

The National Sanitation Policy



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The National Sanitation Policy

FOREWORD

The National Sanitation Policy has been under development since December 2005. It has been developed by the Sanitation Core Team (SCT), an inter-departmental group of middle ranking and senior staff from the Ministries of Irrigation and Water Development, Health, Education, Gender, Child Welfare and Community Development, Natural Resources (Dept. of Environmental Affairs), Lands and Housing and Survey, Agriculture and Food Security, and Local Government and Rural Development. Over four months the SCT has researched the hygiene and sanitation situation in Malawi, visiting rural and urban communities in the North, South and Central Regions as well as in the cities of Lilongwe and Blantyre and Karonga Town. A series of four reports from this research has been produced, with the following titles:

1. Sanitation in Malawi's Rural Areas
2. Sanitation in the Cities of Lilongwe and Blantyre
3. Sanitation in Malawi's Towns
4. Sanitation in Schools in Malawi

In the rural areas the SCT has paid special attention to the differences between villages where sanitation projects have been active and where there have been no projects, in order to assess both the effectiveness of project approaches and to learn lessons for the creation and formulation of the rural part of the Policy. In the towns and cities the SCT visited and researched with communities in peri-urban areas, urban slums and traditional housing areas.

The SCT has worked in partnership with staff from district, city and town assemblies, water boards, hospitals, schools, prisons, NGOs as well as with householders and community members. Thanks and acknowledgements are due to all those who took part and were open and honest in casting light on shortcomings and opportunities that they saw in the sanitation sector. It is only through such transparency that solutions can be found and a useful and practical National Sanitation Policy formulated for a better life for all Malawians, **Umoyo Wabwino!**

The National Sanitation Policy is important because it will help to shape the development of Malawi for years to come. So far there has been no

single sanitation policy in Malawi. Various pieces of legislation, some dating back to the colonial period, have been used to guide sanitation development in Malawi. Many of these are now antiquated and irrelevant to the future development of the Country and a single policy is now needed to give guidance to all, from Government departments to householders in rural and urban communities, from local government to NGO's and international donors, on just what Malawi feels it needs in the hygiene and sanitation sector to take it forward in the 21st Century to reach its 2020 Vision.

*Namely: "by the year 2020, Malawi, as a God-fearing nation, will be secure, democratically mature, environmentally sustainable, self reliant with equal opportunities for active participation by all, having social services, vibrant cultural and religious values and a technologically driven middle-income economy"*¹

The Policy will enhance the capacity of Malawi to meet its commitments to reach its Millennium Development Goals (MDGs) of halving the number of people who do not have access to basic sanitation by 2015, it will also go further by helping to empower the people of Malawi to achieve universal access to improved sanitation by 2020.

Sidik Mia, M.P.

MINISTER OF IRRIGATION AND WATER DEVELOPMENT

¹ "The Vision Statement" 2000. National Economic Council, Lilongwe, Malawi.

PREFACE

The involvement of stakeholders from so many different departments as well as from district and city assemblies and rural and urban communities underlines the cross cutting nature of sanitation, which when linked with water has perhaps the greatest impact of any sector on poverty alleviation. This has been highlighted by the 'WATSAN' sectors ability to transform the lives of people across all the millennium development goals and not just as is commonly assumed Goal 7.

Thus from: eradicating extreme poverty and hunger (Goal 1), to achieving universal primary education(Goal 2), promoting gender equality and empowering women (Goal 3), Reducing child mortality (Goal 4), Improving maternal health(Goal 5), Combating HIV/AIDS, Malaria & other diseases (Goal 6), Ensure environmental sustainability (Goal 7), and Developing a global partnership for development (Goal 8), WATSAN has a vital role to play. The table in appendix 1 gives examples of how WATSAN impacts on each of the MDGs.

It is for these reasons perhaps more than any other that the development of the National Sanitation Policy has been spearheaded from the Ministry of Irrigation and Water Development in partnership with the Ministries of: Health, Education, Gender, Child Welfare and Community Development, Natural Resources (Dept. of Environmental Affairs), Lands and Housing and Survey, Agriculture and Food Security, and Local Government and Rural Development. The future integrated implementation of both the policy and the investment plan will continue to involve all these stakeholders at district, town and city assembly level, with coordination from a base within the Ministry of Irrigation and Water Development.

List of Acronyms and Abbreviations

ADB	African Development Bank
AIDS	Acquired Immune Deficiency Syndrome
CBO	Community Based Organisation
CEHO	City Environmental Health Officer
CHSC	City Hygiene and Sanitation Coordinator
DCT	District Coordinating Team
DEHO	District Environmental Health Officer
DHSC	District Hygiene and Sanitation Coordinator
GoM	Government of Malawi
HCW	Health Care Waste
HIV	Human Immunodeficiency Virus
HSA	Health Surveillance Assistant
MDG	Millennium Development Goals
MGDS	Malawi Growth and Development Strategy
MoH	Ministry of Health
MoIWD	Ministry of Irrigation and Water Development
NGO	Non-Governmental Organisation
NHSCU	National Hygiene and Sanitation Coordination Unit
NHSP	National Hygiene and Sanitation Programme
NICE	National Initiative for Civic Education
NSP	National Sanitation Policy
NWDP	National Water Development Programme
PEI/A	Primary Education Inspector/Advisor
SCT	Sanitation Core Team
SWAP	Sector Wide Approach
TBA	Traditional Birth Attendant
TH	Traditional Healer
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
VIP	Ventilated Improved Pit Latrine
WATSAN	Water and Sanitation
WC	Water Closet
WHO	World Health Organisation

1.0 INTRODUCTION

1.1 Background

The hygiene and sanitation situation in Malawi is mixed and complicated. Malawi has, relative to many other sub Saharan countries, a high level of access to some form of basic sanitation coverage, recorded at 73.5%² in the 1998 population census and 82.7% in the Malawi Growth and Development Strategy Document for 2005. This high level of coverage results in part from a high population density which pressurises people, through a desire for dignity, to opt for sanitation. The situation is not uniform however and research undertaken by the SCT has revealed that it can drop as low as 40% in some rural villages and reach as high as 95% where sanitation projects have been active in promoting hygiene and sanitation in an integrated manner. The standard of latrine construction however is generally poor, with average latrine life 3.9 years indicated from the SCTs own research. This leads to delays in access to sanitation facilities while families find resources to build replacement latrines. Access to improved sanitation is estimated by the SCT to be between 25% and 33% , dropping to less than 7% in some rural communities.

One indicator for hygienic behaviour is the use of soap for hand washing and while 75% of households visited by the SCT during their research had soap in their houses only 45% claimed to use soap for hand washing. An activity that could alone help to drastically cut the faecal oral route for disease, thereby greatly reducing the number of cases of cholera and diarrhoea. The high population density in Malawi coupled with poor levels of hygiene behaviour has the negative effect of making water related disease epidemics common, as the yearly cholera and diarrhoea outbreaks illustrate. Infant deaths among under 5's from diarrhoea for example reached a high of over 4,000 deaths during the 2003 – 2004 reporting period³.

In the commercial capital Blantyre around 80% of the sewage, produced by industry and those few residents that have a sewerage connection, flows into the rivers around the city untreated, where this same water is used by many poorer city residents to wash their clothes and bathe. Breakages, breakdowns and a failure to adequately maintain and re-invest in the cities sewerage system has led to this sorry state of affairs.

² Jameson S. Ndawala and Ladislav R.S. Mpando, 1998. Census Methodology and Summary of Results
Jameson S. Ndawala and Ladislav R.S. Mpando

³ Health Management Information Bulletin Annual reports 2002 – 2005

Solid waste is another obvious problem in the cities, towns and villages of Malawi. Plastic bags and other inorganic refuse are mixed with organic waste such as food waste and leaves and there is no attempt to separate these, either at source or at disposal sites. This makes recycling and composting difficult. Likewise liquid waste from septic tanks is all too often dumped at road sides and in the bush.

Schools and other institutions commonly have poor standards of hygiene and sanitation. Often facilities are over stretched and poorly looked after, with ownership and responsibility for maintenance un-clearly defined. This is most clearly put into focus when compared to the very good examples that also exist in the country.

Structure of the policy

For ease of reading, this policy document has separate sections for: National Level (3.1), Rural Areas (3.2), Cities and Municipalities (3.3), Towns (3.4), Schools (3.5) and Health facilities (3.6). Readers can thus refer to these sections to find the policy strategies for their particular area of interest.

1.2 Rationale

The basic level of access to (excreta) sanitation existing in Malawi, although higher in terms of coverage than many other sub-Saharan nations, is generally of a poor standard. This situation is further compromised by low levels of hygienic behaviour which result in high levels of water related disease outbreaks. In the cities poor capacity to maintain urban sewerage facilities is threatening the health of residents. Inability to dispose of solid and liquid waste has resulted in a constant eyesore and health hazard. Levels of sanitation at schools leave much to be desired both from the perspective of maintenance and availability of facilities and from the generally poor level of health and hygiene education in the curriculum.

The performance of the water and sanitation sector in implementing sanitation activities is limited and unsatisfactory because of a lack of a National Sanitation Policy.

Efforts to invest adequately in the sanitation sector have been frustrated by the lack of a single policy. There is also ambiguity over roles and responsibilities in the sector, and a disconnect between existing policies and legal instruments that deal with sanitation in passing.

Key stakeholders in the sector do not feel obliged to provide the required sanitation services because there is inadequate capacity at all levels to plan, design and implement sanitation programmes that integrate water supply and hygiene education, while addressing other cross-cutting issues such as HIV/AIDS and gender. The problem of low investment in the sanitation sector is even more prominent in urban areas where major water supply projects cannot be implemented due to lack of corresponding investment efforts to manage the resultant wastewater, which pose a real threat to the environment and public life. Indiscriminate disposal of liquid, solid and other wastes including clinical wastes also pose similar problems to the environment and public health.

The Ministry of Irrigation and Water Development has carried out a number of studies funded by the World Bank and African Development Bank (ADB) under the National Water Development Programme (NWDP) and under the District Centres Sanitation Study (2000 – 2002) respectively to address this capacity issue. A major recommendation from these studies has been the need to develop a coherent National Sanitation Policy. The development of a National Sanitation Policy was also one of the priority areas that the joint Sector Review, held in November 2001, recommended for immediate action. The immediate development of a NSP is also consistent with the prioritization of water and sanitation in the Malawi Growth and Development Strategy.

Purpose/Aim of Policy

The purpose and aim of the National Sanitation Policy is to answer the needs outlined above and to do something more. It is to provide a vehicle to transform the hygiene and sanitation situation in Malawi. As the vision points out below, it is to provide both guidelines and an action plan where by 2020 all the people of Malawi will have access to improved sanitation, safe hygienic behaviour will be the norm and recycling of solid and liquid waste will be widely practiced leading to a better life for all the people of Malawi, through healthier living conditions, a better environment and a new way for sustainable wealth creation.

The policy by providing guidelines and an action plan in the form of a National Hygiene and Sanitation Programme (NHSP), will form the basis of a Sector Wide Approach (SWAP) for sanitation, by which committed donors can make a significant contribution to the development of the Country, by committing funds to a single national effort to tackle the current poor hygiene and sanitation situation in Malawi.

1.3 Linkages With Other Relevant Policies

The following policies have links with sanitation:

- The Constitution of Malawi, enshrines responsible management of the environment to provide a healthy living and working environment for all the people of Malawi.
- Vision 2020 produces the higher vision for the policy and 2020 is used as the target date for the achievement of total sanitation.
- Malawi Growth and Development Strategy, seeks to increase access to clean water and sanitation, improve the nutritional status of children and ensure food security.
- The National Water Policy, endeavours to ensure availability of efficient and effective water and sanitation services that satisfy the basic requirements of every Malawian and for the enhancement of the Country's natural ecosystems.
- The National Environmental Policy, outlines the need for pollution control and the proper disposal of waste water, solid waste and the protection of water bodies, with the general principle of 'polluter pays'.
- The Health Sector is currently covered by: The Public Health Act, The Pharmacy, Medicines and Poisons Act as well as a number of guidelines covering the safe disposal of hazardous and non hazardous waste at health facilities.
- The Local Government Act and Decentralisation Policy, promotes: a) accountability and good governance at the local level in order to help the government reduce poverty and b) mobilising the masses for socio-economic development. Further to the above subsidiarity, or decentralisation of decision making to the lowest practical level, is one of the key principles of the National Sanitation Policy.

- Bylaws set by City, Municipal, Town and District Assemblies in so far as they impact on sanitation.
- The National Housing Policy, promotes adequate shelter for all which ensures that there is adequate sanitation.
- The National Physical Development Plan (Policy Document), refers to urban planning and controls on unregulated development.
- The Social Disability and Policy emphasises the need for access to sanitary facilities for those with disabilities.

1.4 Key Challenges and Barriers

- i. **Institutional challenges;** include the setting up of a number of new positions, and departments within the MoIWD including a directorate of Sanitation at MoIWD, the setting up of the proposed National Hygiene and Sanitation Coordination Unit within the MoIWD (NHSCU), and the setting up of a new cadre within the Assemblies of a District / City Hygiene and Sanitation Coordinator (D/CHSC). At city level the current management of the sewage works by the City Assemblies will need to be transferred to the City Water Boards and this process may be expected to be challenging, both to the City Assemblies who may wish to retain their present level of control and to the City Water Boards which will need to find the required management and technical capacity, to both repair and run these facilities effectively.
- ii. **Financing challenge;** Finding the finances to implement the National Sanitation Policy will undeniably be a challenge. However the investment plan attached to the policy outlines a proposed Sector Wide Approach (SWAP) through which funds will be sourced from a number of donors and partners. It is widely accepted both internationally and at home that sanitation has in the past been treated as the 'poor' cousin of water in terms of development activities, with this new policy in place donors will be able to see that Malawi is serious about turning this situation around and it is anticipated that funds will be forthcoming as a result.

- iii. **Human resource and management challenges;** It is undeniable that human resource and management challenges exist in Malawi. This policy is however a forward looking one and it is proposed that young and committed graduates be found and equipped for this challenging work in the Districts and Cities (as D/CHSCs), backed up with support and training from the centre (NHSCU), and enabled and empowered with sufficient political and material backing to achieve their objectives within the Assemblies and the physical areas of their work. At the National Level within the NHSCU the proposal is to co-opt on either a part or full time basis (according to specific role) members of the Sanitation Core Team (SCT) into the new NHSCU. It is further proposed that a secretariat for the NHSCU be formed including existing members of the SCT from within the MoIWD and MoH and this be backed up with appropriate technical assistance. The Director for Sanitation should be recruited on an open basis and have extensive knowledge of the sector, as well as proven management and communication skills.

2.0 BROAD POLICY DIRECTIONS

- 2.1 **Vision** *The vision of the National Sanitation Policy is of a transformed country where all the people have access to improved sanitation, where safe hygienic behaviour is the norm, and where the recycling of solid and liquid waste is widely practiced, leading to a better life for all the people of Malawi, through healthier living conditions, a better environment and a new way for sustainable wealth creation, UMOYO WABWINO!*
- 2.2 **Mission** *The mission is to turn the vision of the National Sanitation policy into reality in all areas of the country, through a nation wide effort of: health education, to improve hygiene knowledge and practices, construction of improved sanitation facilities⁴ at household and institutional level, and promotion of safe recycling of solid and liquid waste.*

⁴ The definition of improved sanitation facilities for the purpose of this document is included below.

2.3 Principles *The National Sanitation Policy will be implemented by using: gender balanced, equitable, HIV and AIDS aware, marketing, demand driven, and community based approaches, with the adoption of subsidiarity or decentralisation to the lowest practical level.*

2.4 Overall Goal **'Umoyo Wabwino!' A better life for the people of Malawi!**

2.5 Objective(s) *1) achieving universal access to improved sanitation, 2) Improved health and hygiene behaviour, 3) the common acceptance and use of recycling of human waste to protect the environment and create wealth.*

2.6 The definition of basic and improved (excreta) sanitation

It is necessary to have a dual definition of (excreta) sanitation due to the situation which exists in Malawi. As outlined in the background section (1.1) many households in Malawi currently have some form of basic sanitation. It is important to recognise this as it marks a significant step on the sanitation ladder when compared to those who have no sanitation facilities at all and often as a result practice unsafe open defecation. The aspiration and the goal of this policy is however to achieve universal access to improved sanitation, it is thus necessary to mark the progress towards this goal by acknowledging independently both the existence of basic and improved sanitation in all survey work to establish baseline data and in monitoring and evaluating sanitation improvements in the country in the coming years. The definitions are thus given as follows:

The definition of basic (excreta) sanitation shall be limited to access to a latrine that:

- a) Should allow for the safe disposal of faeces into a pit or other receptacle where it may be safely stored, composted or removed and disposed of safely elsewhere.*
- b) Should offer privacy for the user.*
- c) Should be safe for the user to use, for example not in a dangerous state, liable to imminent collapse or dangerously unhygienic.*
- d) The latrine pit or receptacle should be functional i.e. not full or overflowing.*
- e) The latrine should be at least 30 meters from a ground water source or surface water course.*

The definition of improved (excreta) sanitation

Shall be as above (for basic sanitation) with the addition that there should be an impermeable floor and a tight fitting lid to the latrine, or in the case of ecological sanitation (ecosan) where no lid is needed, the ecosan latrine should be properly looked after with the regular addition of soil, ash and other organic material.

In the case of a water closet (WC) toilet the definition of improved (excreta) sanitation shall be limited to a utility that:

- a) Should allow for the safe disposal of faeces into either a cesspit, septic tank or working sewer.*
- b) Should offer privacy for the user.*
- c) Should be safe for the user to use, for example not in a dangerous state, liable to imminent collapse or dangerously unhygienic.*
- d) The cess pit, septic tank or sewer should be functional i.e. not full or overflowing in the case of the cess pit or septic tank, or blocked in the case of the sewer.*
- e) Must have a continuous source of water.*
- f) In the case of water borne sewerage, the whole system should be functional including the treatment plant, otherwise a water borne sewage system is merely shifting the problem elsewhere, where it may be polluting rivers or streams used by residents for other purposes such as washing clothes or bathing, and thus cannot be considered safe or indeed adequate.*

2.7 Safe hand washing practices

The universal adoption of safe hand washing practices is of paramount importance in Malawi if the scourge of water borne and sanitation related diseases such as cholera and diarrhoea are to be defeated. It is thus also necessary to acknowledge that implicit in the aspiration and goal of this policy is the need to achieve the universal practice of hand washing with soap at certain key times of the day, including, but not limited to:

1. after defecation
2. after handling infants faeces or soiled nappies
3. before preparing food
4. before eating

To further this aspiration there should be a functional hand washing facility in close proximity to each latrine or WC, with both soap and water available and this should also be recorded in all survey work to establish baseline data and in monitoring and evaluating sanitation improvements in the country in the coming years.

3.0 Policy Themes

National Sanitation Policy for Rural Areas, Cities, Towns, Schools and Health Facilities.

3.1 Policy Area 1 / Sector 1 At National Level the setting up of the mechanisms needed to support and drive the policy from this level, including coordination and research.

Currently there are a lack of mechanisms at national level to promote integrated multi-sectoral coordination and research of hygiene, sanitation, and solid / liquid waste disposal and recycling.

3.1.0 Policy Area 1 / Sector 1 Goal

Effective coordination of hygiene, sanitation and liquid/solid waste disposal/recycling activities and research at the national level, leading to an improvement of hygiene and sanitation across Malawi.

3.1.1 Objective The setting up of the necessary means and mechanisms at national level to bring about effective integrated multi-sectoral coordination of: promotion and implementation activities as well as research into hygiene, sanitation, and solid/liquid waste disposal and recycling.

Strategies

- 3.1.1.1 Establishment of a new Directorate for Sanitation within the Ministry of Irrigation and Water Development.
- 3.1.1.2 Establishment of a National Hygiene and Sanitation Coordination Unit (NHSCU) within the Ministry of Irrigation and Water Development.
- 3.1.1.3 Prepare enabling Legislation to provide for the implementation of the National Sanitation policy.
- 3.1.1.4 Institutional linkages to be created to include organisations concerned with civic education, as well as the private sector through the continuation and expansion of the National Sanitation Policy Steering Committee.

- 3.1.1.5 The initiation of an annual sanitation conference during 'Sanitation Week' to discuss, deliberate and share experiences of implementation, find solutions, and unify the country in its drive for a better life for the people of Malawi.
- 3.1.1.6 The continuation of the use of radio, television and print media to bring to the nation the issues of hygiene and sanitation, to promote national dialogue and share information.
- 3.1.1.7 Further research of various sanitation options including technical, economic and agricultural research into the effectiveness of ecosan manure, composted septic tank effluent and composted domestic and municipal refuse as a soil conditioner, with links to national research and dissemination channels. Responsibility for this rests with the NHSCU in coordination with research institutions.
- 3.1.1.8 Research into the adoption of a manufacturing capacity for the production in Malawi of bio-degradable plastic bags and paper bags followed by the establishment of production facilities for such bags in partnership with the private sector. Legislation to be introduced following the above to prohibit the manufacture, distribution or importation of non-bio-degradable plastic bags to protect the environment.

3.2 Policy Area 2 / Sector 2 Hygiene and Sanitation in Rural Areas.

The majority of Malawi's population lives in rural areas. Currently sanitation facilities, where they exist, are largely basic and hygiene behaviour is poor, with the majority of people not using soap and water to wash hands after defecation, handling children's faeces and soiled nappies, or prior to preparing or eating food. Solid waste is seldom separated into organic and inorganic components and composting is not widely practiced.

3.2.0 Policy Area 2 / Sector 2 Goal: A transformation of the hygiene and sanitation situation in the rural areas of Malawi, with universal access to improved sanitation and hygienic behaviour the norm, and recycling of liquid and solid waste undertaken to protect the environment and create wealth.

3.2.1 Objective: The improvement of hygiene practices, sanitation and recycling of waste in rural areas through a national hygiene and sanitation programme.

Strategies

- 3.2.1.1 The establishment of a new cadre of specially recruited district hygiene and sanitation coordinators (DHSC) at district assembly level, who will report to the district environmental health officers (DEHO) within the district assembly, and liaise directly with the National Hygiene and Sanitation Unit (NHSCU).
- 3.2.1.2 An audit of sanitation facilities for all rural communities to be undertaken with all stakeholders and coordinated by DHSCs/DEHO with training provided by NHSCU. Data to be included in a national database and integrated into the national water database. The survey is to record and quantify access to basic and to improved (excreta) sanitation facilities and hand washing facilities. The data collected during the sanitation audit will be used to prioritise and target areas for hygiene and sanitation intervention.
- 3.2.1.3 Delivery of structured health and hygiene education to adults and various groups with participatory methods and delivered using the health club approach, through Health Surveillance Assistants (HSAs) and extension workers from other departments and NGOs / CBOs, with training provided by DHSC and DEHO and members of the District Coordinating Team (DCT). The

trainers of the HSAs will themselves undertake a training of trainers short course in hygiene and sanitation promotion facilitated by the NHSCU.

- 3.2.1.4 Following the provision of health and hygiene education and the resulting creation of awareness and demand, the promotion and marketing of improved hygiene and sanitation options and technologies, including: upgraded traditional latrines, V.I.P. latrines, ecological sanitation (ecosan) latrines (arbour loo, fossa alterna, sky loo, children's loos), pour flush, W.C, dome shaped slabs, sanitation platforms and integrated sanitation slabs.
- 3.2.1.5 Training of sanitation promoters and masons for making available for purchase latrine slabs and other sanitation hardware with a sanitation marketing approach. Training to be delivered to promoters and masons by HSAs after training by DHSC and DEHO. The DHSC and DEHO will themselves undertake a training of trainers short course in sanitation technology facilitated by the NHSCU.
- 3.2.1.6 Promotion of recycling of domestic solid waste with separation of organic components for composting and for safe disposal or re-use of non-organic materials at the household level.
- 3.2.1.7 Industrial waste pre-treatment facilities will be provided at each industrial site and the effluent will comply with standards/guidelines set by the District Assemblies/ Environmental Affairs Department/ Water Resources Board for discharge into a public water body or land.
- 3.2.1.8 Regular environmental audits for existing industrial operations and environmental impact assessments shall be carried out in compliance with the Environmental Management Act for all proposed industrial developments. Responsibility will be with the developers in collaboration with Ministry of Labour and Vocational Training. Regulation will be undertaken by the Environmental Affairs Department with inspections conducted by the District Assembly, Water Resources Board and Environmental Affairs Department.
- 3.2.1.9 The safe disposal and treatment of industrial and hazardous waste will be the responsibility of the producer or generator.

- 3.2.1.10 Promotion of recycling of liquid organic waste for composting or biogas generation.
- 3.2.1.11 Strong coordination over hygiene and sanitation issues at district assembly level between all stakeholders including, town assembly staff, ward councillors, traditional authorities, community based organisations, non government organisations, local research institutes, and schools. Responsibility for all to be involved, with coordination provided by DHSCs and DEHOs.
- 3.2.1.12 Funds provided from national hygiene and sanitation programme to be handled and accounted for by District Assemblies with full transparency to all levels and with annual external audits.
- 3.2.1.13 Responsibility at all formal and informal markets for sanitation including solid waste disposal/recycling and provision for latrines and hand washing facilities must be taken by the market committee. If there is no market committee one must be formed by the community where the market is situated. Regulation of the standard of upkeep of sanitary facilities including latrines and rubbish pits should be undertaken by village development committees with assistance from District Assemblies, and using bylaws where necessary to close markets or individual stores for non compliance or violation. Advice should be provided to communities and market committees by DHSC, DEHOs and HSAs concerning recycling/ disposal of solid waste as well as standards for latrines.
- 3.2.1.14 Adequate numbers of improved sanitation facilities including urinals, toilets or latrines as well as hand washing facilities with water and soap should be provided at all public and private institutions (offices, workshops, factories etc.). Responsibility is with the owners of the institutions. Regulation will be provided by District Assemblies, and inspection by the DEHO.
- 3.2.1.15 Adequate numbers of hygienic improved sanitation facilities should be available at prisons and police stations for inmates and staff. Soap should be provided regularly for hand washing and bathing of inmates. Separation of refuse into organic and inorganic waste for recycling and composting should be practiced. The use of health and hygiene committees within prisons should be encouraged along with training of prisoners by trained prison staff. This will promote hygienic behaviour, both for

the preservation of the health of the prison population and for the rehabilitation of prisoners. The responsibility for this shall rest with the prison authorities. Regulation by Ministry of Home Affairs and Internal Security. Advice and training on hygiene and sanitation will be given by DHSCs with inspections carried out by DEHOs.

- 3.2.1.16 Where people attend the premises of Traditional healers (TH) or traditional birth attendants (TBAs), improved sanitation including hand washing facilities with soap and water should be available for customers and staff. A sealed placenta / vault pit shall be present for the disposal of potentially harmful materials. Responsibility shall be with the owner of the centre, with regulation provided by District Assemblies and inspection by HSA's.
- 3.2.1.17 Along the lines of the polluter pays principle (National Environmental Policy), it is the responsibility of mill owners to dispose of, or recycle safely all by-products of milling including rice husks.⁵ Mill owners should provide improved sanitation and hand washing facilities with soap and water for staff and customers. Regulation will be provided by District Assemblies, and inspection by the DEHO.
- 3.2.1.18 At commercial/ private lodging places, restaurants, tea rooms, bars and informal drinking places, safe sanitation and hand washing facilities with soap and water should be available for staff and customers. Solid waste should be recycled/disposed of in a safe hygienic manner. Responsibility for the above rests with the owners. Regulation will be provided by District Assemblies, and inspection by the DEHO.
- 3.2.1.19 Emergency relief camps and relief distribution points should be provided with basic sanitation (for standards and guidelines see UNICEF/ UNHCR/ SPHERE). Hand washing facilities with soap and water should be available. Solid waste should be recycled/disposed of in a safe hygienic manner. Regulation and coordination with assisting agencies will be undertaken by District Assemblies and Department of Disaster Preparedness,

⁵ Where possible these can be recycled by combining with nitrogenous waste from animals or humans to make compost manure. In all cases this must be undertaken in a safe fenced off environment employing environmentally friendly practices.

Relief and Rehabilitation, and inspection provided by the DEHO/DHSC.

- 3.2.1.20 Responsibility for sanitation at all formal and informal fisherman's camps including solid waste disposal/recycling and provision for latrines and hand washing facilities must be undertaken by the beach committee or the community where the fishing camp is situated. Regulation of the standard of upkeep of sanitary facilities including latrines and rubbish pits should be undertaken by village development committees with assistance from District Assemblies and using bylaws where necessary to close fishing villages or individual racks/stores. Advice should also be provided to communities and beach committees by DHSC, DEHOs and HSAs concerning recycling/ disposal of solid waste as well as standards for latrines.
- 3.2.1.21 At Religious institutions, e.g. Churches, Mosques etc. basic sanitation, hand washing facilities with soap and water should be provided by the institution. Regulation and coordination with assisting agencies will be undertaken by District Assemblies, and inspection by the DEHO.
- 3.2.1.22 Schools (see section 5. on education)
- 3.2.1.23 Traditional initiation camps / recreation camps should be provided with basic sanitation including hand washing facilities with soap and water. Solid waste should be recycled/disposed of in a safe hygienic manner. Responsibility for this will rest with traditional leaders or organising agencies. Regulation will be undertaken by District Assemblies, and inspection by the DEHO.
- 3.2.1.24 Provision for hand washing with soap and water, must be provided at all functions and gatherings both public and private where food is provided, such as funerals, weddings and religious gatherings. Responsibility rests with the holder of the event. Regulation will be undertaken by District Assemblies, and inspection by the DEHO.
- 3.2.1.25 Latrines for all public places (including work places) should have provision for people with disabilities (e.g. hand rails) as the situation determines. Regulation will be undertaken by District Assemblies and Ministry of Social Development and Persons with Disabilities, with inspection by the DEHO.

- 3.2.1.26 All community water supply programmes and projects shall promote hygiene education and improved sanitation in accordance with the NSP. Members of water point committees will be trained in hygienic use of water and sanitation. Regulation to be the responsibility of District Assemblies and MoIWD, inspection by the District Coordinating Team.
- 3.2.1.27 Water points should have adequate provision for disposal of waste water with aprons, drainage channels and 'soak-aways' or with plants or trees to absorb standing water. Responsibility should rest with village water point committees and health committees. Regulation by District Assemblies and MoIWD, and inspection by H.S.A's.

3.3 Policy Area 3 / Sector 3 Hygiene and Sanitation in Cities and Municipalities.

A growing proportion of Malawi's population lives in cities and urban areas. Currently sanitation facilities, where they exist, are largely basic and hygiene behaviour is poor, with the majority of people not using soap to wash hands after defecation, handling children's faeces and soiled nappies, or prior to preparing or eating food. Solid waste is seldom separated into organic and inorganic components and composting is not widely practiced. In addition City Assemblies are failing to adequately maintain essential sanitation services including sewage systems and solid waste collection and disposal.

3.3.0 Policy Area 3 / Sector 3 Goal Transformation of the hygiene and sanitation situation in the urban areas of Malawi with universal access to improved sanitation and hygienic behaviour the norm, and recycling of liquid and solid waste undertaken to protect the environment and create wealth.

3.3.1 Objective The improvement of hygiene and sanitation and recycling of waste in cities and municipalities through the initiation of a national hygiene and sanitation programme.

Strategies

3.3.1.1 The establishment of a new cadre of specially recruited city hygiene and sanitation coordinators (CHSCs) at City Assembly level, will report to the Chief Environmental Health Officers (CEHO) within the City Assembly and liaise directly with the National Hygiene and Sanitation Coordination Unit (NHSCU).

3.3.1.2 An audit of sanitation facilities for all urban communities shall be undertaken with all stakeholders and coordinated by CHSCs with training provided by NHSCU. Data to be included in a national database and integrated into the national water database. The survey is to record and quantify access to basic and to improved (excreta) sanitation facilities and hand washing facilities. The data collected during the sanitation audit will be used to prioritise and target areas for hygiene and sanitation intervention

3.3.1.3 Delivery of structured health and hygiene education to adults and youth with participatory methods and delivered using the health club approach, through Health Surveillance Assistants

(HSAs) and extension workers from other departments including Water Boards and NGOs and CBOs, with back up and training provided by CHSC and CEHO and members of the District Coordinating Team (DCT). The trainers of the HSAs will themselves undertake a training of trainers short course in hygiene and sanitation promotion facilitated by the NHSCU.

- 3.3.1.4 Following the provision of health and hygiene education and the resulting creation of awareness and demand, the promotion and marketing in peri-urban, slum and traditional housing areas of improved sanitation options and technologies, including: upgraded traditional latrines, V.I.P. latrines, ecological sanitation (ecosan) latrines (arbour loo, fossa alterna, sky loo, children's loos), pour flush, W.C, dome shaped slabs, sanitation platforms and integrated sanitation slabs, as guided by city bi-laws.
- 3.3.1.5 Training of sanitation promoters and masons for making available for purchase latrine slabs and other sanitation hardware with a sanitation marketing approach. Training to be delivered to promoters and masons by HSAs after training by CHSC and CEHO. The CHSC and CEHO will themselves undertake a training of trainers short course in sanitation technology facilitated by the NHSCU.
- 3.3.1.6 Each household must have an improved sanitation facility. Where people are renting their accommodation landlords must be mandated to provide an improved sanitation facility for each household. Community members should be encouraged to report lack of facilities to their location health committees/ city rangers, HSA's to promote enforcement. Regulation will be provided by the City/ Municipal Assemblies and Department of Physical Planning with inspection by CEHOs.
- 3.3.1.7 Where living and sanitation conditions are becoming cramped and a danger to public health and no other alternatives are possible, city health and planning authorities, in accordance with the local land use plan for the area, may need to move and re-settle tenants and home owners for the improvement of the health and environment of all. This shall be undertaken in partnership with the residents of the areas concerned and only after consultation with all stakeholders.
- 3.3.1.8 Hand washing facilities must be provided at latrines (eg 'tippy taps' or hanging plastic bottles the 'Guinea Bissau' Tap, or wash

basins with mains supply) and promotion of soap for hand washing to improve hygiene and reduce water and sanitation related disease.

- 3.3.1.9 Promotion of recycling of domestic solid waste with separation of organic components for composting and for safe disposal or re-use of non-organic materials at the household level.
- 3.3.1.10 The public will be encouraged through major civic education (information education and communication) campaigns to keep the city surroundings clean and protect the environment.
- 3.3.1.11 Solid waste refuse collection services need to be expanded to all markets and residential areas, with active participation of communities and market committees. Communities and market committees shall be consulted and kept informed of skip emptying schedules by operators of refuse collection services.
- 3.3.1.12 Refuse collection points at markets and in residential areas should be designed to provide access for all including children to deposit rubbish into skips or other receptacles, so as to prevent the spreading of rubbish.
- 3.3.1.13 City/municipal dumps for solid waste should be transformed into well managed walled or fenced off re-cycling centres, with separation of organic and in-organic material, with composting pits/bins and bagging plants, collection of glass, metals for recycling, and burying of plastics. Responsibility for this development must lie with the owners or operators of the sites, who could be either the private sector or the city assembly themselves. Regulation will be provided by City/ Municipal Assemblies, and inspection by the CEHO.
- 3.3.1.14 Efforts should be made by owners and operators, to train and employ those currently acting as informal recyclers and scavengers at the dump site, as workers in the proposed re-cycling centres.
- 3.3.1.15 Industrial waste pre-treatment facilities will be provided at industrial premises and the effluent will comply with standards / guidelines and regulations set by the City and Municipal Assemblies / Environmental Affairs Department/ Water Resources Board for discharge into a public sewer, public water body or land under the supervision of the CEHO.

- 3.3.1.16 Regular environmental audits for existing industrial operations and environmental impact assessments shall be carried out in compliance with the Environmental Management Act for all proposed industrial developments. The responsibility for this will be the developers in collaboration with Ministry of Labour and Vocational Training. Regulation will be undertaken by the Environmental Affairs Department with inspections conducted by the City Assemblies, Water Resources Board and Environmental Affairs Department.
- 3.3.1.17 The safe disposal and treatment of hazardous industrial solid waste will be the responsibility of the producer.
- 3.3.1.18 Promotion of safe recycling of liquid organic waste from septic tanks for composting or biogas generation.
- 3.3.1.19 Water Boards in cities and municipalities will make provision for septic tank and latrine emptying equipment either via the private sector or via their own investment. These will be investigated and evaluated for practical effectiveness and economic viability to ensure their relevance and sustainability prior to purchase. Micro septic tank and latrine emptying equipment will also be evaluated for practical effectiveness and economic viability in inner city areas where tanks and pits have to be emptied but other larger machine cannot access. Responsibility rests with Water Boards and Private Sector. The NHSCU will provide guidance.
- 3.3.1.20 Operators of city sewage works should charge economic rates for septic tank and pit latrine effluent disposal, to encourage greater use of facilities and discourage dangerous practices such as hand emptying and free dumping by the road side and bush.
- 3.3.1.21 Strong coordination over hygiene and sanitation issues should exist at city assembly level between all stakeholders including, city assembly staff, ward councillors, traditional authorities, community based organisations, non government organisations, local research institutes, schools and water boards. Responsibility for all to be involved, with coordination provided by CHSCs and CEHOs.

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- 3.3.1.22 Funds provided from national hygiene and sanitation programme to be handled and accounted for by City Assemblies with full transparency to all levels and with annual external audits.
- 3.3.1.23 All markets must have proactive traders'/store holders committees for playing their part in taking responsibility for sanitation including solid waste disposal/recycling and management of latrines and hand washing facilities, and for preventing open defecation or urination. Advice should be provided to market committees by CHSC, CEHOs and HSAs concerning recycling/ disposal of solid waste as well as standards for latrines.
- 3.3.1.24 The City / Municipal Assemblies should encourage the private sector to manage and maintain latrines with hand washing facilities and soap at affordable rates at markets, bus stands or other public places. Regulation of the standard of upkeep of sanitary facilities including latrines undertaken by City / Municipal Assemblies with inspection by CEHOs.
- 3.3.1.25 Adequate numbers of improved sanitation facilities including urinals, toilets or latrines as well as hand washing facilities with water and soap should be provided at all public and private institutions (offices, workshops, factories etc.). Responsibility is with the owners of the institutions. Regulation will be provided by District Assemblies, and inspection by the DEHO.
- 3.3.1.26 Adequate numbers of hygienic improved sanitation facilities should be available at prisons and police stations for inmates and staff. Soap should be provided regularly for hand washing and bathing of inmates. Separation of refuse into organic and inorganic waste for recycling and composting should be practiced. The use of health and hygiene committees within prisons should be encouraged along with training of prisoners by trained prison staff to promote hygienic behaviour, both for the preservation of the health of the prison population and for the rehabilitation of prisoners. The responsibility for this shall rest with the prison authorities. Regulation by Ministry of Home Affairs and Internal Security. Advice and training on hygiene and sanitation will be given by CHSCs with inspections carried out by CEHOs.
- 3.3.1.27 Where people attend the premises of Traditional healers (TH) or traditional birth attendants (TBAs), improved sanitation including

hand washing facilities with soap and water should be available for customers and staff. A sealed placenta / vault pit shall be present for the disposal of potentially harmful materials. Responsibility shall be with the owner of the centre, with regulation provided by City Assemblies and inspection by HSA's.

- 3.3.1.28 Along the lines of the polluter pays principle (National Environmental Policy), it is the responsibility of the mill owner to dispose of, or recycle safely all by-products of milling including rice husks.⁶ Mill owners should provide improved sanitation and hand washing facilities with soap and water for staff and customers. Regulation will be provided by City/ Municipal Assemblies, and inspection by the CEHO.
- 3.3.1.29 Bus terminuses, train stations, airports and jettys must have sufficient numbers of toilets / latrines and urinals with soap and water available for hand washing. Solid waste should be recycled/disposed of in a safe hygienic manner. Responsibility for the above rests with the owners. Regulation will be provided by City/Municipal Assemblies and Ministry of Transport and Public Works, and inspection by the CEHO.
- 3.3.1.30 At commercial / public lodging places, restaurants, tea rooms, bars and drinking places, improved sanitation and hand washing facilities with soap and water should be available for staff and customers. Solid waste should be recycled/disposed of in a safe hygienic manner. Responsibility for the above rests with the owners. Regulation will be provided by City/Municipal Assemblies, and inspection by the CEHO.
- 3.3.1.31 Emergency relief camps and relief distribution points should be provided with basic sanitation (for standards and guidelines see UNICEF/UNHCR/SPHERE). Hand washing facilities with soap and water should be available. Solid waste should be recycled/disposed of in a safe hygienic manner. Regulation and coordination with assisting agencies will be undertaken by City Assemblies and Department of Disaster Preparedness, Relief and Rehabilitation, and inspection provided by the CEHO/CHSC.

⁶ Where possible these can be recycled by combining with nitrogenous waste from animals or humans to make compost manure. In all cases this must be undertaken in a safe fenced off environment employing environmentally friendly practices.

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- 3.3.1.32 Recreation centres, football, cricket, volley/net ball etc. pitches must have sufficient numbers of latrines and urinals with soap and water available for hand washing. Solid waste should be recycled/disposed of in a safe hygienic manner. Responsibility for the above rests with the owners. Regulation will be provided by City/Municipal Assemblies, and inspection by the CEHO.
- 3.3.1.33 At religious institutions, e.g. churches, mosques etc. improved sanitation, hand washing facilities with soap and water should be provided by the institution. Regulation and coordination with assisting agencies will be undertaken by City/Municipal Assemblies, and inspection by the CEHO.
- 3.3.1.34 Schools (see section 5. on education)
- 3.3.1.35 Traditional initiation camps / recreation camps should be provided with improved sanitation including hand washing facilities with soap and water. Solid waste should be recycled/disposed of in a safe hygienic manner. Responsibility for this will rest with traditional leaders or organising agencies. Regulation will be undertaken by City/Municipal Assemblies, and inspection by the CEHO.
- 3.3.1.36 Provision for hand washing with soap and water, must be provided at all functions and gatherings both public and private where food is provided, such as funerals, weddings and religious gatherings. Responsibility rests with the holder of the event. Regulation will be undertaken by City Assemblies, and inspection by the DEHO.
- 3.3.1.37 Latrines for all public places (including work places) should have provision for people with disabilities (e.g. hand rails) as the situation determines. Regulation will be undertaken by District Assemblies and Ministry of Social Development and Persons with Disabilities, with inspection by the CEHO.
- 3.3.1.38 All community water supply programmes and projects shall promote hygiene education and improved sanitation in accordance with the NSP. Members of water point committees will be trained in hygienic use of water and sanitation. Regulation to be the responsibility of City / Municipal Assemblies and MoIWD, inspection by the CEHO.

- 3.3.1.39 Water points should have adequate provision for disposal of waste water with aprons, drainage channels and 'soak-aways' or with plants or trees to absorb standing water. Responsibility should rest with water point committees and health committees. Regulation to be the responsibility of City / Municipal Assemblies and MoIWD, inspection to be undertaken by H.S.A's.
- 3.3.1.40 All new urban water supply programmes and projects will make adequate provision for wastewater treatment or disposal in either onsite septic tanks or offsite sewage treatment works. The responsibility will be the developer's and the water board. Regulation will be provided by City/Municipal planning committees, Environmental Affairs Department and Water Resources Board, with inspection by CEHO & Planning authority.
- 3.3.1.41 Owners of houses installing new water supply connections will make adequate provision for wastewater treatment or disposal. Those installing water closets will have either onsite septic tanks or piped connections to off site sewage treatment works. Regulation will be provided by City/Municipal planning committees, Environmental Affairs Department and Water Resources Board, with inspection by CEHO & Planning authority.
- 3.3.1.42 Management of sewage systems and works will be transferred to the Water Boards in line with the 1995 Water Works Act to ensure proper functioning of essential services. Regulation and inspection will be provided by a joint committee of City/Municipal Assemblies, Environmental Affairs Department and Ministry of Irrigation and Water Development.
- 3.3.1.43 There will be a strategy for the rehabilitation and construction of existing and new sewerage facilities. This will be undertaken by a joint task force made up of MoIWD staff, Water Boards and City Assemblies.
- 3.3.1.44 Security will be provided at sewage works and solid waste disposal/ recycling sites to protect equipment and people from harm, and make income generation activities at these sites possible. Staff at all such facilities will be provided with protective wear. Responsibility shall rest with the operator of the facility, with regulation by the Environmental Affairs Department, inspection will be undertaken by the CEHO.

3.4 Policy Area 4 / Sector 4 Hygiene and Sanitation in Towns.

A growing proportion of Malawi's population lives in towns. Currently sanitation facilities, where they exist, are largely basic and hygiene behaviour is poor, with the majority of people not using soap to wash hands after defecation, handling children's faeces and soiled nappies, or prior to preparing or eating food. Solid waste is seldom separated into organic and inorganic components and composting is not widely practiced. In addition Town Assemblies are failing to adequately maintain and provide essential sanitation services including solid and liquid waste collection and disposal facilities.

3.4.0 Policy Area 4 / Sector 4 Goal Transformation of the hygiene and sanitation situation in towns, with universal access to improved sanitation and hygienic behaviour the norm, and recycling of liquid and solid waste undertaken to protect the environment and create wealth.

3.4.1 Objective 4 The improvement of hygiene, sanitation and recycling of waste in towns through the initiation of a national hygiene and sanitation programme.

Strategies

- 3.4.1.1 The establishment of a new cadre of specially recruited District Hygiene and Sanitation Coordinators (DHSCs) at District assembly level will cover the towns existing within the district. The DHSCs will report to the district environmental health officer (DEHO) within the district assembly and work together with the CEO of all Town Assemblies, existing within the district. In the case of Luchenza and Liwande Towns special THSCs will be recruited. The DHSC will also liaise directly with the National Hygiene and Sanitation Coordination Unit (NHSCU).
- 3.4.1.2 An audit of sanitation facilities for all town communities to be undertaken with all stakeholders and coordinated by DHSCs with training provided by National Hygiene and Sanitation Coordination Unit. The survey is to record and quantify access to basic and to improved (excreta) sanitation facilities and hand washing facilities. Data to be included in a national database and integrated into the national water database. The data collected during the sanitation audit will be used to prioritise and target areas for hygiene and sanitation intervention.

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- 3.4.1.3 Delivery of structured health and hygiene education to adults and youth with participatory methods and delivered using the health club approach, through Health Surveillance Assistants (HSAs) and extension workers from other departments including water boards and NGOs / CBOs, with back up and training provided by DHSC and DEHO and members of the District Coordinating Team (DCT). The trainers of the HSAs will themselves undertake a training of trainers short course in hygiene and sanitation promotion facilitated by the NHSCU.
- 3.4.1.4 Following the provision of health and hygiene education and the resulting creation of awareness and demand, the promotion and marketing of improved sanitation options and technologies, including: upgraded traditional latrines, V.I.P. latrines, ecological sanitation (ecosan) latrines (arbour loo, fossa alterna, sky loo, children's loos), pour flush, W.C, dome shaped slabs, sanitation platforms and integrated sanitation slabs.
- 3.4.1.5 Training of sanitation promoters and masons for making available for purchase latrine slabs and other sanitation hardware with a sanitation marketing approach. Training to be delivered to promoters and masons by HSAs after training by DHSC and DEHO. The DHSC and DEHO will themselves undertake a training of trainers short course in sanitation technology facilitated by the NHSCU.
- 3.4.1.6 Each household must have an improved sanitation facility. Where people are renting their accommodation landlords must be mandated to provide an improved sanitation facility for each household. Community members should be encouraged to report lack of facilities to their location health committees/ town rangers and HSA's to promote enforcement. Regulation will be provided by the Town Assembly with inspection by DEHOs.
- 3.4.1.7 Where living and sanitation conditions are becoming cramped and a danger to health, town health and planning authorities will be given a mandate to re-settle tenants and home owners for the improvement of the health and environment of all. This should be undertaken in consultation and partnership with the residents of the areas concerned.
- 3.4.1.8 Promotion of a range of sanitation options and technologies including upgraded traditional latrines, V.I.P. latrines, ecological sanitation (ecosan) latrines (arbour loo, fossa alterna, sky loo,

children's loos), pour flush, W.C, dome shaped slabs, sanitation platforms and integrated sanitation slabs.

- 3.4.1.9 Hand washing facilities must be provided at latrines (eg 'tippy taps' or hanging plastic bottles the 'Guinea Bissau' Tap, or wash basins with mains supply) and promotion of soap for hand washing would do much to improve hygiene and reduce water related disease.
- 3.4.1.10 Promotion of recycling of domestic solid waste with separation of organic components for composting, and for safe disposal or re-use of in-organic materials at the household level.
- 3.4.1.11 The public will be encouraged through major civic education (information education and communication) campaigns to keep the town surroundings clean and protect the environment.
- 3.4.1.12 Solid waste refuse collection services need to be expanded to all markets and residential areas, with active participation of communities and market committees. Communities and market committees shall be consulted and kept informed of skip emptying schedules by operators of refuse collection services.
- 3.4.1.13 Town dumps for solid waste should be transformed into well managed walled or fenced off re-cycling centres, with separation of organic and in-organic materials, with composting pits/bins and bagging plants, collection of glass, metals for recycling, and burying of plastics. Responsibility for this development must lie with the owners or operators of the sites, who could be either the private sector or the Town Assembly themselves. Regulation will be provided by Town Assemblies, and inspection by the DEHO.
- 3.4.1.14 Efforts should be made to train and employ any persons currently acting as informal recyclers and scavengers at the dump site, as workers in the proposed re-cycling centres.
- 3.4.1.15 Pre-treatment facilities will be provided at each industrial site and the effluent will comply with standards/ guidelines set by the Town Assemblies/ Environmental Affairs Department/ Water Resources Board for discharge into a public sewer or public water body or land.

- 3.4.1.16 Regular environmental audits for existing industrial operations and environmental impact assessments shall be carried out in compliance with the Environmental Management Act for all proposed industrial developments. Responsibility will be the developers in collaboration with Ministry of Labour. Regulation will be undertaken by the Environmental Affairs Department with inspections conducted by the Town Assemblies, Water Resources Board and Environmental Affairs Department.
- 3.4.1.17 The safe disposal and treatment of industrial and hazardous waste will be the responsibility of the producer or generator. Monitoring will be carried out by the DEHO.
- 3.4.1.18 Towns will have septic tank and latrine emptying equipment, these will be investigated and evaluated for practical effectiveness and economic viability by Town Assemblies to ensure their relevance and sustainability prior to purchase. Responsibility by Town Assembly planning committees. The NHSCU will provide guidance.
- 3.4.1.19 Towns will have either slurry pits or biogas generators at recycling centres for recycling liquid waste from septic tanks, to either generate compost on its own or biogas and compost. Responsibility Town Assembly Planning Committees. The NHSCU will provide guidance.
- 3.4.1.20 Strong coordination over hygiene and sanitation issues at town assembly level between all stakeholders including, town assembly staff, ward councillors, traditional authorities, community based organisations (CBOs), non government organisations, local research institutes, schools. Responsibility for all to be involved, with coordination provided by DHSCs and DEHOs.
- 3.4.1.21 Funds provided from national hygiene and sanitation programme to be handled and accounted for by Town Assemblies with full transparency to all levels and with annual external audits.
- 3.4.1.22 All markets must have proactive traders'/store holders committees for playing their part in taking responsibility for hygiene and sanitation including solid waste disposal/recycling and management of latrines and hand washing facilities, and for preventing open defecation or urination. Advice should be

provided to market committees by DHSC, DEHOs and HSAs concerning recycling/ disposal of solid waste as well as standards for latrines.

- 3.4.1.23 The Town Assemblies should encourage the private sector to manage and maintain latrines with hand washing facilities and soap at affordable rates at markets, bus stands or other public places. Regulation of the standard of upkeep of sanitary facilities including latrines undertaken by Town Assemblies with inspection by DEHOs.
- 3.4.1.24 Adequate numbers of improved sanitation facilities including urinals, toilets or latrines as well as hand washing facilities with water and soap should be provided at all public and private institutions (offices, workshops, factories etc.). Responsibility is with the owners of the institutions. Regulation will be provided by Town Assemblies, and inspection by the DEHO.
- 3.4.1.25 Adequate numbers of improved sanitation facilities should be available at prisons and police stations for inmates and staff. Soap should be provided regularly for hand washing and bathing of inmates. Separation of refuse into organic and inorganic waste for recycling and composting shall be practiced. The use of health and hygiene committees within prisons should be encouraged along with training of prisoners by trained prison staff to promote hygienic behaviour, both for the preservation of the health of the prison population and for the rehabilitation of prisoners. The responsibility for this shall rest with the prison authorities. Regulation by Ministry of Home Affairs and Internal Security. Advice and training on hygiene and sanitation will be given by DHSCs with inspections carried out by DEHOs.
- 3.4.1.26 Where people attend the premises of Traditional healers (TH) or traditional birth attendants (TBAs), improved sanitation including hand washing facilities with soap and water should be available for customers and staff. A sealed placenta / vault pit shall be present for the disposal of potentially harmful materials. Responsibility shall be with the owner of the centre, with regulation provided by Town Assemblies and inspection by HSA's.
- 3.4.1.27 Along the lines of the polluter pays principle (National Environmental Policy), it is the responsibility of the mill owner to dispose of, or recycle safely all by-products of milling including

rice husks.⁷ Mill owners should provide improved sanitation and hand washing facilities with soap and water for staff and customers. Regulation will be provided by Town Assemblies, and inspection by the DEHO.

- 3.4.1.28 Bus terminuses, train stations and airports must have sufficient numbers of toilets / latrines and urinals with soap and water available for hand washing. Solid waste should be recycled/disposed of in a safe hygienic manner. Responsibility for the above rests with the owners. Regulation will be provided by Town Assemblies, Ministry of Transport and Public Works, and inspection by the DEHO.
- 3.4.1.29 At commercial / public lodging places, restaurants, tea rooms, bars and drinking places, safe sanitation and hand washing facilities with soap and water should be available for staff and customers. Solid waste should be recycled/disposed of in a safe hygienic manner. Responsibility for the above rests with the owners. Regulation will be provided by Town Assemblies, and inspection by the DEHO.
- 3.4.1.30 Emergency relief camps and relief distribution points should be provided with basic sanitation (for standards and guidelines see UNICEF/UNHCR/SPHERE). Hand washing facilities with soap and water should be available. Solid waste should be recycled/disposed of in a safe hygienic manner. Regulation and coordination with assisting agencies will be undertaken by Town Assemblies and Department of Disaster Preparedness, Relief and Rehabilitation, and inspection provided by the DEHO/DHSC.
- 3.4.1.31 Recreation centres, football, cricket, volley/net ball etc. pitches must have sufficient numbers of latrines and urinals with soap and water available for hand washing. Solid waste should be recycled/disposed of in a safe hygienic manner. Responsibility for the above rests with the owners. Regulation will be provided by Town Assemblies, and inspection by the DEHO.
- 3.4.1.32 At religious institutions, e.g. churches, mosques etc. improved sanitation, hand washing facilities with soap and water should be provided by the institution. Regulation and coordination with

⁷ Where possible these can be recycled by combining with nitrogenous waste from animals or humans to make compost manure. In all cases this must be undertaken in a safe fenced off environment employing environmentally friendly practices.

assisting agencies will be undertaken by Town Assemblies, and inspection by the DEHO.

- 3.4.1.33 Schools (see section 3.5 on education)
- 3.4.1.34 Traditional initiation camps / recreation camps should be provided with improved sanitation including hand washing facilities with soap and water. Solid waste should be recycled/disposed of in a safe hygienic manner. Responsibility for this will rest with traditional leaders or organising agencies. Regulation will be undertaken by Town Assemblies, and inspection by the DEHO.
- 3.4.1.35 Provision for hand washing with soap and water, must be provided at all functions and gatherings both public and private where food is provided, such as funerals, weddings and religious gatherings. Responsibility rests with the holder of the event. Regulation will be undertaken by Town Assemblies, and inspection by the DEHO.
- 3.4.1.36 Latrines for all public places (including work places) should have provision for people with disabilities (e.g. hand rails) as the situation determines. Regulation will be undertaken by Town Assemblies and Ministry of Social Development and Persons with Disabilities, with inspection by the DEHO.
- 3.4.1.37 All community water supply programmes and projects shall promote hygiene education and improved sanitation in accordance with the NSP. Members of water point committees will be trained in hygienic use of water and sanitation. Regulation to be the responsibility of District/ Town Assemblies and MoIWD, inspection by the DEHO.
- 3.4.1.38 Water points should have adequate provision for disposal of waste water with aprons, drainage channels and 'soak-aways' or with plants or trees to absorb standing water. Responsibility should rest with water point committees and health committees. Regulation by Town Assemblies and MoIWD, and inspection by H.S.A's.
- 3.4.1.39 All new urban water supply programmes and projects will make adequate provision for wastewater treatment or disposal in either onsite septic tanks or offsite sewage treatment works. The responsibility will be the developer's and the Water Board.

Regulation will be provided by Town Assembly planning committees and MoIWD, with inspection by DEHO.

- 3.4.1.40 Owners of houses installing new water supply connections will make adequate provision for wastewater treatment or disposal. Those installing water closets will have either onsite septic tanks or piped connections to off site sewage treatment works. Regulation will be provided by Town Assembly planning committees, with inspection by DEHO.
- 3.4.1.41 Management of sewage systems and works where they exist will be transferred to the Water Boards in line with the 1995 Water Works Act to ensure proper functioning of essential services. Regulation and inspection will be provided by a joint committee of Town Assemblies, Department of Environmental affair and Ministry of Irrigation and Water Development.
- 3.4.1.42 Security will be provided at sewage works and solid waste disposal/ recycling sites to protect equipment and people from harm, and make income generation activities at these sites possible. Staff at all such facilities will be provided with protective wear. Responsibility shall rest with the operator of the facility, inspection will be undertaken by the DEHO.

3.5 Policy Area 5 / Sector 5 Hygiene and Sanitation in Schools.

Schools commonly have poor standards of hygiene and sanitation in Malawi. Often facilities are over stretched and poorly looked after, with ownership and responsibility for maintenance un-clearly defined. Knowledge and practice of hygiene and sanitation is also generally poor. This is most clearly put into focus when compared to the very good examples that also exist in the country.

3.5.0 Policy Area 5 / Sector 5 Goal The transformation of hygiene and sanitation at schools.

3.5.1 Objective 5 Schools must aspire to and reach the very highest standards of hygiene and sanitation possible. Furthermore health and hygiene education both inside and outside the formal curriculum must become interesting challenging subjects with a clear link to practical improvements both in the school environment and at home.

Strategies

- 3.5.1.1 Training shall be given to all head teachers at primary and secondary school level and to Primary Education Inspectors / Advisers (PEI/A) in specially designed health, hygiene and sanitation short courses at local institutions with emphasis on both practical life skills curriculum development and hardware maintenance.
- 3.5.1.2 Training should be provided for all schools for one 'health teacher' from every school, or where the teaching staff exceeds 10 in number, 20% of the total number of teachers in each school should be trained to deliver participatory health education as below in 3.5.1.3. Furthermore, training in participatory health education should be given as part of future teacher training for all teachers.
- 3.5.1.3 Delivery of structured health and hygiene education for all children at primary school level with participatory methods, delivered through school teachers trained in participatory approaches and linked to practical life skills training as part of the national curriculum. Training for teachers provided through existing training institutes and with assistance from D/CHSC & D/CEHO. Where possible scheduling of the training programme should fit in with the general hygiene and sanitation programme

in the community at large, so that children can be involved in this learning and behaviour change both at school and at home. Members of school committees should endeavour to be involved with hygiene and sanitation training running in the community and the schools.

- 3.5.1.4 All schools to have, separately for boys and girls, a minimum of one latrine per 60 pupils where urinals are provided for girls and boys, or one latrine per 30 pupils where urinals are not available. Functioning hand washing facilities must also be provided, with soap and water. Sanitation facilities are to be maintained both with regular cleaning and upkeep of the structures. These facilities to be inspected and recorded by primary education inspector/advisors (PEI/A) and the results compiled in a district league table of sanitation performance, with results shared with D/CHSC & D/CEHO. New schools will not be licensed unless they reach the above standards and existing schools may face penalties if they consistently fail to reach these minimum standards.
- 3.5.1.5 In the case of new construction of sanitation facilities at schools, proprietors including Government should refer to "School water and hygiene education, a manual for the Planning, construction and supervision of facilities" UNICEF/GoM 2005. Particular care shall be taken with the siting of latrines, especially girls' latrines, which should be conveniently placed and screened from interference by boys, i.e. not placed near to the school entrance, the football field or the boys' latrines.
- 3.5.1.6 All school compounds should be kept clean and free from solid waste and other refuse. A dual waste pit system should be used to separate organic from inorganic waste in order to facilitate recycling and composting. This should be done: a) as an exercise in keeping the school clean, b) for generating a valuable resource for school gardens and c) as a teaching exercise.
- 3.5.1.7 If the school has water points they should have adequate provision for disposal of waste water with: aprons, drainage channels and 'soak-aways' or with plants such as trees to absorb standing water. Responsibility should rest with school committees, water point committees or health committees as appropriate. Regulation by District/ Town/ City Assemblies, and inspection by H.S.A's.

- 3.5.1.8 If the school has running water the pipes must not be allowed to leak, and waste water pipes must also be leak free to avoid standing water in school latrines. Responsibility, head teacher. Regulation by District / Town / City Assemblies, MoIWD, and Ministry of Education, and inspection by the (PEI/A) and D/CEHO.
- 3.5.1.9 At least one latrine for boys and girls at each school should have provision for pupils with disabilities as the situation determines (e.g. hand rails). Regulation by District / Town / City Assemblies, MoIWD, Ministry of Social Development and Persons with Disabilities, and Ministry of Education, and inspection by the (PEI/A) and D/CEHO.
- 3.5.1.10 Adequate improved sanitation facilities should be provided for staff at schools including toilets or latrines as well as hand washing facilities with water and soap. Responsibility is with the owners of the institutions. Regulation will be provided by District / Town / City Assemblies, and inspection by the DEHO.

3.6 Policy Area 6 / Sector 6 Hygiene and Sanitation at Health Facilities including Hospitals, Health Centres Clinics and Others.

Currently poor standards of sanitation exist at many health facilities in Malawi for the safe disposal of hazardous and non hazardous liquid and solid waste.

3.6.0 Policy Area 6 / Sector 6 Goal The improvement of hygiene and sanitation procedures including the collection and disposal of hazardous and non hazardous liquid and solid waste at Health Facilities.

3.6.1 Objective 6 Waste management options for the safe disposal of hazardous and non hazardous liquid and solid waste shall protect health care workers and the general population, and minimise indirect impacts from environmental exposure to health care waste. Staff at health care facilities will endeavour to attain the very highest standards of hygiene and sanitation possible at their institutions.

Strategies

- 3.6.1.1 Health care waste management (HCWM) will be defined as the provision, use and operation of facilities for collection, storage, transportation and disposal of solid waste, wastewater and excreta generated from health facilities and laboratories.
- 3.6.1.2 Awareness and training for the general public and practitioners respectively will be given to safeguard their health and make the environment safe from health care waste (HCW). Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.3 Health care waste shall be segregated at source into non hazardous and hazardous waste using the following internationally accepted colour codes: Black for dry non hazardous, Green for wet non hazardous, Yellow for infectious hazardous waste, Yellow with Black band for chemical hazardous, Orange for radio active Hazardous, and Red for sharps. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.

- 3.6.1.4 Hazardous health care waste shall be properly segregated from general waste so as to reduce disposal costs and increase materials for recycling. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.5 Equipment for collection, storage, transportation and treatment of health care waste must be in accordance with World Health Organisation HCWM guidelines. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.6 Procedures for loading, moving and unloading HCW must be in accordance with WHO HCWM guidelines. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.7 Health care waste shall not be stored for more than 24hrs before being treated or disposed of. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.8 Appropriate treatment / disposal procedures must be taken for various categories of health care waste as per WHO HCWM guidelines (on incineration, chemical disinfection, autoclaving etc). Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.9 Health care waste treatment/disposal facilities shall have a designated operator. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.10 Proper hand washing with soap and running water and disinfectants where necessary should be practiced immediately after handling HCW. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.11 Functional protective ware, including but not limited to: heavy duty gloves, industrial boots, overalls and aprons will be provided to HCW collectors and operators by the health facility

- management. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.12 All treatment plants and disposal sites and depots shall be fenced and locked. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.13 Composting options shall be explored for non hazardous food and garden waste. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.14 All waste containers shall be appropriately sealed, removed and replaced immediately when they are no more than three quarters full. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.15 Hazardous and non hazardous health care waste shall be collected on separate trolleys / carriers, and will be marked with the corresponding colour scheme. The carriers will then be washed and disinfected immediately. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.16 All sharps and highly infectious waste shall be properly treated and disposed of in accordance with WHO HCWM guidelines. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.17 Incinerators shall be cleaned on a daily basis by the operator with incinerated sharps being placed in the sharps pit. Once dry non hazardous waste is incinerated the ash will be put into the ash pit. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.18 The remaining capacity of sharps pits and placenta pits shall be monitored so that new pits can be installed in time. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.

- 3.6.1.19 In case of accidents and spillage appropriate procedures shall be followed in accordance with WHO HCWM guidelines. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.20 Provision shall be made for staff, patients and guests to have access to sufficient numbers of sanitation facilities, including improved pit latrines and / or WC toilets. Sufficient numbers of hand washing facilities with soap and water shall be provided in close proximity to the sanitation facilities. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.21 Latrines and toilet facilities shall be maintained on a regular basis. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.22 Latrines and toilet facilities will be cleaned on a regular basis at least twice per day. Responsibility will rest with the head of the health facility. Regulation by Ministry of Health and Local Assemblies Inspection by D/CEHO.
- 3.6.1.23 The responsibility for ensuring that the above are being carried rests with the head of the health care facility. D/CEHO to conduct regular and random inspections to ensure compliance with correct procedures by all hospital staff with reports sent to the Medical Council of Malawi.

4.0 IMPLEMENTATION ARRANGEMENTS

4.1 Implementation / Investment Plan

National Sanitation Policy (NSP) calls for a National Hygiene and Sanitation Programme (NHSP). This programme shall cover the implementation of the NSP over a fourteen year period from 2006 up to the year 2020AD. The NHSP will bring about hygiene and sanitation transformation in Malawi, with safe hygienic behaviour the norm, universal access to improved sanitation achieved and recycling of solid and liquid waste widely practiced.

The policy falls into five main parts

1. National Level
2. Rural Hygiene & Sanitation
3. City and Municipal Hygiene & Sanitation
4. Town Hygiene & Sanitation
5. School Hygiene & Sanitation

Each of these parts will require investment if they are to flourish. The following seeks to outline what will be required in order for the proposed National Sanitation Policy to be implemented through a 'Hygiene and Sanitation SWAP'.

1. National Level investment will be required to cover the following activities as laid out in the policy.
 - a. Establishing, staffing, equipping and running the Sanitation directorate and NHSCU
 - b. Annual Sanitation Week Conference
 - c. Umoyo Wabwino Radio Programme
 - d. Further research into sanitation and solid waste recycling options
 - e. Bio-degradable plastic and paper bag manufacturing
2. Rural Sanitation investment will be required for:
 - a. Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.
 - b. Sanitation audit costs
 - c. Health & hygiene education, training, equipment and operational costs
 - d. Sanitation promotion training, equipment, indirect subsidy costs.

-
3. Urban and Municipal Sanitation investment will be required for:
 - a. Establishing, staffing, equipping and running new district hygiene and sanitation coordinator cadre.
 - b. Sanitation audit costs
 - c. Health & hygiene education, training, equipment and operational costs
 - d. Sanitation promotion training, equipment, indirect subsidy costs.
 - e. Sewerage system repair costs
 - f. Septic tank effluent disposal / recycling facilities set up costs
 - g. Solid waste recycling centre set up costs

 3. Town Sanitation investment will be required for:
 - a. Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.
 - b. Sanitation audit costs
 - c. Health & hygiene education, training, equipment and operational costs
 - d. Sanitation promotion training, equipment, indirect subsidy costs.
 - e. Septic tank effluent disposal / recycling facilities set up costs
 - f. Solid waste recycling centre set up costs

 5. School Hygiene & Sanitation investment will be required for:
 - a. Health & hygiene education, training, equipment and operational costs

A number of donors have expressed interest in the implementation of the National Sanitation Policy including the World Bank under the NW(S)DP2, CIDA, UNICEF and UNILEVER. The latter are planning to take the policy to the Nation once the Policy is approved, through promotion for their 'Lifebuoy Soap' brand and are taking over the funding of the weekly 'Umoyo Wabwino' National Sanitation Policy Radio Programme as from the 1st of June 2006.

The inclusion of the implementation of the policy into Malawi's Growth and Development Strategy(MGDS) is however of the greatest importance, as it will be from here that major donor funding will be forthcoming in the form of a sector wide approach (SWAP) for hygiene and sanitation. The 29 million US dollar price tag for the implementation of the policy over a fourteen year time frame is a significant investment in Malawi's future. However it is one that is not only worth taking for moral and ethical reasons, the implementation of the National Sanitation Policy will itself have a number of key economic benefits.

1. With reduced ill health there can be a happier and more productive population, with greater attendance of children (especially girls) at school, leading to a brighter future.
2. With the expected take up of ecological sanitation and generation of organic compost at household level, potentially between US\$34 million and US\$100 million every year⁸ could be generated through increased agricultural production, without the need for so much imported inorganic fertiliser.
3. The Cities of Lilongwe and Blantyre themselves could, through recycling liquid and solid waste, make between US\$300,000 and US\$1 million a year each from the sale of organic compost alone.

The National Sanitation Investment Plan Budget is contained in the spreadsheet on the following 5 pages. This is followed by a graph of projected population increase (by household) and projected sanitation coverage increase, with the expected full implementation of the HSP, from 2007 until 2020.

⁸ Provided all rural and peri-urban households take up the practice of ecological sanitation.

National Sanitation Policy Investment Plan (2007 – 2011)					
(In US\$)					
	2007	2008	2009	2010	2011
National Investment Plan	Year 1	Year 2	Year 3	Year 4	Year 5
Establishing, staffing, equipping and running the Sanitation directorate and NHSCU	400,789	400,789	400,789	400,789	400,789
Annual Sanitation Week Conference	26,563	26,563	26,563	26,563	26,563
Umoyo Wabwino Radio Programme	21,831	21,831	21,831	21,831	21,831
Further research into sanitation and solid waste recycling options	86,593	86,593	86,593	86,593	86,593
Bio-degradable plastic and paper bag manufacturing (note further studies will be needed)					
Sub Total	535,775	535,775	535,775	535,775	535,775
Rural Investment Plan					
Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.	223,539	139,539	139,539	139,539	139,539
Health club cards	2,074	6,222	10,370	14,519	18,667
Health & hygiene education, training, equipment and operational costs	112,783	216,956	216,966	216,976	216,986
Sanitation promotion, equipment, indirect subsidy costs.	17,111	102,667	171,111	239,556	308,000
Sub Total	355,507	465,383	537,986	610,589	683,191
Urban and municipal investment plan					
Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.	31,934	19,934	19,934	19,934	19,934
Health club cards	296	889	1,481	2,074	2,667
Health & hygiene education, training, equipment and operational costs	16,112	30,994	30,995	30,997	30,998
Sanitation promotion training, equipment, indirect subsidy costs.	2,444	14,667	24,444	34,222	44,000
Sewerage system repair costs not in this budget (note further studies will be needed)					
Septic tank effluent disposal / recycling facilities set up costs not in this budget (note further studies will be needed)					
Solid waste recycling centre set up costs not in this budget (note further studies will be needed)					
Sub Total	50,787	66,483	76,855	87,227	97,599
Town sanitation investment plan					
Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.	15,967	9,967	9,967	9,967	9,967
Sanitation audit costs	148	444	741	1,037	1,333
Health & hygiene education, training, equipment and operational costs	8,056	15,497	15,498	15,498	15,499
Sanitation promotion training, equipment, indirect subsidy costs.	1,222	7,333	12,222	17,111	22,000
Septic tank effluent disposal / recycling facilities set up costs (note further studies will be needed)	28,000	28,000	28,000	28,000	28,000
Solid waste recycling centre set up costs (note further studies will be needed)	30,800	30,800	30,800	30,800	30,800
Sub Total	84,193	92,042	97,228	102,413	107,599
School hygiene investment plan (training budget)					
Training Head Teachers	196,389	196,389	196,389	196,389	196,389
Training Health Teachers	303,333	303,333	303,333	303,333	303,333
Teachers materials	50,650	50,650	50,650	50,650	50,650

Hardware costs for schools not in this budget (note further studies will be needed for this)					
Sub Total	550,372	550,372	550,372	550,372	550,372
Grand Total	1,576,634	1,710,056	1,798,216	1,886,376	1,974,537
Cumulative Total	1,576,634	3,286,690	5,084,906	6,971,283	8,945,820
Estimated cumulative number of Health Clubs	170	1,190	2,890	5,270	8,330
Estimated cumulative number of Health Club Members	8,500	59,500	144,500	263,500	416,500
Estimated cumulative number of latrines	6,400	44,800	108,800	198,400	313,600
Estimated total programme cost per latrine	246.35	73.36	46.74	35.14	29
Estimated material costs of each latrine	3.25	2.78	1.91	1.47	1.19
National Sanitation Policy Investment Plan (2012 - 2016)					
(In US\$)					
	2012	2013	2014	2015	2016
National Investment Plan	Year 6	Year 7	Year 8	Year 9	Year 10
Establishing, staffing, equipping and running the Sanitation directorate and NHSCU	260,389	260,389	260,389	260,389	260,389
Annual Sanitation Week Conference	26,563	26,563	26,563	26,563	26,563
Umoyo Wabwino Radio Programme	21,831	21,831	21,831	21,831	21,831
Further research into sanitation and solid waste recycling options	86,593	86,593	86,593	86,593	86,593
Bio-degradable plastic and paper bag manufacturing					
Sub Total	395,375	395,375	395,375	395,375	395,375
Rural Investment Plan					
Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.	139,539	139,539	139,539	139,539	139,539
Health club cards	22,815	26,963	31,111	35,259	39,407
Health & hygiene education, training, equipment and operational costs	216,996	217,006	217,016	217,026	217,036
Sanitation promotion, equipment, indirect subsidy costs.	376,444	444,889	513,333	581,778	650,222
Sub Total	755,794	828,396	900,999	973,602	1,046,204
Urban and municipal investment plan					
Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.	19,934	19,934	19,934	19,934	19,934
Health club cards	3,259	3,852	4,444	5,037	5,630
Health & hygiene education, training, equipment and operational costs	30,999	31,001	31,002	31,004	31,005
Sanitation promotion training, equipment, indirect subsidy costs.	53,778	63,556	73,333	83,111	92,889
Sewerage system repair costs not in this budget					
Septic tank effluent disposal / recycling facilities set up costs not in this budget					
Solid waste recycling centre set up costs not in this budget					
Sub Total	107,971	118,342	128,714	139,086	149,458

Town sanitation investment plan					
Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.	9,967	9,967	9,967	9,967	9,967
Sanitation audit costs	1,630	1,926	2,222	2,519	2,815
Health & hygiene education, training, equipment and operational costs	15,500	15,500	15,501	15,502	15,503
Sanitation promotion training, equipment, indirect subsidy costs.	26,889	31,778	36,667	41,556	46,444
Septic tank effluent disposal / recycling facilities set up costs	28,000				
Solid waste recycling centre set up costs	30,800				
Sub Total	112,785	59,171	64,357	69,543	74,729
School hygiene investment plan (training budget)					
Training Head Teachers	196,389	196,389	196,389	196,389	196,389
Training Health Teachers	303,333	303,333	303,333	303,333	303,333
Teachers materials	50,650	50,650	50,650	50,650	50,650
Hardware costs for schools not in this budget (note further studies will be needed)					
Sub Total	550,372	550,372	550,372	550,372	550,372
Grand Total	1,922,297	1,951,657	2,039,818	2,127,978	2,216,138
Cumulative Total	10,868,117	12,819,774	14,859,592	16,987,570	19,203,708
Estimated cumulative number of Health Clubs	12,070	16,490	21,590	27,370	33,830
Estimated cumulative number of Health Club Members	603,500	824,500	1,079,500	1,368,500	1,691,500
Estimated cumulative number of latrines	454,400	620,800	812,800	1,030,400	1,273,600
Estimated total programme cost per latrine	23.92	20.65	18.28	16.49	15.08
Estimated material costs of each latrine	1.01	0.87	0.77	0.69	0.62
National Sanitation Policy Investment Plan (2017 - 2020)					
(In US\$)					
	2017	2018	2019	2020	
National Investment Plan	Year 11	Year 12	Year 13	Year 14	
Establishing, staffing, equipping and running the Sanitation directorate and NHSCU	260,389	260,389	260,389	260,389	
Annual Sanitation Week Conference	26,563	26,563	26,563	26,563	
Umoyo Wabwino Radio Programme	21,831	21,831	21,831	21,831	
Further research into sanitation and solid waste recycling options	86,593	86,593	86,593	86,593	
Bio-degradable plastic and paper bag manufacturing					
Sub Total	395,375	395,375	395,375	395,375	
Rural Investment Plan					
Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.	139,539	139,539	139,539	139,539	
Health club cards	43,556	47,704	51,852	56,000	
Health & hygiene education, training, equipment and operational costs	217,046	217,056	217,066	217,076	

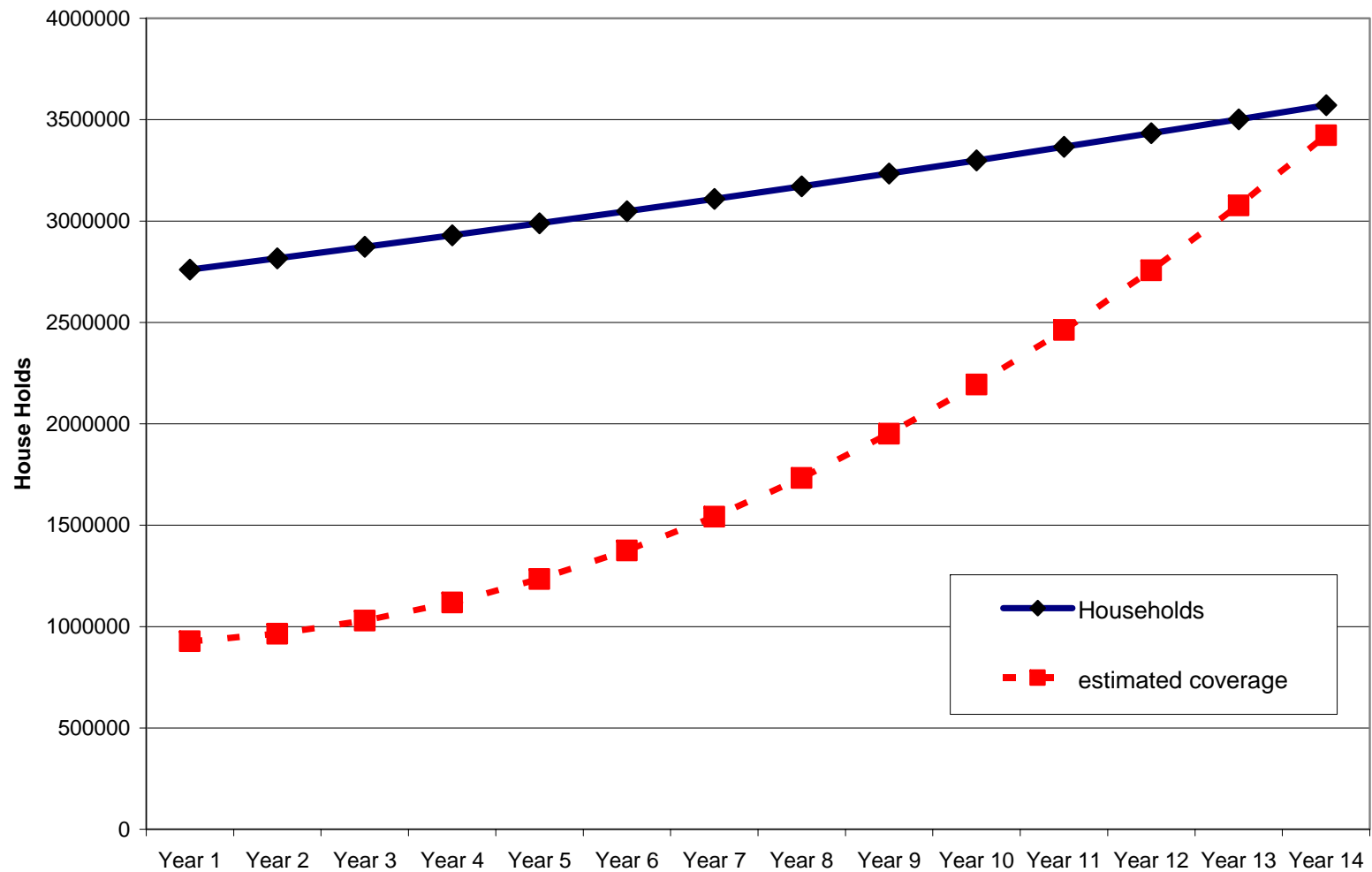
Sanitation promotion, equipment, indirect subsidy costs.	718,667	787,111	855,556	924,000	
Sub Total	1,118,807	1,191,409	1,264,012	1,336,614	
Urban and municipal investment plan					
Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.	19,934	19,934	19,934	19,934	
Health club cards	6,222	6,815	7,407	8,000	
Health & hygiene education, training, equipment and operational costs	31,007	31,008	31,009	31,011	
Sanitation promotion training, equipment, indirect subsidy costs.	102,667	112,444	122,222	132,000	
Sewerage system repair costs not in this budget					
Septic tank effluent disposal / recycling facilities set up costs not in this budget					
Solid waste recycling centre set up costs not in this budget					
Sub Total	159,830	170,201	180,573	190,945	
Town sanitation investment plan					
Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.	9,967	9,967	9,967	9,967	
Sanitation audit costs	3,111	3,407	3,704	4,000	
Health & hygiene education, training, equipment and operational costs	15,503	15,504	15,505	15,505	
Sanitation promotion training, equipment, indirect subsidy costs.	51,333	56,222	61,111	66,000	
Septic tank effluent disposal / recycling facilities set up costs					
Solid waste recycling centre set up costs					
Sub Total	79,915	85,101	90,287	95,472	
School hygiene investment plan (training budget)					
Training Head Teachers	196,389	196,389	196,389	196,389	
Training Health Teachers	303,333	303,333	303,333	303,333	
Teachers materials	50,650	50,650	50,650	50,650	
Hardware costs for schools not in this budget					
Sub Total	550,372	550,372	550,372	550,372	
Grand Total	2,304,299	2,392,459	2,480,619	2,568,779	
Cumulative Total	21,508,006	23,900,465	26,381,084	28,949,864	
Estimated cumulative number of Health Clubs	40,970	48,790	57,290	66,470	
Estimated cumulative number of Health Club Members	2,048,500	2,439,500	2,864,500	3,323,500	
Estimated cumulative number of latrines	1,542,400	1,836,800	2,156,800	2,502,400	
Estimated total programme cost per latrine	13.94	13.01	12.23	11.57	
Estimated material costs of each latrine	0.57	0.52	0.48	0.45	

National Sanitation Policy Investment Plan Budget (Totals Only) in US\$ National Investment Plan

Establishing, staffing, equipping and running the Sanitation directorate and NHSCU	4,347,441
Annual Sanitation Week Conference	371,881
Umoyo Wabwino Radio Programme	305,636
Further research into sanitation and solid waste recycling options	1,212,296
Bio-degradable plastic and paper bag manufacturing	
Sub Total	6,237,254
Rural Investment Plan	
Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.	2,037,542
Health club cards	406,519
Health & hygiene education, training, equipment and operational costs	2,933,987
Sanitation promotion, equipment, indirect subsidy costs.	6,690,444
Sub Total	12,068,493
Urban and municipal investment plan	
Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.	291,077
Health club cards	58,074
Health & hygiene education, training, equipment and operational costs	419,141
Sanitation promotion training, equipment, indirect subsidy costs.	955,778
Sewerage system repair costs not in this budget (note further studies will be needed)	
Septic tank effluent disposal / recycling facilities set up costs not in this budget (note further studies will be needed)	
Solid waste recycling centre set up costs not in this budget (note further studies will be needed)	
Sub Total	1,724,070
Town sanitation investment plan	
Establishing, staffing, equipping and running new District hygiene and sanitation coordinator cadre.	145,539
Sanitation audit costs	29,037
Health & hygiene education, training, equipment and operational costs	209,571
Sanitation promotion training, equipment, indirect subsidy costs.	477,889
Septic tank effluent disposal / recycling facilities set up costs (note further studies will be needed)	168,000
Solid waste recycling centre set up costs (note further studies will be needed)	184,800
Sub Total	1,214,835
School hygiene investment plan (training budget)	
Training Head Teachers	2,749,444
Training Health Teachers	4,246,667
Teachers materials	709,100
Hardware costs for schools not in this budget (note further studies will be needed)	
Sub Total	7,705,211
Grand Total	28,949,864
Estimated cumulative number of Health Clubs	66,470
Estimated cumulative number of Health Club Members	3,323,500

Estimated cumulative number of latrines	2,502,400
Estimated total programme cost per latrine	23.50
Estimated material costs of each latrine	0.95

Graph showing projected: population growth and increase in sanitation coverage



5.0 MONITORING AND EVALUATION

The effectiveness of the policy and its implementation will be continuously monitored and evaluated by the National Hygiene and Sanitation Coordination Unit in consultation with various stakeholders. In addition the annual hygiene and sanitation conferences, which will take place during the 'Sanitation Week', shall provide a venue for annual review of progress as well as problems of both the implementation plan and the effectiveness of the policy itself.

The work of the NHSCU will be subject to both internal review by the MoIWD as well as external review involving all of the ministries involved in its work.

Appendix 1 Links between water and sanitation (WATSAN) and other MDGs

Links between WATSAN and other MDGs (Mathew 2005 & Adapted from DFID 2004, & WSSCC 2004)	
Development Goal	Link to Water and Sanitation
Eradicate extreme poverty and hunger (Goal 1)	<p>Without access to WATSAN:</p> <ul style="list-style-type: none"> • Time and energy are lost searching for and collecting water • Poor health and frequent illness lead to lower productivity and lower income. • Household time, energy and budgets are consumed by coping with frequent illness • Child malnutrition is rampant, worsened by frequent illness due to lack of safe water and sanitation. <p>With access to WATSAN:</p> <ul style="list-style-type: none"> • Better health leads to greater capacity to develop and maintain a livelihood • Time and energy can be reallocated for productive activities and/or self employment
Achieve universal primary education (Goal 2)	<p>Without access to WATSAN:</p> <ul style="list-style-type: none"> • Diarrhoeal diseases and parasites reduce attendance and attention. • Girls are often obliged to stay home from school to help carry water and look after family members who are ill • School attendance by girls is reduced, and drop-out rates higher, where schools have no separate toilet facilities for boys and girls <p>With access to WATSAN:</p> <ul style="list-style-type: none"> • Schools are healthy environments • School enrolment, attendance, retention and performance is improved • Teacher placement is improved • Girls feel safe and can maintain dignity while at school
Promote gender equality and empower women (Goal 3)	<p>Without access to WATSAN:</p> <ul style="list-style-type: none"> • Women and girls face harassment and/or sexual assault when defecating in the open • Women in rural areas spend up to a quarter of their time drawing and carrying water - often of poor quality <p>With access to WATSAN:</p> <ul style="list-style-type: none"> • Women and girls enjoy private, dignified sanitation, instead of embarrassment, humiliation and fear from open defecation • The burden on women and girls from water carrying is reduced • The burden on women and girls from looking after sick children is reduced • Increasing women's roles in decision-making to match their responsibilities, and bringing about a more equitable division of labour are known to help improve water supply, sanitation and hygiene. Demonstrating this can help to improve women's status in other ways.
Reduce Child mortality (Goal 4)	<p>Without access to WATSAN:</p> <ul style="list-style-type: none"> • Diarrhoeal disease, including cholera and dysentery, continues to kill more than 2 million young children a year • Bottle-fed milk is often fatal due to contaminated water • Hookworms, roundworms and whipworms breed and debilitate millions of children's lives <p>With access to WATSAN:</p> <ul style="list-style-type: none"> • Better nutrition and reduced number of episodes of illness leads to physical and mental growth of children • There is a sharp decline in the number of deaths from diarrhoeal diseases
Improved Maternal health (Goal 5)	<p>Without access to WATSAN:</p> <ul style="list-style-type: none"> • Contaminated water and bad hygiene practices increase chances of infection during labour • Women face a slow, difficult recovery from labour <p>With access to WATSAN:</p> <ul style="list-style-type: none"> • Good health and hygiene increase chances of a healthy pregnancy <p>There is a reduced chance of infection during labour</p>

Links between WATSAN and other MDGs (Continued)	
Development Goal	Link to Water and Sanitation
Combating HIV/AIDS, Malaria & other diseases (Goal 6)	<p>Without access to WATSAN:</p> <ul style="list-style-type: none"> • People face difficulty in cleaning, bathing, cooking and caring for ill family members • There is a higher chance of infections due to contaminated water, lack of access to sanitation and hygiene, worsening overall conditions of diseased people • Of the global burden of disease, 23% is a result of poor environmental health, 75% of which is attributable to diarrhoea. <p>With access to WATSAN:</p> <ul style="list-style-type: none"> • Fewer attacks on the immune system of HIV/AIDS sufferers, allowing better health • Better, more hygienic and dignified possibilities to take care of ill people, lifting their burden • HIV treatment is more effective where clean water and food are available. • HIV infected mothers require clean water to make formula milk • Less occurrence of contaminated water sources and standing water around water points reduces breeding grounds for mosquitoes • Clean water and hygiene are important in reducing a range of parasites including trachoma and guinea worm
Ensure environmental sustainability (Goal 7)	<p>Without access to WATSAN:</p> <ul style="list-style-type: none"> • Squalor, disease and degradation of natural surroundings, especially in slums and squatter settlements (Water resources are under stress) • Rural rivers and soils continue to be degraded by faeces • Due to urbanisation, numbers without adequate sanitation double to almost 5 billion by 2015 <p>With access to WATSAN:</p> <ul style="list-style-type: none"> • There is a sharp decrease in environmental contamination by faeces and wastewater • There are clean water and sustainable treatment and disposal procedures • Better health is linked to a reduction in poverty, putting less strain on capacity of natural resources
Develop a global partnership for development (Goal 8)	<p>Without access to WATSAN:</p> <ul style="list-style-type: none"> • Poor health leads to low productivity • Lack of schooling decreases employment chances <p>With access to WATSAN:</p> <ul style="list-style-type: none"> • Public, private and civil society partnerships help deliver water and sanitation services to the poor • The poor themselves are empowered through their involvement in the sector, developing a capacity for planning, implementation, maintenance and management that transcends into other sectors • There are more options for employment creation, as water supply and sanitation provision is labour intensive