Professions Act, 1974 (Act No. 56 of 1974) as amended, any person registered as such with the Health Professions Council of South Africa.

Environmental Health Practitioner means, subject to the provisions of the Health Professions Act, 1974 (Act No. 56 of 1974) as amended, any person registered as such with the Health Professions Council of South Africa, and includes an Environmental Health Practitioner doing compulsory community service.

Environmental Health Services means the assessment, monitoring, correction, control and prevention of environmental factors that can adversely affect human health. It includes but not limited to anticipation and identification of environmental health hazards and risks regarding:

- a) Water quality monitoring,
- b) Food control,
- c) Waste management,
- d) Surveillance of premises,
- e) Communicable diseases control,
- f) Vector control,
- g) Environmental pollution control,
- h) Disposal of the dead,
- i) Chemical safety and noise control,
- j) Port Health, and
- k) Malaria Control;

- l) Hazardous Substances control
- m) Air Quality Management

Environmental Health Worker for the purpose of the policy means an Environmental Health Practitioner, an Environmental Health Practitioner doing compulsory community service, or an Environmental Health Assistant.

Hazardous Substances means any substance which may cause injury or ill-health to or death of human beings by reasons of their toxic, corrosive, irritant, strongly sensitizing or flammable nature or the generation of pressure thereby in certain circumstances. This includes hazardous chemical substances and such substances as solid, liquid, gas, aerosol or combinations thereof, but excludes hazardous electronic products;

Health means a state of complete physical, mental and social well being, and not merely the absence of diseases or infirmity;

Health Nuisance means health nuisance as defined in the National Health Act 2003, act 61 of 2003

Health Services means:

- a) Health care services, including reproductive health care and emergency medical treatment, contemplated in section 27 of the Constitution,
- b) Basic nutrition and basic health services contemplated in section 28(1)(c) of the Constitution,
- c) Medical treatment contemplated in section 35 (2) (e) of the Constitution,
- d) Municipal health services;

Minister of Health means the Cabinet member responsible for health;

Municipal level/ Municipality shall refer to both District and Metropolitan Municipalities.

Municipal Health Services means Municipal Health Services as defined by Section 1 of the National Health Act, 2003 (Act No. 61 of 2003), and the Constitution of South Africa, Act 108 of 1996;

Department of Health refers to the National Department of Health;

Pollution – means pollution as defined in section 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998);

Premises means premises as defined in the National Health Act, (Act. 61 Of 2003)

Stakeholder means individuals and groups concerned with or affected by the environmental performance of an organization;

EXECUTIVE SUMMARY / PREAMBLE

The National Policy on Environmental Health reflects the Government's intent as far as rendering Environmental Health Services is concerned. It is subject to the broader National Health Policy, as set out in the White Paper on the Transformation of Health Services in South Africa, the National Health Act, 2003 (Act No 61 of 2003) and the Regulation defining the Scope of the Profession of Environmental Health, 888 of 21 April 1991, as amended.

Government recognises the importance of prevention across all levels of health care. Wherever possible the burden of ill health and disability must be averted by preventive interventions. This is clearly indicated in the White Paper on the Transformation of Health Services, as well as the Primary Health Care (PHC) Alma-Ata. Prevention strategies often need to address adverse environmental factors, as well as individual behaviour and lifestyle.

SUMMARY AND PREFACE OF THE POLICY

Section 1 gives a contextual background of the policy and briefly highlights the importance and impact of EHS on the human health. **Section 2** outlines the scope of applicability of the policy, whereas **Section 3** sets out the purpose of this Policy and reflects on the importance and necessity of the Policy. **Section 4** highlights the constraints and opportunities in the delivery of EHS in South Africa. **Section 5** sets out principles to guide policy implementation, **Section 6** outlines policy objectives. **Section 7** provides the mission of the health sector and that of environmental health with regards to the policy. **Section 8** sketches the international, regional and national context, referring to demographic features, disease burden and rights and obligations in terms of the Constitution and international agreements. **Section 9** outlines the strategies to achieve policy objectives and **Section 10** outlines governance and institutional framework for policy implementation, which clarifies roles of various spheres of government with regards to provision of EHS. **Section 11** highlights EH priority programmes and guides the implementation of various programmes in the field of environmental health. In **Section 12**, the issue of improved communication is tackled through EH forums at national and provincial level. **Section 13** emphasizes the critical role of research for improved capacity and development. **Section 14** provides for monitoring and evaluation of policy implementation. Lastly, **Section 15** indicates the intention of a strategy development to ensure effectiveness in policy implementation.

SECTION 1: INTRODUCTION AND BACKGROUND

When the Libreville declaration was signed in 2008, it was based largely on the concern that over 23% - 28% of deaths in Africa estimated at over 2.4 million per annum are attributed to avoidable environmental risk factors with particular effect on the poorest and the most vulnerable groups of society. The declaration was also based on the emergence of new environmental risks as a result of climate change, industrial expansion and new technologies which presents new risks to Public Health.

The World Health Organization (WHO) estimates that up to 70% of childhood deaths in Africa are attributed to environmental risk factors. According to the Medical Research Council (MRC), the health of poor urban people in South Africa is threatened more by environmental degradation caused by others, than it is by their own lifestyle choices. The six major risk areas are inadequate access to safe drinking water, poor hygiene and sanitation, disease vectors, air pollution, chemical hazards and unintentional injuries.

When a population is exposed to environmental hazards, a relationship is established between the levels of exposure and health outcomes of that particular population. The linkages created between the status of the environment and human health is thus termed "environmental health". Environmental health is a practice that seeks to protect human health by combating physical, chemical, biological and social threats in the environment. It is the most fundamental public health approach, affecting whole populations and providing a foundation for modern living. Environmental health practice covers the assessment, correction, control and prevention of environmental factors that can adversely affect human health. It encompasses measures necessary to deal with issues such as environmental degradation and climate change, and with hazards including chemical exposure and contamination of air, water and food. Environmental health practice provides opportunities to enhance health by planning and developing health promoting environments that contribute to better health outcomes.

South Africa's 284 municipalities span the entire country, both rural and urban and in this sense, the concurrent governance frameworks for environment and health apply uniformly throughout the country. Since the establishment of new municipalities in 2000, the legislative and institutional development focus has been upon developing the planning and financial frameworks necessary, and for enhancing the inter-governmental cooperation essential for effective functioning with EHS being based mainly at municipality level as part of Municipal Health Services (MHS). This policy will go a long way in ensuring that the implementation of this critical component permeates all spheres of government. This will further put both National and Provincial Departments of Health in a pole position to do oversight, support and supervision of these essential services.

SECTION 2: SCOPE OF APPLICABILITY

This policy applies to government, private institutions, communities, individuals as well as an undertaking of all activities within the Republic of South Africa that may have an impact on the environment and health. The implementation of this policy will be in line with Regulation 888 of 26 April 1991, as amended, which defines the Scope of Profession of Environmental Health.

SECTION 3: PURPOSE OF THE POLICY

In order to be proactive in preventing environmental hazards from diminishing quality of life of the population, it is necessary to have a comprehensive national policy for environmental health. This policy aims to provide a national framework for the provision of environmental health services in the country, set out the vision for environmental health and influence health outcomes to ensure ***“A long and healthy life for all South Africans”***.

Through this policy, government aims to identify development needs in Environmental Health particularly for populations which lack awareness and services due to historical imbalances, by outlining environmental health services, and through promotion of intersectoral collaboration in the provision of environmental health services by integrating environmental considerations with the social, political and development needs and rights of all individuals, communities and sectors.

SECTION 4: POLICY GOAL, OBJECTIVES AND GUIDING PRINCIPLES

4.1 Goal

The overall goal of the Environmental Health Policy is to ensure the right to an “environment that is not harmful to the health and wellbeing of South Africans”.

4.2 Objectives

Prevention and reduction of health risks associated with environmental hazards which are the direct causes of the spread of disease and conditions related to environmental health. In this correction, environmental health services should be prioritized by all responsible agencies. This policy therefore aims at achieving the following objectives:

1. To promote a legal and regulatory framework that ensures mandatory but also supports voluntary compliance and also facilitates policy implementation by various actors.
2. To formulate an institutional framework that enables efficient coordination and collaboration of the various sectors and stakeholders that have environmental health related responsibilities.

3. To ensure an effective institutional capacity for rendering EHS.
4. To strengthen the capacity of environmental health personnel to become efficient agents and catalysts for desired change.
5. To adopt a partnership approach with the purpose of facilitating holistic and integrated planning in environmental health.
6. To facilitate the development and maintenance of an effective Environmental Health Management Information System.
7. To strengthen international co-operation on issues affecting environmental health.
8. To improve monitoring of environmental health conditions that may impact on the physical environment and human health.
9. To promote community participation and development through empowerment in environmental health, to contribute to promotion of own health.
10. To contribute to strengthening environmental hygiene programmes as part of disease prevention and health promotion.

4.3 Principles to guide policy implementation

The overarching principles of this policy on environmental health are those principles as contained in the Bill of Rights as enshrined in Chapter 2 of the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996) and the White Paper on the Transformation of Health Services.

Implementation of the National Environmental Health Policy should however be guided by the following key principles that are crucial for the achievement of policy objectives:

4.3.1 Recognition of equity in environmental health interventions

- Environmental health interventions should be planned and implemented on an equitable basis, with resource allocation based on the principle of "some for all" rather than "all for some".

4.3.2 Prevention central to human health

- Prevention should be at the centre of all environmental health action. Prevention may need to address both adverse environmental behaviour/practices and adverse health behaviour for improved environments and healthier lifestyles.
- Prevention should always be viewed as the other side of the same coin with promotion of health.

4.3.3 Recognition of differing needs for women, men, children and the elderly

- Environmental health interventions should respond to the differing needs of women, men, children and the elderly. This must apply specifically on the role of women as main users of food, water and sanitation. Gender sensitive studies should be promoted to ensure recognition of needs for the various vulnerable members of society.

4.3.4 Intersectoral collaboration and coordination

- Whilst the policy recognizes the advantages of having shared responsibilities, it is important that such responsibilities are clear and provided for by the environmental health related legislation established to govern the delivery of EHS. In addition, the law should recognize the Department of Health as the Ministry responsible for public health and therefore having responsibility for the overall coordination of policy implementation and the delivery of EHS. A coordinated and collaborated effort by various government departments and other stakeholders is vital in achieving this.

4.3.5 Decentralisation

- EHS must be based on the decentralised model of the district health system for the promotion of equity, efficiency and effectiveness.
- This policy takes note of the role played by Municipalities in delivering Municipal Health Services as a result of devolution of services.

4.3.6 Alliance to the government policies

- The implementation of this policy will be in acknowledgement of the principles of Agenda 21 and Healthy Cities approach and be in line with the principles contained in the White Paper on the Environmental Management Policy of South Africa, as well as the Batho Pele Principles.

4.3.7 Community Participation

- The principle of community participation recognizes that although the policy is established by the national government, implementation of the policy should be effected at the levels that involve the community.

4.3.8 Placing emphasis on voluntary compliance through awareness and education

- Although it's a requirement for compliance to national policies and standards on environment and health by importers, producers, manufacturers, retailers and communities, environmental health strategies should strike an appropriate balance between promotion and education and law enforcement.
- Education must be used as a vital tool of building capacity for all stakeholders/role players, to be able to attain voluntary compliance.

4.3.9 Risk analysis

- Standards and regulations established to enforce environmental health should be underpinned by risk analysis, which will include a risk assessment through risk identification, quantifying these risks and costing them in order to implement appropriate corrective environmental health interventions.

4.3.10 Risk Communication

- Dissemination of accurate and up to date information on environmental health risks and the prevention thereof, in order to reduce environmental related health burdens, particularly to the general public, is crucial. Different elements and principles of communicating risks, early warnings and application of methods relevant for various groups of the population are essential in the provision of EHS. Risk communication needs to be prioritised and budgeted for at municipal and provincial level.

4.3.11 The Precautionary principle

- Successful prevention or control of environmental health related diseases requires appropriate measures underpinned by scientific means. However scientific data is not always available. An effective policy works on the principle that "we do not need to know everything to take action", and thus a precautionary measure should be taken to protect human health, where scientific evidence may not be available.

SECTION 5: HEALTH SECTOR MISSION

5.1 Mission

The mission statement of the Department of Health (DOH) is *"to improve the health status of South Africans through the prevention of illnesses and the promotion of healthy lifestyles and to consistently improve health care delivery system by focusing on access, equity, efficiency, quality and sustainability"*. Environmental health service areas that are within the strategic plan includes, control of communicable disease, environmental management and port health, which are components of this policy.

The mission of Environmental health is *"to improve the health of the environment and the quality of life of all communities through a sustainable, co-ordinated, integrated, comprehensive, and proactive Environmental Health Service at all spheres of government"*.

SECTION 6: CONSTRAINTS AND OPPORTUNITIES

Although government has promulgated extensive legislation on health issues over the past 15 (fifteen) years, and that some sectors of government are addressing threats to environmental and human health, a number of limitations still exist in environmental health. Issues relating to environmental health in South Africa are shared between various government departments; therefore the implementation of the National Environmental Health policy will be between various Ministries. Due to overlaps that are likely to arise when various government departments are involved in similar or related activities, the policy emphasizes the need for a harmonised institutional framework to ensure efficient coordination of shared responsibilities and effective delivery of services. In addition to a fragmented policy framework and weak coordination, the following limitations still exist:

- Lack of strategic alliance on Health and Environment for the establishment of joint action plans to implement the National Service Delivery agreements and the Libreville declaration;
- Limitations in existing environmental health impact management related legislation;
- Uncoordinated environmental health activities at national level;
- Inadequate funding for environmental health services;
- Lack of prioritisation of environmental health services within various municipalities;
- Lack of standardisation in environmental health services delivery in the country;
- Lack of implementation of outcome based risk assessment approaches;
- Lack of appropriate and sufficient environmental health related best practices based on international, national and local EH priority issues; and
- Inadequate scientific research on environmental health.

SECTION 7: SETTING THE CONTEXT

7.1. International Context.

International concern on environmental health has increased in recent decades. This has taken place in the context of growing global concern about the environment itself and the sustainability of natural resources. The trend has been reflected in several major conferences on the environment and the “greening” of the public health movement.

The first of these is a conference on the human environment that took place in Stockholm Sweden in 1972, which gave birth to the Stockholm Convention and the Millennium Development Goals – aligned with the burden of diseases by the United Nations. Twenty years later we witnessed the Earth Summit in Rio de Janeiro, Brazil, an unprecedented gathering of world leaders and civil society organisations resulting in “the Rio Declaration (Agenda 21)”. This was followed by the World Summit on Sustainable Development (WSSD) in 2002, which took place in Johannesburg and resulted in the Johannesburg Plan of Action, which committed participating countries to specific actions and targets.

Health issues featured prominently at both the Earth Summit and WSSD, and are also central to the Millennium Development Goals adopted by the United Nations. Further, the New Plan for Africa's Development (NEPAD) has a detailed health strategy and its environmental initiatives aim to achieve the MDGs as well as WSSD targets and priorities.

The first inter-ministerial Conference for Health and Environment in Africa was held in August 2008 in Libreville, Gabon. The meeting created a platform for African Ministers of Health and Environment to better agree on the mutual relevance and benefits of each other's policies, strategies and programmes. The main aim of this meeting was to secure political commitment to develop a policy, together with institutional and investment changes required to reduce environmental threats to health, in support of sustainable development. Subsequently, Health and Environment Ministers of 52 African countries

adopted a Libreville declaration on Health and Environment in Africa (Libreville Declaration, WHO Libreville).

The second Inter-Ministerial Conference on health and the environment was held at the initiative of WHO and UNEP, in collaboration with the government in Angola in November 2010. This meeting resulted in the Luanda Commitment where countries pledged themselves towards an acceleration of the implementation of the Libreville Declaration. This was purely because of the effect this will have on the attainment of Millennium Development Goals (MDGs) 4, 5, 6 and 7 relating to child health, maternal health, communicable diseases and environmental sustainability respectively. As a way of speeding the implementation of the Libreville Declaration, the Ministers resolved to complete the Situation Analysis and Needs Assessment (SANA) for each country, and the preparation of National Plans of Joint Action by the end of 2012. The Libreville declaration calls on the following eleven activities/priorities:

- Establishing a Health and Strategic Alliance as the basis for joint plans of action;
- Developing or updating national, sub-regional and regional frameworks in order to address more effectively the issue of environmental impacts on health, through integration of these links into policies, strategies, regulations and national development plans;
- Ensuring integration of agreed objectives in the areas of health and environment in national poverty reduction strategies by implementing priority intersectoral programmes at all levels, aimed at accelerating achievement of Millennium Development Goals (MDGs);
- Building national, sub-regional and regional capacities to better prevent environment-related health problems, through the establishment or strengthening of health and environment institutions;
- Supporting knowledge acquisition and management on health and environment, particularly through applied research at local, sub-regional and regional levels, while ensuring coordination of scientific and technical publications, so as to identify knowledge gaps and research priorities and to support education and training at all levels;
- Establishing or strengthening systems for health and environment surveillance to allow measurement of interlinked health and environment impacts and to identify emerging risks, in order to manage them better;
- Implementing effectively national, sub-regional and regional mechanisms for enforcing compliance with international conventions and national regulations to protect populations from health threats related to the environment, including accession to and implementation of the Bamako convention by those countries that have not done so;
- Setting up national monitoring and evaluation mechanisms to assess performance in implementing priority programmes and peer review mechanisms to learn from each other's experience;
- Instituting the practice of systematic assessment of health and environment risks, in particular through the development of procedures to assess impacts on health, and to produce national environment outlook reports;

- Developing partnerships for targeted and specific advocacy on health and environment issues towards institutions and communities including the youth, parliamentarians, local government, education ministries, civil society and the private sector; and
- Achieving a balance in the allocation of national budgetary resources for intersectoral health-and-environment programmes.

The Health and Environment strategic Alliance for the implementation of the Libreville Declaration highlights Environmental Health, Disorders of Environmental Origin-prevention and control, Environmental Policy, Environmental Monitoring and Health Plan implementation as priority activities.

South Africa's is in an era as a developing country, which necessitates an improved environmental health management approach and systems. As a signatory to a range of international conventions and treaties, the country must develop the capacity to uphold the provisions to which it has committed itself.

All international agreements on environmental issues have an impact on environmental health. However, the multilateral agreements listed below have particular significance in terms of human health.

- The Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
- International Labour Organisation (ILO) Convention 13 on the Use of White Lead in Painting.
- ILO Convention 170 on Safety in the Use of Chemicals at Work.
- The Vienna Convention on the Protection of the Ozone Layer.
- The Montreal Protocol on Substances that Deplete the Ozone Layer
- The Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and their Disposal, and related protocol.
- The Bamako Convention on the Ban of the Import into Africa and the Control of Trans-boundary Movement and Management of Hazardous Wastes.
- The United Nations Framework Convention on Climate Change and the Kyoto Protocol.
- Stockholm Convention on Persistent Organic Pollutants.
- Convention on Biological Diversity (CBD)
- Persistent Organic Pollutants (POPs)

The Department of Health also subscribes to various international guidelines of significance to environmental health, such as WHO guidelines, such as Guidelines for Drinking Water Quality, Sanitation in Ship and Aviation and Environmental Health Impact Assessments, to name but a few. South Africa is also signatory to the International Health Regulations, which are an international legal instrument that are binding on 194 countries across the globe with the aim to assist the international community prevent and respond to acute public health risks that have a potential to cross borders.

These guidelines continue to provide a framework in setting policy, legislation and national norms and standards for protection of human health. The policy also acknowledges other available international guidelines that have a bearing on environmental health.

Environmental challenges go beyond national borders requiring collaboration from neighbouring and partner countries; the spread of food-borne and vector-borne diseases for e.g. transnational air pollution or water pollution (due to floods or other environmental conditions) and population movement across borders may not be resolved by a single country. Environmental health problems occurring locally may well affect neighbouring countries, and vice versa.

The policy emphasizes promotion of collaboration, establishing disease surveillance programs with neighbouring countries and actively participating in regional and international initiatives. Efforts should be made to seek international cooperation and assistance to enhance skills, capacity, and expertise, as well as information exchange particularly in the application of environmental health management tools, such as hygiene, food and water related. These include integration of environmental hygiene initiatives, such as Healthy Environment for Children Initiative (HECI), Health and Hygiene Strategies, Healthy Cities Projects etc.

7.2 National Legislative Context

The South African Constitution of 1996, as amended, provides a framework for cooperative governance among the various spheres of government and designates responsibility for these spheres of government. The most applicable fundamental right in the context of Environmental Health is the Environmental Right (Section 24), which provides the right of everyone to an environment that is not harmful to their health or well being. On a secondary level is the next subsection that refers to the rights to have the environment protected, for the benefit of present and future generations through reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation and secure ecologically sustainable development and the use of natural resources while promoting justifiable economic and social development.

The Municipal Structures Act, 1998 (Act No. 117 of 1998), deals with executive authority of various Local Government structures. Section 84 (1), assigns functions relating to environmental health to Metropolitan and District Municipalities. This policy emphasizes the transfer of MHS from province and the previously demarcated local authorities, to District and Metropolitan Municipalities. Collaboration with other government agencies, such as, the South African Local Government Association (SALGA) and the Department of Cooperative Governance and Traditional Affairs (COGTA) for legislative guidance in the transfer process is critical.

The National Health Act, 2003 (Act No. 61 of 2003), defines Environmental Health Services as Municipal Health Services with the exception of 3 (three) functions, namely, Port Health, Malaria Control and Hazardous Substances Control. The Scope of Profession for Environmental Health, R888 of 26 April

1991, as amended, further outlines overall functions to be performed by Environmental Health Practitioners. The National Environmental Management Act 1998 (Act 107 of 1998) governs the management of the environment and provides for cooperative environmental governance by establishing principles for decision-making on matters affecting the environment, as well as health. The requirements by NEMA for the development of Environmental Management Plans and Air Quality Management Plans are some of the systems available in the management of environment by various government departments.

7.3 Other Legislative framework for EH

Within South Africa, approaches to environmental health practices in the past mainly related to inspections for monitoring and control of environmental conditions and to ensure that legal and other specifications were met, often in response to public complaints. This approach was largely reactive, labour-intensive and costly. Emerging legislation implies a shift towards *comprehensive, integrated, preventive* management approaches of the environment for health, e.g. air quality management as opposed to air pollution control. This shift suggests intervention by the environmental health sector at the early planning stage of development, and continuous environmental surveillance and evaluation across disciplines.

Below is a list of some of the South African legislation providing the overall framework for action in the environmental health sector, which also encapsulates modern approaches to management of the environment for population health and well-being;

- Aviation Act, 1962 (Act No 72 1962) and amendments
- Cemeteries and Crematoria Act, 2003 (Act No. 80 of 2003);
- Fertilizers, Farm Feeds, Agricultural remedies and Stock Remedies Act, 1947 (Act 36 of 1947);
- Foodstuffs, Cosmetics and Disinfectants Act, 1972 (Act No. 54 of 1972);
- Hazardous Substances Act, 1973 (Act No. 15 of 1973);
- Merchant Shipping Act, 1951 (Act No 57 of 1951) and subsequent amendments;
- National Environmental Management Air Quality Act, 2004 (Act No. 39 of 2004);
- National Environmental Management: Waste Act (Act No. 59 of 2008);
- National Water Act, 1998 (Act No. 36 of 1998)
- Occupational Health and Safety Act, 1993 (Act No. 85 1993);
- Tobacco Products Control Act, 1993 (Act No. 83 of 1993);
- Water Services Act, 1997 (Act No. 108 of 1997);

7.4 South African Demographics

According to STATSSA Census outcome 2011, South Africa's population was estimated at 51 770 560 with the life expectancy for males at 53.3 years and at 55.2 years for females. Whilst still high, infant mortality has declined from an estimated 57 live births per 1 000 in 2001, to 47 per 1 000 live births in

2010. Strengthening the provision of environmental health can result in further reductions in these estimations.

The urban-rural contrast within South Africa represents a further challenge to environmental health services. It is in the rural areas that large numbers of people are exposed to risk through lack of access to potable water, sanitation and safe energy sources. For environmental health, this implies strengthening advocacy for the provision of proper services to communities.

7.5 The South African burden of environmental-related disease

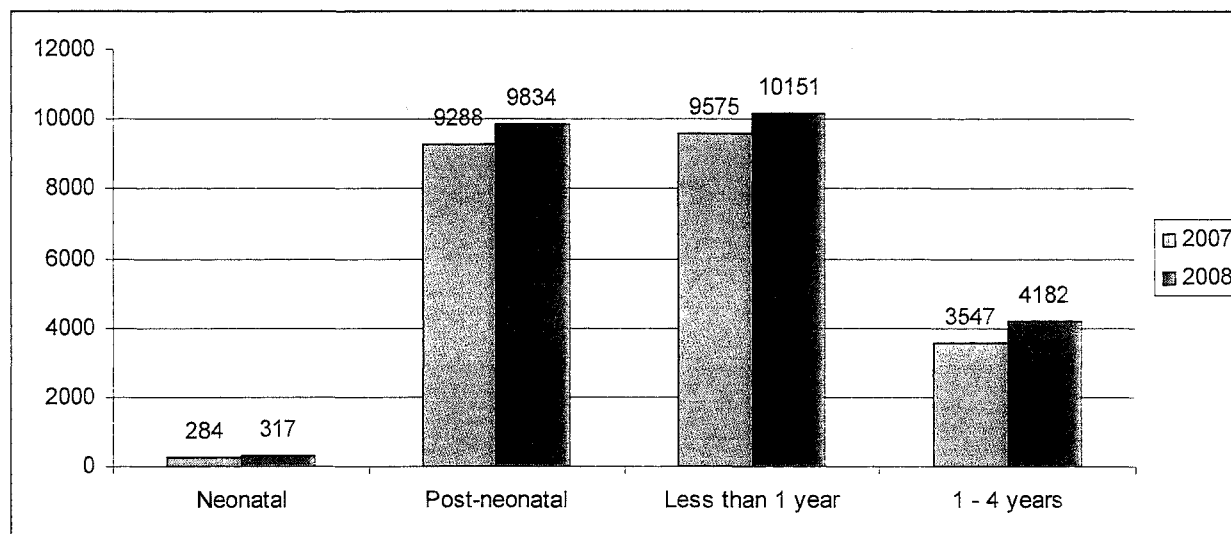
South Africa faces a quadruple Burden of Disease (BOD) consisting of (1) HIV and AIDS and TB; (2) High Maternal and Child Mortality; (3) Non-Communicable Diseases; and (4) Violence and Injuries. This situation is exacerbated by adverse social determinants of health such as poverty and inadequate access to essential services. Additionally, the country is experiencing a burden of disease as a result of environmental factors.

These are avoidable environmental hazards such the use of contaminated water, poor hygiene, inadequate sanitation, poor water resource management, use of unsafe fossil fuels, atmospheric pollution and poor infrastructure. Research has shown that as a country, we are strongly underestimating our environmental burden of disease. Currently 16% of all deaths in the country are related to the state of environment, with an estimated-disability adjusted life years per 1000 persons lost due to the environmental burden of diseases (CSIR briefing note 2009/04 of June 2010). Majority of these are called social determinants of health.

An important aspect of environmental health practice is the prevention and reduction of the incidence of diseases emanating from environmental factors; with a stronger focus being on communicable diseases. Environmental health is essential for disease surveillance.

7.5.1 Water-borne diseases

Infectious intestinal diseases remain a significant cause of death in all age groups and are the top cause of death in children, neonatal, post-neonatal, less than one year and one to four years of age. (Mortality and causes of death in South Africa, 2008: Findings from death notification, Statistics SA 2010). In 2008, about 24 484 deaths were attributed to such diseases (317 – neonatal, 9 834 – post-neonatal, 10 151 – Less than one year, 4 182 – one to four years). The table below shows the increase of infectious intestinal diseases from 2007 to 2008.

Table 2: Infectious intestinal diseases neonatal, post-neonatal, less than 1 year and 1 – 4 years of age – 2007 and 2008 (DHIS)

Some communities in South Africa still continue to live in areas without the access to basic water supply and sanitation services, particularly in rural farming areas and in informal settlements. These communities become susceptible to water borne and sanitation related diseases as a result of poor hygiene practices. Children under the age of five years are most susceptible to waterborne diseases, particularly diarrhoea. International experience indicates that the incidence of water-borne diseases is approximately five times higher among children living in informal settlements than it is among children in formal urban areas with sanitation and water supply. The differential in terms of child mortality rates from diarrhoea may be as great as 500:1.

Schistosomiasis (bilharzias) is one of the neglected tropical diseases that is endemic in six of the nine provinces of South Africa, namely: Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West and Eastern Cape. Schistosomiasis can cause serious, long-term illness such as liver and renal failure, and as such needs appropriate public health interventions.

7.5.2 Acute respiratory tract infections

Illnesses such as bronchitis, pneumonia, asthma and emphysema occur more frequently in areas of poor housing where indoor air quality is poor. Indoor coal and wood burning causes the air to be contaminated with smoke and small particles that are readily breathed in. Development of moulds and other natural building syndromes are concerns of the indoor environments. This occurs primarily in rural areas and urban informal settlements whereas bacteriological conditions such as Legionnaires disease are common in rural formal and urban areas.

In terms of the mortality and causes of death in South Africa, 2008: findings from death notification have revealed that there was a slight decrease in the proportion of deaths due to diseases of the respiratory systems from 2006 to 2008, however there is still a high risk of respiratory diseases in communities that

are still dependent on coal and wood burning for cooking and heating purposes, due to poor indoor air quality.

7.5.3 Lung disease

The top ranking main group of causes of death in 2008 (as has been the case in the previous years) were *certain infections and parasitic diseases*, comprising over a quarter (26, 4%) of all deaths. This group also includes 712 deaths due to *multidrug-resistant tuberculosis* (MDR-TB) and 135 deaths due to *extensively drug-resistant tuberculosis* (XDR-TB). The reported number of deaths due to MDR-TB and XDR-TB increased by 19, 3% and 60, 7%, respectively, between 2007 and 2008. This may also be attributed to various environmental factors, which may include poor indoor air quality, poor hygiene and over-crowding, amongst others.

Asbestosis and silicosis are among the lung diseases that result from environmental factors and are mainly termed occupational diseases. This burden of these is mainly due to being exposed to hazards in a workplace over a period of time, particularly those working in environments that are polluted with Asbestos and Silica amongst others.

7.5.4 Vector-borne diseases

Malaria is one of the main vector-borne diseases in South Africa and it remains a major health problem in some parts of the country, and in some cases it is transmitted along the border areas of South Africa. Three (3) of the nine (9) provinces in South Africa, viz: Limpopo, Mpumalanga and KwaZulu-Natal are Malaria endemic and 10% of the population (approximately 4.9 million persons) is at risk of contracting the disease. Malaria transmission in South Africa is seasonal, with malaria cases starting to rise in October each year, peaking in January and February and waning towards May. Malaria cases in South Africa have been steadily declining over the past 9 years. Between 2000 & 2008, morbidity from malaria was reduced by 88% (64,622 and 7796 cases respectively) and mortality by 90% (458 and 46 deaths respectively).

Yellow fever is another vector-borne disease but it is not endemic in South Africa; however, this disease poses threats in the country due to the existence of mosquitoes (*Aedes Aegypti* Mosquito) that transmit the disease. In order to prevent the introduction of yellow fever in South Africa, travellers from yellow fever high-risk countries or who transited/stopped over high-risk countries are obliged to produce a valid yellow fever vaccination certificate at the ports of entry in all the provinces. This procedure is in line with International Health Regulations to which South Africa and many other countries are signatories.

7.5.5 Food-borne diseases

The incidence of food-borne diseases in South Africa appears minor compared to the other diseases related to the environment. This might be due to under reporting of food-borne diseases or it might indicate effective monitoring techniques as legislation is in place to protect consumers from food related illnesses.

Since South Africa is fast becoming a major role player in the Global Village both in Southern African Development Community (SADC) and internationally, it is becoming more important to control the importation and exportation of foodstuffs. Therefore, enforcement of food legislation and the application of international regulations, such as the International Health Regulations 2005, Codex Alimentarius and Hazard Analysis of Critical Control Points (HACCP) have been critical.

7.5.6 Chemical / Pesticide poisoning

Lead, pesticides and mercury poisoning are regarded as notifiable medical conditions in South Africa. Although hundreds of new chemicals are developed each year, assessment of their possible long-term health risk is not keeping pace with the rate of development. The process of assessment will be key in finally establishing their actual public health impact. Concerns over biocides increases as people realise that many of their ingredients can cause allergies, initiate cancer, and promote generic mutations & birth defects.

The most commonly used poisons in the home are insecticides and rodenticides. They are mostly nerve poisons and may cause cumulative damage to the nervous system and liver, as they are also carcinogenic. Some common active ingredients include organochlorines, organophosphates, carbamates and pyrethroids. According to data received by the department all 9 provinces reported that most human poisonings are caused by organophosphates. However, a misunderstanding has resulted in only organophosphate poisonings being notified and collected from provinces. Therefore, it is crucial that the requirement under the Health Act 2003 for notifying all poisonings by agricultural remedies be adhered to by all Health Professionals notifying a pesticide poisoning. This is necessary to improve on the accuracy of these statistics in South Africa and improve on the data required to comply with the Rotterdam Convention.

SECTION 8: STRATEGIES TO ACHIEVE POLICY OBJECTIVES

8.1 Implementation and structure

In order for a successful implementation of the *National Environmental Health Policy*, environmental health human resource structures at National, Province and Municipal level need to be appropriately developed and staffed. There is a need to create organisational structures with focal points to specifically focus on the planning, delivery, monitoring and evaluation of Environmental Health Services across the board. The Municipality is responsible for ensuring that reports are provided to the province on the status of EHS provision within a municipality on a quarterly basis.

In line with this, it is critical that provision of environmental health services at National, Provincial and Municipal level must only be carried out by individuals possessing the required qualification in Environmental Health or equivalent qualification, obtained from a recognized and accredited Training Institution, and be duly registered as such with the Health Professions Council of South Africa (HPCSA).

8.1.1 Strengthening capacity and development of Environmental Health personnel

Human capacity development will pivot around recognizing the need for an adequate number of appropriate qualities of environmental health personnel with clear job descriptions, based on the Scope of Profession of Environmental Health. This requires recruitment of new additional personnel and continuous in-service training of existing personnel.

WHO Guideline advocates for governments to deploy at least 1(one) EHP for every ten thousand population 1:10 000 for provision of EHS. To ensure equity of environmental health in the country, the government must ensure conformance to the WHO guideline for operational EHPs. This can be achieved by collaborating with Institutions of Higher Learning to ensure that intake of students' increases, while also advocating for creation of more posts to absorb graduates.

Human resource development programmes should be adjusted on a regular basis to focus on the new policy priorities. Training and technical support for environmental health staff at National, Province and Municipality must be enhanced to ensure that they are appropriately skilled to meet current environmental health challenges. There is a greater need to build capacity of EHP's in their areas of responsibilities within municipalities and to enhance research to be able to contribute to, and support the integration of primary and preventive health care measures within MHS. This should also include promoting understanding of good basic health and hygiene on the ground and among decision-makers in all sectors, focusing attention on the health impacts of service provision, and promoting integrated development planning.

A training needs assessment for environmental health staff should be conducted within all spheres of government responsible for provision of EHS in both rural and urban areas. This assessment should inform training requirements for EHPs at all levels of service provision.

In an attempt to enhance work experience amongst newly qualified professionals as well as to assist those areas without access to health care services, the Minister of Health published Regulations that require 'Allied Health Workers (including EHPs) to perform community service for 1 (one) year before formal appointment. Provinces and their Municipalities should therefore allocate the necessary financial resources to accommodate Community Service EHPs, including provision of other resources to enable the incumbents to perform community service effectively. Proper guidance, mentoring, coaching and support must also be provided to all newly appointed Community Service EHPs, in the provision of adequate services to communities. In this way Community Service EHPs will make meaningful contribution to health service provision in the country.

8.2 Training and improved learning

The department must establish links with tertiary education and other training institutions to ensure that training of EHPs is appropriate in order to support the terms of this policy.

Institutions of Higher learning must be supported in their role of ensuring properly trained EH personnel that are able to carry out their responsibilities, and in an ethically acceptable manner. The policy advocates the need for standardised EH training by all relevant institutions to ensure that EHP's can be optimally utilised in a work environment and to promote professional status. To ensure training that is based on updated and current models, the review of the curricula for environmental health training should be done in consultation with the National Department of Health, HPCSA and all other relevant stakeholders.

Training, including a structured system for developing the skills of existing personnel should comply with the National Qualifications Framework (as required by the South African Qualifications Authority) and the requirements of the Health Professions Council of South Africa (HPCSA). A compulsory Work Integrated Learning (WIL) component of the training should be maintained in the programme. WIL is very reliant on the close collaboration between the training institutions and industry (students training at abattoir, factories and municipal services).

This collaboration should enable the training institutions and industry to access SETA funding. The DOH should introduce mentoring programmes for EHP's and attract more senior EHP's to get involved, similar to those introduced for other professional groups. Medical schools need to incorporate environmental health and environmental burden of diseases into their curriculum, particularly so that environmental screening, histories and surveillance are taught to other professionals as part of prevention and treatment of environmental related diseases – both communicable and non-communicable.

8.3 Formulating an institutional framework

Environmental Health is a shared responsibility between various government departments in South Africa, namely; DWA, DEA, DAFF, DOT, DMR, DOL and DHS, however cooperation and collaboration on their various policies, programmes and plans is currently weak. These departments, as well as other agencies are key role players in ensuring the successful implementation of the National Environmental Health policy. Cooperation within these government departments is necessary and should be strengthened where it exists. There is a need for formulation of multi-facet cooperative governance structures that will focus on promoting synergies, alignment and harmonisation of plans, programmes and policies of these organs of states.

Herein under is a brief outline of the roles of the various role players on issues relating to environmental health:

8.3.1 Department of Water Affairs (DWA)

DWA is the leader in the water sector and is responsible for policy, support and regulation. DWA operates water resource infrastructure, some bulk water supply schemes and retail infrastructure. DWA monitors performance within the sector in relation to water supply provision and water quality monitoring.

Department of Health however has a role of water quality compliance monitoring to ensure that all water supplies to communities are fit for consumption and does not pose a risk to human health; this includes ensuring the prevention of pollution of water resources.

8.3.2 Department of Environmental Affairs (DEA)

DEA is custodian of the National Environmental Management Act (NEMA); they are responsible for regulation and policy with regards to issues of waste, air quality, pollution control and environmental education on issues that relates to the environment. DEA set national norms and standards on factors relating to the environment, such as ambient air quality and waste management.

DOH is concerned with the management of diseases/illnesses that emanates from factors in the environment that may adversely affect human health, with regards to air quality, environmental pollution and waste management.

8.3.3 Department of Agriculture, Forestry and Fisheries (DAFF)

DAFF regulates fertilisers, animal feeds, agricultural remedies and stock remedies. The intention of the applicable legislation is to ensure that products registered under the relevant Act are used for their intended function with minimum harm to human health and the environment. DAFF is also responsible for regulating pesticides, as well as food security issues through the Meat Safety Act, 40 of 2000, which also include milk control.

DOH is concerned with food safety in respect of acceptable microbiological and chemical standards and the fitness of all food for human consumption and optimal hygiene control throughout the food supply chain from the point of origin to the point of consumption for protection of human health.

8.3.4 Department of Transport (DOT)

DOT regulates the transport industry to ensure safety of various modes of transport, with regards to environmental impacts, air quality impacts and transportation of hazardous goods, including importation and exportation thereof.

DOH is on the other hand is the custodian of the Hazardous Substances Act and its Regulations to ensure the proper use, storage and transportation and disposal of hazardous substances, including monitoring that transportation of hazardous substances by road tankers is done in a manner so as to safeguard human health and prevent injury and harm.

8.3.5 Department Mineral Resources (DMR)

DMR contributes to sustainable development and growth through minerals and energy resources and ensuring industry compliance with environmental health and safety standards, Occupational Health and Safety and environmental management systems, particularly in respect to mining.

DOH is concerned with monitoring of adverse negative health impacts and effects to communities and individuals as a result of mining activities.

8.3.6 Department of Human Settlement (DHS)

DHS responsibility is to establish and facilitate sustainable processes that provide equitable access to adequate housing and they set the housing policy. This includes ensuring the provision of adequate sanitation to communities. The Health and Hygiene Education Strategy provides that, to ensure sustainability of the provision of water and sanitation services, Health and Hygiene Education (H&HE) should be an integral part of all sanitation provision projects. Therefore DHS should ensure that H&HE is provided during all sanitation provision projects.

DOH on the other hand is the custodian of health and hygiene education and advocates for proper sanitation for optimal human health benefits.

8.3.7 Department of Cooperative Governance Traditional Affairs (COGTA)

COGTA has overall responsibility for the management of Local Government and Traditional Affairs. This includes policy, legislation, capacity building, grant allocation and regulations as these apply to the integrated aspect of municipal services provision, including Municipal Health Services. COGTA is central to provide oversight work and support to local sphere of government.

DOH plays a role of policy development and monitoring of the delivery of Municipal Health Services.

8.3.8 Department of Labour (DOL)

DOL is responsible for regulating the use of Hazardous Chemical Substances in a workplace. DOH on the other hand is the custodian of the Hazardous Substances Act and Regulations and is concerned with ensuring proper handling, storage, use, disposal and transportation of hazardous substances to ensure the protection of human health. This is the role that also affects the DOT, which is responsible for transportation infrastructure for the hazardous substances provided by DOL.

8.3.9 National Treasury (NT)

NT is responsible for allocation of financial resources for the delivery of services for each sector and sphere of government.

Provinces and Municipalities are allocated funds for provision of health services, including Municipal Health Services through the equitable share as prescribed in the Division of Revenue Act. This allocation is designed to ensure that provinces and Municipalities are provided with financial means to perform their constitutional mandates of provision of services to communities. The support of the National Treasury is essential in ensuring that systems are put in place within Municipalities to ensure that funds are utilised for the purpose of which they were allocated. In this way NT holds every sector and sphere accountable for the economical, efficient and effective expenditure of financial resources allocated in line with relevant legislation.

8.3.11 Department of Justice (DOJ)

DOJ is responsible for the judicial system in South Africa. For effective enforcement of environmental health related legislation and policy, it is vital that there is a judicial support system to ensure that environmental health injustice does not continue to take a back seat and go unpunished. There is a need for provision of knowledge and education of prosecutors and magistrates on environmental health related legislation to ensure support of EHPs on law enforcement. Alignment with prosecuting structures such as the Green Scorpions is also critical for prosecuting of environmental non-compliance.

This policy recognises the complementary nature of the aforementioned government departments, with respect to the related multidisciplinary skills necessary to establish the scientific basis of measures chosen for environmental health protection, compliance monitoring and enforcement. However, the Environmental Health related legislation should clearly define their mandates and areas of responsibility and acknowledgement of the Department of Health with an oversight role on human health matters.

8.4 Resource allocation for environmental health services

Adequate financial, human and material resources are essential for effective provision of EHS and to achieve policy objectives. The funding for MHS to District and Metropolitan Municipalities is part of the Department of Treasury's Equitable Share to Municipalities; therefore Municipalities must adequately plan and allocate necessary resources for provision of EHS, thus the implementation of this policy. Therefore there is an urgent need for a monitoring system at Municipality level to ensure that "funds follow functions" in this regard.

8.5 Planning for proper implementation

Municipal Health Plans must form part of the Municipal Integrated Development Plans (IDPs) and subsequent Service Delivery and Budget Implementation Plans (SDBIP), District Health Plans (DHP) and Provincial Health Annual Performance Plans. Metropolitan and District Municipalities should develop Municipal Health Plans and submit them as part of their IDPs and subsequent SDBIPs to the Health District where the information will be collated into the DHP. Metropolitan and District Municipalities should compile an Annual Environmental Health Status Report and submit it to the Provincial Department of Health for further submission to the National Department of Health. In order to achieve this, it is necessary for participation of one sector in the planning process of another sector. In this way, it will be easy for cross pollination of thoughts and plans across the sectors/spheres.

8.6 Planning of human settlements (strategy)

In 2002, 74% of total energy consumption in South Africa came from coal. Because coal is a highly carbon-intensive fossil fuel, over reliance on it for energy needs can have negative environmental impacts, including air pollution due to coal combustion, groundwater pollution due to mining, impact on climate change and disruption of ecosystems. To date, electrification has increased its cover to the most rural settlements while new low cost and other RDP houses are electrified on development, however, people still rely on alternative sources for cooking (carbon intensive fuels).

Health issues in relation to residential planning need to be taken into consideration by all current EH legislation. Factors such as overcrowding, ventilation, sanitation, air pollution and safe energy also need to be addressed extensively. The serious issue of environmental justice needs to be addressed, past poor planning issues, the creation of noxious industries near human settlements, the location of disposal dumpsites and the establishment of Sewer Works are some of these issues to be addressed. Proper environmental management plans need to be put in place to mitigate against these impacts and should address the issues of environmental injustices from the past, as well as to promote specific project on energy saving efficiency in buildings and human settlements and the impacts on human health.

8.7 Protecting children

The policy recognizes the susceptibility of children to environmental risks. Action needs to be taken to allow them to grow up and develop in good health and be able to contribute to economic and social development as they sustain both present and future generations. Promoting healthy environments for children is a cross cutting issue that should be placed high on government's agenda. The policy thus emphasizes the need to streamline this activity in all provincial and municipal environmental health interventions by including appropriate indicators in their overall implementation plans.

8.8 HIV/AIDS, TB, Malaria and environmental health

A relationship exists between the major health problems of the country and environmental health. Immuno compromised individuals e.g. by HIV/AIDS infection, are more susceptible to environmental related diseases such as Tuberculosis (TB), Diarrhoea, Cholera and Malaria. In addition, contaminated health care risk waste could easily spread HIV if not managed properly. While ensuring that EHS are provided to all South Africans, education and awareness programmes should focus on protecting vulnerable groups of society, such as those living with HIV/AIDS, children and the elderly from environmental health related diseases.

8.9 Environmental Health Information System (EHIS)

For effective environmental health interventions, the management of information is crucial at all levels of government. The EH information system should be developed with participation of all stakeholders. The EHIS must permit the flow of information from local levels of government to the national level and should ensure the use of information and feedback at all levels of policy implementation. The DOH utilises the District Health Information System (DHIS) to manage health information at all levels of implementation, including Environmental Health.

There is however a need to have a fairly comprehensive Environmental Health Information System (EHIS), which will be inter-operable within the DHIS. This system will be dedicated for EHS, and will cover areas beyond just DOH, given the fact that EHS cut across sectors and spheres of government.

8.10 EHS delivery within the framework of sustainable development

Environmental health and sustainable development have a common agenda. There are obvious parallels between the concept of sustainability and the idea that human health depends on a healthy environment. EHS delivery at District / Metropolitan Municipality level must be based on the developmental approach within the principles of sustainable development as it affects the health of the people in South Africa.

8.11 Climate Change and Health

Human health issues are central to climate change concerns and are a priority in terms of the United Framework Convention on Climate Change (UNFCCC). Climate change and health inequalities have been described as two of the greatest challenges to human development in the 21st century. Human beings are directly and indirectly exposed to climate change, e.g. by extreme weather related patterns and by the negative impact on food, water, air, infrastructure, agriculture, ecosystems and livelihoods, which can all lead to various environmental health issues.

South Africa is a major emitter of green house gases within the African region as some are still characterised by high levels of underdevelopment, poverty and inequality. Consequently, many South Africans are vulnerable and yet few resources are distributed to respond to climate change and health threats such as food and water insecurity, natural disasters, the changing disease, disease surveillance etc.

The health sector is currently participating in climate change matters in order to promote energy efficiency within health facilities, conducting public awareness and education, promotion of interventions to limit carbon emissions and providing support for public policies to reduce emissions, amongst others. The participation has led to the development of the Climate Change and Health Adaptation Plan that was founded by the Department of Health, to ensure that communities are empowered to adapt to the effects of climate change. The policy also thus emphasizes the need to streamline environmental health interventions within the Climate Change and Health Adaptation Plan. This policy must further enjoin the DOH to move towards energy efficient health infrastructure.

SECTION 9: GOVERNANCE AND INSTITUTIONAL FRAMEWORK FOR POLICY IMPLEMENTATION

The Constitution of the country requires that the legislative and executive authorities of different spheres of government operate within a framework of co-operative governance. National and provincial governments have some concurrent and exclusive powers for managing the environment and health services. The Constitution also sets out how national and provincial government should regulate certain functions of local government. South Africa's process of devolving governance functions, i.e. MHS to the local level has placed new and complex environmental health and management function's responsibilities within the realm and responsibility of the EHP at a local level.

The funding for MHS from National Treasury flows through the same channels as that of all Metropolitan and District Municipal funding. It is not financed through the channels that deal with other public health service funding such as the Department of Health. Allopathic medicine dominance of the past (curative care) continues to dominate the health scene, and even with the primary health care approach, it is still mainly focused on the secondary level of PHC which in itself is curative in nature. This approach is expensive, unsustainable and unreliable and negatively affect budgets, staff development of EHS at all spheres of government. This policy must further redirect the focus of PHC to be on primary prevention and to support activities aimed at prevention of disease based on health promotion and environmental health measures.

9.1 National Government/ National Department of Health

DOH assumes a lead role in defining environmental health policy, setting norms and standards, regulating and monitoring policy implementation by Province, District and Metropolitan Municipalities. The role of NDOH is clearly outlined in the National Health Act (NHA) 2003. The Directorate: Environmental Health will be responsible for facilitating the implementation of the *National Environmental Health Policy* by Province and Municipalities. Its main focus is to facilitate the implementation of environmental health programmes and the provision of EHS by Province and their Municipalities, based on national priorities. This role should be performed in collaboration with other government departments and stakeholders, to give effect to the principles of cooperative governance.

Implementation of the policy must be guided by a five year strategic plan and annual performance plans at national, provincial and municipal level. The National Department of Health should provide technical support to provinces in areas of management and capacity development, whereas provinces should provide the necessary support to Municipalities.

9.2 Provincial Government

Provinces must provide EHS within the framework of the National Environmental Health Policy. In terms of Section 155 (6) (a) (b) of the Constitution of South Africa, a provincial government's has a legal obligation to implement national policy, provide a monitoring and support role to municipalities and to promote the development of local government capacity to enable municipalities to perform their functions and manage their own affairs. The role of Provincial Health is clearly outlined in the NHA 2003.

To ensure effective implementation of EHS, this policy also emphasizes the urgency of ensuring that health services, particularly MHS as defined in the NHA 2003 are rendered in the municipal level as prescribed by relevant legislation. Provinces that are performing those functions without proper legal arrangements in place are doing so illegally, as they may not justify spending of resources for the functions that are no more within their scope.

9.3 Local Government (District and Metropolitan Municipalities)

Municipalities are the key intervention level for delivery of EHS. These services are outlined in the Scope of Profession for Environmental Health, R888 of 26 April 1991, as amended. The Municipalities must adequately budget and allocate resources, including allocation of resources, such as human and material to ensure effective implementation of EHS delivery. Municipalities must formulate systems and procedures for EHS delivery in line with national norms and standards and to ensure compliance with environmental health legislation and standards. Environmental health service delivery plans aligned to their IDPs should be in place in municipalities.

This policy emphasizes the need for a partnership approach by all sphere of government in the provision of EHS; which will require the involvement of key partners and stakeholders, including the community and the private sector.

9.4 Other Stakeholders

Key partners and stakeholders should include the following:

9.4.1 Civil Society

Civil society should be part of environmental health management. Members of society may contribute either directly or indirectly to adverse state of the environment and should therefore be part of the solutions. Mechanisms to increase the awareness of individuals and organisations to environmental health challenges and the benefits of sound environmental health management are vital in community participation initiatives.

9.4.2 Business and industry

Business and industry may contribute directly to the state of the environment and environmental health through their activities. This policy therefore recognises the significant role that business and industry should play in promoting environmental health through adoption of good environmental practices. Government should therefore:

- Facilitate access to available information e.g. legislation & norms and standards to enable industry and business to participate from a base of knowledge and expertise, including their involvement in formulating relevant policy and legislation;
- Promote regulation of industry to ensure compliance to legislation; and encourage voluntary initiatives to continually improve performance in environmental health management; this however should not be at the expense of compliance with mandatory requirements.

9.4.3 Organised labour

As a result of exposures in the work environments, workers tend to be in the front line when it comes to environmental health problems, such as impacts of the use of hazardous substances, chemicals etc. Therefore the involvement of the labour sector should be encouraged by:

- Facilitating full access to information to enable them to participate from a base of knowledge and expertise;
- Recognising their role in environmental health management, including facilitating their involvement in national and international processes regarding environmental health management, particularly at a workplace.

9.4.4 Community-based organisations (CBOs)

CBOs are key stakeholders which work directly within communities. This makes CBOs ears and eyes of communities when it comes to programmes of Government. They should be provided access to environmental health management decision-making and local information. Mechanisms and capacity building to ensure their participation will be coordinated and developed by the DOH. Government should enhance the involvement of CBOs by ensuring access to information to enable them to participate from a base of knowledge and expertise and through their involvement on policy making issues relating to environmental issues affecting communities.

9.4.5 Non-governmental organisations (NGOs)

NGOs are better placed to either support or critic initiatives or policies of Government because they have no direct link with Government. In this way, NGOs have been instrumental in creating increased public awareness on environmental issues, although they have engaged only in a limited way with environmental health issues. Participation of NGOs must be ensured through improved access to information to enable them to participate from base of knowledge and expertise, involvement in policy making and monitoring and enforcement aspects relating to environmental health.

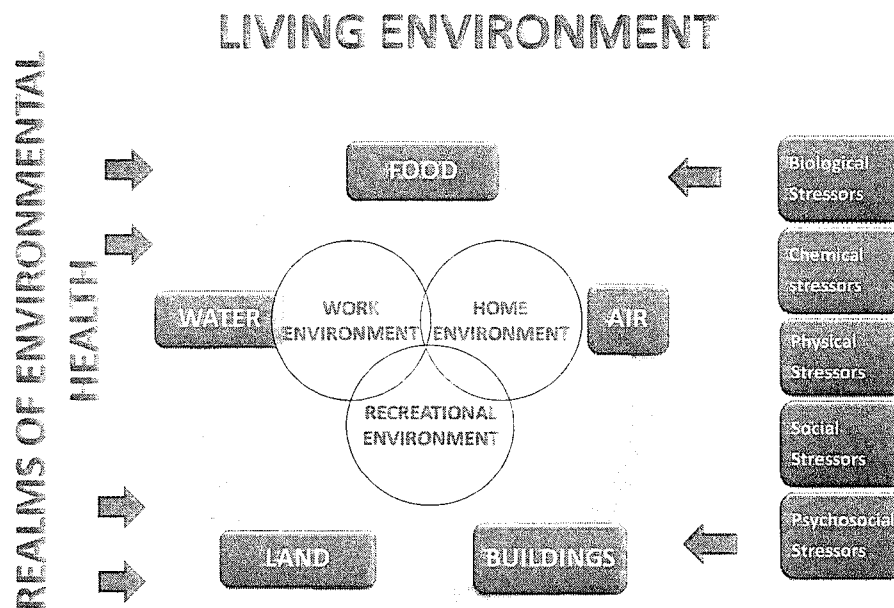
9.4.6 Professional Organisations and Associations

Professional Organisations and Associations, such as the HPCSA and other recognised professional associations have a role to play in increasing public and government awareness on environmental health and in advocating for and in representing the interest of environmental health profession. This policy recognises the pivotal role that these organisations should play in attaining policy objectives, through continued professional development, protecting the scope of the profession of environmental health, as well as to facilitate the promotion of best practice in environmental health. The DOH undertakes to ensure their involvement and participation in matters relating to the enhancement of environmental health.

SECTION 10: APPROACHES FOR THE IMPLEMENTATION OF ENVIRONMENTAL HEALTH PRIORITY PROGRAMMES

EHS encompass those aspects of human health, including quality of life, that are determined by physical, chemical, biological, social and psychosocial factors in the environment. They also refer to the theory and practice of assessing, correcting, controlling and preventing those factors in the environment

that can potentially affect the health of present and future generations adversely. Environmental Health can be diagrammatically represented as follows:



Source: Burke, S., Gray, I., Paterson, K., Meyrick, J., (2002), Environmental Health 2012- A key Partner in Delivery of the Public Health Agenda, Health Development Agency.

EHS must integrate strategies that protect the health of all citizens including women, children, the elderly, physically disabled and immuno compromised individuals, in order to promote the health and wellbeing in view of the Millennium Development Goals and other national and international treaties/protocols.

Historically given the wider pattern of social discrimination, political disenfranchisement and economic inequality, environmental health merely promoted inequity through focusing mainly on statutory responsibilities, enforcement of acts, regulations and bylaws. In that process, the potential for achieving a healthier environment through a developmental approach was not fully supported and explored. Consequently, the participation of affected groups and communities has not been a typical feature of environmental health. It is noted that legislation should be put in place to effectively correct the situation. This policy becomes one such toll for reversing the imbalances of the past in so far as universal and equitable delivery of EHS.

Since 1994, the principle of equity has been the cornerstone of delivery of all public services and a developmental practice has been embraced in EHS provision. This policy emphasizes the need for specific interventions in environmental health with the potential to contribute to equity in provision of environmental health services, these includes:

- Environmental Health impact assessments: ensuring that health aspects of all new developments or ongoing operations are fully addressed during Environmental Impact Assessments.

- Risk assessment and risk management approach, including risk communication in environmental health programme implementation.
- Use of best practice in the management of health care waste.
- Use of Best Available Techniques (BAT) in addressing pollution issues.
- Continual appropriate research in the implementation of policy, resources allocation and use.
- Keeping of records and availability of support systems such as inventories or databases from local level, including availability and use of registers. Some activities are still done on an ad-hoc basis such as sampling, and health and hygiene awareness and education, including inspections of food handling premises such as food vendors and abattoirs.
- Adoption and implementation of project management in environmental health to ensure optimal use of resources. This is a prerequisite for a proper functional risk assessment and management system.

The effectiveness of these approaches in improving equity depends on the adequate deployment of resources and budgetary support of Environmental Health Practitioners and the level of engagement in affected communities.

This policy emphasizes the requirement for employees in environmental health management level to be properly experienced in environmental health and to be exposed to other components of management, such as project, financial and human resource management to sufficiently manage all available resources.

10.1 Environmental health education

Environmental health education remains the most effective means to improve hygiene practices amongst individuals and communities. Participatory approaches such as PHAST should be emphasized as the best means to ensure sustainable behavioural change and hygiene practices. Community empowerment, awareness and improved health seeking behaviour should be the crucial goal of health education. This must, in the long run lead to improved health outcomes thus contributing to long and healthy life for all South Africans.

10.2 Food control

Poor food hygiene contributes to infection and poisoning due to microbiological contamination of food by deficient practices and technologies in food production, processing, transportation and storage. Surveillance of food safety must be carried out wherever food is manufactured, processed, stored or served. To manage food safety, it is imperative to have updated knowledge on the current trends and situations with regards to the spread of pathogens in the food production chain. The target for this work must be food handlers, food outlets, industry and vendors.

10.3 Water quality monitoring

Poor quality water is attributed to waterborne related diseases. Water quality monitoring based on a risk management approach is the best means of ensuring fitness of water for human consumption.

Collaboration with relevant departments, such as DWA Municipalities is very critical in water quality monitoring and disease surveillance programmes.

10.4 Vector Control

Mosquitoes and other vermin such as flea, lice, cockroaches and mice must be controlled. Where chemical control is preferred to biological means, care and control must be taken not to contaminate the environment, food and water. Collaboration with the DAFF is necessary in achieving the objectives of this policy with special reference to vector control.

10.5 Waste management

Proper management of waste is important. EHPs should in collaboration with the relevant departments, such as DEA, offer a range of technologies for waste management to individuals, communities and institutions to ensure sustainable development for waste management and pollution prevention. Medical waste must be managed separately.

Monitoring of mining waste and the health risks pertaining to mining waste, particularly gold and uranium is essential. The release to the environment of mining waste can result in profound and generally irreversible destruction of ecosystems and contamination and pollution of environment in which people live.

10.6 Port Health

Port Health Services (PHS) are essential and the first line of defence in the management of diseases of international concern. Consignments whether foods or other products, including conveyances must be controlled at all points of entries in the country. In doing so the department should comply with the International Health Regulations and other relevant legislation, international conventions and agreements.

In addition, locally, environmental health aspects should be maintained at points of entries since these are first points of contacts for visitors and travellers.

10.7 Environmental pollution control

Environmental pollution in the country is governed by the National Environmental Management Act. In carrying out environmental pollution duties, EHPs should be conversant with the provision of NEMA and requirements for its implementation. Implementation should be done in collaboration with DEA and other agencies and focus should be on protecting children, the elderly and to ensure impact assessment of all activities that are likely to negatively affect human health.

Environmental Health Managers will conduct training, orientation, induction and retraining of EHPs in order to ensure that the National Environmental Management Act (NEMA), 107 of 1998, as amended is fully understood and implemented, as well as other legislation aimed at protection of the environment and health.

10.8 Control and monitoring of hazardous substances

Control of hazardous substances is legislated in terms of the Hazardous Substances Act. In enforcing this legislation, EHPs should work in collaboration with relevant stakeholders such as DOT and DEA to ensure the correct labelling, storage, disposal and transportation of hazardous substances.

10.9 Compliance monitoring and enforcement

Although the policy emphasizes the need for environmental strategies to strike an appropriate balance between promotion, education and law enforcement, where voluntary compliance is unattainable, enforcement and prosecution should be a viable option for securing environmental health improvements. Effective enforcement of available legislation is essential to protect public health. EHPs shall seek collaboration of Safety and Security agencies to ensure enforcement and prosecution of perpetrators.

Province and Municipality should ensure compliance to environmental health related legislation, through compliance monitoring activities at provincial and municipality level. The principles of enforcement and compliance policy should be based on the level of risk, external and internal prevailing conditions, infringement of human rights, and impact on the environment. In undertaking the enforcement activities, EHP's should be fair, independent and objective. The decision to enforce compliance must fair, just, impartial, balance without prejudice.

10.10 Appointment and authorisation of EHPs

For environmental health compliance monitoring and enforcement of relevant legislation, EHPs must be appointed by either National or Provincial government, District or Metropolitan Municipality or the private sector. Only EHPs that are registered as such with the HPCSA, and are in good standing may perform EH functions as outlined in the Scope of Profession for Environmental Health.

In addition EHPs must be duly authorised in terms of any relevant legislation requiring authorisation for implementation.

- a) The National, provincial and local sphere of government must appoint Environmental Health Workers to carry out environmental health duties at national, provincial and local levels of government.
- b) The Minister of Health, MEC for Health or the Mayor of a District or Metropolitan Municipality respectively must designate an environmental health worker in the employ of the national department, province or municipality, as the case may be, as a health officer in terms of Section 80 (1) of the National Health Act, 2003 (Act No. 61 of 2003) to perform environmental health related duties and enforce provisions of the Act;
- c) Environmental Health Assistants registered as such with the HPCSA may only conduct environmental health duties under supervision of an Environmental Health Practitioner registered as such with the HPCSA.

- d) For provision of Port Health Services, Port Health Officers must be assigned in terms of Section 35 (1) of the International Health Regulations Act, 2005 and be authorized to perform duties imposed on a Port Health Officer by the International Health Regulations;

SECTION 11: ENVIRONMENTAL HEALTH FORUMS

To ensure implementation of this policy, the DOH should establish a National Environmental Health Forum and support the establishment of Provincial and District Environmental Health Forums. The national forum should be comprised of members from the Department of Health, Province, Municipality, other Government Departments, Private Sector, CBOs, NGOs, Labour, Institutions of Higher learning and Public Private Agencies. The forum should promote the establishment of committees/task teams to address specific issues emanating from the forum. The forum should provide advisory services to the Minister on environmental health issues of national priority. Special attention should be paid to building capacity and enhancing proper communication between all spheres of government.

The department must consider specific strategies that will enable it to carry out its own functions. These include capacity building to province, working with existing structures, intersectoral collaboration and management of an information system which includes all aspects of EHS. This information system should be standardised country wide in order to accommodate all Provinces and ensure uniformity.

SECTION 12: RESEARCH AND DEVELOPMENT

Government and civil society will benefit through research and training in environmental health science in meeting challenges of the new millennium, policy development and decision making on environmental health need to be supported by applied and basic research. This research should be aimed at developing appropriate technologies and methodologies to assist the development of management strategies to identify and propose mitigation of emerging hazards. The department undertakes to commission or conduct environmental health research in collaboration with relevant research agencies to help improve the effectiveness of EHS.

Research and development in environmental health should be prioritised by the managers together with Institutions of Higher Learning to assist with identifying gaps in EHS delivery and make recommendations on policy directions to the national and provincial government.

This policy encourages some greater investments from national funding agencies in environmental health, such as the Centre for Scientific Research (CSIR), Medical Research Commission (MRC) to strengthen the evidence base and human capacity in order to promote environmental health.

SECTION 13: MONITORING AND EVALUATION

Monitoring and evaluation are essential steps towards the achievement of policy results. Monitoring should involve the performance and analysis of routine measurements aimed at detecting changes in the environment or health status of populations. Monitoring should include surveillance, which is the ongoing systematic collection, collation, analysis and interpretation of data, followed by the dissemination of information to all those involved so that appropriate action can be taken.

All spheres of government should undertake monitoring and evaluation to ensure compliance with set strategies and targets on an ongoing basis. All generators and collectors of data shall be given regular feedback on the work they are doing. This feedback shall be in the form of health information. The information should also be the basis of research and development within environmental health fraternity.

The NIDS is a system utilised by DOH to monitor health indicators nationally, the Environmental Health Indicator Dataset is included in the NIDS. This should enable reporting on the state of environmental health. Monitoring and surveillance responsibilities should be undertaken by EHPs to assist in identifying priorities, policy actions and evaluating preventative and control strategies to be undertaken. This policy emphasizes the need to develop Standard Operating Procedures for the management of environmental health data through the District Health Information System (DHIS).

The management of EH data should thus promote and encourage liaison with research agencies, such as the National Research Foundation to store all health and exposure data, but also help with the development of the profession.

Studies such as surveys to assess the knowledge, practices and attitudes (KPA) of communities should be adopted in the provision of EHS and the policy emphasizes the usefulness of these studies.

The implementation of the policy principles and adherence to the policy will be evaluated based on the following criteria:

- **Accessibility:** Environmental health management systems and information must be accessible to all agencies of government and sectors of civil society.
- **Clarity:** Legislation on environmental health service management, including regulatory instruments (such as norms and standards), will be drafted in a non-ambiguous manner and be accessible to all sectors of society.
- **Enforceability:** There will be effective legislation to support this policy, with enforcing mechanisms.
- **Role of women:** Programmes and interventions will recognise the role that women can play in transforming society and building capacity in relation to environmental health.
- **Transparency:** Reasons for all decisions on environmental health will be recorded and made available for public scrutiny at a National, Provincial and Local level.

- **Capacity building:** Resources must be provided in all spheres of government to build capacity in both government and civil society at a National, Provincial and Local level including institutions of higher learning.
- **Equity:** equitable distribution of resources to implement and enforce the policy as well as equity of services to ensure that all areas are covered and do have access to EHS /MHS
- **Mainstreaming Environmental Health:** ensure inclusion of environmental health principles and strategies in all relevant legislation and ensure the inclusion of HIV/AIDS, women and disabled issues in environmental health policies, programmes and activities where possible.

SECTION 14: STRATEGY FOR POLICY IMPLEMENTATION

To ensure effective implementation of the national EH policy, a strategy to implement environmental health programmes should be developed. The Department of Health undertakes to develop a national strategy for the implementation of the national EH policy, in consultation with relevant stakeholders.

SECTION 15: POLICY REVIEW

This policy shall be effective from the date signed by the Minister of Health and may be reviewed 3-5 years of the implementation date.

Printed by and obtainable from the Government Printer, Bosman Street, Private Bag X85, Pretoria, 0001
Publications: Tel: (012) 334-4508, 334-4509, 334-4510
Advertisements: Tel: (012) 334-4673, 334-4674, 334-4504
Subscriptions: Tel: (012) 334-4735, 334-4736, 334-4737
Cape Town Branch: Tel: (021) 465-7531

Gedruk deur en verkrygbaar by die Staatsdrukker, Bosmanstraat, Privaatsak X85, Pretoria, 0001
Publikasies: Tel: (012) 334-4508, 334-4509, 334-4510
Advertensies: Tel: (012) 334-4673, 334-4674, 334-4504
Subskripsies: Tel: (012) 334-4735, 334-4736, 334-4737
Kaapstad-tak: Tel: (021) 465-7531