

# DAR ES SALAAM CITY LOCAL BIODIVERSITY STRATEGY AND ACTION PLAN

(ILALA AREA)

FEBRUARY 2022

# Dar es Salaam City Council signatures

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### Note

In March of 2021, the former Dar es Salaam City Council, which held the coordinating role for the City's five municipal councils (Ilala, Ubungo, Kinondoni, Temeke and Kigamboni Municipal Councils) was disbanded. This LBSAP was developed prior to 2021 in the context of the former Ilala Municipal Council, which has now been renamed 'Dar es Salaam City Council'. This report therefore addresses biodiversity issues within the geographical and administrative area governed by the former Ilala Municipal Council.

### Drafters of this report

This LBSAP document was drafted by Ernita van Wyk, Kirsty Griffin, Mthobisi Wanda and Ingrid Coetzee (ICLEI Africa and ICLEI Cities Biodiversity Center)

## Acknowledgements

We gratefully acknowledge all the stakeholders who supported the development of the Ilala LBSAP over several pre-meetings and workshops. They include: The Municipal Mayor and deputy-mayor, Ilala Municipal Council environmental officials, staff of the National Environmental Management Council (NEMC), the Office the Regional Government (Dar es Salaam Region), Dar es Salaam City Council (Planning Department), The Head of Environment – Ilala Municipal Council, representatives of the Ministry of Lands, Housing and Human Settlements Development, Ilala Municipal Council town planners, Ilala Office of Agriculture, representatives from the Lake Victoria Region Local Authorities Counties Cooperation (LVRLACC), Nipe Fagio, architects, landscape architects, Ardhi University and the University of Dar es Salaam and a representative from the national Vice-President's Office: Environment Division, responsible for implementing Tanzania's national biodiversity strategy and action plan. Staff from the ICLEI Africa and ICLEI Cities Biodiversity Center drafted the LBSAP with generous support from the INTERACT-Bio and UNA Rivers projects.

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based on a decision of the German Bundestag





### **Preface**

Ilala Municipality is the central urban hub of Dar es Salaam City. It supports major trade, tourism, fisheries, agriculture, business and transport activities. The vibrancy of this portion of Dar es Salaam draws attention to the need for biodiversity and urban nature to support an increasingly busy city centre and rapidly changing peri-urban areas. In a fast growing Municipality, we need to protect the natural resources that people depend upon for their livelihoods and enhance the natural assets that improve quality of life for people working and living in the city. Increasingly, the world has recognised the impact of urbanisation on biodiversity and the unique role that local and sub-national governments can play in activating local support for national and global biodiversity goals. Ilala Municipal Council is proud to present the first Local Biodiversity Strategy and Action Plan for Tanzania. We are inspired by the Ilala Biodiversity vision and focal areas and the emphasis on supporting development needs. Implementation is now our imperative.

Halmashauri ya manispaa ya Ilala ndio kitovu cha jiji la Dar es salaam, ambapo ndipo hufanyika shughuli mbalimbali za kibiashara, utalii, uvuvi, kilimo, biashara ndogo ndogo na usafirishaji. Na pia ndipo hupatikana ofisi za serikali kuu ikiwemo wizara, mawakala wa serikali, makampuni binafsi na balozi za nchi mbali mbali. Haya yote yanafanya Manispaa ya Ilala kuwa eneo muhimu kwa maendeleo ya Jiji na hivyo kuhitajika jitihada za makusudi na kuchukua tahadhari za kulinda baiolojia na mazingira asili ya mji, ili kusaidia ulinzi wa mazingira unaoendana na kuongezeka na kukua kwa haraka kwa Manispaa. Katika ukuaji wa Maeneo ya Manispaa, tunatakiwa kulinda mali asili ambazo watu wanazitegemea kwa ajili ya maisha yao na pia kuongeza mali asili hizo ili kuboresha ubora wa maisha ya watu wanaofanya kazi na wanaoishi mijini. Kwa kiasi kikubwa sasa, Dunia inatambua athari za ukuaji wa kasi wa miji na ongezeko la watu mijini juu ya biolojia na mali asili, na nafasi ya kipekee iliyonayo serikali za mitaa katika kusaidia serikali za kitaifa na za kimataifa katika kufikia malengo ya kulinda bioanuwai ya maeneo ya mijini. Manispaa ya Ilala inajivunia kuwasilisha mpango mkakati wa kulinda bianuai kwa mara ya kwanza Tanzania. Uanzishwaji wa Mpango huu umechochewa na mtazamo thabiti wa Halmashauri katika kulinda baiolojia na bioanuwai zilizopo na pia mkazo uliopo katika utunzaji mazingira kwa maendeleo endelevu ya Manispaa. Kwa sasa uwepo wa mpango mkakati huu na utekelezaji, kwetu ni lazima.





Omary Kumbilamoto – Lord Mayor Dar es Salaam City Council (left) and Dar es Salaam City Director Jumanne K. Shauri (right)

### **Executive Summary**

People need nature for their survival and well-being. Countries need nature and biodiversity to build their economies, to prosper and to foster adaptive capability in the face of climate change. In rapidly urbanising countries such as Tanzania, retaining and enhancing nature's contributions in urban spaces pose particular challenges. Tanzania has been a signatory to the Convention on Biological Diversity (CBD) since 1996. As a Party to the Convention, Tanzania's Vice-President's Office (VPO): Environment Division, drafted Tanzania's National Biodiversity Strategy and Action Plan (NBSAP) for the period 2015 – 2020. From 2010, formal recognition, globally, of the role of local governments in biodiversity planning, gave rise to a local mechanism: the Local Biodiversity Strategy and Action Plan (LBSAP). This gives cities and municipalities a structured tool and process to plan, and allocate resources, for biodiversity and urban nature at the level of their jurisdiction. The intention is two-fold: (1) To secure nature's benefits, such as improved health and quality of life, for local citizens, and; (2) to simultaneously support national and global advancement in securing nature's benefits at the global scale.

This document summarises the outcomes of engagements for the development of an LBSAP for the Ilala Municipal Council, one of five municipal councils of the City of Dar es Salaam. The Ilala Municipal Council, with support from ICLEI Africa as well as a wide range of stakeholders, developed this LBSAP, between June 2018 and October 2019. Dar es Salaam (and therefore Ilala Municipal Council) falls within one of the world's 35 recognised biodiversity hotspots: the East African Coastal Forest. Cities and municipalities must manage the tension between urbanisation and retaining and enhancing biodiversity and nature's benefits.

The Ilala LBSAP Vision was defined as: "We envision that Ilala Municipality will have well-maintained open spaces and gardens and will strive towards expanding these, as well as protecting and restoring existing green and blue infrastructure (forests, wetlands, rivers, mangroves, ponds etc.) within the municipality, whilst raising awareness of the value of nature and improving livelihoods through green infrastructure initiatives."

The five main areas of focus developed in the Ilala Municipal LBSAP were:

- 1. Awareness raising and capacity building;
- 2. Maintain and expand green spaces;
- 3. Improve livelihoods through green infrastructure initiatives;
- 4. Protect and restore natural infrastructure; and
- 5. Utilising local solutions for waste management

The Ilala LBSAP goals are strongly linked to Ilala's development priorities. There is also strong coherence between the LBSAP goals and Tanzania's NBSAP strategic goals and targets, in particular around (1) the need to raise awareness of the value of biodiversity and the benefits to socio-economic development and well-being and (2) enhanced implementation through participatory planning, knowledge management and capacity building. The LBSAP provides a platform for further engagement and in particular, it offers a structured plan of action for the mobilization of resources for implementation.

Operational goals and an associated monitoring and evaluation framework were not defined as part of this version of the Ilala LBSAP. This will be a critical next step, as the monitoring and reporting system will facilitate clear progress toward goals as well as progress in the context of obligations to supporting the achievement of the goals of the Tanzania NBSAP.

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### **Abbreviations**

ARU Ardhi University

CBD Convention on Biological Diversity
CBO Community Based Organisation

COP Conference of the Parties
DCC Dar es Salaam City Council

EMA Environmental Management Act
GIS Geographic Information Systems
ICLEI CBC ICLEI Cities Biodiversity Center

ICLEI AS ICLEI Africa Secretariat

ICLEI ICLEI-Local Governments for Sustainability
IUCN International Union for Conservation of Nature

IMC Ilala Municipal Council

LVRLACC Lake Victoria Region Local Authorities Counties Cooperation

LBSAP Local Biodiversity Strategy and Action Plan

MLHHSD Ministry of Lands, Housing and Human Settlements Development

NBS Nature-based Solutions

NBSAP National Biodiversity Strategy and Action Plan
NEAP National Environmental Action Plan
NEMC National Environmental Management Council

NGO Non-Governmental Organisation RAS Regional Administrative Secretary

SCBD Secretariat of the Convention on Biological Diversity

TANBIF Tanzania Biodiversity Information Facility

TEEB The Economics of Ecosystems and Biodiversity

UDSM University of Dar es salaam

UNU-IAS United Nations University Institute of Advanced Studies

VPO Vice President's Office

### Introduction

Ilala Municipal Council is situated within the City of Dar es Salaam, Tanzania. This document, the Local Biodiversity Strategy and Action Plan (LBSAP) for Ilala Municipal Council, is a response to (1) a need to structure actions related to biodiversity at the level of local government, in support of local biodiversity protection, restoration and enhancement to support human well-being, and; (2), to support Tanzania's national and global biodiversity commitments as embodied in Tanzania's National Biodiversity Strategy and Action Plan (NBSAP) of 2015. The development of this LBSAP was based on a co-production approach and conducted through a series of workshops and engagements between June 2018 and October 2019. This LBSAP for the Ilala Municipal Council (2019) constitutes the first LBSAP for Tanzania<sup>1</sup>.

Nature is essential for human existence and good quality of life. Most of nature's contributions to people are not fully replaceable, and some are irreplaceable. Nature plays a critical role in providing food and feed, energy, medicines and genetic resources and a variety of materials fundamental for people's physical well-being and for maintaining culture. For example, globally, more than 2 billion people rely on wood fuel to meet their primary energy needs. Nature, through its ecological and evolutionary processes, sustains the quality of the air, fresh water and soils on which humanity depends, distributes fresh water, regulates the climate, provides pollination and pest control services and reduces the impact of natural hazards. But, Nature and its vital contributions to people, are deteriorating worldwide (IPBES Global Assessment, 2019).

As signatory to the Convention on Biological Diversity (CBD), Tanzania has developed a National Biodiversity Strategy and Action Plan (Tanzania NBSAP, 2015). The twenty globally accepted Aichi Biodiversity Targets (See: www.cbd.int/sp/targets), form the backbone of Tanzania's NBSAP and they are summarised as five Strategic Goals:

- Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society;
- Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use;
- Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity;
- Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services; and,
- Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

<sup>&</sup>lt;sup>1</sup>The development of the Ilala Municipal Council Local Biodiversity Strategy and Action Plan was supported by two biodiversity mainstreaming projects: INTERACT-Bio and Urban Natural Assets (UNA) for Africa, implemented by ICLEI Africa and funded by the German and Swedish Governments respectively.

### Section 1:

### The Value of Urban Nature

#### 1.1 Urbanization and Nature's Benefits in Cities

The world is fast becoming more urbanised. Already today more than half of the world's population lives in cities. Aside from Asia, Africa has some of the fastest growing cities in the world and Tanzania is no exception (Cities Biodiversity Outlook, 2012). Tanzania's population growth averaged nearly 3% p.a. between 1967 and 2012, while the urban population increased by about 5% p.a., urbanization increased from 5.7% in 1967 to 29.1% in 2012. Thus, of the 31.6 million increase in the total population during this period, 12 million were absorbed into urban areas. By 2012, Dar es Salaam City accommodated 10% of the total population of Tanzania (Wenban-Smith, 2014). At the same time, Tanzania's economy is booming: It is Africa's 12th largest economy (Burgess et al, 2017) with an annual economic growth rate of 7.2% (Worrall et al., 2017).

Historically, urban growth has been a major cause of natural habitat loss globally, directly impeding progress toward Aichi Target 5, which aims to at least halve the rate of loss of all natural habitats (Nature in the Urban Century, 2018). Furthermore, insofar as desk-top analysis could ascertain, many of the cities around the world that are located in biodiversity hotspots (like Dar es Salaam), have no planning in place to directly mitigate this loss or the loss of the associated benefits to society (Weller and Drozdz, 2019). The role of ecosystem services in these hotspots as a means to manage climate change risks, improve ecological resilience to support urban life (Seddon et al., 2018) and to enhance social and economic opportunities, becomes critical as cities are places that essentially concentrate human dependence on nature (Mittermeier et al, 2011).

As cities grow and become more densely built and populated, urban residents are increasingly exposed to health risks due to city heat, impacts on urban food systems, contaminated water resources, compromised air quality and lack of open space opportunities for sport and recreation. In addition to the urban impacts on physical health, the combined pressures of urban life, the loss of social cohesion and a diminishing connection with nature diminishes quality of life for those who live in cities. But, nature and nature's benefits can be restored, sustained and recreated in city spaces to support improved urban living. It has been shown that cities that incorporate nature into the urban landscape, facilitate improved human health and well-being, support vibrant economies and protect lives and infrastructure against extreme events (Beatley, 2016).

Nature's benefits to human well-being is recognised globally. In urban contexts, the importance of urban nature has also gained traction. Planning and design principles are available to guide the enhancement of urban ecology (Beatley, 2016) even when much of the landscape has been transformed (Elmqvist et al., 2013). The City of Nairobi, Kenya, for example, sustains its Nairobi National Park, allowing for wildlife migration, a place for urban residents to see and experience large mammals and they have also incorporated Masai pastoralists into this landscape. In Melbourne, Australia, an Urban Forest Strategy aims to address long term heat in the city by doubling tree canopy cover, which is expected to reduce temperatures in the city by as much as  $40^{\circ}$ . The urgency for Melbourne's Urban Forest Strategy was increased when 374-heat related deaths were recorded during the 2009 drought (Beatley, 2016; City of Melbourne, 2012).

As a signatory to the CBD, Tanzania is committed to sustaining and enhancing Tanzania's special biodiversity through its NBSAP (Tanzania NBSAP, 2015-2020). But, the Tanzania National Action Plan requires support from local initiatives. In particular, Tanzania's fast-growing cities can make a significant contribution as they hold biodiversity remnants that can be retained, enhanced and restored to support citizen well-being. The Tanzania NBSAP provides a framework for subnational governments to activate local efforts.

#### 1.2 Urban Nature in Dar es Salaam

### 1.2.1 Dar es Salaam: an important economic city and regional hub

Dar es Salaam is a major city and commercial hub in Tanzania. The city is bounded by the Indian Ocean on the east, coastal areas to the north and south and the inland region to the west. Dar es Salaam comprises 1,393 km² of land mass plus eight offshore islands. With a current annual population growth rate of 6.5% (current population: 4.365 million), it is the fastest growing city in East Africa. Dar es Salaam contains six Local Government Authorities, namely, the Dar es Salaam City Council, which plays a co-ordinating role for the municipalities and five Municipal Councils: Ilala, Kinondoni, Kigamboni, Temeke and Ubungo. Dar es Salaam City is the economic, industrial, commercial, trading, educational, cultural and transportation hub of Tanzania. The city is also the leading transit point for most tourists who visit Tanzania. But due to poor urban growth management, Dar es Salaam is characterized by large unplanned and informal settlements that occupy 70% to 80% of all residential land area (World Bank, 2016). The projected annual average of new urban dwellers to Dar es Salaam is around 226,000 people and there is high demand for land for settlements and industrial development (Worrall et al, 2017).



Dar es Salaam Harbour. [Source: Pixabay; 2 July 2019]

### 1.2.2 Dar es Salaam: A globally important Biodiversity Hotspot City

Dar es Salaam is located in a globally important biodiversity hotspot, the 'East African coastal forest'. Biodiversity hotspots are areas of exceptional concentrations of endemic species (i.e. found nowhere else in the world) that are simultaneously undergoing a high rate of loss of habitat. The hotspots concept is based on the conservation planning principles of irreplaceability and vulnerability. These areas were identified globally as a means to focus conservation funding efforts as hotspots house a significant portion of the world's biodiversity (Myers et al., 2000). The East African coastal forest hotspot runs along the Tanzanian and Kenyan coasts from the border with Somalia to the north, to that with Mozambique to the south. It straddles two ecoregions: Eastern Arc Forest and Northern Zanzibar-Inhambane Coastal Forest Mosaic. Of the original 30 000 km<sup>2</sup>, just 2 000 km<sup>2</sup> (i.e. 6.7%) of the hotspot remains. The East African Coastal forests are an important and highly threatened centre of endemism for plants, mammals, birds, reptiles, frogs, butterflies, snails and millipedes (Burgess and Clarke, 1998 and Burgess et al., 2017). Remnants of these coastal forests remain within Dar es Salaam City's jurisdictional boundary. Despite rapid urbanization, Dar es Salaam is still has a picturesque shoreline, beautiful beaches, pockets of mangroves, remnants of coastal and Afromontane forest and various wildlife elements (most notably birds, bats, monkeys and marine wildlife). The city centre also boasts many shade trees. But these natural resources are under pressure.



Neem trees providing shade in the Dar es Salaam city center

The Dar es Salaam Environmental Outlook (2011) provides a comprehensive description of Dar es Salaam's environmental issues, institutional landscape and its natural resources, with some focus on ecosystem services. It concludes with a summary of 'Options for Action'. It appears that for Dar es Salaam, there is no shortage of descriptions, assessments and options for action with regards urban nature. Missing perhaps are: (1) analyses that show the close connections and quantified impact between urban nature, livelihoods and economies; (2) a framework to prioritise specific areas and project concepts for intervention, and at scales that can leverage impact; and (3) actual investment into initiatives that can demonstrate the said benefits. A notable and recent exception is the plan by the World Bank for a large-scale improvement of the Msimbazi River which is an important natural asset in the city but which is also famous for annual flooding and other urban issues. Another decision-support tool is the Thematic Atlas for Dar es Salaam (Karutz et al., 2019). The Atlas has a spatial focus on nature's benefits in the City, shows that there are many opportunities for City and Municipal decisions to simultaneously enhance urban nature and improve the well-being of Dar es Salaam's urban population. In the Atlas, seven themes were distilled by local stakeholders and the benefits of urban nature in the form of green open space is highlighted. The Themes are: Livelihoods, Water as a Human Right, Reduced Air Pollution, Healthy Communities, Reduced Urban Heat, Reduced Flood Risk and Biodiversity. Each thematic chapter describes how urban greening can alleviate urban issues and provides a tool to prioritise where in Dar es Salaam (i.e. spatially), investment in green space might optimise nature's benefits to people.

# 1.2.3 The Dar es Salaam Strategic Plan: aligning development needs with urban nature benefits

The Dar es Salaam Strategic Plan follows on the National Five Year Development Plan 2017/18 -2021/22 which is geared towards industrialization and the Global Sustainable Development Goal -11, which aims to make cities safe and secure for human settlement while stimulating innovations and development. With its high growth rate and high levels of informal settlement, Dar es Salaam is challenged with many socio-economic problems including: the city's growth has outstripped the usefulness of conventional planning approaches, congested traffic, unemployment, issues around waste management and health problems. The Strategic Plan provides a road map for the envisioned city with sustainable development and competitive investment put forward as requirements to address the major city challenges. The vision in the Dar es Salaam Strategic Plan reads: "for Dar es Salaam City Council to be a leading safe city with sustainable development, competitive investment environment, managed on principles of good governance, where residents have decent living standards."

To attain the Dar es Salaam City Vision, key strategic issues provide areas of focus for the Dar es Salaam City Council - DCC):

- Waste Management, Cleanliness and Beautification of the City;
- Improved City Master Plan;
- Economic Growth, Revenue, and job creation (Employment);
- Improved Equitable Quality Social services and;
- Governance and coordination.

The flagship socio-economic development programmes and services include; acquiring land at Kigamboni and Ubungo for waste management, construction and rehabilitation of inner roads, storm water drainage, tipping cell and leachate ponds, detailed city Master plan, DCC Socio-economic profile for Public and Private investment, construction of park and ride along BRT-corridor, construction of up-country bus terminals at Mbezi Luis, Boko basihaya and Mbagala, and construct of small industries infrastructure for entrepreneurs.

It is evident from the Dar es Salaam Strategic Plan that a major challenge will be to connect and align Dar es Salaam's urban nature and unique biodiversity with urgent development priorities. For example, built infrastructure and the delivery of basic services are important imperatives. The Ilala LBSAP aims to highlight Ilala Municipal Council's urban nature and related plans, as a platform to start to identify opportunities whereby urban nature can be restored and enhanced to support social development, in line with the DCC strategic plan.

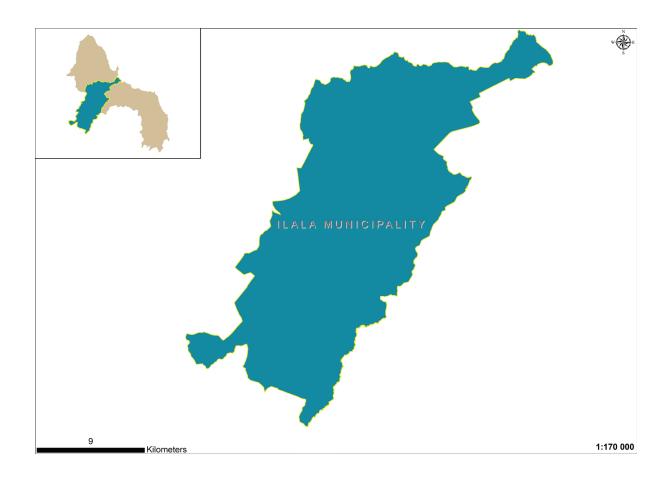
### 1.3 Ilala Municipality

The Ilala Municipal Council was established on 1 February 2001 "to promote the social welfare and economic well-being of all persons within its area of jurisdiction". (Ilala Municipal Council Strategic Plan 2018-2022). Ilala Municipality includes the downtown city centre of Dar es Salaam with the picturesque harbour, fish market, beaches, botanical gardens and presidential residence. Ilala is unique in that is has a moving population whereby the majority of Dar es Salaam citizens spend their day time in Ilala but live in other Municipalities. From the city centre, Ilala Municipality is bordered by the Indian Ocean in the East and stretches for about 10 kilometres inland. Its altitude ranges between 0 and 900 meters above sea level, which influences the ecological characteristics of the Municipality. Thus the Municipality consists of a larger lowland area and a small part forming the upland zone. The small upland areas emerge as small hills or plateaus while most of the lowland areas constitute the urban part of the Municipality. The upland areas are predominantly agricultural and rural in character.



Coco Beach is popular with locals

Figure 1. Ilala Municipality in Dar es Salaam



Box. 1 Ilala Municipality Vital Statistics

Ilala Municipality area/ size = 210km<sup>2</sup>

Population size: 1,220,611 people (2012 Census)

Climate: high humidity and temperatures that vary from 26 °C in August to 35 °C in December and January. The long rain season (March – May) brings an average monthly rainfall of 150mm – 300mm. The short rain season between October and December has a monthly average rainfall from 75mm – 100mm.

### 1.4 Dependence on Urban Nature in Ilala Municipality

The natural vegetation in Ilala Municipality consists of disturbed bushland, miombo woodland species, coastal swamps and mangroves. The Zingiziwa and Kinyerezi forests are iconic. The Msimbazi River passes through the Municipality and drains into the Indian Ocean. The river is one of the city's largest rivers, but is heavily affected by waste from industries and adjacent residential areas. The river is also being used by small scale urban farmers for irrigation of vegetables and fruits grown along the river banks.



A baobab tree near the mouth of the Msimbazi River. Baobab trees are common in Dar es Salaam City.

Ilala encompasses natural and semi-natural areas such wetlands, forests, rivers and agricultural lands to highly modified areas such as built environment, including settlements and business hubs. The main economic activities in Ilala Municipality are retail business which includes small and medium shops, hotels, bars and restaurants, transportation services, agricultural business, handcraft, banking and construction businesses. Table 1 (below) shows a summary of land cover in Ilala by percentage area occupied by each land cover class. Also refer to the land cover map below.

Figure 2. Land cover map for Ilala Municipal Council. Source: Thematic Atlas for Dar es Salaam. (Karutz et al., 2018).

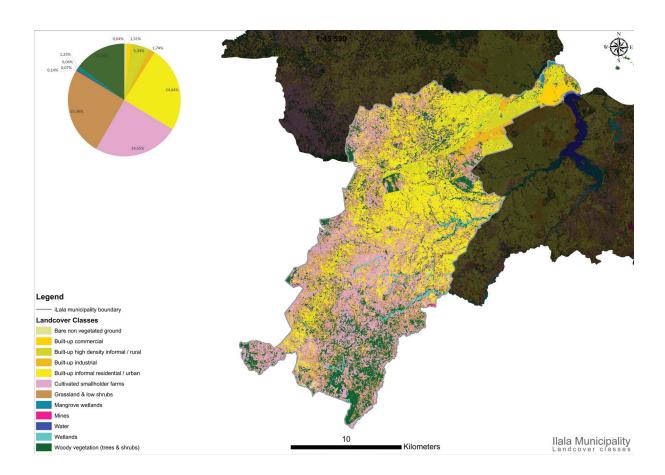


Table 1 showing land cover in Ilala based on 2017 satellite data (Source: GeoTerra Image)

Land cover class	Hectares	% of total Ilala
Bare non vegetated ground	233	0,64
Built -up commercial	480	1,31
Built -up high density informal / rural	1947	5,34
Built -up industrial	634	1,74
Built -up informal residential / urban	8990	24,64
Cultivated smallholder farms	8994	24,65
Grassland & low shrubs	9255	25,36
Mangrove wetlands	52	0,14
Mines	27	0,07
Water	15	0,04
Wetlands	450	1,23
Woody vegetation (trees & shrubs)	5415	14,84

Table 1 and the land cover map indicate the dominant land cover classes in Ilala are informal and unplanned, built-up, residential urban cover, cultivated smallholder farms and grassland and low shrubs. Woody vegetation and trees also make a significant contribution to land cover. The built up areas are mainly in the north and north-east and linearly towards the south. Smallholder farms occupy much of the rest of the land although in the south-west there is a portion of land covered by what appears to be intact mixed woodland, grassland and wetlands (Mzinga Forest, River and associated wetlands). There are also fragments of woody vegetation in amongst the built-up areas of Ilala suggesting the presence of parks and green open space, perhaps reflecting municipal commitment to urban nature and urban greening.

Wild, semi-artificial and artificial nature provide numerous benefits in Ilala. Some economic activities rely indirectly on nature's goods and services. For example, industrial processing and manufacturing is a significant economic sector in Ilala, most notably textile mills and the production of food and beverage. There are also some small-scale industries scattered throughout the Municipality and which are located mostly in residential areas. These industries rely on water resources and land.

However, many livelihood and economic activities are more directly dependent on nature's benefits. For example, livestock farming and fisheries constitute a very important component of the livelihoods of Ilala citizens. Fishing supports both subsistence and commercial purposes. The Ferry Fish Market accounts for a daily catch of about 15 tons of fish. Agriculture is also an important sector for Ilala. Agricultural practices involve small and medium scale farming with both hand equipment and more mechanised soil preparation methods for example using tractors. Ilala Municipal Council has a total of 4,000 ha potential for irrigation farming. However, only 66 ha are currently irrigated using seasonal and permanent streams, deep and shallow wells. About 10 000 ha of land in the Municipality is suitable for agricultural practice especially crop cultivation.



Figure 3. Natural assets in Ilala. Source: Thematic Atlas for Dar es Salaam. (Karutz et al., 2018).

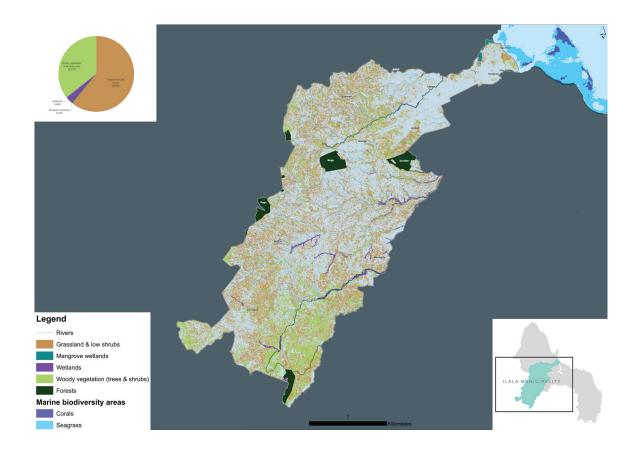


Table 2. A summary of the extent of natural assets in Ilala based on Land Cover (Source: GeoTerra Image)

Natural asset class (Ilala)	Hectares	% of total Ilala
Grassland and low shrubs	9238,720702	60,99
Mangrove wetlands	49,619793	0,33
Wetlands	454,978218	3,00
Woody vegetation (trees and	5403,66028	35,67
shrubs)		

Table 2 above and the Ilala Natural Asset map show that grasslands and low shrubs constitute the majority of natural land in Ilala and as mentioned above, the Mzinga forest and River and associated wetlands provide an important set of nature areas in Ilala, along with the Msimbazi River further north, the Mogo Forest at the headwaters of the Msimbazi and the Dondwe Coastal Forest which protects the waters of the Kizinga River. There is very little information available on the ecological features and condition of natural assets and it is therefore not possible to make a statement about the existing and potential services provided by such natural assets in Ilala. In addition, primary biodiversity data for the Ilala Municipality is not readily available and will have to be developed or sourced from for example, Tanzania Biodiversity Information Facility (TANBIF). This will be especially important in the light of research that shows the importance of at least minimal species richness to support ecosystem function (Schwartz et al., 2000) and the role of diverse ecosystems in the effectiveness of nature-based solutions and human adaptation (Seddon et al., 2019). In particular in Dar es Salaam City, including Ilala, focus on retaining and restoring elements of the unique East African Coastal Forest hotspot will be important.

Despite the absence of a formal assessment of Ilala's natural assets, their condition and analysis of current ecosystem services and therefore lack of information on future opportunities, Ilala Municipal Council has a track record of supporting conservation of its natural assets as well as greening of the highly urbanised land within the Council's jurisdiction. For example, green open spaces are considered vital and are referred to as "Municipal Breathing Areas" in the Ilala Strategic Plan (2017/8 – 2021/22). It is also recognised that these areas are undervalued and underutilized. Specific projects support inner city greening. Through the Mti Wangu Project, initiated in October 2016, tree planting was much encouraged across the Council and the Council supplied 1500 seedlings and flowers to 15 Primary Schools as part of this initiative.



More recent environmental commitments and actions by Ilala Municipal Council have been concerned with community environmental awareness and education, calls to support environmental research, compliance and pollution monitoring, upgrading of open spaces such as road reserves and inner city roundabouts, the development of greenbelts, efforts to improve coastal and recreational areas, environmental conservation, establishment of ecotourism centres, identification of tourism hotspots and efforts to establish projects that promote tourism, waste management and waste recycling and establishing a communication system on information about disasters linked to climate change.

Sustainable development is emphasised by the Ilala Strategic Plan (2017/18 – 2021/22) and the 'Improved management of natural resources and the environment' is one of the Municipality's Strategic Objectives (See Box 2 below)

Box. 2 Ilala Municipal Council Strategic Objectives

- 1. Services improved and HIV/AIDS infections reduced
- 2. Effective implementation of the National Anti -Corruption Strategy Enhanced and Sustained
- 3. Access, quality and equitable social service delivery improved
- 4. Quantity and quality of economic services and infrastructure improved
- 5. Good governance and administrative services enhanced
- 6. Social welfare, gender and community empowerment improved
- 7. Emergence preparedness and dis aster management improved
- 8. Improved management of natural resources and environment
- 9. Information and communication Technology improved

The Ilala Municipal Council LBSAP must support the goals of the Tanzania NBSAP as well as align with the Ilala Strategic Plan (2017/18 – 2021/22) and the Ilala State of the Environment report (2016).

### Section 2:

# An overview of the Tanzanian National Biodiversity Strategy and Action Plan

#### 2.1 What is a NBSAP?

National governments worldwide, including Tanzania in 1996, signed and became Parties to the Convention on Biological Diversity (CBD). By becoming a Party to the CBD, each national government commits to three primary goals:

- (1) conservation of biological diversity;
- (2) sustainable use of the components of biological diversity; and
- (3) fair and equitable sharing of the benefits arising out of the utilisation of genetic resources.

In addition, to these objectives, the CBD Strategic Plan for Biodiversity 2011-2020 lists five strategic Aichi Biodiversity Goals which directly link to 20 specific targets (the Aichi Biodiversity Targets). National Governments worldwide are encouraged to develop National Biodiversity Strategy and Action Plans (NBSAPs) to adhere to their commitment to the CBD and to address these targets.

The United Republic of Tanzania NBSAP (2015 -2020) was developed in October 2015. The Tanzania NBSAP developed national biodiversity targets based on national priorities, but linked to the global goals and targets noted above. However, achievement of nationally determined goals and targets will not be possible without the active contribution of local municipal governments. Local governments are therefore encouraged to develop LBSAPs which are aligned to the NBSAP to ensure continuity and synergy in biodiversity planning and policy development between the local and national levels of government.

### 2.2 Vision, Goals and Targets of the Tanzanian NBSAP

The Tanzanian NBSAP provides the national framework within which sub-national governments can formulate their biodiversity strategies and actions.

The vision of the Tanzania NBSAP (2015 - 2020) states: "By 2025, biodiversity and ecosystems are well protected, restored and used sustainably, ecosystem functioning is maintained, so that they perpetually deliver sustainable intrinsic benefits for socio-economic development". (p. xii)

In decision X/2, at the tenth meeting of the Conference of the Parties (COP 10), held from 18 to 29 October 2010, in Nagoya, Aichi Prefecture, Japan, signatory parties adopted a revised and updated Strategic Plan for Biodiversity, including the Aichi Biodiversity Targets, for the 2011-2020 period. The Tanzanian NBSAP Goals and Targets follow closely on the Aichi Biodiversity Targets. The Aichi Targets are a set of 20 global targets under the Strategic Plan for Biodiversity 2011-2020 and they are grouped under five strategic goals:

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society

- Target 1. At least 60% of the population is aware of the importance of biodiversity and its impact on human well-being and socio-economic development of the country.
- Target 2. Programmes for the valuation of biodiversity and payments for ecosystem services developed and integrated into national and local development strategies and plans.
- Target 3. Incentives harmful to biodiversity are eliminated, phased out or reformed and positive incentives for the conservation and sustainable use of biodiversity are developed and applied.
- Target 4. Investments in systems of production and consumption based on sustainable eco-friendly practices increased.

Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use

- Target 5. The rate of degradation and fragmentation of ecosystems and the loss of habitats is significantly reduced.
- Target 6. At least three Legislations that govern exploitation of aquatic and terrestrial resources are reviewed and enforced.
- Target 7. Biodiversity and agriculture related policies, laws and strategies promote sustainable management of forest, agricultural and aquaculture ecosystems are reviewed and implemented.
- Target 8. All forms of pollution from water and land-based activities are brought to levels that are non-detrimental to biodiversity ecosystem functions.

- Target 9. Invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to prevent their introduction and establishment.
- Target 10. The multiple anthropogenic pressures on coral reef and vulnerable ecosystems impacted by climatic change are minimized.

Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity

- Target 11. Area covered under marine protected areas be increased from 6.5% to 10% and effectively manage the existing terrestrial and marine protected areas.
- Target 12. Nationwide biodiversity assessment conducted, species that require special attention identified and managed to ensure their long-term sustainability.
- Target 13. Strategies to reduce genetic erosion developed and implemented to maintain genetic diversity of cultivated plants, farmed and domesticated animals and their wild relatives.

Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services

- Target 14. Ecosystems that provide essential services, related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, local and vulnerable communities.
- Target 15. Ecosystem resilience and the contribution of biodiversity to carbon stocks enhanced, through conservation and restoration, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

- Target 16. Fair and Equitable Sharing of Benefits arising from utilization of biodiversity resource is in force and operational, consistent with national and international legislation.
- Target 17. Tanzania has adopted NBSAP as a policy instrument, and has commenced implementation with effective participation.

- Target 18. Traditional knowledge, innovation and practices relevant for the conservation and sustainable use of biodiversity respected and safeguarded.
- Target 19. Significant increase in the contribution of knowledge, technology and scientifically based information that are generated and shared.
- Target 20. Financial resources in support of biodiversity programmes significantly increased.

Following on from the Rio Convention and the birth of National Biodiversity Strategies and Action Plans (NBSAPs), the UN Conference of the Parties have given increasing recognition to the need to engage sub-national governments more directly to stimulate, organise and report local action on biodiversity. During the CBD COP-10 in Nagoya, Japan, in October 2010, Decision X/22 was adopted endorsing a "Plan of Action on Sub-National Governments, Cities and Other Local Authorities for Biodiversity (2010-2020)". With an endorsement from the CBD and Parties for local biodiversity planning, a tool and process were needed to achieve the Local Biodiversity Planning and this is where the idea of Local Biodiversity Strategies and Action Plans (LBSAPs) originated. "Local Biodiversity Strategies and Action Plans (LBSAPs) can be the backbone for organising and integrating biodiversity issues locally, while also advancing National Biodiversity Strategies and Action Plans (NBSAP) and CBD efforts. (Puppim de Oliviera et al., 2014).

In order to create a platform for biodiversity action planning that is aligned between national and sub-national, it is important to make clear links between the Tanzanian NBSAP and the sub-national goals, in this case, the Ilala Municipal Council LBSAP. These linkages were addressed during the development of the Ilala LBSAP and are shown in Section 6.3 of this report.

### Section 3:

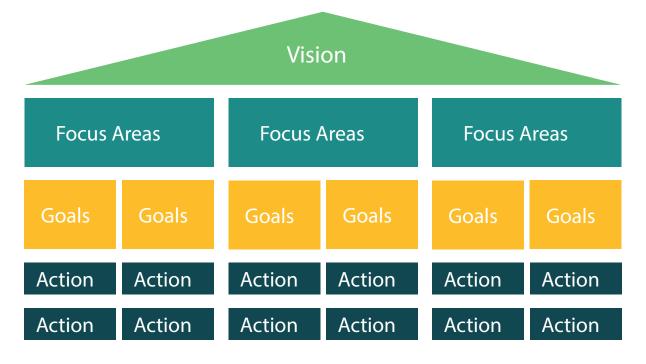
# Why do we need a Local Biodiversity Strategy and Action Plan?

#### 3.1 What is a LBSAP?

According to the 'Local Biodiversity Strategy and Action Plan Guidelines: An aid to municipal planning and conservation'<sup>2</sup>, a Local Biodiversity Strategy and Action Plan (LBSAP) is a guiding strategy, supported by specific goals and actions, developed to ensure the effective protection, sustainable use and efficient management of biodiversity within a municipal boundary over a specific time period.

A LBSAP is developed by the Municipality with support from external stakeholders (such as neighbouring municipalities, national government, local political leaders, local NGOs etc.) to not only ensure that the LBSAP is well-informed and ground truthed but also to ensure that buy-in from all stakeholders is achieved. Multi-party participation, particularly local political leaders, also ensures that the LBSAP is adopted by the Municipal Council to obtain the necessary commitment for implementation.

### Key Elements of a Strategy & Action Plan



<sup>&</sup>lt;sup>2</sup>These were developed by ICLEI – Local Governments for Sustainability in partnership with United Nations University Institute of Advanced Studies (UNU-IAS) and the Secretariat of the Convention on Biological Diversity (SCBD) with support from the Ministry of Foreign Affairs of Japan

A LBSAP generally includes a vision and linked focus areas which provide overarching direction to the plan. A vision is intended to provide direction to the plan as well as provide inspiration and motivation. LBSAP focus areas are intended to be planned, deliberate and focused efforts required to achieve the vision. The vision and focus areas are supported by goals and actions which are implemented over a specific time period (usually 5 – 10 years) to realise the LBSAP vision. LBSAP goals are intended to be well defined targeted statements that give clarity, direction and focus to the LBSAP. Essentially they are the 'heart and soul' of the LBSAP and should be closely aligned with the Tanzania NBSAP, and ultimately the Aichi Biodiversity Targets.

A LBSAP is more than a mere checklist of activities and outputs over multiple years as it provides the Municipality with a cohesive and clear roadmap of "where we are now", "where we want to be" and "how we will get there" with regard to the protection, sustainable use and management of biodiversity. Whilst a LBSAP can be a stand-alone document, it should ideally be aligned with municipal policy frameworks and plans and, where applicable, broader city plans as well as the NBSAP. This will assist with translation of international and national biodiversity policies and targets into implementable action at the local level.

### 3.2 Why do we need a LBSAP?

There are numerous benefits to developing a LBSAP, which not only support the achievement of the NBSAP goals and targets as well as international conservation obligations, but also support the local municipality with local biodiversity planning and policy development. Developing a LBSAP provides the municipality with a clear plan of the interventions and actions required at a local level to manage biodiversity within the municipal boundaries more effectively and sustainably to support human livelihoods.

Additionally, by obtaining Council / Mayoral approval for the LBSAP and including either the whole LBSAP or key targets and actions from the LBSAP into local land use planning legislation, not only are nature considerations mainstreamed into planning, but municipal funding and staff capacity can then be allocated towards achieving the specific LBSAP goals. This will make a tangible and visible difference on the ground.

Lastly, through the inclusion of the LBSAP into land use planning legislation, specific actions can be allocated to different municipal departments, effectively 'spreading the load' of actions to be implemented. This will enhance municipal integration and ensure that municipal departments and potentially new sectors even outside of the municipality, work more closely together to ensure the maintenance and management of biodiversity across different line functions.

### Section 4:

# Where we are now - setting the scene for LBSAP development in Ilala Municipality

### 4.1 Policy and legislative context

Tanzania has an extensive legislative framework concerning the environment and natural resources are considered in both development planning as well as national government priorities. This section outlines key legislation and policies informing the management of biodiversity both at a national level as well as a local level.

Table 4.1. Legislation and Policies relevant to the Ilala Municipal LBSAP

Legislation/ Policy/ Strategy	How to relates to Biodiversity
	National
National Biodiversity Strategy and Action Plan (NBSAP), 2015 -2020. Tanzania is Signatory to the Convention on Biological Diversity (CBD) . This triggers an obligation to protect and conserve its biodiversity as a global resource .	The NBSAP aims at reducing loss of biodiversity, promoting the value of biodiversity and improving community livelihoods. It is a guidance document to realise and promote sustainable utilisation and conservation of biodiversity.
The Tanzanian Environmental Management Act No. 20 of 2004	Provides for the preparation of a National Environmental Act ion Plan (NEAP) in the interval of five years. According to the Act, NEAP is the basis for integrating environmental concerns in formulation and implementation of development plans and programmes and it therefore is an important instrument alongside the NB SAP for the implementation of Actions stipulated in the NBSAP. The EMA 2004 requires Sector Ministries and Local Government Authorities to prepare their respective Environmental Action Plans in conformity with the NEAP so as ensure environmental mainstream ing.
Tanzania Urban Development Policy (work in progress)	Preliminary report: Tanzania Urbanisation Laboratory (TULab), 2019. Harnessing Urbanisation for Development: Roadmap for Tanzania's Urban Development Policy. Paper for the Coalition for Urban Transitions. London and Washington DC. Available at:  www. newclimateeconomy.net/content/cities -working-papers. The Roadmap currently does not s trongly reflect climate change or nature -based solution aspects that can change the trajectory of urbanization.
The National Environmental Policy, 1997	This policy provides the framework for mainstreaming environmental considerations in decision -making pr ocess in Tanzania. The policy identifies six major issues of environmental concerns. They are land degradation, inaccessibility to good quality water for urban and rural inhabitants, environmental pollution, loss of wildlife habitat and biodiversity, deter ioration of aquatic systems and deforestation.
The Environmental Management Act No. 20 of 2004	This Act provides both legal and institutional framework for the sustainable management of the environment, prevention and control of pollution, waste managemen t, environmental quality standards, public participation, environmental compliance and enforcement.
The National Wildlife Conservation Act No. 5 of 2009	The Act is responsible for the conservation of wildlife and ensures protection, management and sustain able utilization of wildlife resources, habitat, ecosystem and the non environment supporting such resources, habitat or ecosystem with actual or potential use or value.

Legislation/ Policy/ Strategy	How to relates to Biodiversity
	National
Water Resource Management Act No. 11 of 2009	The Act provides for pollution co ntrol and issues discharge permits of effluents to water bodies including the underground strata according to Environmental Quality Regulations provided under the Environmental Management Act No. 20 of 2004. The Act provides measures for flood mitigation a nd control for the purpose of preventing or minimising the risk of flooding, flood damage and water pollution by prohibiting the construction on submersible lands of dikes, levees or other structures which will likely hinder the runoff of flood water.
The National Parks Act No. 11 of 2003	The Act stipulates the management of National parks through a board of trustees and their responsibilities and the role of the Minister for Natural Resources and Tourism to ensure protection and promotion of the biodivers ity rich areas.
The Public Health Act No. 1 of 2009	The Act prohibits discharges into a sewer or into drain that may cause malfunctioning of the drainage systems and cause pollution of aquatic biodiversity in addition to causing health hazards. These include solid waste, chemical waste and hot liquids.
The Fisheries Act No. 22 of 2003	The Act regulates fishing activities in both fresh and marine waters. Among others, it emphasises on the conservation of critical habitats or endangered species, and restricts the issuance of fishing licences for fishing in any conserved areas.
The Fores t Act No. 14 of 2002	The main objectives of this Act is to ensure ecosystem stability through conservation of forest biodiversity, water catchments and soil fertility; promote and enhance the contribution of the forest sector to the sustainable development of Tanzania and the conservation and management of natural resources for the benefit of present and future generations.
The Plant Protection Act No. 13 of 1997	The Act is responsible for prevention of the introduction and spread of harmful organisms, ens ure sustainable plant and environmental protection, to control the importation and use of plant protection substances, to regulate export and imports of plants and plant products and ensure the fulfilment of international commitments, to entrust all plant protection regulatory functions to the Government, and for matters incidental thereto or connected therewith.
The Marine Parks and Reserves Act No. 29 of 1994	The Act provides for the establishment, management and monitoring of marine parks and reserves, to establish a marine park and reserves unit and to repeal certain existing legislation.

	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
regisiation rolley, strategy	Now to relates to broundership
The 2007 Tanzania Urban Planning Act and Associated Planning Guidelines (including an envisaged revision of the Guidelines)	The envisaged revision of the Guidelines w ill include detail on how new developments should take into account biodiversity (i.e. each plot should have a minimum of two trees). The guidelines are going to be updated in 2020 and will include recommendations for protection of biodiversity within cities as well as recommendations on how to include biodiversity into land use planning.
	Local
Dar es Salaam City Environment Outlook, 2011	The Dar es Salaam City Environment Outlook reports on the sector status of all aspects of the city, including the natural environment. It discusses issues related to the geography; the socio economy; policy, legal and institutional framework; land resources and mana gement; aquatic environment; mineral and energy resources; waste management and sanitation; environmental pollution; and climate change. It also provides a scenario analysis of the city and proposes relevant options to ensure sustainable development.
Stra tegic Plan for Dar es Salaam City Council 2017/18 -2021/22	The Plan is geared towards industrialization and the Globa I Sustainable Development Goal 11, which aims to make c ities safe and secure for human settlement while stimulating innovations and develop ment. The Plan provides a road map for the envisioned city with sustainable development and competitive investment to address the major city challenges.
llala Municipal Council Strategic Plan 2017/18 – 2021/22	Sustainable development is emphasised by the Ilala Strategic Plan and the 'Improved management of natural resources and the environment' is one of the Municipality's Strategic Objectives. Ilala Municipal Council has a track record of supporting conservation of its natural assets as well as greening o fithe highly urbanised land within the Council's jurisdiction. For example, green open spaces are considered vital and are referred to as "Municipal Breathing Areas" in the Ilala Startegic Plan.
llala Municipal Council State of the Environment Report	The State of Environment Report provides an integrated assessment of the overall quality of Tanzania's environment. The pressure being placed on it and society's responses to current and emerging environmental issues. The report provides an assessment of n atural resources, including biodiversity and it informs and influences policy in planning processes.

### Section 5:

# Where we are going - Ilala Municipality Local Biodiversity Strategy

### 5.1 Vision of Ilala

The Vision of the Ilala Municipality LBSAP links to the Tanzania NBSAP (2015 – 2020) and is included below:

### Ilala Municipality LBSAP Vision

"We envision that Ilala Municipality will have well -maintained open spaces and gardens and will strive towards expanding these, as well as protecting and restoring existing green and blue infrastructure (forest s, wetlands, rivers, mangroves, ponds etc.) within the municipality, whilst raising awareness of the value of nature and improving livelihoods through green infrastructure initiatives"

### 5.2 Key Focus areas

### Key Elements of a Strategy & Action Plan



The 5 key Focus Areas for the Ilala LBSAP are outlined below:

### Ilala Municipality LBSAP Focus Areas

- 1. Awareness raising and capacity building;
- 2. Maintain and expand existing green spaces;
- 3. Improve livelihoods through green infrastructure initiatives;
- 4. Protect and restore natural infrastructure
- 5. Utili sing local solutions for waste management

The 5 focus areas of the Ilala LBSAP align well with the Ilala Strategic Plan's Objective 8, namely: Improved management of natural resources and environment. The strong focus on awareness raising indicates that there is currently a general lack of awareness of the benefits of urban nature among city dwellers. The call towards maintenance, restoration and expansion of green infrastructure and urban nature shows a desire to care for and enhance existing urban nature aspects; and the livelihoods focus links to the need for urban nature to support local economic and social development. The waste management focus area indicates Ilala's and Dar es Salaam's dominating issue of waste and that is will be difficult to address any environmental issue in the municipality without attention to issues of waste. The focus areas all link well with the Dar es Salaam Strategic Plan and in particular, the need for urban nature to attract investment, attention to issues of waste and the potential of urban nature to support the improvement of living standards.

### Section 6:

# How we will get there - Ilala Municipality Local Biodiversity Action Plan

### 6.1 Biodiversity Goals

The thirteen goals for the Ilala LBSAP, shown below arranged according to focus areas, along with guiding notes to provide further context for the selected goals. The Ilala LBSAP team wanted to retain guiding notes in order to emphasis the rationale behind each goal.

### Focus Area 1: Awareness raising & capacity building

- Goal 1.1 Conduct targeted awareness raising campaigns on the value and sensitivity of nature, as well as the by-laws and regulations governing nature, at the local community level.
- Goal 1.2 Conduct training with decision-makers within Ilala Municipality on the benefits and risks of nature

### Focus Area 2: Maintain & expand existing green spaces

- Goal 2.1 Develop a map of the existing green spaces within Ilala Municipality
- Goals 2.2 Undertake a study of the existing green spaces within Ilala Municipality to determine their current state.
- Goal 2.3 Develop a 'Greening Plan' for Ilala Municipality

### Focus Area 3: Improve livelihoods through green infrastructure initiatives

- Goal 3.1 Inventorise and map all green infrastructure related to livelihoods
- Goal 3.2 Develop a 'green-focused' community based organisation (CBO) to support individuals with accessing funding for green infrastructure projects

### Focus Area 4: Protect and restore natural infrastructure

- Goal 4.1 Develop a map of the existing blue and green infrastructure within Ilala Municipality
- Goal 4.2 Undertake an investigative inventory study of all the blue and green infrastructure within Ilala Municipality to determine the current state and the current benefits being derived.
- Goal 4.3 Undertake a prioritisation exercise to determine where protection and restoration efforts should be focused.
- Goal 4.4 Develop an inventory of the indigenous and invasive flora and fauna within Ilala Municipality

Focus Area 5: Utilising local solutions for solid waste management

- Goal 5.1 Undertake a pilot training project to teach local community members how to separate compostable waste from total waste at the household level and undertake 'shambamfuko' initiatives to encourage the use of that compostable waste.
- Goal 5.2 Advocate for new methodologies to use solid waste for alternative uses (e.g. charcoal, biogas, bricks, furniture etc.) to reduce over-extraction of natural resources, reduce pollution and support national-led waste reduction initiatives.

	Riodivoreity Coole
Focus Area 1: Awareness raising & capacity building	Goal 1.1 Conduct targeted awareness raising campaigns on the value and sensitivity of nature, as well as the local community level.  Guiding Notes: These awareness raising campaigns should be directed specifically at local communities living in and alongside sensitive natural assets such as rivers, wetlands, mangroves and forests. The awareness raising campaigns have three main aim sensitive natural assets such as rivers, wetlands, mangroves and forests. The awareness raising campaigns have three main aim sensitive natural assets are sensitive so they must be taken care of by the local community living in and along them; stop dumping waste into these systems (part icularly rivers) and pick up litter; and  3. To create an understanding of the risks of living in close proximity to natural assets, such as flooding, with the resultant negative impacts on homes and livelihoods.
	Possible awareness raising strategies include door-to-door awareness raising, giving out pamphlets, running media campaigns and radio ads, public meetings and drive by announcements on loud speaker.
	Guiding Notes: Training with decision -makers within Ilala Municipality on the benefits and risks o f nature  Guiding Notes: Training should be undertaking in three parts:  1. Undertake an interactive workshop with decision makers where they are not only made aware of the value of nature's benefits to support human livelihoods and well-being (such as cooling the city, reducing air pollution, providing food, beautification etc.)  but also the value of nature from a financial perspective and how introducing nature into the city costs on serv is sevel as generate profit (e.g. fish and vegetable sales/markets); similarly highlight how damaging nature can reduce benefits and incur financial costs for the city to deal with;  2. Undertake site visits to areas of the city where well managed natural assets are supporting human livelihoods; and to areas of the city where poorly managed nature is having negative effects of people; and;  3. Provide decision -makers with a pamphlet/ flyer/ short document with all the key information relating to the financial benefits of including nature in the city vs the financial costs of excluding nature from the city. Information can be based on global
	expenences as well on illorination of the espain where available.

	Biodiversity Goals
Focus Area 2: Maintain & expand existing green spaces	Goal 2.1 Develop a map of the existing green spaces within Ilala Municipality  Guiding Notes: Map should include all current man -made parks and gardens within Ilala Municipality as well as other green spaces such as avenues of trees, traffic circles and undeveloped open spaces. Map should also highlight pot ential spaces where greening efforts can occur.
	Goals 2.2 Undertake a study of the existing green spaces within Ilala Municipality to determine their current state.  Guiding Notes: Study should use the map developed in Goals 2.1 and note what state eac hof the current green spaces within Ilala Municipality are in (i.e. park / garden in good condition currently maintained by private institution vs. green space which is not in a good state and is currently not maintained by any institution ).
	<ul> <li>Goal 2. 3 Develop a 'Greening Plan' for Ilala Municipality</li> <li>Guiding Notes: The Greening Plan has two main objectives:</li> <li>1. Maintain existing parks and gardens: <ul> <li>Using the map developed as part of Goal 2.1 and the current state developed as part</li> <li>1. Maintain existing parks and gardens:</li> <li>Using the map developed as part of Goal 2.1 and the currently being well <ul> <li>-maintained vs. those that are not currently being</li> <li>plan will include a methodology to reac <ul> <li>h out to private institutions to get them to privately maintain these;</li> </ul> </li> <li>2. Expand upon green spaces within the city: Greening Plan will utilise the map developed as part of Goal 2.1 and include a plan <ul> <li>to develop new green spaces in the city (such as roadside g reening, vertical greening on bridges and buildings, roof top gardening etc.) as well as highlight the benefits of these proposed new green spaces.</li> </ul> </li> </ul></li></ul></li></ul>

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	Biodiversity Goals
Focus Area 3:	Goal 3.1 Inventorise and map a Il green infrastructure related to livelihoods
Improve livelihoods through green infrastructure	Guiding Notes: The aim would be to understand, not just where the green infrastructure is and what state it is in, but to establish how green infrastructure in Ilala Municipality supports a diversity of livel ihoods and to understand the existing business and not analysis that could be good that the existing business and
	rganis
	Guiding Notes: Where feasible, the Ilala Municipality will support the organisation of informal business by encouraging the formation of community based organisation. (CBO). This facilitates an easier relationship between civil society and the Ilala Municipality. For example, all CBOs are registered by municipal community development officers. The Municipality can provide support in terms of registering the CBO, issuing permits and providing extension services such as trai ning/know -how on how to cultivate certain crops, fish and livestock species and gaining access to species varieties. The Municipality can also provid e assistance in terms of identifying markets for trade. In addition, support can be given in terms of acces stofunding opportunities, in particular for special projects.
Focus Area 4: Protect and restore natural infrastructure	Goal 4.1 Develop a map of the existing blue and green infrastructure within Ilala Municipality  Guiding Notes: Map should include the exact location and size of all the natural assets within Ilala Municipality including wetlands, rivers, forests, mangroves etc.
	Goal 4.2 Undertake an investigative inventory study of all the blue and green infrastructure within Ilala Municipality to determine the current state and the current benefits being derived.
	Guiding Notes: The investigative study should indicate the state of each of the natural assets identified in the map developed as part of Goal 4.1 as well as the current benefits (natural , social, economic and cultural) being derived from these natural assets so that these considerations can inform prioritisation decisions.

reflected in Ilala's development strategies Prioritisation should include Ilala Municipality Planning officials to ensure Municipality to realise the full benefits that nature can provide the Municipality, natural assets prioritisation exercise should highlight the focus of protection and restoration efforts and indicate which indicated in the map in Goal 4.1. need to protected, and where they have been degraded, restored. Recognising that budget and alignment between the requirements to enhance urban nature and other societal goals natural assets should be focused on, in what order. In order for Ilala and land use and spatial plans. capacity is a constraint, the **Guiding Notes:** 

# Goal 4.4 Develop an inventory of the indigenous and invasive flora and fauna within Ilala Municipality

a need for the ecotourism and for the general promotion of . This information would also guide Guidin g Notes: The inventory will include a list of indigenous flora and fauna as well as a list of invasive flora and fauna. If possible, Species inventories for Ilala municipality would be useful in terms of complementing the map 2.1 and 4.1) by adding to a description of the current state of urban nature. This would assist with decisions around indigenous species, e.g. planting indigenous trees that also provide other services such as shade protection of rare species and/or business opportunities through say wildlife viewing/ programmes that target invasive species. pictures should be included.

	Biodiversity Goals
Focus Area 5:	aste from tot
Utilising local solutions for solid	at the household level and undertake 'shambamfuko' initiatives to encourage the use of that compostable was te.
waste management	Guiding Notes: The p ilot project will be undertaken at the Mtaa and community/household level. Compostable waste accounts for the majority of waste so the project will aim to teach local community members on:
	2. How to make compost; and
	3. How to incorporate the compost into shambamfuko , which can include food growing, cultivation of young trees for selling, etc.
	Goal 5.2 Advocate for new methodologies to use solid waste for alternative uses (e.g. characteristics) arcoal, biogas, bricks, furniture etc.) to
	reduce over -extraction of natural resources, reduce pollution and support national
	/adoption of new technolog
	y or indirec
	urban nature: e.g. rivers, water quality (sanitation), forests and mangroves by for example r educing over -utilisation (e.g. wood cutting to produce charcoal, cleaner rivers).

### 6.2 Biodiversity Actions supporting the Goals

The biodiversity actions included in this LBSAP (see the table below) link directly to the biodiversity goals defined by the Ilala LBSAP team. For example, for the awareness raising goal, the Ilala team identified the need, in each case, to identify target audiences and to prepare the case or arguments for urban nature, carefully and tailored for different audiences. Similarly, actions to generate the basic spatial biodiversity information needed to make decisions, were clearly defined and presented step by step. It was discussed within the group that an approach to categorising the actions could be to identify (1) which actions are already being addressed, either by the municipality or through donor projects; (2) which actions could be funded through municipal funding streams or through local cross-sectoral partnerships in the city; and (3) which actions can be addressed by applying for external funds, either through existing or new donor projects, or through developing new funding proposals with partners.



Refining actions for the Ilala LBSAP

		High Level Action Plan	lan		
Focus Areas & Goals	Ke	Key Actions	Res	Resp onsibilities	Time Frame
Focus Area 1: Awareness raising & capacity building	ing &	& capacity building			
Goal 1.1 Conduct targeted	1.	. Identify key stakeholders responsible for	1.	Government trust (IMC) – NEMC,	1. One week
awareness raising campaigns		promoting the value of nature, and their		Media - VPO	2. One month
on the value and sensitivity		functions		Private Institution – Academic	3. One month
of nature, as well as the laws	7.	. Determine resources needed for raising		institutions, CBO's/NGO's,	4. Fifteen months
and regulations governing		awareness		Regional Administrative Secretary	5. Six months
nature, at the local	w.	. Identify awareness raising materials for		(RAS)	
community level .		target audiences	7.	Private institutions, IMC, Media,	
	4.	. Provide the envisaged outcomes regarding		CBO/NGO's	Resources required :
		the expect ed sustainable natural	ĸ.	IMC, Private sector, NGO's	<ul> <li>Human resources</li> </ul>
		environment (prepare communication	4.	IMC, Communities, Research	<ul> <li>Financial resources</li> </ul>
		strategy)		institutions, VPO	<ul> <li>PA system, banners, t -</li> </ul>
	5.	. Implement: i.e. explain the importance of	5.	Academic institution, IMC,	shirts, advertising, car ,
		nature to the community: e.g. using		Media, Community (ward and	fliers, sign boards .
		different formats: social media, conduct		street leaders), NGO's	
		local community meetings and workshops,	9	IMC, Community	
		use fliers & billboards.			
	9	. Revi ew bylaws and regulations governing			
		sustainable utilisation of nature that will			
		lead to environmental resilience			

	High Level Action Plan	Plan	
Focus Areas & Goals	Key Actions	Resp onsibilities	Time Frame
Focus Area 1: Awareness raising & capacity building	ng & capacity building		
Goal 1.2 Conduct training	1. Identify the target group at different levels:	1. IMC	1. Two months
with decision -makers within	city, municipal, ward, Mtaa	2. IMC	2. Two months
Ilala Municipality on the	2. Develop justifications for greening Ilala	3. IMC, ICLEI	3. Two months
benefits and risks of nature	Municipality, e.g. the environmental	4. IMC Technical team , ICLEI	4. Four months
	benefits and people's livelihood	5. IMC Technical Team, Community,	5. Six months
	3. Determine resources required for	ICLEI	
	presenting the topic to decision -makers		Resources required:
	4. Prep are a concept document including		<ul> <li>Human resources</li> </ul>
	description of training materials needed,		<ul> <li>Financial resources</li> </ul>
	justifications, and the benefits and risks of		Facilitation
	nature		<ul> <li>Training need</li> </ul>
	5. Conduct training and evaluation of the		assessment
	impact of training (e.g. feedback evaluation		<ul> <li>Stationery</li> </ul>
	form)		<ul> <li>Pamphlets, brochures,</li> </ul>
			leaflets, etc.
			Power -point presentation

		High Level Action Plan	lan		
Focus Areas & Goals	Ke	Key Actions	Res	Resp onsibilities	Time Frame
Focus A rea 2: Maintain & expand existing	and e	existing green spaces			
Goal 2.1 Develop a map of	<u>-</u> :	. Prepare surveying tools, e.g. base maps	-:	Municipal planner, Municipal	1. One week
the existing green spaces	2.	. Identify existing green spaces within Ilala		environmental officer, NEMC,	2. Three months (field work)
within Ilala Municipality		Municipality from satellite images, town		VPO	3. Two months
		planning drawings and inquiring from local	2.	Municipal land surveyors,	4. One week
		leaders.		Municipal planner, NEMC, VPO	5. One week
	ů.	. Verify the status of existing green spaces	ň	Municipal planner ,	6. One week
	4.	. Categorisation and use of existing green		environmental officers, NEMC,	7. One week
		spaces, e.g. natural, man -made,		VPO	8. Two weeks
		conservation status,	4.	Municipal planner, Municipal	
		ownership/management, use and		natural resources officer,	Resources required :
		beneficiaries		Municipal environmental officer	<ul> <li>Base maps, satellite</li> </ul>
	5.	. Extract relevant information and digitization	5.	Municipal planner	images, aerial photos,
		of existing green spaces in Ilala Municipality	9	Municipal surveyors, Municipal	boundary data
	9	. Carry out mapping analysis showing total		planner	<ul> <li>Topographical maps</li> </ul>
		areas, using pie charts and tables and	7.	Municipal surveyors, Municipal	Computers
		categories as per action no. 4.		planner	<ul> <li>Office space</li> </ul>
	7	. Prepare map for green spaces in Ilala	∞.	Municipal surveyors, Municipal	GPSs
		Municipality		plan ner, Municipal	<ul> <li>Transport</li> </ul>
	∞.	. Report writing: location map, green spaces		environmental officer	<ul> <li>Relevant software for</li> </ul>
		map, tables and figures, photos,			digitization
		constraints, conclusions and			<ul> <li>Printing facilities</li> </ul>
		recommendations			

		High Level Action Plan	lan			
Focus Areas & Goals	Key A	Key Actions	Resp	Resp onsibilities	Time	Time Frame
Focus A rea 2 : Maintain & expand existing	and exi	isting green spaces				
Goals 2.2 Undertake a study	1. (	1. Conduct inventory to determine the stock	1.	Municipal environmental officer,	1.	Three months
of the existing green spaces		of green spaces (refer to Foc us Area 2, Goal		Municipal forestry, Municipal	7.	Three months
within Ilala Municipality to	٠ ٩	2.1)		natural r esource officer,	w.	One week
determine their current	2.	Identify the existing uses for each green		Botanist, Municipal agricultural	4.	One week
state.		space		officer, NEMC	5.	Two weeks
	3.	Compare the planned uses vs the existing	7	Municipal planner, Municipal	9	Two weeks
		uses of each green space (change detection		environmental officer, NEMC		
		e.g. levels of encroachment)	ñ	Municipal planner, Municipal	Resc	Resources required:
	4.	Analyse the potential impacts of each green		environmental officer, NEMC	•	Map of green open
	<b>V</b> 1	space to the sustainability of each green	4.	Municipal environmental officer,		spaces
	<b>0</b> 1	space		Municipal forestry officer,	•	GPS
	5. (	Conduct ecosystem services analysis		Natural resources officer,	•	Transport
	6.	Write report: Existing situation, status of		Agricultural officer, Botanist,	•	Computers
		planned and existing uses, benefits and		Municipal planner, NEMC	•	Relevant software
		opportunities challenges and	5.	Botanist, Natural resources	•	Stationery/printing
	_	recommendations		officer, Environmental officer,		resources
				Planner, NEMC		
			9	Municipal planner, Municipal		
				environmental officer, NEMC		

Focus A rea 2 : Maintain & expand existing	Kev Actions	Res	Resp onsibilities	Time Frame
	, i existing green spaces		-	
Goal 2.3 Develop a 'Greening 1	1. Prepare a concept document: requirements	1.	Municipal planner, Municipal	1. One month
	2. Collect opinions/views, using survey tools,		Agricultural officer , Forestry	3. One month
	from green space users, non -user		officer , Botanist , NEMC	4. One week
	stakeholders and authorities responsible	7	Environmental officer, Planner ,	5. Two weeks
	for sustaining green spaces		Research unit: universities,	
m	3. Prepare proposal for developing, managing		NGO's, CBO's etc.	Resources req uired:
	and conserving green spaces at Ilala	m	Municipal planner , Municipal	<ul> <li>Checklist</li> </ul>
	Municipality		environme ntal officer , NGO's ,	<ul> <li>Questionnaire</li> </ul>
4	4. Prepare th e plan		CBO's , ICLEI , NEMC	<ul> <li>Research assistants</li> </ul>
τυ.	5. Present to stakeholders	4.	Municipal planner ,	<ul> <li>Transport</li> </ul>
			Environmental officer ,	<ul> <li>Allowances/funds</li> </ul>
			Agricultural officer ,Forestry	<ul> <li>Map of relevant areas</li> </ul>
			officer , Botanist , Landscape	<ul> <li>Computers, printing</li> </ul>
			architects	facilities
		2.	Municipal environmental	<ul> <li>Internet access</li> </ul>
			officers , NEMC	<ul> <li>Relevant software</li> </ul>
				<ul> <li>Fliers, banners</li> </ul>
				<ul> <li>Conference facilities</li> </ul>

		High Level Action Plan	lan			
Focus Areas & Goals	Ke	Key Actions	Res	Resp onsibilities	Time Frame	
Focus A rea 3: Improve livelihoods through green i	spoo	s through green i nfrastructure initiatives				
Goal 3.1 Inventorise and map all green infrastructure	1	. Develop a map of all green infrastructure related to livelihood activities	-:	GIS departments from iLala Municipal Council, Raman Huria ,	<ol> <li>Ninety days</li> <li>Sixty days</li> </ol>	
related to livelihoods.	2.			Ardhi University , University of	3. Sixty days	
		related livelihoods (activiti es and spatial		Dar es Salaam	4. Two months	
		aspects), e.g. horticulture, vegetables, fruits	7.	Environment department II ala	5. Ninety days	
		trees (i.e. urban farming), plant nurseries,		Municipal Council	6. Ninety days	
		pottery (containers for nursery plants),	'n	IMC, Nipe Fagio (NGO's)	7. Quarterly	
		compost and manure, firewood, charcoal,	4.	IMC and NBS and NGO's, Ardhi		
		biogas		Univ and UDSM	Resources required:	
	'n	. Conduct socio -economic survey, e.g.	5.	GIS departments from iLala	<ul> <li>Mapping skills, Survey</li> </ul>	
		profiles: gender, age, d isability, who are the		Municipal Council , Raman i Huria ,	and urban planning skills	ls
		beneficiaries and how does money/profit		Ardhi University ,University of	<ul> <li>Mapping tools (GPS</li> </ul>	
		get distributed and how is the money used,		Dar es Salaam	software, computers)	
		income and turn -over, challenges (both	9.	Ardhi/UDSM	<ul> <li>Transport</li> </ul>	
		vendors and customers)	7.	IMC	<ul><li>Funds</li></ul>	
	4.	. Data analysis, interpretation and discussion			<ul> <li>Existing maps of green</li> </ul>	
		using SPSS and GIS and Excel software and			infrastructure	
		tools			<ul> <li>Social survey skil Is and</li> </ul>	70
	5.	. Create maps using GIS technology			questionnaires	
	9	. Write report: situation analysis, challenges,			<ul> <li>Money for field work</li> </ul>	
		conclusions and recommendations			<ul> <li>Analytical skills and</li> </ul>	
	7.	. Dissemination of information/information			interpretation skills	
		sharing			<ul> <li>GIS and SPSS skills and</li> </ul>	
					software	
					<ul> <li>Computers</li> </ul>	
					<ul> <li>Report writing skills</li> </ul>	
					<ul> <li>Dissemination plan</li> </ul>	
	_					

		High Level Action Plan	lan			
Focus Areas & Goals	Ke	Key Actions	Res	Resp onsibilities	Tim	Time Frame
Focus A rea 3: Improve livelihoods through green i	spoo	s through green i nfrastructure initiatives				
Goal 3.2 Develop a 'green -	1.	. Prepare methodology: surveying tools and	1.	llala Municipal Council with	1.	One month
focused' community based		questionnaires		support from NGOs	2	One month
organisation (CBO) to	2.	. Identify communities that need	7.	IMC, CBO's and NGO's	ĸ.	Three months
support i ndividuals with		organisational development and	ĸ.	IMC, CBO's and NGO's	4.	Three months
accessing funding for green		establishment	4.	NGO's, Universities, CBO's, led by	5.	Three months
infrastructure projects	'n	. Identify and categorise types of livelihoods		IMC	9	Three months
		(e.g. forma l, informal) using methodology	5.	NGO's and CBO's, Universities,	7.	One month
	4.	_		IMC (CBO's)	∞.	Two to eight months
		and activities, using methodology	9	NGO's and CBO's, Universities,	9.	Three month s
	5.	. Describe organisational structures and		IMC ( CBO's)		
		functions	7.	IMC, Universities, NGO's, CBO's	Res	Resources required :
	9	. Identify and assess capacity needs:		under ILala municipal	•	Survey skills
		organisational set -up, book -keeping	∞.	IMC, ICLEI, NGO's, Universities,	•	Needs assessment skills
		training, record keeping, bank account		CBO's	•	Fund for fieldwork
		administration and financial management	6	Universities, Nipe Fagio (NGO),	•	Experts
	7.	. Identify and prioritise interventions, e.g.		CBO's, IMC	•	Facilitation and
		support formation of community -based				prioritization skills
		committee and governance structures			•	Pitching skills
		where necessary			•	Money for facilitating and
	∞i	. Identify sources of funds (e.g. donors,				lobbying
		government support, in -kind, invest ors) and			•	Concept note developing
		pitch to potential funders				skills
	9.	. Write report			•	Reporting skills

		High Level Action Plan	Plan		
Focus Areas & Goals	ᇫ	Key Actions	Res	Resp onsibilities	Time Frame
Focus A rea 4: Protect and r es	estoi	estore natural infrastructure			
Goal 4.1 Develop a map of	1.	. Prepare or purchase base maps	1.	IMC	1. Three months
the existing blue and green	2.	. Identify and map the location of existing	7.	IMC, Research institutions, Town	2. Four months
infrastructure within Ilala		blue and green infrastructure in Ilala		planner, Ministry of Lands,	3. Two months
Municipality		Municipality thro ugh satellite images, town		Housing and Human Settlement	4. One month
		planning drawings and interviews with local		Development ( MLHHSD ),	5. Two months
		leaders		National database commission,	6. Six months
	w.	. Site visits: verification of existing blue and		Ardhi University (ARU)	7. Twelve months
		green infrastructure, e.g. extent of built up,	ж	IMC, Town planners	8. Two months
		total area, population.		National Land Commission,	9. Eighteen months
	4	. Categorisation of the types of existing blue		Ministry of Lands	
		and green infrastructure, e.g. wetland,	4.	IMC, Ministry of Land, ARU	Resources required :
		forest, mangroves, rivers and floodplains,	2.	IMC, Ministry of Land, ARU	<ul> <li>Human resources</li> </ul>
		green open spaces, play grounds and	9	IMC, Ministry of Land, Ardhi	<ul> <li>Financial resources</li> </ul>
		sports fields		University.	<ul> <li>Tools for identification</li> </ul>
	5.	. Digitization of the existing blue and green	7.	IMC, Minist ry of Land, Ardhi	<ul> <li>Questionnaire and</li> </ul>
		infrastructure		University.	checklist etc.
	9	. Conduct mapping/spatial analysis to show	∞.	IMC Technical team	Transport
		for e.g. densities and extent of	6	IMC, Private companies, Donors,	<ul> <li>Stationeries and</li> </ul>
		encr oachment		Government, Sponsors, Media	computers
	7.	. Prepare map of blue and green			<ul> <li>Site visit report etc.</li> </ul>
		infrastructure within Ilala Municipality			<ul> <li>Working tools like</li> </ul>
	œ	. Prepare a report of blue and green			computers, scanners,
		infrastructure within Ilala Municipality			GPS, Stationery etc.
	9.	. Mobilise funding			<ul> <li>Different reports from</li> </ul>
					researchers and analysis
					of the stu dy related etc.
					<ul> <li>Media advertising</li> </ul>

		High Level Action Plan	lan		
Focus Areas & Goals	Ke	Key Actions	Res	Resp onsibilities	Time Frame
Focus A rea 4: Protect and r estore natural infrastructure	stor	re natural infrastructure			
Goal 4.2 Undertake an	<u> </u>	. Prepare survey tools and met hodologies for	۲.	IMC Technical team, Ministry of	1. Three months
investigative inventory study		socio -economic, environmental and spatial		Land, Lands Commission,	2. Two months
of all the blue and green		studies		ARU Research, NEMC	3. One month
infrastructure within Ilala	2.	. Identify the current uses of existing blue	2.	IMC Land use planning, Ministry	4. Three months
Municipality to determine the		and green infrastructure (see Goal 4.1)		of Land, NEMC, ARU,	5. Two months
current state and the current	ж	. Assess the quality of the existing blue and		Environmental e xperts,	6. Three months
benefits being derived.		green infrastructure		Agricultural officers	7. Six months
	4.	. Analyse the benefits, opportunities and	ж	IMC Land use planning,	
		con straints related to the existing blue and		Ministry of Land, NEMC, ARU,	Resources required:
		green infrastructure		Environmental experts,	<ul> <li>Checklist</li> </ul>
	5.	. Prepare the study report on the state and		Agricultural officers, NEMC	<ul> <li>Human resources</li> </ul>
		benefits of the existing blue and green	4.	IMC, NEMC, ARU	<ul> <li>Working tools like</li> </ul>
		infrastructure	5.	IMC Technical team	computers, cameras,
	9	. Develop recommendations for protection,	9	IMC Technical team, Stakeholders	scanners, drnes,
		reclamation and expansion and	7.	IMC Technical team, NEMC, Law	stationery
		maintenance of the blue an d green		Reforms Commission	<ul> <li>Analyst expertise</li> </ul>
		infrastructure			<ul> <li>Draft by -laws</li> </ul>
	۲.	. Develop by -laws for safeguarding blue and green infrastructure to secure sustainable			<ul> <li>Conference package etc</li> </ul>
		nse			

		High Level Action Plan	Plan		
Focus Areas & Goals	Ke	Key Actions	Res	Resp onsibilities	Time Frame
Focus A rea 4 : <b>Protect and r estore natural infrastructure</b>	estor	re natural infrastructure			
Goal 4 .3 Undertake a	1.	1. Use the map of existing status of blue and	1.	1. IMC, ARU (Ardhi University),	1. Twenty months
prioritisation exercis e to		green infrastructure		Ministry of Land	2. One week
determine where protection	7.	. Establish criteria for prioritisation	7.	IMC, ARU, Ministry of Lands	3. Two months
and restoration efforts	ω.	. Identify sites of blue and green	ĸ,	IMC, Ramani Huria, NEMC	4. Two months
should be focused.		infrast ructure requiring protection,	4.	IMC, Planners and surveyors,	5. Four months
		restoration and/or expansion		Land officers	
	4	Identify or propose the management and	5.	IMC, Environmental Planners,	Resources required:
		tenure rights for each blue and green		NEMC	Baseline information and
		infrastructure			urban planning maps
	5.	. Prepare a report on prioritised sites for			<ul> <li>Human resources (skills)</li> </ul>
		protection, restoration and/or expansion of			<ul> <li>Financial resources</li> </ul>
		green and blue infr astructure, including a			Computers
		budget			Stationery
					Transport

		High Level Action Plan	Plan			
Focus Areas & Goals	ᇫ	Key Actions	Res	Resp onsibilities	Time	Time Frame
Focus A rea 4: Protect and r estore natural infrastructure	estor	ne natural infrastructure				
Goal 4.4 Develop an	1	1. Identify the indigenous and invasive fauna	۲.	Botanist , Zoologist , Municipal	<del>-</del>	Three months
inventory of the indigenous		and flora with support from the maps		environmental officer , Forestry	7.	One week
and invasive flora and fauna		developed in 4.1		officer , Agricult ural officer ,	ω.	One week
within Ilala Municipality	2.	2. Prepare tools and methodologies for		Natural resources officer , NEMC	4.	One week
		inventory	7.	Same as 1		Two weeks
	'n	3. Conduct the inventory	ω.	Same as 1		Two weeks
	4	4. Prepare a map using GIS	4.	Municipal environmental		
	5.	5. Analyse, interpret and present results of the		officers, Raman Huria,	Reso	Resources required :
		inventory survey of i ndigenous and invasive		Geography department, NEMC.	•	Transport
		fauna and flora	2.	ICLEI, Municipal environmental	•	Field assistant
	9	5. Prepare report that includes conclusions		officer, Forestry officer,	•	Internet access,
		and recommendations for the resilience of		Agricultural officer, NEMC		Stationery, GPS
		the indigenous fauna and flora of Ilala	9	ICLEI, Municipal environmental	•	Relevant information,
		Municipality		officer, Forestry officer,		maps
				Agricultural officer, NEMC	•	Meals allowances
					•	Draft maps (sha pefiles)
					•	Computers
					•	Office space and facilities,
						computers

		High Level Action Plan	lan		
Focus Areas & Goals	Ke	Key Actions	Res	Resp onsibilities	Time Frame
Focus A rea 5 : Utilising local solutions for waste management	oluti	ions for waste management			
Goal 5.1 Undertake a pilot	1.	1. Develop selection criteria	1.	1. IMC environmental office r,	1. One week
training project to teach local	2	2. Identify target area and		CBO's/NGO's	2. One week
community members how to		community/stakeholders for pilot training	7	IMC	3. One week
separate compostable waste	w.	. Select training materials for waste	'n	IMC	4. One month (depends on
from total waste at the		separation and compo sting	4.	IMC – environmental officer,	number of community)
household level and	4	. Conduct on -site training on solid waste		NGOs	5. Three months
undertake 'shambamfuko'		separation, composting and household use	5.	IMC Technical team, ICLEI	6. Six months
initiatives to encourage the		of compost and marketing of compost	9	IMC, ICLEI	
use of that compostable	5.	. Monitoring and evaluation			Resources required:
waste.	9	. Write project implementation report with			<ul> <li>Transport</li> </ul>
		aspects to show potential for scaling up			<ul> <li>Stationery</li> </ul>
					<ul> <li>Knowledge of the</li> </ul>
					communit y
					<ul> <li>Financial resources</li> </ul>
					<ul> <li>Media</li> </ul>
					<ul> <li>Training materials</li> </ul>
					<ul> <li>Writing skills</li> </ul>

		High Level Action Plan	Plan		
Focus Areas & Goals	Ý	Key Actions	Res	Resp onsibilities	Time Frame
Focus A rea 5 : Utilising local solutions for waste management	:o/ut	tions for waste management			
Goal 5.2 Advocate for new	1.	1. Search for and document the current	1.	1. IMC, Consultants, NGO's and	1. One month
methodologies to use solid		available methodologies for use of solid		CBO's	2. One month
waste for alternative uses		waste	7	IMC, Consultants, NGO's and	3. One week
(e.g. charcoal, biogas, bricks,	2.	2. Identify feasibility of methodologies in the		CBO's	4. Six months
furniture etc.) to reduce over	_	context of Ilala solid waste re -use	w.	IMC environmental officer	5. Four months
extraction of natural	ω.	3. Identify the target groups/communit ies and	4.	IMC	6. Four months
resources, reduce pollution		settlements/areas	5.	IMC	7. Three months
and support national -led	4	4. Prepare advocacy tools	9	IMC, Donors, Sponsors, NGO's	8. Six months
waste reduction initiatives.	5.	5. Advocate for alternative use of solid waste,	7.	NGO's, Consultants, CBO's,	9. Six months
		e.g. prepare and establish demonstration		Universities/Learning institutions	
		pilot projects based on the feasible	∞.	IMC Technical tea m	Resource requirements:
		methodologies	6	IMC	<ul> <li>Transport</li> </ul>
	9	5. Fundraising for the project			<ul> <li>Stationery</li> </ul>
	7.	7. Outsource to expertise where appropriate			<ul> <li>Research skills</li> </ul>
	œ	3. Conduct monitoring and evaluation			Media
	9.	9. Write report			<ul> <li>Financial resources</li> </ul>
					<ul><li>Experts</li></ul>

### 6.3 Linking the LBSAP to the NBSAP

Following the process of developing their LBSAP, the Ilala Municipal Council and wider stakeholders considered the Tanzania National Biodiversity Strategy and Action Plan (NBSAP) Targets. The group then allocated points, against each NBSAP Target, to identify (1) the strength of synergies (or, overlap) between the Ilala LBSAP and the national Tanzania NBSAP Targets and then to (2) allocate points to the overlapping biodiversity targets that should receive the highest priority or urgency. The highest scores are shown in green in Table 6.1 below.



Recognising and discussing alignment between LBSAP with NBSAP targets

The priorities in Table 6.1 indicate broadly where greatest attention and resources should be allocated in the context of synergies between the NBSAP and the LBSAP. The Ilala MC group identified 11 priorities for Ilala MC out of the 20 NBSAP/Aichi target options. The need to raise awareness about the value of biodiversity and the benefits to socio-economic development and well-being (NBSAP Target 1) was allocated by far the highest score by the Ilala MC, with 9 points. Target 18, traditional knowledge and practices to support sustainable use of biodiversity, scored second highest, with 4 points. Halting the loss and degradation of habitat (NBSAP Target 5), restoration that is sensitive to vulnerable groups (Target 14), and equitable benefit sharing (Target 16), garnered 3 points each. At the level of Strategic Goals, Goal A (mainstreaming with emphasis on the need for awareness) and Goal E (i.e. enhanced implementation through participatory planning, knowledge management and capacity building) received the strongest vote from the Ilala MC in terms of priority areas. Interestingly, in a preliminary exercise held in November 2017, Ilala Municipal Council representatives scored Strategic Goals A and B the highest, but with relatively little discernment across Strategic Goals.

In the March 2019 exercise with better focus and depth of participation, Strategic Goal A (in particular the need for awareness) was heavily prioritised against all other Goals and Targets.

In addition to Table 6.1 which was developed by the Ilala MC and wider stakeholders, the INTERACT-Bio ICLEI project team developed Table 6.2 (below) so as to specifically compare and contrast the Ilala LBSAP and national NBSAP goals and targets, to explore specific alignment between these the national and local biodiversity action plans. Table 6.2 shows that the thirteen (13) LBSAP goals aligned with thirteen (13) national NBSAP goals. The need to create awareness, build local capacity and knowledge and the need for local biodiversity assessments, especially in support of local livelihoods, again stood out and also that there is specific support on these aspects at the level of the NBSAP.

Overall, the Ilala LBSAP shows a lack of emphasis on implementation actions and more emphasis on tools for planning for action and this also where the strength of alignment occurs between the LBSAP and NBSAP goals and targets. This reflects the reality of where the Ilala Municipal Council is at this point in time. During the LBSAP development, the Ilala team indicated for example a deficiency of good maps as well as basic information on urban nature and urban biodiversity, collated in the right manner to support decisions and action planning. In other words, actions were more focused on generating sound information and on analysing and preparing this information for decision-making. The CitiesWithNature (See: www.citieswithnature.org) platform can help the Ilala Municipal Council on this journey. The City of Dar es Salaam is signed up to this platform and so this will facilitate the tracking of progress by the Ilala and other councils of the City of Dar es Salaam.

In summary, The Ilala LBSAP goals are strongly linked to Ilala's development priorities. There is also strong coherence between the LBSAP goals and Tanzania's NBSAP strategic goals and targets, in particular around (1) the need to raise awareness of the value of biodiversity and the benefits to socio-economic development and well-being and (2) enhanced implementation through participatory planning, knowledge management and capacity building. The LBSAP provides a platform for further engagement and in particular, it offers a structured plan of action for the mobilization of resources for implementation.

Table 6.1. Links between the Ilala Municipal Council LBSAP and the Tanzania national NBSAP. The national NBSAP Goals and targets are shown below together with points allocated to synergies with the LBSAP as well as priority scores.

	LINKS BETWEEN THE NATIONAL TANZANIA NBSAP AND LOCAL ILALA MC LBSAP	NBSAP -LBSAP	Ilala MC
		synergy points	priority score
NBSAP Strategic Goal A: Addra	NBSAP Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity		6
acioss government	ון מוות סטרורון		
Target 1	At least 60% of the population is aware of the importance of biodiversity and its im pact on human	8	6
	well-being and socio -economic development of the country.		
Target 2	Programmes for the valuation of biodiversity and payments for ecosystem services developed	2	0
	and integrated into national and local development strategies and plans.		
Target 3	Incentives harmful to biodiversity are eliminated, phased out or reformed and positive incentives	2	0
	for the conservation and sustainable use of biodiversity are developed and applied.		
Target 4	Investments in systems of production and consumpt ion based on sustainable eco -friendly	9	2
	practices increased.		
NBSAP Strategic	NBSAP Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use		5
Target 5	The rate of degradation and fragmentation of ecosystems and the loss of habitats is significantly	9	3
	reduced		
Target 6	At least three Legislations that govern exploitation of aquatic and terrestrial resources are	2	1
	reviewed and enforced.		
Target 7	Biodiversity and agriculture related policies, laws and strategies promote sustainable	3	0
	management of forest, agricultural and aquaculture ecosystems are reviewed and implemented.		
Target 8	All forms of pollution from water and land -based activities are brought to levels that are non	5	1
	detrimental to biodiversity ecosystem functions.		
Target 9	Invasive alien species and pathways are identified and prioritized, priority species are controlled	4	0
	or eradicated, and measures are in place to prevent their introduction and establishment.		
Target 10	The multiple anthropogenic pressures on co ral reef and vulnerable ecosystems impacted by	2	0
	climatic change are minimized.		

	LINKS BETWEEN THE NATIONAL TANZANIA NBSAP AND LOCAL ILALA MC LBSAP	NBSAP -LBSAP	Ilala MC
		synergy points	priority score
NBSAP Strategic (diversity	NBSAP Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity		
Target 11	Area covered under marine protected areas be increased from 6.5% to 10% and effectively	7	_
Target 12	Nationwide biodiversity assessment conducted, species that require special attention identified	5	0
Target 13	n d esti	2	0
NBSAP Strategic	Strategic Goal D: Enhance the benefits t o all from biodiversity and ecosystem services		5
Target 14	Ecosystems that provide essential services, related to water, and contribute to health, livelihoods and well -being, are restored and safeguarded, taking into account the needs of women, local and vulnerable communities.	7	е
Target 15	Ecosystem resilience and the contribution of biodiversity to carbon stocks enhanced, through conservation and restoration, thereby contributing to climate change mitigation and adaptation and to combating desertification.	7	2
NBSAP Strategic Goa and capacity building	NBSAP Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building		6
Target 16	Fair and Equitable Sharing of Benefits arising from utilization of biodiversity resource is in force and oper ational, consistent with national and international legislation	6	3
Target 17	Tanzania has adopted NBSAP as a policy instrument, and has commenced implementation with effective participation.	3	0
Target 18	Traditional knowledge, innovation and practice s relevant for the conservation and sustainable use of biodiversity respected and safeguarded.	9	4
Target 19	Significant increase in the contribution of knowledge, technology and scientifically based information that are generated and shared.	3	0
Target 20	Financial resources in support of biodiversity programmes significantly increased.	5	2

Table 6.2. Alignment between the Ilala LBSAP Focus Areas and Goals and the Tanzanian NBSAP Goals and Targets.

SYNERGIES BETWEEN THE NATIONAL TANZANIA NBSAP AND LOCAL IL	AND LOCAL ILALA MC LBSAP
Ilala LBSAP Focus Areas and Goals	Relevant Tanzania NBSAP Goals and Targets
Focus Area 1: Awareness raising & capacity building	
Goal 1.1 Conduct targeted awareness raising campaigns on the value	1. Strategic Goal A, Target 1: A t least 60% of the population is aware of the
and sensitivity of nature, as well as awareness of the the by-laws and	importance of biodiversity and its impact on human well -being and socio -
regulations governing nature, at the local community level.	economic development of the country.
	2. Strategic Goal B, Target 6: A t least three Legislations that govern exploitation
	of aquatic and terrestrial resources are reviewed and enforced.
	3. Strategic Goal B, Target 7: B iodiversity and agriculture related policies, laws
	and strategies promote sustainable management of forest, agricultural and
	aquaculture ecosystems are reviewed and implemented.
Goal 1.2 Conduct training with decision -makers within Ilala	4. Strategic Goal A, Ta rget 1: A t least 60% of the population is aware of the
Municipality on the benefits and risks of nature.	importance of biodiversity and its impact on human well -being and socio -
	economic development of the country.
Focus Area 2: Maintain & expand existing green spaces	
Goal 2.1 Develop a map of the exist ing green spaces within Ilala	5. Strategic Goal C, Target 12: Nationwide biodiversity assessment conducted,
Municipality	species that require special attention identified and managed to ensure their
	long-term sustainability.
Goals 2.2 Undertake a study of th e existing green spaces within Ilala	6. Strategic Goal C, Target 12: Nationwide biodiversity assessment conducted,
Municipality to determine their current state.	species that require special attention identified and managed to ensure their
	long-term sustainab ility.
Goal 2.3 Develop a 'Greening Plan' for Ilala Municipality	

SYNERGIES BETWEEN THE NATIONAL TANZANIA NBSAP AND LOCAL II	AND LOCAL ILALA MC LBSAP
Ilala LBSAP Focus Areas and Goals	Relevant Tanzania NBSAP Goals and Targets
Focus Area 3: Improve livelihoods through green infrastructure initiatives	
Goal 3.1 Inventorise and map all green infrastructure related to livelihoods	1. Strategic Goal D, Target 14: E cosy stems that provide essential services, related to water, and contribute to health, livelihoods and well -being, are restored and safeguarded, taking into account the needs of women, local and vulnerable communities.
Goal 3.2 Develop a 'green -focused' commu nity based organisation (CBO) to support individuals with accessing funding for green infrastructure projects	<ol> <li>Strategic Goal E, Target 16: Fair and Equitable Sharing of Benefits arising from utilization of biodiversity resource is in force and operational, national and international legislation .</li> <li>Strategic Goal E, Target 20: Financial resources in support of biodiversity programmes significantly increased.</li> </ol>
Focus Area 4: Protect and restore natural infrastructure	
Goal 4.1 Develop a map of the existing blue and green infrastructure within Ilala Municipality	4. Strategic Goal C, Target 12: Nationwide biodiversity assessment conducted, species that require special attention identified and managed to ensure their long-term sustainability.
Goal 4.2 Undertake an investigative inventory study of all the blue and green infrastructure within Ilala Municipality to determine the current state and the current benefits being derived.	<ol> <li>Strategic Goal E, Target 19: S ignificant increase in the contribution of knowledge, technology and scientifically based information that are generated and shared.</li> <li>Strategic Goal C, Target 11: A rea covered under marine protected areas be increased from 6.5% to 10% and effectively manage the existing terrestrial and marine protect ed areas.</li> </ol>
Goal 4.3 Undertake a prioritisation exercis e to de termine where protection and restoration efforts should be focused.	7. Strategic Goal D, Target 14: E cosystems that provide essential services, related to water, and contribute to health, livelihood s and well -being, are restored and safeguarded, taking into account the needs of women, local and vulnerable communities.
Goal 4.4 Develop an inventory of the indigenous and invasive flora and fauna within Ilala Municipality	8. Strategic Goal C, Target 12: N ationwide biodiversity assessment conducted, species that require special attention identified and managed to ensure their long-term sustainability.

SYNERGIES BETWEEN THE NATIONAL TANZANIA NBSAP AND LOCAL	AND LOCAL ILALA MC LBSAP
Ilala LBSAP Focus Areas and Goals	Relevant Tanzania NBSAP Goals and Targets
Focus Area 5: Utilising local solutions for solid waste management	
Goal 5.1 Undertake a pilot training p roject to teach local community	1. Strategic Goal A, Target 4: I nvestments in systems of production and
members how to separate compostable waste from total waste at	consumption based on sustainable eco -friendly practices increased.
the household level and undertake 'shambamfuko' initiatives to	2. Strategic Goal B, Target 8: A II forms of pollution from water and land -based
encourage the use of that compostable waste.	activities are brought to levels that are non -detrimental to biodiversity
	ecosystem functions.
	3. Strategic Goal E, Target 18: T raditional knowledge, innovation and practices
	relevant for the conservation and sustainable use of biodiversity respected
	and safeguarded.
Goal 5.2 Advocate for new methodologies to use solid waste for	4. Strategic Goal A, Target 4: I nvestments in systems of production and
alternative uses (e.g. c harcoal, biogas, bricks, furniture etc.) to reduce	consumption based on sustai nable eco -friendly practices increased.
over-extraction of natural resources, reduce pollution and support	5. Strategic Goal B, Target 8: A II forms of pollution from water and land -based
national -led waste reduction initiatives.	activities are brought to levels that are non -detrimental to biodiversity
	ecosystem functions.

### 6.4 Mainstreaming, Monitoring & Evaluation

Political leadership of the Ilala Municipal Council and the national Vice President's Office (VPO): Environment Division, responsible for overseeing implementation of the Tanzania NBSAP, were engaged throughout the development of the LBSAP. This facilitated opportunities for discussion about mainstreaming and other aspects of the LBSAP and its relationship with the Tanzania NBSAP.

NBSAP-LBSAP alignment ('vertical integration')

The current Tanzania NBSAP was developed to cover the time period 2015 – 2020. Thus it will be eligible for revision at the end of 2020. One of the questions from the local perspective was how the upcoming national NBSAP revision might affect the local Ilala LBSAP. The VPO is currently preparing a report which will form the basis of the revised National Biodiversity Strategy. While there will be some changes required in the LBSAP based on the newly revised NBSAP, the VPO assured Ilala Municipal Council that the current Ilala LBSAP content is sound and will still be relevant beyond 2020.

Once finalised at the level of Ilala Municipal Council, the LBSAP document should then be submitted to the VPO: Environment Division and the document will be signed by the VPO Office. There is no obligation to submit an LBSAP to the VPO, but it is better to have the national government's blessing: The VPO will emphasise the importance of the document and this will give power to its implementation. VPO sign-off of the LBSAP will be followed by letters drafted and sent to the various district councils to promote the LBSAP product and to encourage other sub-national governments to prepare their own LBSAPs.

Apart from sign-off by the VPO, the best way for the LBSAP to interact with the NBSAP on an ongoing basis is in response to requests from VPO to the Ilala Municipal Council to provide inputs into the quarterly reports (i.e. implementation status reports). The Municipal Council should also include reports on progress on any initiatives that form part of and are relevant to the LBSAP and the goals therein.

The Ilala MC LBSAP is the first LBSAP for Tanzania and will therefore be a model for other sub-national governments in Tanzania. Thus there is a responsibility for the Ilala Municipal Council to be proactive in the implementation of the Action Plan to showcase that it can be done. One of the major opportunities for mainstreaming will be through the actions identified in this LBSAP. The actions create opportunities for vertical as well as horizontal and cross-sectoral partnerships to achieve common goals as they relate to the LBSAP goal and actions.

### Mainstreaming within the Ilala Municipal Council

The finalised LBSAP document will be presented, by ICLEI, following the request of the IIala MC technical officials, to the Municipal Management Team. The Management Team consists of 10 - 15 members, all Heads of Departments and Sections.

Ilala MC requested some focus on implementation at the end of this presentation and options on how implementation can be supported. For example, some activities may already be supported by the Municipal Council and it may be possible to motivate for funding and commitment from other levels of government: regional and national as well as donor and project funding; and writing collaborative proposals for donor funding.

### Monitoring and Evaluation

Monitoring and evaluation are an important part of implementation. The purpose of monitoring and evaluation is to track progress with the implementation of actions and projects; measure the efficiency and effectiveness of interventions; and determine what adjustments, changes or corrective actions may be needed and when.

The Ilala Municipal Council LBSAP still needs a monitoring and evaluation framework that links operational goals (not defined in this version of the LBSAP) with the actions as identified. This internal monitoring and reporting system will facilitate clear progress toward local (i.e. Ilala-level) goals as well as progress in the context of obligations to supporting the achievement of the goals of the Tanzania national NBSAP.

One approach that could be used to develop a monitoring framework is the 'Theory of Change'. According to this approach, the Council can use the actions and goals expressed in this LBSAP to define the necessary inputs into actions/activities (e.g. staff, skills, funding, training), it can be used to structure outputs (i.e. activities and participation) and to define outcomes, which can be broken down into short-term (i.e. 1 year), medium-term (2-3 years) and long-term (more than 3 years) outcomes. The activities can be used to articulate an activity plan and the activities, together with the outcomes, can be used to articulate an evaluation and monitoring framework. Outputs are usually observable and can typically be measured by simple, direct measures or counts, e.g. number of trainees, number of trees planted. Results for beneficiaries, (i.e. Outcomes) are generally not easily observable and therefore need indicators, which are measures that signal that change has happened.

There are also a number of good resources to assist with this process and that are specifically geared for supporting the monitoring and evaluation of biodiversity and development projects:

- Monitoring and Evaluation: Tools for Biodiversity Conservation and Development projects. SANBI Biodiversity Series 11: Online: www.sanbi.org/wp-content/uploads/2018/04/biodiversity11monitoreval.pdf
- Guidelines for Monitoring and Evaluation for Biodiversity Projects. World Bank.
   1998. Online:
  - www.sanbi.org/wp-content/uploads/2018/04/biodiversity11monitoreval.pdf
- Defining Outcomes & Indicators for Monitoring, Evaluation, and Learning in USAID Biodiversity Programming. USAID. August 2016. Online: usaidlearninglab.org//biodiversity\_howtoguide3\_508.pdf

### Section 7:

# Tools to support the implementation of the Ilala Municipality LBSAP

### 7.1 Thematic Atlas of Nature's Benefits to Dar es Salaam

The Thematic Atlas for Nature's Benefits in Dar es Salaam emerged from a need for a methodology to support the strategic prioritisation of green open space in Dar es Salaam (Karutz et al., 2019). The central frame of the atlas is based on ecosystem services thinking, which highlights the social benefits of green open space and vegetated areas in a city. Each 'theme' in the atlas represents an urban challenge, such as rising urban heat or flooding. Spatial images are then used to link the location of urban issues with the location of existing green spaces and the ecosystem services provided by those green open spaces. Together, these aspects provide a logical and spatially explicit basis for prioritising a City's investment in green open space.

The Atlas concepts are very well aligned with several goals in this LBSAP. The Atlas serves to promote awareness of the benefits of urban nature (Ilala LBSAP Goals 1.1 and 1.2). The mapping and analyses that Ilala stakeholders identified as priorities (Focus areas 2, 3 and 4) need to be conducted at a scale that is appropriate for Ilala, but The Thematic Atlas provides a broad scale basis which can inform the design of those tasks.

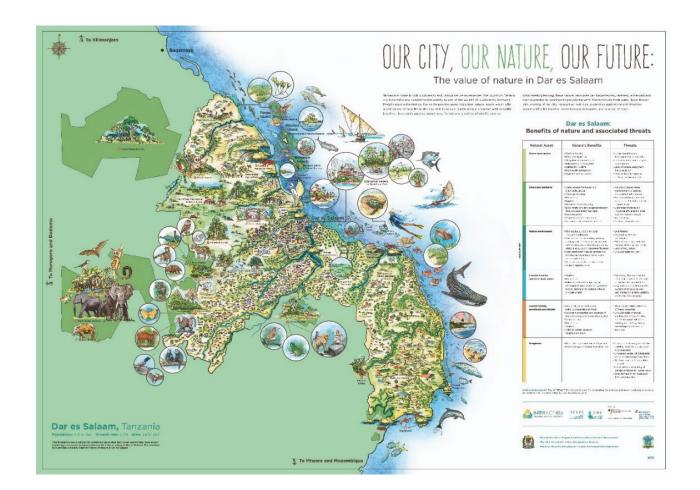
### 7.2 Illustrated Map of biodiversity in Dar es Salaam

The illustrated map of nature's benefits in Dar es Salaam was based on the biodiversity theme and map of the Thematic Atlas of Nature's Benefits in Dar es Salaam. This map shows the wealth of remaining biodiversity in Dar es Salaam and the benefits to people. The purpose of the map is to inspire conservation and wise use of resources.

### A copy of the map can be downloaded from here:

iclei.org/en/media/download-a-free-illustrated-natural-asset-map-of-dar-es-salaam

The illustrated map tool links strongly to the Ilala LBSAP Goals 1.1. and 1.2. These goals relate to raising awareness of the benefits of nature. The format of the map lends itself especially to use in primary, secondary and tertiary education systems but is also designed to inspire city and municipal officials to appreciate the benefits of nature to urban societies.



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### 7.3 ICLEI LBSAP Guidelines

The Local Biodiversity Strategy and Action Plan (LBSAP) Guidelines is a document that guides local governments in detailing a broad strategy, as well as specific actions to implement in order to protect and enhance local biodiversity. ICLEI Cities Biodiversity Center, the United Nations University – Institute for Advance Studies and the CBD Secretariat have co-authored the Guidelines. The document can be downloaded here: www.cbc.iclei.org/tools This guideline was one of the earliest produced to support the development of LBSAPs. It raises important contextual guidelines, such as understanding the political context of an LBSAP and identifying relevant policy and planning processes, how to identify relevant stakeholders and prepare for engagement and points about the assessment of local biodiversity and ecosystem services.

## 7.4 Global Guidelines for vertical integration of biodiversity strategies and action plans

Effective subnational and local implementation of the National Biodiversity Strategies and Action Plans (NBSAPs) and the Convention on Biological Diversity (CBD) in general depends on two interconnected elements: the capacity of each level of government to develop, execute and monitor their own biodiversity strategies and action plans or related instruments that mainstream biodiversity into their wider objective and cover the obligations of an NBSAP, and the coordination mechanisms between these levels, including synergies across levels of government in planning BSAPs. Guidelines were developed to this effect: "Guidelines for an integrated approach in the development and implementation of national, subnational and local biodiversity strategies and action plans." The development of these guidelines was supported by the Japan Biodiversity Fund, is a collaboration between the ICLEI Cities Biodiversity Center (CBC) and the Secretariat of the Convention on Biological Diversity (SCBD).

The mandate for these Guidelines originates from COP 12, decision XII/9, in which the Executive Secretary of the CBD was requested "to assist Parties and subnational and local governments, and their partners, to more effectively integrate the contribution of subnational and local governments into the implementation of the Strategic Plan for Biodiversity 2011–2020". These Guidelines are, therefore intended as a tool to advance the subnational and local implementation of NBSAPs, provide guidance on how to make best use of subnational and local authority knowledge in compiling and implementing NBSAPs, and coordinate planning, governance and monitoring mechanisms between different levels of government to optimize synergies.

A companion volume to these Guidelines provides background information, including an overview of the current status of BSAP development at national and subnational levels, and outlines the key findings of the consultative process followed in developing these Guidelines.

The Guidelines and Companion Volume can be downloaded here:

www.cbc.iclei.org/project/bsap-guidelines

The Guidelines can be used to good effect by Ilala Municipality to support Goal 1.2 which seeks to provide opportunities for awareness raising specifically targeted at decision-making. Here Ilala can involve decision makers in the Ilala Council but also in the City of Dar es Salaam and the Dar es Salaam Regional Government. Links can also be made with the national office of the VPO: Environment Division, through the Regional Government mechanism, to report on awareness raising initiatives at the local level.

### 7.5 The Economics of Ecosystems and Biodiversity (TEEB) Manual for Cities

The Manual for Cities builds upon the TEEB reports, tailoring information specifically for cities, drawing on ICLEI and the International Union for Conservation of Nature's (IUCN's) Local Action for Biodiversity Pioneer Project. The manual highlights how a focus on ecosystem services and their valuation can create direct benefits for cities. It also provides stepwise guidance on how to do this illustrated by in-depth case studies.

### The Manual can be downloaded here:

www.teebweb.org/publication/teeb-manual-for-cities-ecosystem-services-in-urban-manageme nt

The TEEB manual can be used to support several of the goals in this LBSAP. The TEEB is issue driven and it makes links between ecosystem services and urban issues. So for example, the issues of enhanced livelihoods (Goal 3.1) and efforts to reduce compostable waste (Goal 5.1), are identified in this LBSAP as key issues. The TEEB manual can be used to define the ecosystem services that can help address these issues. The TEEB can also be used to guide the assessment of ecosystem services. This aligns well with Goal 2.2 which seeks to determine the current condition of existing green spaces in Ilala Municipality. The TEEB manual can also support the process of prioritising green space and urban nature for protection and restoration efforts as expressed in Goal 4.3 in the Ilala LBSAP.

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