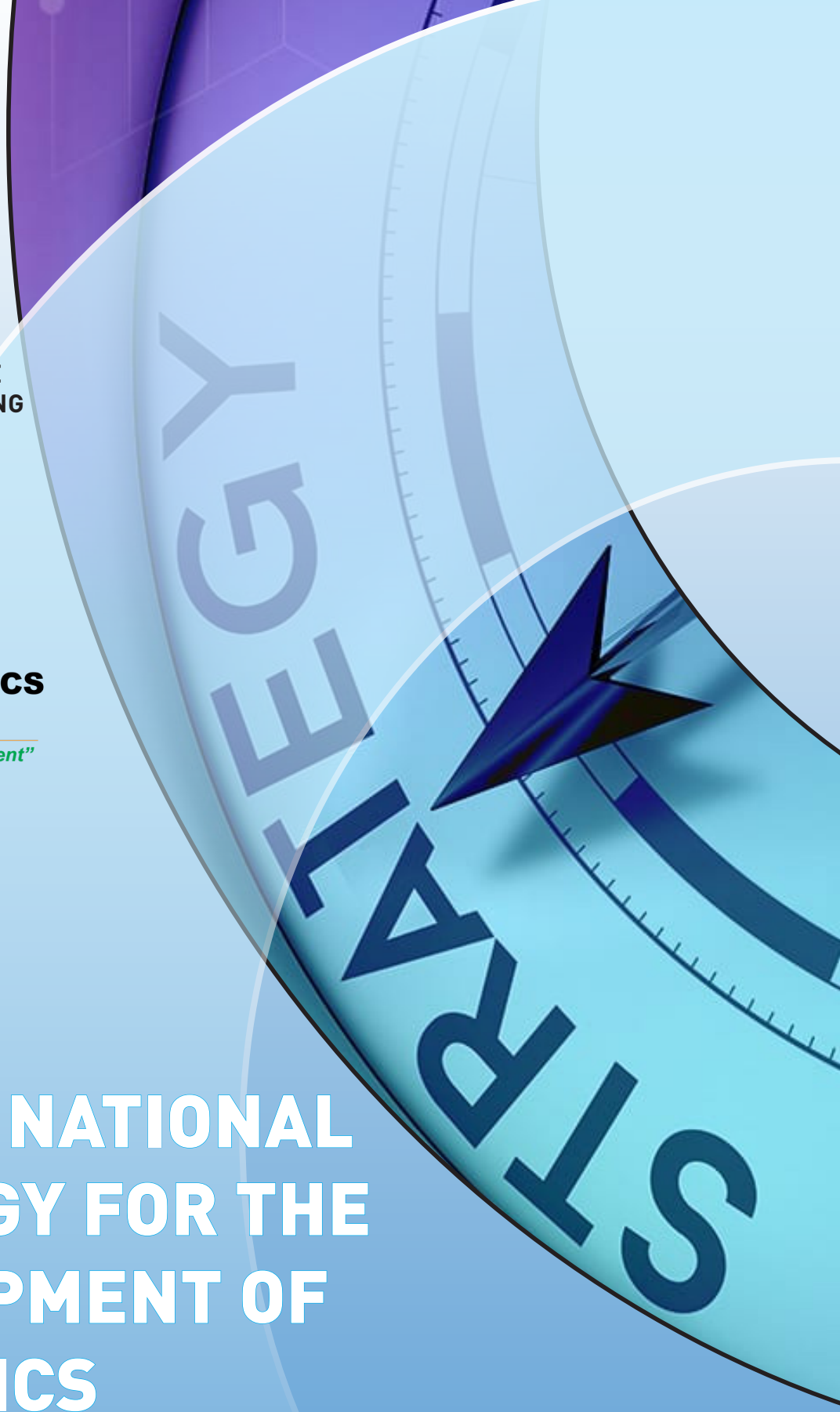
REPUBLIC OF ZAMBIA

MINISTRY OF FINANCE
AND NATIONAL PLANNING

ZAMBIA STATISTICS AGENCY

"Quality Statistics for Development"



SECOND NATIONAL STRATEGY FOR THE DEVELOPMENT OF STATISTICS

(2023-2027)

Agenda for transformation and modernization of the
NATIONAL STATISTICAL SYSTEM

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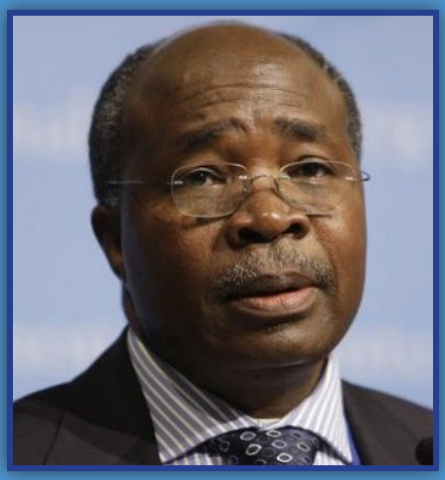
Foreword



It is with great pleasure that I write this foreword to the Second National Strategy for the Development of Statistics (NSDS2) for Zambia. Most governments appreciate the importance of statistics and data as they provide essential support to evidence-based public policy, planning, decision-making, monitoring, evaluation and reporting on a country's development progress. It is therefore, critical that policy and decision-makers, planners, programme and project managers in the public sector, private sector and civil society to mention a few, use quality official statistics to anchor their work. With the NSDS, adminstrative data will also play a critical role in official decision making for improved service delivery.

As a country we need statistics that are comprehensive, relevant, reliable, accurate, timely, sufficiently disaggregated, accessible and easy to use. Statistics must also be based on international standards and methodologies. The Government of the Republic of Zambia is fully committed to the production, dissemination and increased use of official statistics. Government aims at creating a knowledge society founded on a strong statistical foundation supported by appropriate legislation. It is for this reason that the Census and Statistics of 1955 and the Agricultural Statistics Act of 1964 were repealed and replaced by the Statistics Act No. 13 of 2018. The new Act provides for broad-based statistical reforms aimed at improving quality, access and use of statistics. The Act also provides for reconstitution of the Central Statistics Office into a technically autonomous government agency – the Zambia Statistics Agency (ZamStats). This is in conformity with Government's objective of putting statistics at the centre of the country's policy and decision making. Furthermore, the Act provides for the design of the National Strategy for the Development of Statistics (NSDS) and for statistical planning in all government institutions.

Operationalisation of the 2018 Statistics Act has already started with the appointment of the Board of Directors and the Statistician General for the Agency. Further, a National Statistical Coordinating Committee comprising fifteen (15) Ministries has been established. The NSDS2 has been designed following international standards and guidelines including mainstreaming government ministries and agencies into the NSDS.

On behalf of the Zambian Government and my Ministry in particular, I wish to thank all stakeholders who participated in the NSDS2 design without whose participation, the process would have either faltered or taken much longer than it did.

Finally, I would like to implore all Government Ministries and organisations to ensure that the NSDS2 is fully implemented so that we can have "better statistics for improved development outcomes".

Hon. Dr. Situmbeko Musokotwane, MP
MINISTER OF FINANCE AND NATIONAL PLANNING

JULY, 2023

Statement by the Secretary to the Treasury
Ministry of Finance and National Planning

This second National Strategy for the Development of Statistics (NSDS2) for Zambia has been designed at a critical time. A time of unprecedented increase in demand for statistics and data in terms of quantity, quality and disaggregation; emerging new data ecosystems and non-traditional data sources; emerging partnerships for development data; the "data revolution" which calls for open data; and new and innovative technologies.

The NSDS2 has been designed using a sectoral approach whereby eleven (11) sectors (comprising government ministries and agencies) were selected. This followed an evaluation of NSDS1 which ended in 2018. The state of statistics in each sector was assessed and a Sector Statistics Plan (SSP) was designed to address sector-specific data challenges. The said SSPs were then used as building blocks for the NSDS2. This approach put into focus administrative data and prioritized their improvement.

The NSDS1 evaluation done in 2017 by an Inter-agency Team comprising the African Development Bank, UN Economic Commission for Africa, COMESA and the PARIS21 confirmed the data challenges the country was facing. The Inter-agency Team recommended to Government that a second NSDS be designed using a sectoral approach, with the view of ensuring a more comprehensive strategy with good prospects for improving the state of statistics across Government and quasi-Government institutions.

Over the years, serious data gaps have been observed and experienced in national development planning processes – at the stage of determining baselines and targets through compilation of indicators. During the implementation of the 7NDP, the Government in general decried lack of data to measure adopted indicators, making plan monitoring and evaluation difficult. In this regard, greater urgency for quality, more and disaggregated administrative data was stressed. Fortunately, the assessment of the state of statistics in the country undertaken in the context of NSDS2, identified challenges to statistics in the country. These included limited statistical advocacy; lack of statistical units and/or capacities in some Government and quasi-Government institutions; understaffing and underfunding of statistical programmes; inadequate infrastructure and capacity for statistical work;

use of manual data processes; and inadequate data management, analysis, dissemination and uptake. The assessment identified priorities which are contained in the NSDS2 as a framework, for addressing the challenges in line with sectoral development strategies and the 8NDP, as well as beyond.

The NSDS2 is not a ZamStats strategy but a national strategy which, if fully implemented, will positively impact evidence-based national development. It is an instrument for the development of an integrated National Statistical System (NSS) as provided for in the Statistics Act no. 13 of 2018.

I am particularly happy that not only does the NSDS2 address the identified data challenges but it also takes on board new trends in statistical organisation and management, including use of new data sources, and leveraging new and innovative technologies. These initiatives aim at the modernisation and transformation of our NSS. The new Act among others paved way for the reconstitution of the Central Statistical Office, then a department in the Ministry, into a technically autonomous Government statutory institution with a governing board. This transformation aims to enhance the integrity of official statistics and to make their production and management more effective and efficient.

Finally, I want to reaffirm the Ministry's commitment to the full implementation of NSDS2.

Felix Nkulukusa
Secretary to the Treasury
MINISTRY OF FINANCE AND NATIONAL PLANNING

JULY, 2023

Acknowledgement by the Statistician General

The process of designing the NSDS2 was participatory and inclusive. It involved consultations and engagements with many stakeholders across government, the private sector, civil society, research and training institutions and cooperating partners. The purpose was to make the NSDS2 stakeholder-driven by conferring part ownership of NSDS2 on stakeholders and mobilizing them to support its implementation.

I would like, therefore, to thank all stakeholders who participated in the design of the NSDS2. In a special way, I want to thank the Ministry of Finance and National Planning, for guidance during the design process. On behalf of the Agency, I would like to thank and commend the leadership of the eleven (11) government ministries and agencies that participated in the design of NSDS2. These were Ministries of Agriculture; Commerce, Trade and Industry; Finance; Fisheries and Livestock; General Education; Gender; Health, and Tourism and Arts. The Agencies comprised the Bank of Zambia, Zambia Revenue Authority and Zambia Statistics Agency. Allow me to state that, with the sectoral approach being scalable, more sectors will be added as capacity is built up and experience gained.

I also want to thank the African Development Bank which provided technical and financial support to the NSDS2 design process. In particular, technical assistance was provided in form of an international consultant, Prof. Ben Kiregyera, and a national consultant, Dr. Jeremiah Banda. The consultants were invaluable in challenging the status quo, maintaining a climate of openness, focusing discussions during the whole process and bringing new insights, perspectives, best practices and experiences from other countries to bear on the process.

In sectors, the Sector Statistics Committees undertook NSDS2 activities in their respective sectors by assessing the state of statistics and designing Sector Statistics Plans. Without their hard work and persistency, the design of the NSDS2 would have taken much longer or faltered. Further, I want to thank the NSDS design team lead by NSDS Coordinator, Sheila S. Mudenda for coordinating and driving the design process across the participating sectors on a day-to-day basis.

Mulenga J.J. Musepa
Statistician General
ZAMBIA STATISTICS AGENCY

JULY, 2023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EXECUTIVE SUMMARY

Executive Summary

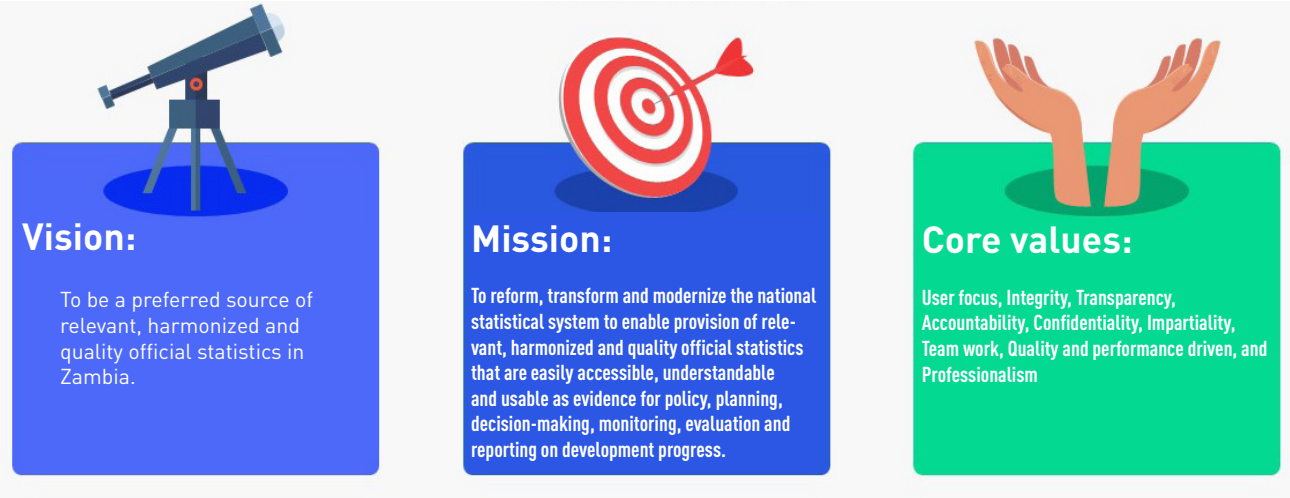
The Zambian Government is cognisant of the fact that the use of quality statistics is one way, to ensure better policies, plans and decisions that lead to the improvement in the wellbeing of its people. In the recent past, there has been unprecedented increase in demand for statistics in all aspects. This increase in demand has placed a lot of pressure on an already weak and under-performing National Statistical System (NSS). In particular, serious data gaps have been observed and experienced in national development planning processes – at the stage of determining baselines and targets through compilation of indicators as well as monitoring of programmes. In this regard, Government has expressed greater urgency for more and disaggregated data, and for improving the quality and availability all data forms.

In the last few years, Government has taken concrete steps to improve production and use of quality official statistics in the country. In particular, it has: (a) built office accommodation for the Zambia Statistics Agency (ZamStats); (b) undertaken statistical reforms underpinned by repealing the outdated Census and Statistics of 1955 and the Agricultural Statistics Act of 1964, and replacing them with a new and modern 2018 Statistics Act no. 13 of 2018 - aimed at enhancing the integrity of official statistics and to make their production and management more effective and efficient; (c) supported undertaking of censuses and main surveys; and (d) took the decision to support the design and implementation of the second National Strategy for the Development of Statistics (NSDS2). The NSDS2 is expected to address current data challenges, build statistical capacity across the NSS and bring on board new trends in statistical organization and management including use of new data sources and leveraging on new technologies.

The design of the NSDS2 which was based on a sectoral approach was spearheaded and coordinated by ZamStats. Using this approach, eleven (11) sectors (Government & quasi- Government) were selected for the first phase of the NSDS2 process. Other sectors will be added as experience and more capacity is built as this process is scalable. The process followed a well laid out process roadmap, structure and steps. Step 1 involved (a) awareness creation about NSDS2 among stakeholders to secure their buy-in and support for the process, and (b) assessment of the state of statistics in sectors that identified current data challenges and priorities for addressing the challenges; risks and mitigation measures; and critical success factors. Step 2 involved designing sector-specific statistical plans (SSPs) that included arrangements for plan implementation, monitoring and evaluation. The SSPs were then used as building blocks for the NSDS2 which also covered emerging issues.

The information collected facilitated the determination of the strategic direction for the NSDS2 for the period 2023–2027 as it relates to the Vision, Mission, Core Values, Strategic Themes, Strategic Results and Strategic Objectives.

Strategic foundations of the NSDS2 include the following:



Strategic framework included four (4) strategic goals, namely:

Under the above goals, a total of sixteen (16) SMART strategic objectives and a list of initiatives are identified as part of the strategic direction of the framework. The focus is on reforming, modernizing and transforming the National Statistical System.

Implementation of the NSDS2 will involve, among other things, mobilisation of drivers of strategic success, viz:

- institutional and organisational enhancement (creating strategy awareness, operationalisation of Statistics Act No. 13 of 2018, responding to changes, structures for implementing the strategy, statistical coordination arrangements and tools);

- people development (empowering staff through training and motivation);
- processes improvement (improving existing processes, investing in new processes and innovating to create value – produce new value-added products and services – as well as harnessing innovative technologies to cut down on cost of data collection, improve data quality and achieve timeliness in data dissemination); and
- harnessing technology (Extensive and effective use will be made of IT across the entire data value chain – from data collection through data management and dissemination using a variety of digital channels including data portals and social media platforms).
- In addition, resource mobilisation will be undertaken from both Government and cooperating partners. Further, the strategy will aim to achieve "quick wins", and development and implementation of annual business plans.

Monitoring of strategy implementation will be undertaken periodically to: ensure that stated objectives are being achieved, track inputs, activities and outputs, determine if implementation is on course or not, alert management to problems or potential problems, and take corrective actions to ensure that performance conforms to the Strategy or that the Strategy is revised in light of new experiences. At the end of the NSDS2 implementation period, an evaluation will be independently undertaken to assess its performance. Reporting mechanism are spelt out for preparation and distribution of periodic progress, mid-term and final reports, specifying who is to prepare, distribute and receive which report and when, and what actions are expected from recommendations in the reports.

An estimated K810,986,759.00 will be required over the five-year strategy period for implementation of NSDS2. Government is expected to provide most of the funding for implementation of the strategy. Government will also mobilise funding from cooperating partners to fill any financing gap.

The following main concepts and definitions are used in this document.

Concept	Explanation

Sector

In context of the design of the NSDS, the term "sector" is used to describe "a vertical division of governmental focus that relates to a given subject area or public need - usually corresponding to line ministries (e.g. Ministry of Trade and Industry), government departments (e.g. Police Department) or agencies (e.g. Bank of Zambia, Zambia Statistics Agency) – with separate and well-defined areas of concern, mandate, and budget". Often they have a medium-term development strategy or programme that requires statistics for monitoring and evaluation.

National Strategy for Development of Statistics

This is a framework to strengthen the entire National Statistical System, not just the Zambia Statistics Agency. It is a medium to long-term vision for statistical capacity building to respond to key user needs. Furthermore, it is a robust, comprehensive and coherent framework to address data limitations, prioritise the use of resources, integrate statistics within national policy processes, and introduce and manage change.

Sector Statistics Plan

This is a framework to provide strategic directions and appropriate mechanisms for guiding and accelerating the development of statistics and their use in the sector especially for policy and decision-making.

Stakeholders

Stakeholders are individuals, social groups, organizations or communities which are affected by the impact of an activity, or which can influence an activity

Data quality

Refers to "fit for purpose" from the point of view of the user and covers a number of dimensions including data relevance, accuracy, completeness, consistency and timeliness.

National Statistical System

This comprises a legal framework, institutional and organizational arrangements for collection, management and dissemination of official statistics in the country. Its main components are data users, data producers, data suppliers, and research and training institutions.

Statistical advocacy

This concept is about taking pro-active measures to, among other things, create greater awareness about the role and importance of statistics to society and promote wide use of statistics especially for policy, planning and decision-making.

Statistical coordination

This is an arrangement to avoid duplication of effort and production of conflicting data, achievement of synergy, better utilization of resources for statistics and production of higher quality data.

ACRONYMS

AfDB
African Development Bank

BoZ
Bank of Zambia

CAPI
Computer Assisted Personal Interviewing

COMESA
Common Market for East and Southern Africa

CSO
Central Statistical Office

CTGAP
Cape Town Global Action Plan for Sustainable Development Data

EA
Enumeration Area

GDDS
General Data Dissemination System of the IMF

GIS
Geographic Information System

ICT
Information and Communications Technology

IT
Information Technology

MDAs
Ministries, Departments and Agencies

M&E
Monitoring and Evaluation

MoA
Ministry of Agriculture

MCTI
Ministry of Commerce, Trade and Industry

MoGE
Ministry of General Education

MoF
Ministry of Finance

MoG
Ministry of Gender

MFL
Ministry of Fisheries and Livestock

MoH
Ministry of Health

MLSS
Ministry of Labour and Social Security

MNDP
Ministry of National Development Planning

MoTA
Ministry of Tourism and Arts

MIPHS
Multi-purpose Integrated Programme of Household Surveys

NGO
Non-Governmental OrganizationOrganisation

NSDS
National Strategy for the Development of Statistics

NSDS2
Second National Strategy for the Development of Statistics

NSO
National Statistical Office

NSS
National Statistical System

7NDP
7th National Development Plan

PARIS21
Partnership for Statistics for Development in the 21st Century

RSDS
Regional Strategy for the Development of Statistics

SADC
Southern Africa Development Community

SDGs
Sustainable Development Goals

SHaSA
Strategy for the Harmonization of Statistics in Africa

SSP
Sector Statistics Plan

SWOT
Strengths, Weaknesses, Opportunity, Threats

UN
United Nations

UNECA
United Nations Economic Commission for Africa

UNFPOS
United Nations Fundamental Principles for Official Statistics

ZDHS
Zambia Demographic and Health Survey

ZRA
Zambia Revenue Authority

ZamStats
Zambia Statistics Agency

CHAPTER ONE:
BACKGROUND

Chapter One: Background

This chapter describes the design of the NSDS2 in a national and international development context to enhance its relevance and also fit the framework into emerging international trends in statistical organization and management. It provides information about the country, demand for data and data supply with special focus on traditional and non-traditional data sources. The chapter further presents the National Statistical System; the Zambia Statistics Agency and statistical planning in Zambia. Furthermore, it presents the NSS as part of wider regional, continental and global statistical systems.

1.1 About the country

1.1.1 Geography

Zambia is a landlocked country covering an area of about 752,614 square kilometers. The country is sparely populated with a density of 24 persons per square kilometre in 2020. It is situated in the southern part of Africa sharing its borders with eight (8) countries, namely, the Democratic Republic of Congo to the North; Tanzania to the North-East; Malawi to the East; Mozambique to the South-East; Zimbabwe and Botswana to the South; Namibia to the South-West and Angola to the West. Zambia lies on the Central African plateau with an altitude ranging between 1,000 and 1,300 meters above sea level. Broad depressions are conspicuous on the edges of the plateau forming lakes Tanganyika, Mweru and Bangweulu in the North, the Luangwa River in the East, Kafue Basin and the plains of the Zambezi River in the West and South respectively. There are five main rivers in Zambia, namely, Chambeshi, Kafue, Luapula, Luangwa and Zambezi. There are also six lakes, namely Tanganyika, Bangweulu, Mweru, Mweru Wa Ntipa, and man-made lakes Kariba and Itezhi Tezhi.

The country lies between the latitude 8 and 18 degrees South and the longitude of 22 degrees and 34 degrees East. Zambia has a tropical climate and vegetation. The vegetation is usually classified as woodland savannah, a mixture of various trees, tall/elephant grass, shrubs and other woodlands of the deciduous type found on the main plateau. There are three distinct seasons, the hot-dry season during September and October, the warm-wet season rain season between November and April, and the cool-dry season from May and August. Zambia has, however, experienced drought and floods owing to varied rainfall. As a tourist attraction, the country has some of the nature's best wildlife and game reserves. Above all, Zambia is home to one of the seven natural wonders of the world, the Victoria Falls – locally known as Mosi-oa-Tunya or Shungu Namutitima (The Smoke That Thunders). It stands at a height of 108 meters and curtain fall of 1.7 km wide, shared between Zambia and Zimbabwe, with 1.2 km being on the Zambian side.

1.1.2 Administration

Administratively, the country is divided into 10 provinces, namely, Central, Copperbelt, Eastern, Luapula, Lusaka, Northern, North-Western, Muchinga, Southern, and Western. The provinces are further divided into districts. Currently, the country has 116 districts. Each Province is headed by a Minister as a political leader and a Permanent Secretary heads the provincial administration. Each district has a District Commissioner as an administrative head. The government is comprised of Central and Local Governments.

1.1.3 Economy

Zambia has a mixed economy in which copper mining constitutes the backbone of the economy, accounting for about 77.6 and 79.5 percent on average of total export earnings between 2018 and 2020, respectively. Other notable exports include sugar, tobacco, gemstones, cotton and electricity. Notwithstanding, the dominance of copper mining in the country, the economy is partly also driven by the Agriculture, Construction, Manufacturing, Transport and Communication sectors.

Overall, during the period 2017-2020, the average real growth rate fell to 1.6 percent due in part to unfavourable weather conditions which impacted the agricultural and energy sectors. The resulting power deficits had an adverse impact on sectors such as manufacturing. The modest growth over the period was supported by Information and Communication, Financial and Insurance and the mining sectors. Growth in the mining sector benefited from increased global copper prices. Further, in 2020, economic growth contracted by 2.8 percent, registering the first recession since 1998. This was mainly due to the country's worsening fiscal position resulting Government's increased borrowing on the domestic market thereby crowding out the private sector. The disruption in economic activity arising from adverse effects of the COVID-19 pandemic further dampened growth. The wholesale and retail trade and Tourism sectors contracted by 12.4 percent and 26.5 percent, respectively. However, other sectors such as agriculture, mining and information and communication technology performed positively at 17.2 percent, 8 percent, and 14.3 percent, respectively.

The inflation rate was recorded at 19.2 percent in December 2020 compared to 11.7 percent in December 2019. Further, due to the adverse effects of the pandemic, the performance of the external sector in terms of trade was also equally affected recoding a trade deficit valued at K133.5 million in 2019 and then a surplus of K2.5 billion in 2020, indicating a recovery. This was mainly on account of governments position on allowing trade of essential commodities to continue coupled with borders remaining open during the pandemic.

1.1.4 Population

For Zambia, the Census of Population and Housing remains the major source of demographic/ population data pertaining to size, distribution and some socio-economic characteristics. The last Census was conducted in 2010 and the next one was undertaken between August and September 2022. The Zambian population according to the 2010 Census was 13,092,666 which represented an increase of 32.4 percent from the population of 9,885,591 as per 2000 Census. The population grew at an average annual rate of 2.8 percent during the 2000-2010 inter-censal period. If this rate remains constant, the Zambian population which is projected to be about 18.9 million in 2022, is expected to double in about 25 years. The country currently has a young population with about 45.4 percent of persons below the age of 15 years. According to the Zambia Demographic and Health Survey (ZDHS 2018), the Total Fertility Rate is about 4.7 while the Infant Mortality per 1,000 live births is estimated to be 42.

It is worth noting that according to the 2010 Census, 39.5 percent of the population resided in urban areas while 60.5 percent lived in rural areas, making Zambia one of the most urbanized countries in the Sub-Saharan Africa.

1.1.5 Governance

Zambia is a sovereign, democratic and unitary State, with the seat of government in Lusaka. The President of the country is elected by direct, universal and equal suffrage every five years. The members of the Judiciary are appointed by the President on the recommendation of the Judicial Service Commission and the Constitution ensures their independence. The Zambian Government consists of the executive, the legislative and the judiciary branches. The Cabinet is the executive organ of government, implementing the laws of the country. It is headed by the President and comprises the Vice-President and Cabinet Ministers.

There is decentralised governance with delivery of basic services devolved to Local Government. In the present setting, however, the Central government retains the authority over policy and standard setting in order to ensure a minimum quality level of public service delivery. While the Government is comprised of Central and Local Governments, in addition, it has a network of traditional leadership with recognised traditional authorities and roles in the governance of the country. Traditional leaders are entrusted with the allocation of communal land and the formulation of the traditional group's customary laws. They also undertake minor judicial work.

1.2 Demand for statistics in development

Since independence, Government has been putting measures in place to address socio-economic and environmental challenges such as unemployment, poverty and income inequality. This has been systematically done using national development frameworks, principally the medium-term National Development Plan (NDP). The first NDP was formulated and implemented during the period 1966-70. Zambia is now implementing her 8th NDP (2022-2026). For a long period of time, NDPs in developing countries including Zambia focused on production of outputs rather than achievement of outcomes/ results. These NDPs have not performed to expectation in relation to improving the wellbeing of the population. However, since the turn of the century, there has been a paradigm shift in planning processes, away from production of outputs to achievements of outcomes or results and this shift morphed into what is commonly called "managing for results" or "results agenda".

The results agenda has evolved as a global effort among both national governments and development agencies that aims to:

- reduce poverty (headline MDG and now headline SDG);
- support sustainable and equitable economic growth;
- better define and systematically measure development outcomes; and
- report on achievements of outcomes and impact of development policies and programmes.

The results agendas include the National Vision 2030 (long-term plan that expresses the aspirations of the Zambian people) and 8NDP at national level; the SADC Regional Indicative Strategic Development Plan (RISDP) at regional level; the Africa Agenda 2063 at continental level; and the Sustainable Development Goals (SDGs) at international level. These agendas are very much "data intensive" and statistics is now recognized internationally as an integral part of the results agenda. Statistics inform the process of governance (e.g. supporting policy development, resource allocation and accountability)

and facilitating better decision-making and hence faster growth and more effective use of valuable resources for development and poverty reduction. This is particularly important in Africa where resources are limited. The 8NDP states that, "Production of quality and timely statistical data as well as its use is important for effective monitoring and evaluation as well as informed policy decision-making" It is important to underscore the point that is usually not well understood, namely that, not only are statistics needed to monitor progress towards achievement of development goals but also in order to achieve development progress. The SDG document, for instance, identified the availability of good quality statistics as one of the success factors of development agendas. It refers to statistics as "decisive means to implement the SDGs and monitor progress" (UN, 2015). It is important to mention that in addition to demand for statistics by the public sector (government institutions), statistics are also demanded by non-state actors in the private sector, civil society, international development community and of course the public for various purposes.

Since countries signed up to Results agendas, the demand for statistics in the countries has increased exponentially in terms of scope, quantity, quality, timeliness and disaggregation. This has strained most NSSs which were already weak, under-resourced and under-performing due to a number of challenges. However, the said increase in demand for statistics has also provided opportunities for innovation and further investment in statistical production and development as will be outlined in this document.

1.3 Data supply

1.3.1 Statistical legislation

Data supply is about identifying data users and their needs, producing the needed data and making them available in a form and time frame in which they are required. Data supply is recognized as a responsibility of government and all governments in the world have established systems for the production and dissemination of official statistics – statistics produced by government institutions and certified as official. The Zambia government put in place National statistical legislations (Statistics Act No. 13 of 2018) to underpin and regulate production and dissemination of official statistics. Prior to this, a Census and Statistics Act was enacted in 1955 and it provided for "**the taking of a census, for the collection of statistics and publication of statistical information, and for matters incidental to the foregoing**". The Act was successively amended in 1963, 1964, 1965 and 1994.

The revision of 1964 Act was more detailed and it established the Central Statistical Office (CSO) aimed at strengthening the collection and provision of official statistics to meet planning needs of the Government. CSO was established as a Department in the Ministry of Finance and National Planning. The Act spelt out, among other things, the objects and functions of the CSO; its coordinating role in the National Statistical System (NSS); its institutional and financial set up; powers to collect data, what data to be collected and their accessibility; safeguards for data confidentiality; and provided penalties for failure to provide required data and unauthorized release of data about individuals and enterprises. With this Act, CSO was able to build data systems (mainly census and survey programmes), infrastructure (including field organization) and capacity to collect, manage and disseminate socio-economic and environmental statistical data and information. The dissemination was to data users especially policy makers, planners and decision-makers initially in the public sector but later to actors in development including the private sector, civil society, academia and society in general.

Implementation of the Census and Statistics Act 1964 led to some practical, technical and administrative changes in production and provision of official statistics. However, the 1964 Census and Statistics became outdated overtime and was no longer able to meet the fast changing data needs, and have statistical production benefit from changes in technology. The 7th National Development Plan recognised this and provided for structural reform measures on national statistics in order to propel the process initiated earlier, towards a revised statistical law. The 7NDP states that ***"To support evidence-based policy formulation and effective programme monitoring and evaluation, the government will strengthen the national system of statistics, to improve the quality and scope of statistical data in Zambia..... Government will repeal the 1964 Census and Statistics Act and replace it with more appropriate legislation in accordance with international statistical guidelines....."*** (7NDP, 2017). Therefore, after implementation of the Census and Statistics Act of 1964 as well as the Agricultural Statistics Act of 1964 for over 50 years, Government repealed the two Acts and enacted the Statistics Act No. 13 of 2018 based on the 1994 UN Fundamental Principles of Official Statistics and the 2009 African Charter on Statistics. The new Act came into effect with the signing of Statutory Instrument No. 60 of 2019 and the gazetting of the Commencement Order on 6th September, 2019.

The highlights of the Statistics Act No. 13 of 2018 include the following:

i. designation of the Zambia Statistics Agency (ZamStats) as the sole entity responsible for the publication of official statistics;
ii. a clear definition and role of an integrated National Statistical System (NSS) in terms of its structure and scope, including sector statistical systems, responsibilities, governance, financial provisions and the coordination mechanisms;
iii. establishment of as a body corporate answerable to the Minister and Parliament, and with a separate budget approved by Parliament and provides for its role as the apex and coordinating statistical body for the NSS;
iv. establishment of a Board of the Agency as the governing body for ZamStats and for appointment of a Statistician General as the Chief Executive Officer of ZamStats;
v. provision of mechanisms for coordination, collection, processing, storage, use, management and presentation of statistical data;
vi. development and maintenance of a National Plan for the development of official statistics which shall be integrated into the National Development Plan, and development of Sector Statistics Plans;
vii. designation of statistics as official statistics;
viii. provision of timely statistics releases;
ix. establishment of a National Statistics Development Fund to ensure sustainability of funding for the development of statistics; and
x. Savings and Transitional Provisions.

1.3.2 National Statistical System

There is a tendency to confuse the National Statistical System (NSS) with the National Statistical Office (NSO), for instance, ZamStats is a National Statistical Office. The two are distinct and different, with the NSO being part of the NSS. The OECD defines the NSS as "the ensemble of statistical agencies and units within a country that jointly collect, process and disseminate official statistics on behalf of the national government". It is the collective force behind the official statistics that oil public policy,

planning decision-making and reporting on development progress. Fortunately for Zambia, the Statistics Act No. 13 of 2018 provides for both the NSS and NSO. The NSS is characterised by institutional and organisational arrangements for the collection, management and dissemination of official statistics as described below.

(a) Institutional arrangements

Institutional arrangements are essentially about "the rules of the game". They can be formal e.g. legal systems and enforcement mechanisms (Statistics Act No. 13 of 2018) or informal such as data culture, profile of statistics, mainstreaming statistics in development processes, statistical governance, statistical coordination, funding for statistics, etc. These aspects are elaborated below:

Legal framework

It is generally agreed internationally that a sound Statistics Act is crucial to a good statistical system as it provides legitimacy and transparency to statistical operations, provides public confidence in the statistical system and provides for continuity of statistical arrangements as key personnel change often with different ideals and backgrounds (Dennis Trewin, 2002)". It was mentioned earlier, that Zambia has a modern and progressive Statistics Act No. 13 of 2018 that, inter alia, provides for an integrated NSS, a technically autonomous ZamStats, coordination arrangements for the NSS, a Statistics Development Fund (one of the few African countries to do so), etc.

Data culture

A data culture is the principle established in the process of social practice in both public and private sectors which requires decision-making to focus on the information or evidence conveyed by the existing data. The culture drives evidence decision-making which requires that "wherever possible, public policy decisions should be reached after an open debate which is informed by careful and rigorous analysis using sound and transparent data" (Chris Scot, 2005). This culture needs to be built through proactive statistical advocacy, which is a strategic matter that needs to be pursued with vigour if the data culture is to take root in the country.

Profile of statistics

Until recent statistical reforms, the CSO had a low profile in government and lacked visibility. It was just a department in the Ministry of National Development Planning headed by a Director who had limited access to the political leadership (Minister) responsible for statistics. The CSO was too weak and did not have the force of law to cause a data revolution to take place in the country. This has been changing since the new Act came into force in September 2019.

Mainstreaming statistics in development processes

In general, there has been inadequate investment in statistics in Zambia. This has mainly been attributed to failure to mainstream statistics into national and cooperating partners' development policies, programmes and budgets. Mainstreaming statistics is about recognizing statistics as a

development issue and an integral part of the development process, and targeting it for development, like other development issues such as gender, environment, water, etc. Most African countries have not mainstreamed statistics into their NDPs. However, Zambia provided for the development of statistics in her 7NDP. Under the 7NDP Development Outcomes1: Improved Policy Environment, the strategy on enhancing national data and information systems states, "The timely provision of relevant and reliable statistics is critical for public policy formulation, implementation, monitoring and evaluation and for overall economic governance. To enhance the statistical delivery system, the Government will strengthen management of information systems and establish them in all MPSAs (Ministries, Provinces and other Spending Agencies) where they do not exist. Further, the Government will repeal and replace all relevant statistical legislation and enact new legislation, ensuring that the new legal environment is consistent with international practices in statistical development and delivery. In addition, the Government will decentralize and strengthen the Vital Statistics Registration System. The Government will also accelerate implementation of the National Strategy for the Development of Statistics (NSDS) 2014-2018, which provides policy guidelines on statistics in the country[1]" .

Statistical coordination

Statistical coordination or integration is such an important strategic issue to the functioning of the NSS that it is explicitly provided for in the Statistics Act No. 13 of 2018. The title of the Statistics Act states, "An Act to establish an integrated National Statistical System; provide for mechanisms for coordination, collection, management and dissemination of statistics .....". Statistical coordination is essential to achieve mutual support and synergy among data producers, avoid duplication of effort and production of conflicting data, rationalize use of available resources for statistics and achieve data quality. It is, therefore, critical that the NSS is well-coordinated. The following table presents desired coordination of the NSS.

Table1.1: Desired coordination and collaboration in the NSS

Type of coordination	Expected achievement
Coordination among data producers	There should be technical coordination ensuring that data from different sources are consistent and comparable. This can partly be achieved through: • System-wise adoption of standardised concepts, definitions and classifications. • Development and implementation of an annual National Statistical Programme
Coordination between data producers and research and training institutions	This form of coordination aims at mainstreaming users in the NSS so that they can play proactive and critical roles in the development of the NSS.
Coordination/collaboration between data producers and data suppliers	Data suppliers may be under statutory obligation to supply needed information for statistical purposes. However, there are increasing non-responses to statistical enquiries, especially among establishments. Appropriate arrangements should, therefore, be made to guide appropriate relations with respondents to enquiries.
Coordination between data producers and research and training institutions	This type of collaboration is critical to ensure that the NSS is supplied with trained statistical personnel and that more in-depth definitive analyses of statistical data can be done, leading to evidence-based policies and decision-making. This also helps in identification of training needs for the NSS.

1 7NDP, opt cit

Like in many African countries including Zambia, statistical coordination has not been well done and reasons for this are outlined in Chapter 3 under situation analysis. Chapter 4 presents strategies and initiatives for ramping up statistical coordination in the country.

Funding for statistics

As mentioned earlier, statistics is now considered a "public good" that is essential for the smooth running of the state, the economy and society. Like other public goods, the production and dissemination of official statistics is the responsibility of government. However, in many African countries including Zambia, production and development of statistics has generally not been adequately funded. As a result, some statistical activities are funded by cooperating partners. It is crucial that funding from partners for statistics should be a supplement to and not a substitute for government funding for statistics. Secondly, it helps a lot if funding from partners is coordinated and geared towards building statistical capacity rather than production of data to meet a country's immediate data needs.

In order to resolve funding challenges for statistics in Zambia, the Statistics Act No. 13 of 2018 has provided for the establishment of a National Statistics Development Fund. This shall be used to provide support to the operations of the Agency and the National Statistical System and for other purposes related to the development and promotion of statistics that the Board shall determine". This is in line with the African Charter on Statistics which urges African countries to establish national statistics funds.

(b) Organisational arrangements

Organisation arrangements are about the components of the NSS which include data users, data producers, data suppliers and research and training institutions.

(i) Data users

Data users are the most important component of the NSS. Not only are they the reason for the production of statistics but also, and equally importantly, some of them also dispense resources – the case with policy makers in Ministries of Finance/Planning and other statutory bodies. It is also now well recognised that demand for data is essential for sustainability of statistical systems. This notwithstanding, data users in many countries in Africa have, by and large, been at the periphery or on the margins of the NSS, playing a secondary role and usually invited to one-off workshops and meetings. Therefore, in order to enhance the NSS, data users need to be mainstreamed i.e. repositioned to the very center of the system where they can and should be encouraged to play proactive roles in statistical development. To do so is to create the right balance in the NSS. Failure to do so poses a huge threat to the NSS, to the extent of existentialism.

We should underscore the point here that there cannot be a sustainable NSS without good users of statistics. In a sense, therefore, the NSS will be sustained to the extent that it is demand-driven and responds to the needs and priorities of various users. Pitifully, this truism has not been seen in many countries as a cornerstone for the building of a sustainable NSS[2] .

2 Ben Kiregyera, Opt Cit

Statistics Act No. 13 of 2018 requires data suppliers to provide (when requested to do so) information required by data producers. However, respondent cooperation and provision of reliable data will be possible if data producers establish constructive and meaningful relationships with data suppliers.

(iv) Research and Training Institutions

The data collected by producers in most cases is partially analysed. Therefore, there is need to add value to such data by carrying out in-depth analysis. This is usually done by involving researchers, academicians and policy analysts and specialists in various fields. In this way, the data will be transformed into more usable information. Coordination among the above mentioned actors is paramount for the NSS to be viable, effective and efficient. The new Act clearly outlines another important role of these institutions working in collaboration with ZamStats as training and building human resource capacity in statistics and data analysis.

(c) Pre-requisites for a strong and effective National Statistical System

It is not enough to have a NSS. The NSS should be strong, effective and efficient in delivery of statistical data and information as well as services especially for policy and decision-making at every level. A strong and effective NSS is characterized by the following key pre-requisites:

i. enabling statistical legislation;
ii. effective governance;
iii. government commitment;
iv. user focus;
v. enabling statistical infrastructure;
vi. robust statistical capacity;
vii. statistical coordination;
viii. National Strategy for the Development of Statistics; and
ix. Information Technology-enabled.

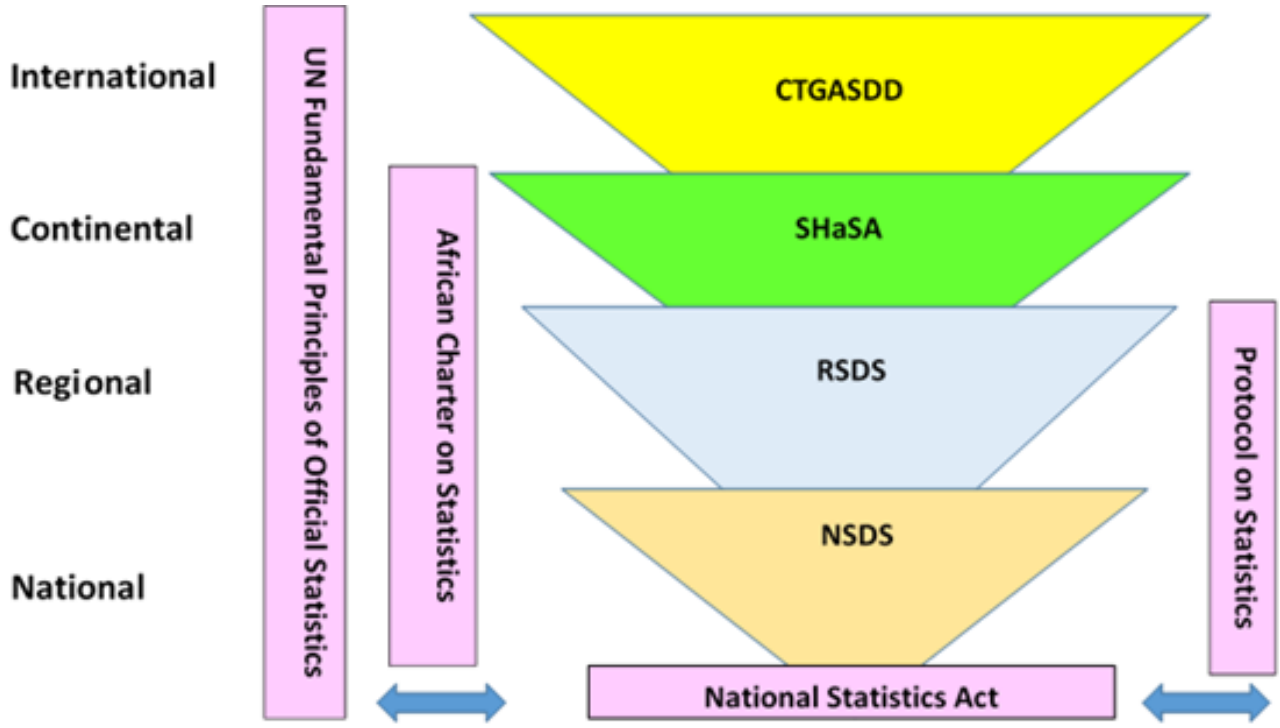
1.3.3 National Statistical System as part of wider statistical systems

The NSS is a part of wider regional, continental and international statistical systems and its development is impacted by statistical developments at these various levels. It is, therefore, crucial to appreciate and develop the NSS in the context of these systems, taking advantage of opportunities they present for knowledge transfer, peer learning and benchmarking on best practices. The following figure presents the statistical principles, frameworks and strategies as they cascade from the international level, to continental, regional and finally to the national level.

a) Statistical principles cascade from the UN Fundamental Principles for Official Statistics at international level to the African Charter on Statistics at continental level. This further cascades to a Protocol on Statistics at regional (SADC) level and to the National Statistics Act No. 13 of 2018 (see Figure 1.1). The UN Fundamental Principles for Official Statistics are the overarching standards for official statistics across countries and for the global statistical system. The Principles were adopted by the UN Statistical Commission in 1994 and endorsed by the UN

General Assembly in January 2014. They provide a compass and point of reference for all official statistical work and operations in all member countries. As such, statistical personnel engaged in official statistics are expected to fully understand them and to apply them all the time in their work. At continental level, there is the African Charter on Statistics, which was endorsed by the 12th Ordinary Session of the Assembly of Heads of State and Government of the African Union in February 2009. The Charter, which builds on the Fundamental Principles, works as a tool for statistical advocacy at the highest level of government and commits countries to develop statistics in a manner consistent with best practice and international standards. Further, the Charter seeks to promote the use of statistics for policy development, planning and decision-making at all levels; and for African governments to scale up support to statistics. At regional level, there is a SADC Protocol on Statistics which provides a legal framework for the SADC regional statistical system. And at national level, there is the Statistics Act No. 13 of 2018 that regulates statistical production and development in the country. It builds on the other principles listed above.

Figure 1.1: Statistical Principles and Frameworks at different Levels



CTGASDD	-	Cape Town Global Action Plan for Sustainable Development Data
SHaSA	-	Strategy for the Harmonization of Statistics in Africa
RSDS	-	Regional Strategy for the Development of Africa

b) Statistical frameworks cascade from the Cape Town Global Action Plan for Sustainable Development Data (CTGAP) to the Strategy for the Harmonisation of Statistics in Africa (SHaSA) to the Regional Strategy for the Development of Statistics (RSDS) at regional (SADC) level and the NSDS at national level. The CTGAP is an international framework that provides direction for statistical development in the world with a special focus on strengthening NSSs so that they can be most responsive to statistical needs in order to achieve the 2030 Agenda and beyond. The Plan was adopted at the 48th Session of the UN Statistical Commission in March 2017. It updates the priorities of the Busan Action Plan for Statistics which aimed to fully integrate statistics in decision-making, promote open access to statistics and increase resources for statistical systems. SHaSA was adopted by the African statistical community as the general framework for statistical development on the continent. It aims to provide harmonised and quality statistics for the design and implementation, as well as monitoring and evaluation of integration and development policies in Africa. It was endorsed in 2010 by the Joint Conference of African Ministers for Finance and Economy. The RSDS (2015-2020) was formulated to support regional integration by making available relevant, timely and accurate regional statistical information to be used for policy formulation, planning and protocol monitoring and decision-making. The National Strategy for the Development of Statistics (NSDS) is internationally recognised as the best framework for building statistical capacity across the entire NSS and for dealing with a plethora of statistical challenges in developing countries. The NSDS is expected to be anchored in national development processes especially the National Development Plans.

In addition to the above principles and frameworks, there are statistical bodies at regional, continental and international levels whose decisions impact statistical development in Zambia and other countries. The bodies are:

i) The SADC Statistics Committee, which is responsible for the provision of policy and strategic guidance regarding development of statistics in the region. The Committee comprises Heads of National Statistical Offices of SADC Member States.

ii) The Statistical Commission for Africa (StatCom-Africa) which is the apex inter-governmental body established by the Conference of African Ministers of Finance, Planning and Economic Development in 2006 to oversee and coordinate statistical development in Africa. It comprises Heads of National Statistical Offices from African countries.

iii) The UN Statistical Commission (UNSC), which was established in 1947 as the highest body of the global statistical system. It brings together the Chief Statisticians from Member States from around the world. It is the highest decision-making body for international statistical activities especially the setting of statistical standards, the development of concepts and methods and their implementation at the national and international levels.

In 2016, the UN Statistical Commission endorsed a "Data Revolution," to support the post-2015 international sustainable development agenda. The data revolution is basically about:

- "An explosion in the volume of data, the speed with which data are produced, the number of producers of data, and the range of things on which there is data, coming from new technologies

such as mobile phones and the Internet of things, and from other sources such as qualitative data, citizen-generated data and perceptions data[3]" ;
- a growing demand for data from all parts of society; and
- unlocking the power of data and delivering the "right data to the right people in the right format and at the right time".

At the behest of African Heads of State and Government, the African statistical community came up in 2015 with an "African Data Consensus" that aims to bring together diverse data communities and using a wide range of data sources, tools and innovative technologies, with a view to providing timely and disaggregated data for decision-making, service delivery, citizen engagement and information to drive Africa's social, economic and structural transformation. It is about expanding and diversifying the data ecosystem to include new data users, data producers and sources of data.

1.3.4 Traditional data sources

There are three main traditional sources of demographic, health and socio-economic data in Zambia, namely, Censuses, Sample Surveys and Administrative Records.

(a) Censuses

The Population and Housing Census, hereafter referred to as census has been carried out in Zambia five times since 1969 at an interval of about 10 years. It is a major source of benchmark statistics/ data for policy making, planning and administration; research purposes; business, industry and labour planning; boundary delimitation; and establishment of area sampling frames.

A census involves complete enumeration of the whole population or universe. This means that data can be collected for each and every unit belonging to a particular population. A population census encompasses the total process of collecting, compiling, evaluating and disseminating, demographic, and socio-economic data and other data covering all persons in a country. In Zambia, the latest Population and Housing Census was conducted in 2022.

As a source of statistics, a census is an ideal means of providing information on the size, composition and spatial distribution of the population, in addition to its socio-economic and demographic characteristics the census is supposed to be a source of information for each individual in a household for the whole country.

The essential features of a census are individual enumeration, universality within a country, simultaneity, defined periodicity and provision of small-area statistics. Below is a brief description of the above characteristics:

i) Individuals in the population are enumerated separately and the characteristics thereof are recorded separately. This happens for every individual in a household;

[3]United Nations, A World that Counts: Mobilizing the Data Revolution for Sustainable Development, Report prepared for the UN Secretary General by the Independent Expert Advisory Group on the Data Revolution for Sustainable Development, November 2014, N.Y

ii) The periodicity of a Population and Housing census in Zambia is 10 years;
iii) The enumeration over a whole country is generally as simultaneous as possible. The census enumeration period for Zambia is generally within a 14-days; and
iv) The aim is to cover the whole population in the country. In Zambia the population census is the only source of small – area statistics including for villages.

(b) Sample Surveys

Sample surveys, such as household surveys, have become a key source of data on socio-economic, demographic and health phenomena, just to mention a few areas. Surveys are among the most flexible methods of data collection. In theory, almost all population-based subjects can be investigated through household surveys. A sample survey covers a subset of the population of interest. When correct statistical techniques are used results of a survey make it possible to make estimates about the characteristics of the whole population and to associate the measure of error to the estimates. A survey consists of number of interconnected aspects including: determining the objectives, questionnaire design, sample design and selection, collecting and processing the data, analysis and dissemination of the results.

Zambia, has conducted a number of household surveys including: the Demographic and Health Surveys, Early Warning and Crop Forecasting Surveys, Expenditure and Income surveys, Labour Force Surveys, Living Standard Measurement Studies, just to mention a few. The advantages of a sample survey compared to a census include lower cost because data collection is based on a sample; speed in data collection and release; greater scope and better data quality. However, sample surveys have a number of limitations including inability to produce small-area statistics, which may be needed especially that the Zambian Government has decentralisation policies; sample surveys are subject to sampling errors – these, however, can be estimated and controlled; and there is still an inadequacy of survey sampling statisticians in Zambia.

(c) Administrative records

Many types of statistics are compiled from administrative records, thus, in many cases they are by-products of administration. Examples include health statistics compiled from health records, employment statistics from employment services, vital statistics from the civil registration and vital statistics system, education statistics from enrolment reports from the Ministry of General Education, revenue statistics from the Zambia Revenue Authority, and trade statistics from the Ministry of Commerce and Industry, balance of payments from the Bank of Zambia, government accounts from the Ministry of Finance and agricultural product prices from the Ministry of Agriculture. While administrative records can be very cost-effective sources of data, these records are by and large not well kept or up-dated and administrative systems are not efficient. Even if the administrative recording processes are continuous for purposes of administration, the compilation of statistics, more often than not, is of secondary concern for most institutions and organisations. As a consequence, the quality of data is not given the attention it deserves. Statistical requirement such as standardisation of concepts and definitions, consistency, timeliness and completeness are not adhered to or considered and this presents a challenge of complementary use of data from

different sources. Administrative data therefore, have tended to be incomplete, inconsistent, out-of-date and insufficiently reliable to be used with much confidence. The NSDS2 aims at improving the coverage, availability and objectivity of administrative data. It is well known that many administrative statistical series are often published by Government Ministries and institutions. There is, therefore, need to coordinate and inculcate statistical principles and approaches in the Sectors with regard to the production of related administrative statistics.

(d) Synergy among the data sources

It is important to note than in a well-developed NSS, the three data sources can maximally be used in a complementary way. This is necessitated by the need to limit census and survey costs and lower response burden, provide data at lower-level domains, and maximize the use of available data in the country. In order to achieve integration of data sources it is necessary to clearly identify units of enumeration and adopt consistent geographical units in collecting and reporting data through the various sources. In addition, it is essential to adopt common concepts, definitions and classifications across different data sources including administrative records to ensure data consistency and integration.

As Zambia is in a process of establishing a viable, comprehensive and efficient NSS, it is essential to view census, surveys and administrative sources of data as complementary. This means that, whenever possible, common concepts and definitions should be used when planning for censuses and surveys. In addition, administrative procedures should be checked periodically to ensure that common concepts and definitions are being used.

1.1.1 Non-traditional data sources

Increasingly, countries are being urged to take advantage of non-traditional data sources to supplement and improve official statistics. These sources include via social media, cellular phones, satellite images, sensors, online transactions, crowdsourcing and trails of internet searches (**see picture below**).

Data from these sources is called "Big Data" which is an accumulation of data that is too large and complex for processing using traditional database management. Big data is characterised by three attributes viz. volume, velocity and variety, and countries have been urged to exploit it to improve official statistics. Big Data can be mined using Artificial Intelligence (AI) and complex algorithms to gain insights and real time information on patterns of human experiences with significant implications for sustainable development processes and is emerging as an important opportunity for evidence-based policy making. In particular, Big Data can improve timeliness and granularity of data for policy making, which is especially relevant to reach those most in need.

1.4 Statistical planning and need for a second statistical strategy

1.4.1 Statistical planning

Over the years, many attempts were made to improve the NSS especially in the area of statistical coordination and harmonisation. Some of these attempts remained on paper and were never implemented. Examples in this respect include the restructuring of the Central Statistical Office in 2000, the Statistical Strategic Plan (2003-2007), the National Statistical Training Strategy which was formulated with support of SADC, etc. Consequently, national statistical capacity remained low and the NSS remained largely uncoordinated. In 2008, a Situational Analysis and Statistical Needs Assessment of the NSS was undertaken. This was followed by the design of a National Strategy for the Development of Statistics (NSDS) (2014-2018). This was the first NSDS for Zambia and designed to "provide a holistic, coherent and comprehensive framework for improving the NSS and developing official statistics in a sustainable manner". It aimed to bridge the identified data gaps by increasing the relevance and availability of data, improving the cost-effectiveness of data collection and developing capacities for data management as well as data analysis across all sectors. It provided a long-term vision, mission, core values and strategic goals and actions for developing national statistics, addressing institutional, organisational and technical constraints and processes, including resources as well as statistical systems and outputs[4] .

In 2017, implementation of the NSDS was independently evaluated by an inter-agency team comprising representatives of African Development Bank (AfDB), Common Market for Eastern and Southern Africa (COMESA), Partnership for Statistics for Development in the 21st Century (PARIS21) and the United Nations Economic Commission for Africa (UNECA). The evaluation found that overall performance of the NSDS was low.

1.4.2 Need for a follow-up statistical strategy

The decision to design a follow-up strategy (NSDS2) was motivated by the need to consolidate the achievements made by implementing the first NSDS and resolve the remaining challenges in the production and delivery of statistical data and information especially for public policy and decision-making. One of the achievements of the NSDS1 was the drafting of the new Statistics Act No. 13 of 2018 which was promulgated by Parliament in November 2018 and enacted in December of the same year. NSDS2 will provide a framework for creation of awareness and the implementation of the new Statistics Act No. 13 of 2018. One of the main weaknesses of the NSDS1 was that it was not designed following international guidelines. In particular, not enough attention was paid to its design process. In addition, the NSDS1 was designed with an inward rather than outward focus, and did not take on board other actors in the NSS. These and related shortcomings were avoided in the design of NSDS2.

[4]National Strategy for the Development of Statistics (2014-2018), Central Statistics Office, Lusaka, Zambia, August 2014

In addition, the NSDS2 was designed to respond more appropriately to changing statistical environment including the following:

i. unprecedented demand for development data in terms of scope, quantity, quality, timeliness and disaggregation following adoption of development agendas at different levels – national, regional, continental and global level;
ii. data environment has been changing, increasing complexity of the new data ecosystem with frontiers of the NSS being extended – there is an emerging data ecosystem with implications for the Statistics Act No. 13 of 2018;
iii. emergence of new and non-traditional data sources (e.g. Big Data) and related need for developing skills in data science, data analytics, Artificial Intelligence (AI) and Machine Learning;
iv. need to enhance partnerships for development data;
v. need to mainstream statistics into NDP and sectors into the NSDS2;
vi. need to embrace "Open data" movement;
vii. emerging innovative technologies;
viii. harnessing the data value chain (emphasizing issues of data uptake, use and impact); and
ix. need to innovate, modernise and transform the NSS in context of the "data revolution".

1.5 Essentials of NSDS2

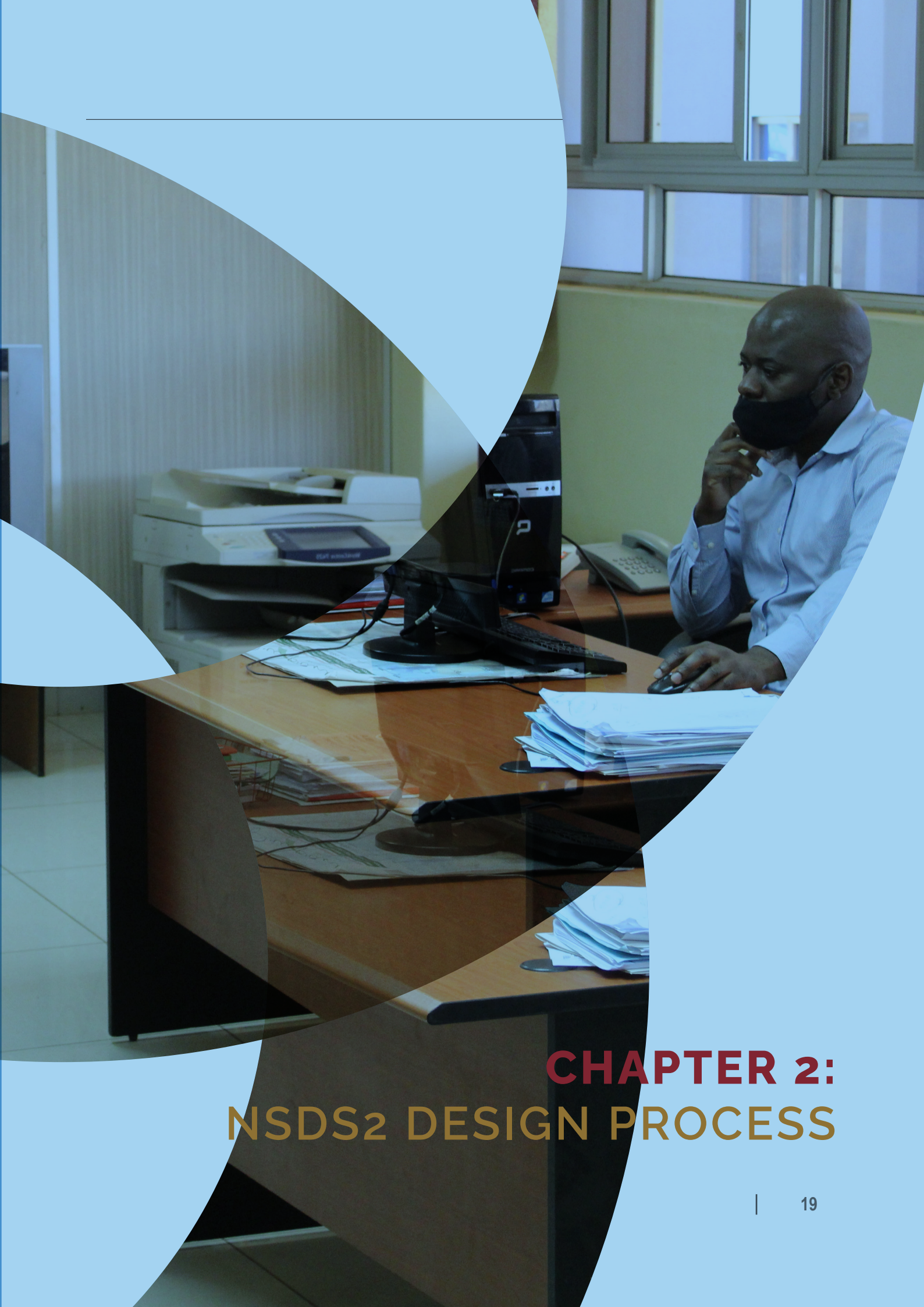
The NSDS2 which has been designed to improve the performance of the NSS includes the following:

i. a Vision, setting out an agreed statement of what governments and other stakeholders want from the statistical system at some point in the future. The vision provides a goal that everyone can agree on and this is a statement of where statistics should be in the medium term;
ii. an assessment of where the system is now, its main strengths and weaknesses and an identification of what challenges are being faced;
iii. an identification of what strategic initiatives are required (in order of priority) to overcome the challenges and achieve the vision for the NSS;
iv. a detailed action plan with a timetable and a financing plan to put these strategic initiatives into effect; and
v. the establishment of mechanisms for consultation with all the main stakeholders in the statistical system, including producers, users and providers/suppliers of statistics. This includes identification of mechanisms to monitor progress to inform stakeholders about progress in implementation of the NSDS2.

1.6 Organization of this document

This NSDS2 document presents in five (5) chapters an introduction; the NSDS2 and its processes; the state of statistics in the country; the strategic framework; implementation, monitoring and evaluation; references; and annexes. Chapter one presents the country, data demand and supply, statistical planning (NSDS1), and the need for NSDS2. Chapter two presents the NSDS2 design process including the roadmap, structures and approach, and the NSDS lifecycle. The state of statistics in the country is presented in chapter three. This chapter presents the assessment undertaken

and the main results of the assessment while chapter four presents the strategic framework, comprising strategic foundations (vision, mission and core values) and strategic direction (strategic goals, objectives and initiatives). Chapter five presents the implementation, monitoring, evaluation, budget and funding arrangements. Relevant references are presented. The Annexes include Annex I on Major challenges, objectives and priority initiatives for selected sectors and budgets for Sector Statistics Plans; Annex II on NSDS2 Action Plan and Annex III on Activity Chart.



CHAPTER 2:
NSDS2 DESIGN PROCESS

Chapter 2: NSDS2 Design Process

2.1 NSDS unpacked

There is consensus internationally about the need for a holistic and strategic approach to improving an NSS and building statistical capacity to provide the information needed for poverty-focused development programmes. The NSDS provides a robust, comprehensive and coherent framework for building capacity across the entire NSS to produce and use statistics for various purposes. In particular, the NSDS aims to: better coordinate the NSS; address data limitations; mobilize resources (national and international) for statistics and prioritize their use; integrate statistics within national policy and planning processes; act as a catalyst for change in statistical organization and management; and a framework for rolling out a data revolution in the country. As mentioned earlier, Zambia designed and implemented the first NSDS during the period 2014-2018. It is important to mention that development of both the NSDS2 and SSPs is provided for in the 7NDP.

2.2 NSDS2 design process

2.2.1 Importance of the design process

In strategic planning, the process is as important as the plan itself. It was ensured that the process closely followed international guidelines especially the "NSDS Guideline 2.3" by PARIS21 and "Mainstreaming sectoral statistical system: a guide to planning a coordinated National Statistical System" by AfDB, PARIS21 and Intersect. These guidelines and best practice provide for:

i. a bottom-up approach;
ii. a roadmap for the process;
iii. structures for the process; and
iv. extensive consultations with stakeholders to secure their buy-in and support.

2.2.2 Sectoral (or bottom-up) approach

Using this approach, a number of manageable sectors are selected for the first phase. It is usually recommended to start with between 7 to 12 sectors and to add more sectors to the process as experience is built and more resources become available. For purposes of NSDS process, a sector is basically a government entity – Government ministry (e.g. Ministry of Agriculture, Ministry of Education, Ministry of Health, etc.), department (e.g. Police Department, Civil Registration Department, etc.) or agency (e.g. Bank of Zambia, Zambia Revenue Authority, etc.). For the NSDS2 process, the following sectors were selected for the first phase. Note that ZamStats is a special sector but a sector all the same – special because it is responsible for coordinating the NSS and the design of NSDS2.

Table 2.1: Sectors selected for first phase of the NSDS2 process

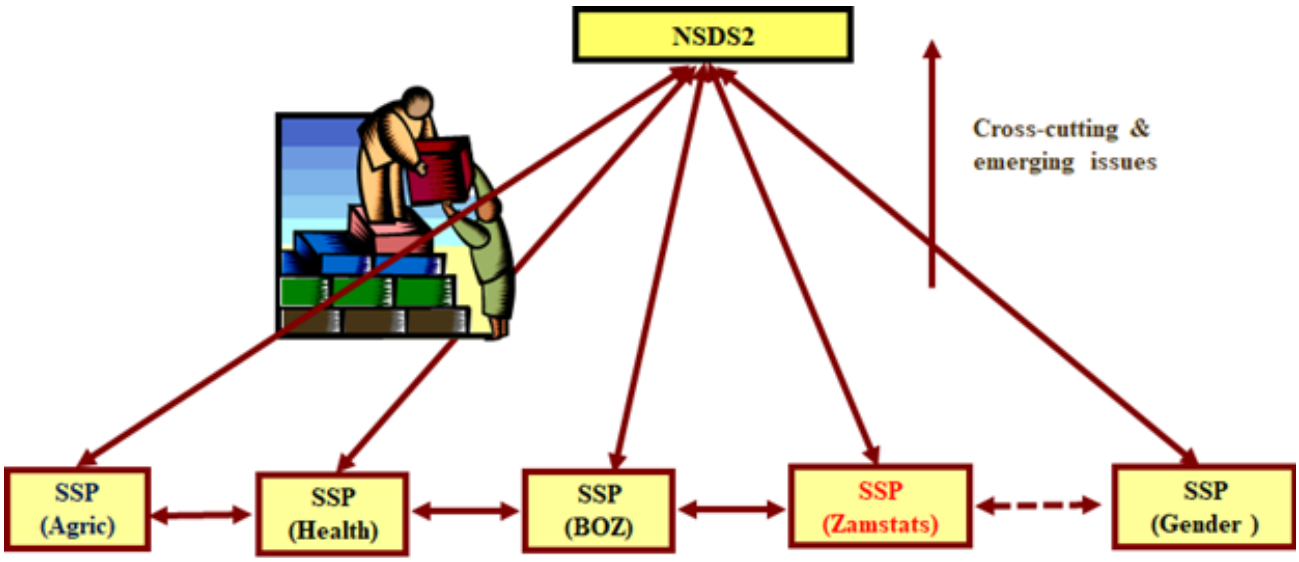
Government Ministries	
1	Agriculture
2	Commerce, Trade and Industry
3	General Education
4	Gender
5	Health
6	Finance and National Planning
7	Fisheries and Livestock
8	Tourism and Arts
Government Agencies	
9	Bank of Zambia
10	Zambia Revenue Authority
11	Zambia Statistics Agency

In each selected sector, three critical things were done:

i. statistical advocacy at the highest level in each sector to secure buy-in and support for both the NSDS process and for statistics in general;.
ii. an assessment of the state of statistics in the sector; and
iii. designed a Sector-specific Statistical Plan (SSP) to address data challenges.

The SSPs were then used as building blocks for the NSDS. Thus the NSDS2 took on board cross-cutting issues and concerns from the sectors as well as emerging issues in statistical organization and management. The bottom-up approach is depicted in Figure 2.1.

Figure 2.1: Sectoral (bottom-up) NSDS design approach



2.2.3 Roadmap for the process

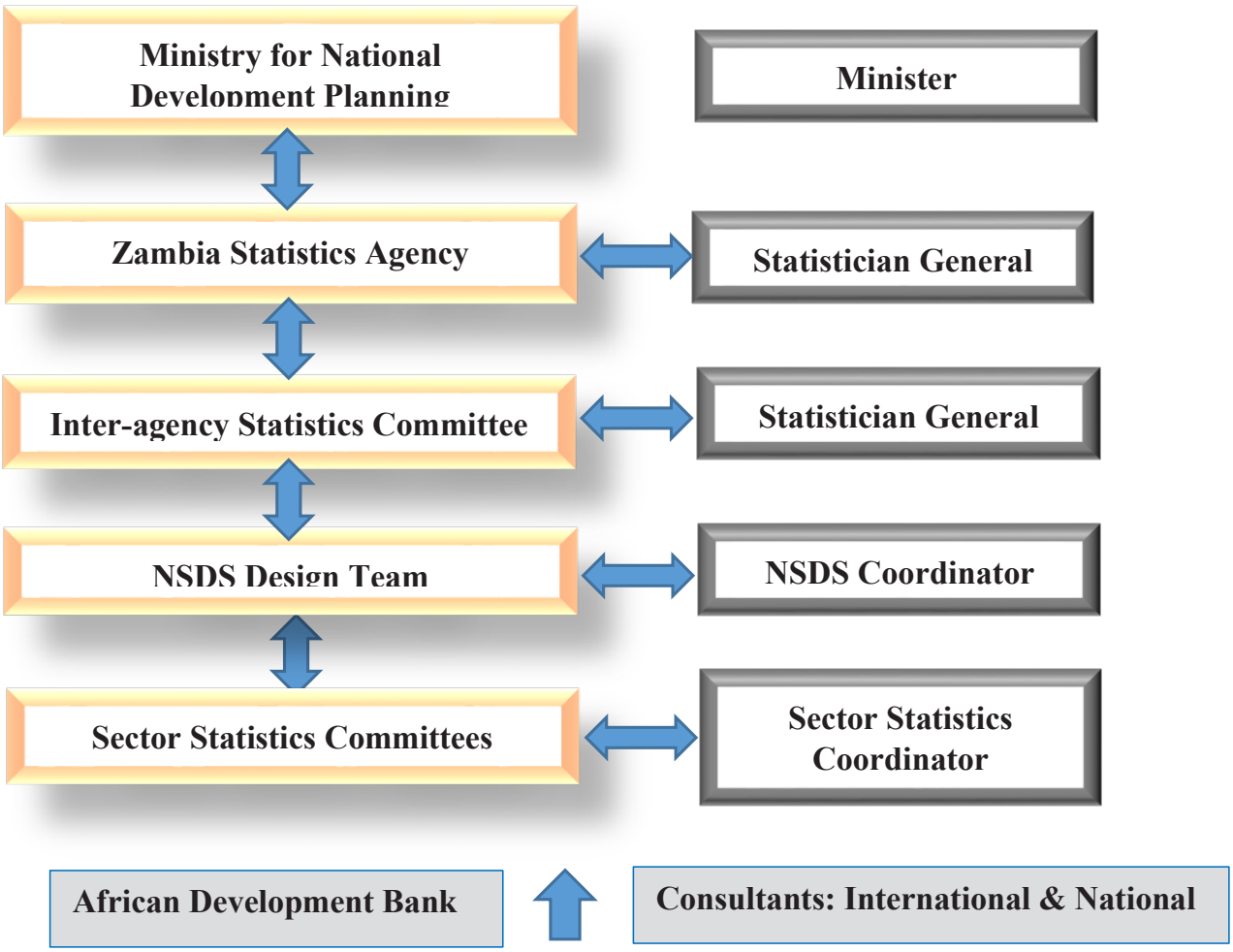
A roadmap is an essential tool for the design of the NSDS. It outlines the organization of work and identifies the main activities to be undertaken, by whom, when and for how long and the expected outputs. It also identifies necessary resources for the process. The roadmap also helps to answer

the following pertinent questions: How do we deliver the NSDS in an efficient manner? Do we as a country have enough capacity and skills to be able to design the NSDS on our own? How do we ensure the NSDS is relevant to national development? A roadmap for the entire NSDS2 process was elaborated and adopted at the National NSDS Workshop at which the NSDS2 process was officially launched. In its NSDS guidelines, PARIS21 presents an NSDS lifecycle that should be followed closely for the NSDS to achieve its objectives.

2.2.4 Structure for the process

The design of the NSDS2 was undertaken by a structure established for the said purpose and was also endorsed by the said National Workshop. The structure cascaded from the Minister for Planning to the Statistician General and CEO of ZamStats to the Inter-agency Statistics Committee (IaSC) to the NSDS design team to Sector Statistics Committees. This structure was endorsed by the National NSDS workshop in July 2018. The structure is given in **Figure 2.2.**

Figure 2.2: NSDS2 design structures



Minister

The Minister for National Development Planning provided oversight to the NSDS2 process through the Permanent Secretary. Through him, the Cabinet was kept informed about the progress made in the design of NSDS2. This was important because political support to statistics is essential for statistical development.

Statistician General

The Interim Statistician General provided overall leadership to the NSDS2 process. Accordingly, he undertook statistical advocacy at high level in government and galvanized government machinery to support the NSDS process; sought technical assistance and other forms of support from cooperating partners for the process; constituted and chaired meetings of the Inter-agency Statistics Committee.

Inter-agency Statistics Committee

This committee was established by the Interim Statistician General and CEO of ZamStats to act as the steering committee for the NSDS2 process. He brought together representatives of sectors involved in the NSDS's design process to provide policy direction to and review progress in the design of the NSDS2 based on an approved road map. The Interim Statistician General chaired this committee whose members included high level representatives at the level of Director of the sectors participating in the NSDS2 process.

NSDS design team

An NSDS design team of five (5) officials was established by the Interim Statistician General with one of the members, an Assistant Director, designated the NSDS2 Coordinator. The NSDS design team was established to spearhead the design of the NSDS2 following internationally agreed standards, initiatives and best practices by: (i) mobilizing and sensitizing sectors about the strategic planning process for statistics; (ii) supporting sectors in undertaking statistical advocacy, assessment of the state of statistics and designing Sector Statistics Plans according to agreed standards and outline; (iii) organizing meetings for sectors to share experiences and lessons learnt; and (iv) reporting progress to the Interim Statistician General and the Inter-agency Statistics Committee.

Sector Statistics Committees

At the behest of the Interim Statistician General, the leaderships of sectors constituted small Sectors Statistics Committees (2-4 members) to undertake the NSDS2 processes in the sectors. The functions of the committees included undertaking statistical advocacy in the sector, assessing the state of statistics in the sector and designing the Sector Statistics Plan. In order for them to be able to do a good job and in a uniform manner in their respective sectors, members of the committees were empowered through training and were given templates to use in their work. They were also supervised and supported by members of the NSDS design team to ensure that they did their work well.

External assistance

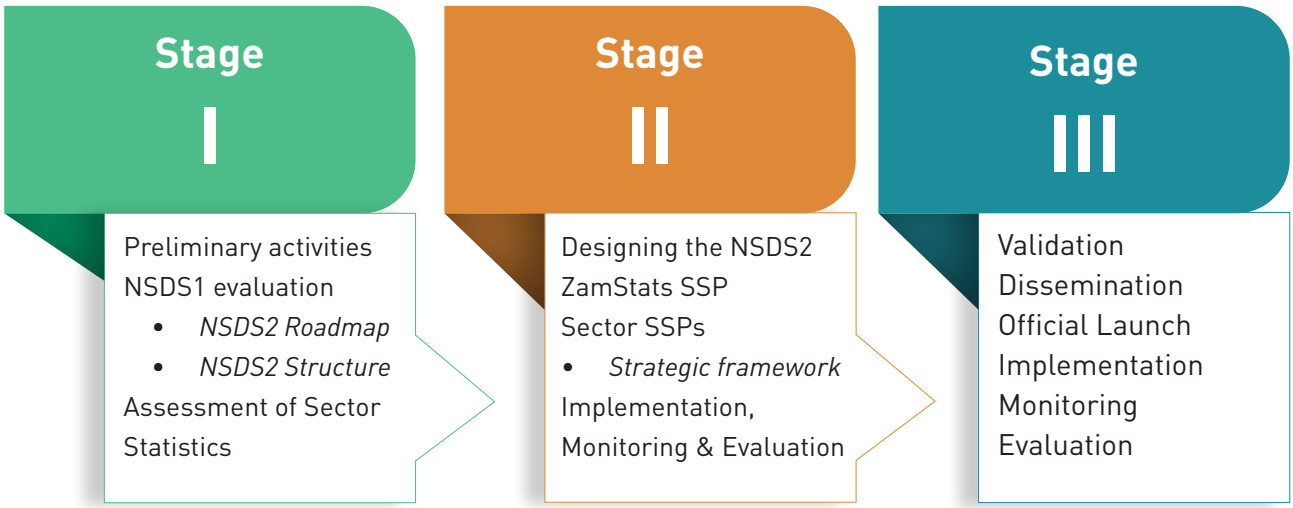
While realising the importance of designing an NSDS2 that was country-specific, country-owned and country-driven, ZamStats leadership also realized the need for designing an internationally recognizable NSDS2. Accordingly, it sought technical and other forms of assistance from AfDB. The AfDB supported the process with an international consultant and a national consultant. Their work involved challenging the status quo by asking critical questions using the standard assessment format, maintaining a climate of openness and broader participation, focussed discussions in the whole process and bringing new insights, perspectives, best practices and experiences from other countries to bear on the process. One activity which is usually understated is empowerment of national staff in such areas as statistical advocacy, modern management principles, strategic planning, international statistical standards, concepts, new frameworks, etc.

The Interim Statistician General constituted, supervised and supported the NSDS design team, caused sector leadership to constitute Sector Statistics Committees and provided progress reports to government leadership on the NSDS2 process.

2.2.7 NSDS lifecycle

The figure below summarises the lifecycle of the NSDS2 process into three stages. Stage I involved undertaking preliminary activities – evaluating NSDS1, preparation of a process roadmap, putting in place a structure for the process and undertaking an assessment of the state of statistics in sectors. Stage II involved design of SSPs and NSDS2 that provide for implementation, monitoring and evaluation. Stage III involved validation of the NSDS2 and SSPs, their dissemination, official launch and then implementation, monitoring and evaluation.

Figure 2.3: NSDS2 lifecycle



CHAPTER 3:
ASSESSMENT OF THE STATE OF STATISTICS IN THE COUNTRY

Chapter 3: Assessment of the State of Statistics in the Country

3.1 Introduction

Best practice requires that the last stage of the NSDS lifecycle is capped with an assessment of the state of statistics in the country. This helps to establish the current state – where we are – because if we do not know where we are, it is difficult to know where to go from here. The assessment therefore, was the basis for designing the NSDS2 that will speak to current data issues and challenges, and hence take the NSS to a higher level where we need it to be five years from now. This chapter presents how the assessment was done, by whom and the main findings including challenges and lessons learnt.

3.2 Scope of the assessment

The state of statistics was assessed in eleven (11) sectors comprising the Ministries of Agriculture; Commerce, Trade and Industry; Finance; Fisheries and Livestock; Gender; General Education; Health; and Tourism and Arts. Further, three Statutory Bodies were assessed, namely the Bank of Zambia, Zambia Statistics Agency and Zambia Revenue Authority. The assessment was undertaken in order to understand the legal and institutional frameworks for production of statistics in the sectors; current and future data user needs; linkages and co-ordination arrangements between producers and users of statistics; existing capacity (institutional, infrastructural, technical and resources) to meet user needs and fill existing data gaps; how statistics are produced - methods and procedures, adherence to international standards, constraints and problems, etc.; management of statistical data - archived, analysed and disseminated; and integration of ICT into statistical work and programmes.

The results of the sector assessments were aggregated to get a general picture of the state of statistics in the country. This information was critical to the formulation of good sector SSPs and the NSDS2 for transforming and modernising the NSS.

3.3 Stakeholder consultations

It was ensured that the process of designing NSDS2 was participatory, inclusive, dialogue rich and used concensus-building among key stakeholders in sectors and among external stakeholders. Consultations were made through periodic NSDS2 workshops and visits to various stakeholder institutions. The purpose was to create awareness about and secure buy-in, inputs into and support for the NSDS2 process. Secondly, it is critical that implementation of the NSDS2 is stakeholder driven for it to be effective. However, this will not happen if stakeholders are not involved in the design of the NSDS2; after all it is well known that "People support what they help to create".

3.4 How was the assessment done?

Different methods were used to assess the state of the NSS: assessing sector statistical systems, reviewing the 2017 Inter-agency NSDS1 Evaluation Report, and review of Zambia's score on World Bank

Statistical Capacity Indicator. It is important to underscore the fact that the assessment presented a good opportunity for introspection or self-examination. This enabled interrogating, debating and contextualising the current statistical business model, statistical processes and systems, methods and practices that are currently in use as well as reviewing the basic assumptions that are made in statistical work.

Assessing the performance of the NSS using the afore-mentioned methods enabled the country answer the following important standard questions.

i. How well developed are mechanisms to ensure that statistical work programs are relevant for the various user groups?
ii. How well developed are mechanisms to assess user satisfaction with statistical products and their dissemination?
iii. How well do national statistical offices adhere to their obligation of impartiality?
iv. How well are statistical offices shielded from political intervention as to the content and the release of statistical results?
v. How well is the principle of 'equal access under equal conditions' adhered to?
vi. How well is professionalism systematically promoted and shared by such mechanisms as analytical work, circulating and publishing methodological papers, and organizing lectures and conferences?
vii. Are statistical methods well documented and are methodological improvements made on the basis of scientific criteria?
viii. Are decisions about survey design, survey methods and techniques etc. made on the basis of professional considerations (or do other – e.g. political – considerations play a role)?
ix. Is training and re-training of professional and other staff a real policy issue for the organization and is enough effort (e.g. in a percentage of the overall budget) spent on training?
x. Is statistical quality management a real policy issue and are real and systematic efforts (including the promotion of well documented quality management guidelines) made to enhance the quality of statistics?

The three methods that were used to assess the state of the NSS are provided as follows:

3.4.1 Assessing sector statistical systems

In preparation for the assessment and design of the SSPs and the NSDS2, ZamStats organised targeted training sessions for members of the SSCs. The training sessions aimed to empower members of SSCs to appreciate the concept, purpose and role of the NSDS2 in national statistical development. The training also provided guidance on how to assess the state of statistics in sectors using a pre-designed common format, and how to design the SSPs using the collected information. The assessment was undertaken in each sector through a series of Focus Group Discussions (FGDs) based on the said template. These discussions were conducted within each sector by the SSC with the support of staff from the operating functional areas in the sectors. In addition, technical support was provided both during the assessment and the design of the SSPs by the NSDS2 design team with further support from an international and a national consultant.

The common assessment format covered the following areas:

i. Stakeholder assessment;
ii. Statistical Advocacy;
iii. Organizational development and management;
iv. Coordination;
v. Statistical programming and planning;
vi. Data development;
vii. Data quality;
viii. Gap analysis;
ix. Major challenges; and
x. Strengths, Weaknesses, Opportunities and Threats (SWOT).

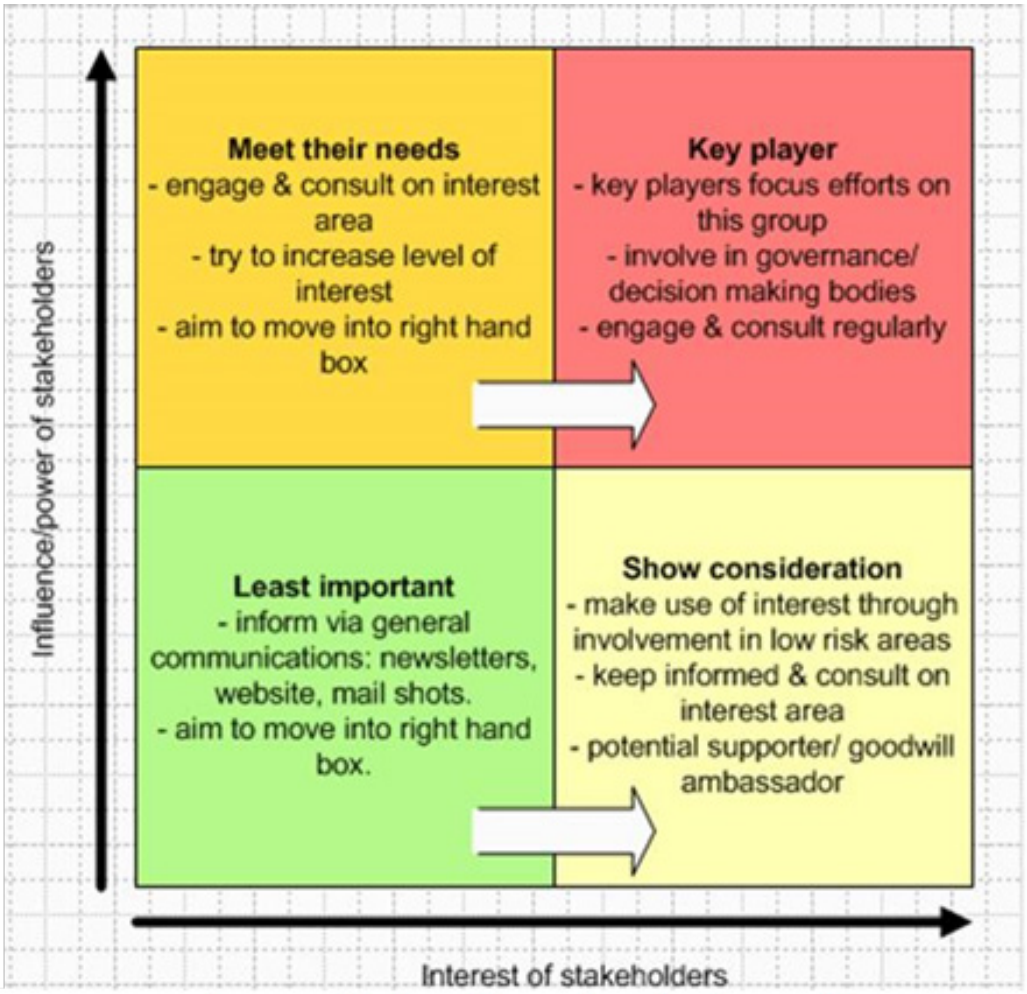
The committees held FGDs with staff that were involved in the production of statistics and completed the format from ZamStats to supplement information gathered from the discussions. For most sectors, the FGDs were held between May and December, 2019.

3.4.1.1 Stakeholder analysis

Stakeholders are individuals, social groups, organizations or communities which are affected by the impact of an activity, or which can influence an activity. Stakeholders differ widely in terms of their political power, capacities, social status and public influence, attitudes, constraints, strengths, expectations and interests. It is, therefore, important that stakeholders in the NSS are identified and the nature of their stake, roles and interests are described and well understood. The objective of the analysis is to assist in the design of systematic ways to broaden and deepen engagement with a wide range of stakeholders.

The stakeholder analysis was done using a stakeholder map. The map which is presented in **Figure 3.1** presents stakeholders against their influence/power (ability to have an impact on the NSDS2) and interest (degree of support to the NSDS2). Stakeholders with high power and interest are critical and require regular dialogue because they directly influence decision-making with impact on the NSS. Stakeholders with low power or high power but with low interest are those who are kept informed of progress throughout the NSDS2 period and do not influence the decisions in the NSS.

Figure 3.1: Stakeholder map



Power versus interest grid adapted from Eden and Achermann (1998; 121-5)

3.4.2 Evaluation report of NSDS1 by the Inter-agency Team

In addition to the above assessment, the NSDS design team assessed the report of the evaluation of the implementation of NSDS1 which was undertaken by the aforementioned Inter-agency team in 2017. The team used a PARIS21 NSDS self-evaluation tool to get a quantitative indication of the overall quality of NSDS1, the extent of its implementation and its overall impact. The tool helps to identify, in a quick and easy way, statistical development areas within the NSS that require more attention. The tool was used by the then CSO (predecessor to ZamStats) and it covered the following areas: CSO status and capacity, resources and expenditure, data quality, demand responsiveness, dissemination and use, and planning and monitoring results. The results of the evaluation were automatically processed to produce a summary table along with corresponding performance charts based on major themes as can be seen in **section 3.3**.

3.4.3 Zambia's Score on World Bank Statistical Capacity Indicator

Since 2004, the World Bank has been compiling and publishing a Statistical Capacity Indicator (SCI) for over 140 developing countries to monitor their progress in building statistical capacity. The score is a general measure of the development of the National Statistical System, as a whole. A score is computed for three dimensions: (1) statistical methodology, (2) source data, and (3) periodicity and timeliness. A score for each dimension is built up from a number of criteria against which each country is scored on a scale of 0-100. The overall indicator is an average of the scores for the three dimensions. A score of 100 would indicate that a country meets all of the criteria.

Zambia's score for the period 2004 to 2019 was tracked and the results are given in the next section.

3.5 Main findings

The following are the main findings from the assessment of the NSS:

3.5.1 Statistical awareness

Statistical awareness or numeracy is about "having a feel for numbers, an appreciation of appropriate levels of accuracy, the making of sensible estimates, a common sense approach to the use of data in supporting an argument, the awareness of the variety of interpretations of figures, and a judicious understanding of widely used concepts such as means and percentages. All these are part of everyday living" (Cockcroft, 1982). While there is good statistical awareness at the highest level of the Government, mainly among policy and decision-makers, generally statistical awareness at lower levels of government and across society remains low. This affects provision of required information by suppliers as well as across the board demand for and use of statistics in the country. This points to the need for designing and implementing statistical awareness strategies and programmes.

3.5.2 Statistical advocacy

Statistical advocacy is a strategic issue in statistical development especially in Africa. Statistical advocacy is about taking pro-active measures to: create awareness about the importance and role of statistics to society and development; promote use of statistics in society as one of the essential life skills which every citizen should have; demonstrate the statistics-policy and decision-making chain and in particular, use of statistics for policy, planning and decision-making at all levels; make a case for specific statistical activities e.g. the Population and Housing Census, drawing attention to a whole range of uses census data could be put to and highlighting the costs and benefits of the census compared to other information sources; mobilize and effectively use national and international resources for statistics; promote statistical planning and coordinated investment in developing statistical capacity. Statistical advocacy should be an ongoing activity and should be directed to different categories of stakeholders.

Generally, statistical advocacy has been inadequately done in Africa including Zambia. In Zambia, there has been no statistical advocacy strategy/programme that identifies advocacy targets and supports development of advocacy materials, their delivery channels and appropriate advocacy messages. As

a result, it has not been possible to effectively advocate for statistics to high level policy and decision-makers in government as well as Parliament, who have power or support or influence especially over resource allocations. In addition, champions for statistics have not been identified. Indeed CSO, the predecessor to ZamStats did not have a strong outward focus that included promoting statistics and their use, making the case for appropriate levels of funding, promoting the coordination of NSS, meeting with key users on a regular basis to judge their satisfaction with the statistical service they receive, etc.

During the NSDS2 design process, Sector Statistics Committees were instructed to advocate for statistics at the highest level in sectors – level of Minister, Permanent Secretary, departmental heads, etc. to secure buy-in and support for statistics in general and the NSDS in particular. As it turned out, this was not well done in all sectors participating in the process. There is, therefore, a strong need to scale up statistical advocacy.

3.5.3 Government commitment to statistics

The Government is committed to the development and use of statistics to improve administration and management of the country. In particular:

(i) Government fully recognizes the importance of statistics to running a modern state and the national economy. Indeed, statistics are used extensively by government and other stakeholders for policy formulation, planning, decision-making, monitoring and evaluation of development plans and programmes including the 8NDP, the RISDP, Africa Agenda 2063 and Sustainable Development Goals (SDGs).

(ii) Statistics is recognized as a "public good" and over the years, government has funded various statistical activities including Population and Housing Censuses and other National Surveys. Government also approved the design of NSDS as a framework for improving the NSS;

(iii) A new statistics complex to serve as the corporate headquarters for ZamStats has been built with full funding from Government. The complex provides office space, meeting and conference rooms, etc.;

(iv) Statistical reforms aimed at fostering statistical development in the country were undertaken. The reforms are underpinned by a new Statistics Act No. 13 of 2018 that transformed the CSO into a semi-autonomous agency of government, ZamStats. This is was with the view to enhance the credibility, efficiency and effectiveness in delivery of official statistics and services. The reform also covered government MDAs in order to revamp the NSS through the establishment of the Sectoral Statistical Systems (SSS) with viable statistical structures in each sector.

3.5.4 Mainstreaming statistics into policy and planning processes

While statistics is central to national development, the statistics sector can best be characterized as new, young and vulnerable. It therefore needs to be developed and nurtured to be able to support evidence-based policies, planning and decision-making processes in the country. This requires that provision is made for building national statistical capacity and infrastructure to meet both current and future data needs. One of the best ways to do this is to identify and target statistics as a development area in the NDP. More than any other NDP, the 7NDP (2017-2021) provided for statistical development, and this has also been highlighted in the 8NDP. In particular, statistical development is provided for as a strategy on enhancing national data and information systems in the Section on Development Outcomes: Improved Policy Environment. It is also provided for under the Section on Structural Reforms. Under this section, the 7NDP provides for enhancing national data and information systems including repealing the 1955 Census and Statistics Act and the 1964 Agricultural Statistics Act, strengthening the NSS, improving scope and quality of national statistics, designing a NSDS and designing sectoral statistical strategies.

3.3.4 Stakeholder analysis

Based on the stakeholder map presented earlier, Figure 3.2 presents an analysis of stakeholders.

Figure 3. 2: Stakeholder analysis

Influence/ Power			
	High	**Keep Satisfied** 1. Office of the President 2. Parliament	**Engage Regularly** 1. ZamStats Board 2. ZamStats staff 3. Ministry of National Development Planning 4. Ministry of Finance 5. Other MDAs and Local Governments 6. Academia (training institutions) 7. Research institutions 8. Bank of Zambia 9. Development Partners
	Low	Keep Monitoring 1. National Statistical Offices in other countries 2. Wider public	Keep Informed 1. Civil Society organizations 2. Private sector organizations 3. Statistical Societies (national and international) 4. Regional and international statistical organizations (AU, SADC, AfDB, UNECA)
		Low	High

Interest

The following table presents the categories of stakeholders and their interest in the NSS.

Table 3.1: Stakeholder analysis

Stakeholder	Category	Interest
Central Government Ministries, Departments and Agencies (MDAs)	A whole range of data to guide policy making, planning, decision-making, monitoring and evaluation.	MDAs are both data users and producers. As data users, they are interested in comprehensive and good quality data for furthering their own policies and programmes. In particular, they use data for formulating policy, decision making, planning, monitoring and evaluation of development programmes; research; governance and budgeting; and general administration. Programme officers in line Ministries, for example, demand service coverage data disaggregated by region and sex to enable them to determine the coverage of their services and assess their performance.
		Administrative data and statistics related to local sectoral issues such as health, agriculture, population, school enrolments, rain patterns, government investments and allocations of funds.
Local governments	These are responsible for oversight of government programmes and legislation	Local governments use data for local and regional planning, service provision, among others
		Because they are charged with producing statisticians, training institutions are interested in statistics that can enhance learning as well as open new areas for research or academic pursuit.
Parliamentarians	General statistical data that can be utilized for research, curriculum development and teaching purposes.	These use data especially to monitor government development policies and programmes, budget discussions and approval, and informing legislation and decision making.
Training Institutions	Statistics that can inform business and investment decision-making.	They provide the theoretical basis for designing and formulating data collection systems, and training the personnel that are in charge of statistics generation, analysis and dissemination.
		Statistics related to government programmes and funding.
Researchers	Statistics information that is news worthy, but also informative and educative.	Researchers are interested in good quality data for use in research including policy-related research on a host of development issues. Increasingly they are demanding micro-data for their more detailed data analyses and modeling. Through feedback, they should be able to influence how data are collected and managed.
Business community	Zambia is a key actor influencing regional integration as well as regional social, economic and political processes. It is a member of both SADC and COMESA	The main interest of the business community lies in economic and financial related data. The community demands real time data for making critical business investments and decisions.
	The overall statistical picture of the country in comparison to other countries.	The business community can also influence national statistical systems by financing their areas of interest.

Stakeholder	Category	Interest
Civil Society Organizations (CSOs)	The wider public funds statistics as a "public good".	CSOs use data and statistics for advocacy, resource mobilization, decision making and monitoring, evaluation and research. These organizations typically deal with targeted groups of people and issues and need population and related social data to plan, implement, monitor, evaluate and report on their programmes and activities.
		CSOs also generate plenty of granular data from non-traditional sources.
Media	Statistics information that is news worthy, but also informative and educative.	The media is a major channel for statistical data dissemination. It can also heavily influence stakeholder opinions and perceptions about the quality and reliability of data that is provided.
Regional Economic Communities	Zambia is a key actor influencing regional integration as well as regional social, economic and political processes. It is a member of both SADC and COMESA	Regional bodies such as SADC and COMESA, are interested in statistics that will support regional integration and guide regional policy and decision-making. They can prevail on Zambia to provide such statistical data based on the Regional Statistics Protocols that Zambia has signed up to.
International Community	The overall statistical picture of the country in comparison to other countries.	Interest mainly lies in assessing and monitoring the extent to which Zambia is fulfilling its commitments to various development agendas, treaties and protocol.
		Assessing Zambia's adherence to global statistics commitments as well as observing global statistical standards.
		Also use data to lobby government with the view to improving interventions in identified areas of socio-economic interest
		Use data to assess requirements for assistance and/ or participation in development initiatives, evaluate the effectiveness of the assistance and to provide a global picture of development
The wider public	The wider public funds statistics as a "public good".	Use data to make individual decisions and assess the performance of government, and for a variety of other purposes including public debate.
		They therefore wish to see the NSS vibrant and responsive to their needs.

3.3.5 Organizational development

(a) Role of ZamStats

Consultations held with stakeholders across the NSS showed that there is recognition of the central role ZamStats plays in national statistical development. The demand for data, technical support, and leadership by ZamStats on all aspects of the NSS is evident. Over the years, ZamStats has developed huge statistical capacity in terms of technical skills and competences, experience and know-how; statistical methodologies and procedures; infrastructure including field and ICT Infrastructure all befitting a modern National Statistics Office; and systems for data production and management.

In addition, ZamStats has available to it, international frameworks including standard concepts and definitions, international classifications and methods manuals, covering census and survey types and data compilation frameworks such as the System of National Accounts, Trade Statistics Classifications, Industrial Classifications and Environmental Accounts to mention just a few. This has made it possible for ZamStats to deliver on its mandate of producing official statistics on national development indicators like Consumer Price Index (CPI), Gross Domestic Product (GDP), consensus data, etc. ZamStats has also developed a number of data dissemination channels including a Website, Open Data Portal, data dissemination workshops and regular (monthly) press releases and press briefings. However, statistical issues and training of other components of the NSS far outstrips the capacity available at the ZamStats which is by and large over-stretched.

b) Statistics in MDAs

MDAs have serious statistical capacity challenges. Where there are no Statistics Units, which is the case for most sectors, there cannot be established posts in statistics and consistent funding for statistical production. But even where the Statistics Units are established, they are manned by non-statistical personnel, have limited infrastructure, understaffed and under-funded, etc. Non-statistical professionals will not be familiar with fundamental principles of official statistics, legal statistics provisions such as the Statistics Act No. 13 of 2018 and, statistical standards and methods to mention a few. Data collectors in MDAs are not usually trained and their skills are not periodically upgraded. A lot of the data from the MDAs are collected manually with little automation. This makes data compilation more expensive and time consuming and introduces errors in the data. Most MDAs do simple data compilation with limited data analysis and do not produce stand alone Annual Statistics Abstracts. This makes access by outside stakeholders to data in sectors rather difficult.

It was reported that in many sectors, consultations with data users tend to be intermittent with data producers consulted only when data collection is to take place or when data is being released. This weakens the capacity of sectors to compile and make available to users good quality administrative data. The closure of the statistical training programme at ZamStats has worsened the situation.

3.3.6 Statistical coordination

The importance of coordination to NSS was highlighted in the last chapter of the assessment report. Generally, statistical coordination in Zambia has been weak and is very much in need of strengthening. It was reported that CSO the predecessor to ZamStats had not done well both on intra-institutional coordination and inter-institutional coordination. Internally, it was reported that Divisions operated in "silos" and there was little information sharing and cross-fertilization of ideas. Coordination with key data users especially high level policy and decision-makers in government was reported to be good but coordination with other data producers in the NSS was reported to be ad hoc, not formalized and weak due to the following reasons:

- the National Statistical Office did not provide for statistical coordination in its structures – it did not have a Department for or staff dedicated to statistical coordination. Where statistical coordination is well done elsewhere in Africa, a Coordination Department at the NSO would have well over 10 staff. At the Uganda Bureau of Statistics, for instance, the Coordination Department has 36 staff;

- coordination mechanisms and tools have not been developed and operationalized. Such mechanisms would include standing data user-producer committees, data producer-producer committees, thematic technical working groups, etc.; and
- most resources for statistics have been dedicated to data production with fewer resources directed towards statistical coordination. It is worth-noting that statistical coordination is one of the critical functions of the NSO.

3.3.7 Data development and management

a) ZamStats

ZamStats has continued to collect statistics through traditional sources - censuses and surveys – using international standards, classifications and methodologies. These statistical activities depend on good mapping of enumeration areas (EAs). Lately, maps of the EAs have been digitized thereby making them more accurate. For effective field data collection, ZamStats has migrated from pencil and paper data collection processes to automated processes, using Computer Assisted Personal Interviews (CAPI). This has had the advantage of improving data quality and timeliness as well as reducing cost of data collection. The good practice of training field staff (master trainers, enumerators and supervisors) before each census or survey has continued. Provision of logistics for field staff has been improved. All data collections are preceded by stakeholder consultations on scope for data collection and stakeholders are invited to data dissemination workshop where results of the census or survey are officially released.

Skills and competences have been built in planning and implementing censuses and large scale surveys, and data management including data storage, validation, analysis and dissemination.

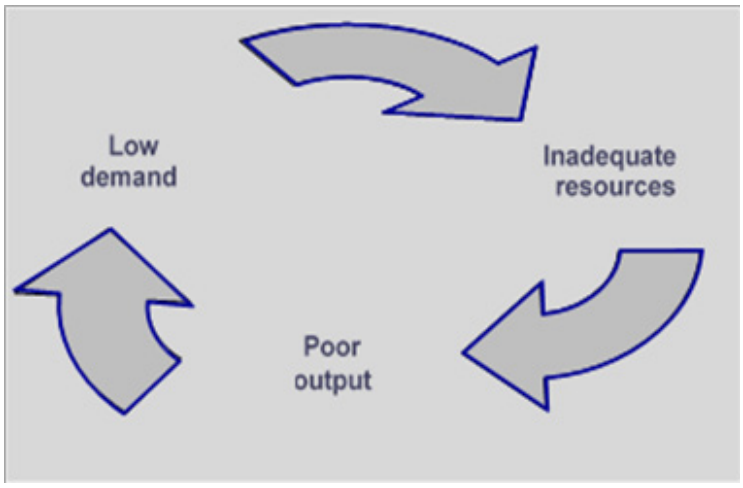
b) Sectors

Assessments showed that:

1. Sectors produced significant amounts of administrative data which were used extensively on a day-to-day basis to make decisions in the public sector. Administrative data sources were also used extensively to produce output and some outcome development indicators for monitoring sector performance and national development.

2. There were still sectors which did not have Statistics Unit. Even where these Units exist, they have not been adequately resourced to be able to do their work effectively. However, because of the above mentioned and other reasons, generally existing administrative data have by and large remained inadequate, viz. they lack accuracy, timeliness, completeness, consistency and sufficient reliability for them to be used with confidence. Many sectors are still trapped in a "vicious cycle" of statistical underdevelopment and underperformance whereby inadequate resources and infrastructure lead to poor output which in turn limits demand for data. This is depicted in Figure 3.3

Figure 3.3: Vicious Cycle of Statistical under-development and under-performance

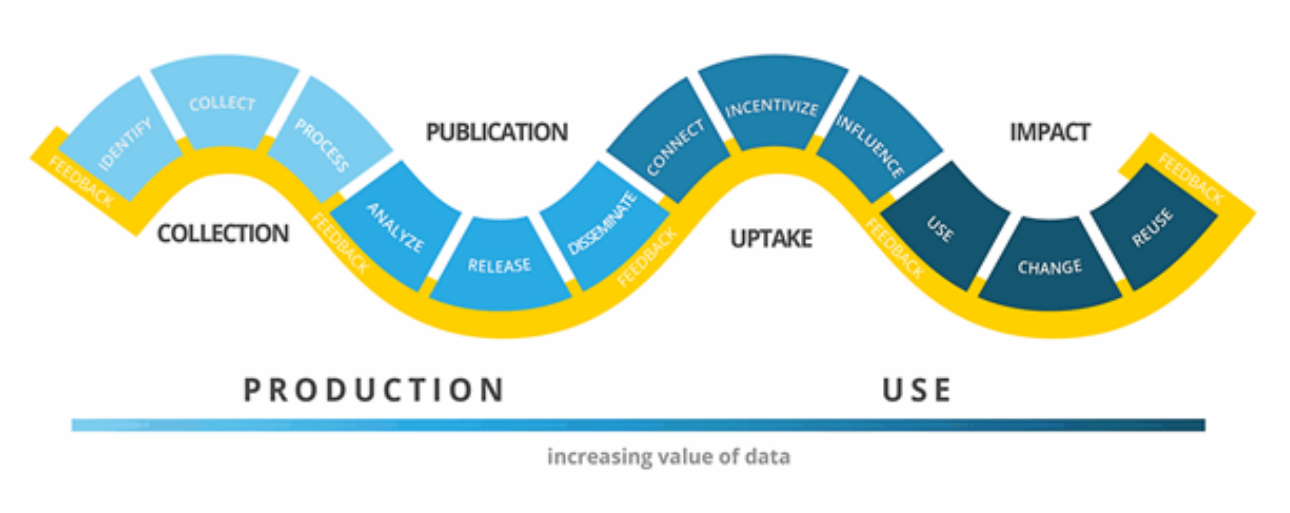


c) Data value chain

Open Data Watch (2018) has presented the data value chain which highlights the increasing value of government data as it moves through the production cycle into analysis, and ultimately as evidence to inform policy. It can be seen from Figure 3.4 that data production involves four major stages, namely:

i. collection stage (identify, collect, and process),
ii. publication stage (analyse, release, and disseminate),
iii. uptake stage (connect, incentivize, and influence) and
iv. impact stage (use, change, reuse).

Figure 3.4: Data Value Chain



It is generally the case among data producers (both ZamStats and sectors) to assume that their work ends at collecting, processing and disseminating data. There is little discussion among data producers about data uptake and impact. The last two stages are extremely important and data producers should take interest in how the data they disseminate are used and monitor the impact it is having on the lives of the population. However, it is worth noting that the Statistics Act no. 13 of 2018 provides as one of its objective the promotion of the use of statistical data and information at all levels, namely individual, national and international.

3.3.8 Data quality

Generally, census and survey data as well as other development indicators produced by ZamStats are of good quality as they are based on international standards, methodologies and classifications. In particular, they comply with the UN Fundamental Principles of Official Statistics and are grounded in 2003 IMF's Data Quality Assessment Framework (DQAF) which sets prerequisites for data quality. Moreover, Zambia is a signatory to the IMF's enhanced General Data Dissemination System (eGDDS) which sets the standard for data dissemination and access to official statistics. It is also standard practice for ZamStats to provide "metadata" as recommended by eGDDS to enable data users to tell for themselves how the data were collected and managed. In any case, an evaluation of the quality of data is usually presented in census and survey reports.

What has been said above with respect to ZamStats data, cannot be said about administrative data from most of the sectors. It was observed that a number of sectors do not have Statistics Units or statistical programmes; do not follow international standards and methodologies in compiling statistics; use personnel which is not well trained in data collection and compilation; and sometimes the tools they use are not standardized and updated. Data management is also a challenge as some sectors do not have enough computer equipment. Additionally, administrative data tend to be incomplete, inconsistent, out-of-date and insufficiently reliable to be used with confidence.

Resulting from the foregoing, there are data challenges for measuring development. For instance, all Cluster Advisory Groups of the National Development Coordinating Committee of the 7NDP (the coordinating framework for 7NDP) have consistently complained of lack of data to measure adopted indicators. The Advisory Groups point to a lot of administrative data which are compiled by government institutions and which if creatively used could make a difference in meeting data needs for monitoring and reporting on development progress. The Advisory Groups also point out the urgent need for more disaggregated data down to ward level among other requirements.

3.3.9 Funding for statistics

In Zambia, funding for statistics has been particularly inadequate and erratic, negatively affecting statistical capacity, statistical infrastructure, recruitment and retention of highly qualified statistical staff and statistical operations like surveys. For instance, regular funding for ZamStats by Government declined between 2015 and 2018 (**see Table 3.2**).-

Table 3.2: Budget Releases to ZamStats, 2014 - 2019

Year	Amount (ZMW)
2014	52,000,000
2015	58,000,000
2016	12,000,000
2017	16,000,000
2018	15,000,000
2019*	100,000,000

Note (*): 2019 Budget releases included funds for 2020 Census of Population preparations

Statistical work in sectors could not be funded as part of the NSDS1 and in most sectors, internal sector funds were not available for statistical activities. Funding from cooperating partners to statistics has also been declining with financial resources being increased to the Monitoring and Evaluation Systems.

3.3.10 Overall performance of NSS

The overall performance of the NSS is quantitatively summed up in the country's score on the World Bank Statistical Capacity Indicators and the overall score on the PARIS NSDS self-evaluation tool.

Statistical capacity

Apart from the Ministries of Agriculture, Education and Health, the Bank of Zambia and Zambia Revenue Authority, there is limited statistical capacity among Government Ministries, Departments and Agencies (MDAs). This is underscored by the country's low score on the World Bank Statistical Capacity Indicator. The scores for Zambia as a country for the last sixteen years compared with the sub-Saharan average scores are given in the **Table 3.**3 and **Figure 3.5**.

Table 3.3: Zambia's Score on the World Bank Statistical Capacity indicator (2004-2019)

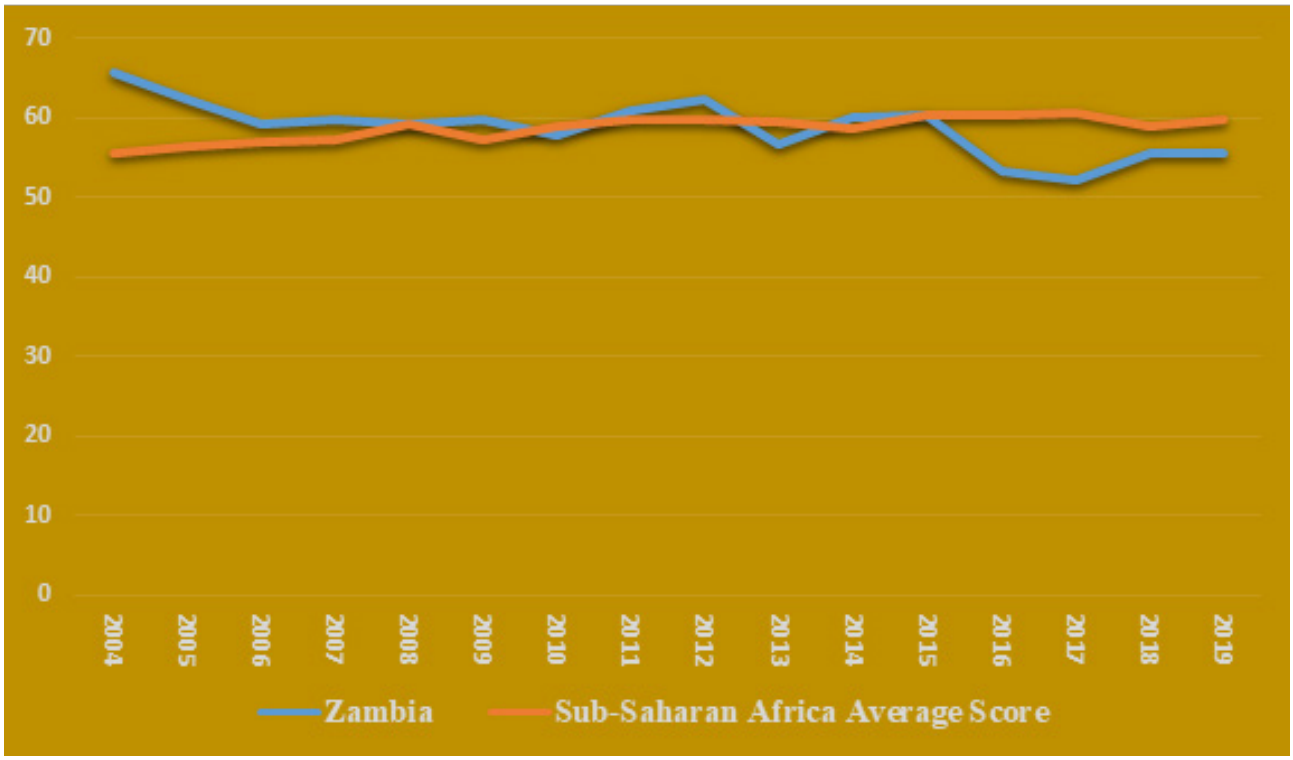
Year	Zambia Score	Sub-Saharan Africa average score	Year	Zambia Score	Sub-Saharan Africa average score
2004	65.6	55.2	2012	62.2	59.3
2005	62.2	56.1	2013	56.7	59.0
2006	55.6	56.6	2014	60.0	58.1
2007	58.9	56.9	2015	60.0	59.4
2008	58.9	55.9	2016	53.3	59.5
2009	58.9	56.9	2017	52.2	59.9
2010	57.8	58.6	2018	55.6	58.4
2011	60.0	59.3	2019	55.6	58.0

Source: World Bank Statistical Capacity Indicator Dashboard

Table 3.3 and the associated Figure 3.5 below show that:

a) statistical capacity is low, at 55.6 in 2018 and 2019 having risen from 52.2 in 2017.
b) the score is not only low but has been declining since 2004 when it was 65.6
c) the score has been consistently below the sub-Saharan average score since 2015.

Figure 3.5: Zambia's Score on World Bank Statistical Capacity Indicator, 2014 - 2019



It is important to observe that NSDS1 (2014-2018) failed to reverse the declining statistical capacity. The low score has been attributed to a number of factors including:

a) Lack of Statistics Units in some MDAs and under-resourcing of those that exist;
b) Failure to mainstream statistics into policy and development processes;
c) Under-funding for statistics across the board due to inadequate statistical advocacy; and
d) Discontinuation of ZamStats' In-Service Training Programme.

The low capacity was confirmed by the PARIS21 NSDS self-evaluation tool that was completed by ZamStats in November 2017 (see Table 3.4 and Figure 3.6).

Table 3.4 Results from the PARIS21 self-evaluation tool, 2017

Thematic area of the tool	Thematic area of the tool	Score (out of 100)
1.	CSO status and capacity	72.7
2.	Resources and expenditure	58.5
3.	Data quality	52.5
4.	Demand responsive	75.3
5.	Dissemination and use	70.0
6.	Planning and monitoring of results	31.0
Total score		**57.7**

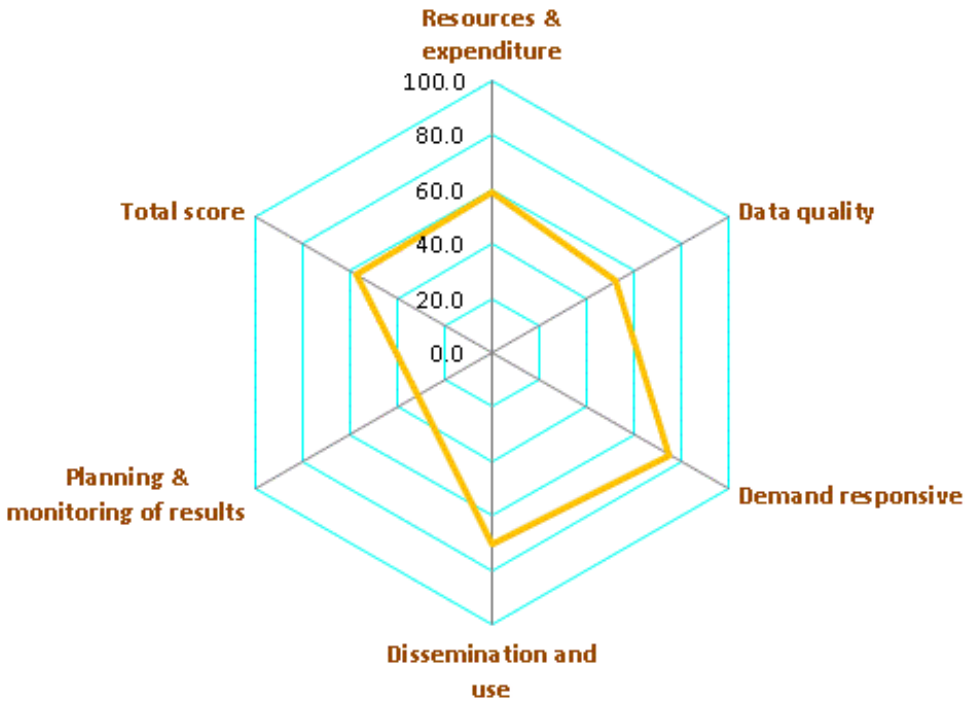
Key findings from Table 3.4 show that while high scores were registered on CSO status and capacity (72.7%), demand responsiveness (75.3%) and data dissemination and use (70.0%), scores were low on resources and expenditure (58.5%), data quality (52.5%), and planning and monitoring of results (31.0%).

3.2.11 Main challenges

Based on the above SWOT analysis, the generalized and notable challenges facing the NSS that this NSDS addresses include the following:

1. **Low profile of statistics, especially in sectors.** This affects data production, use and impact in the sectors and also across sectors in the country.
2. **Inadequate statistical advocacy.** Not enough effort has been made to advocate for statistics and this has led to the challenge in 1) and 3) and 4) and 5).
3. **Low levels of statistical literacy across society.** This challenge affects the information obtained from suppliers, data demand, uptake and use as well as provision of resources for statistics.

Figure 3.6: Zambia's score on PARIS21 NSDS self-evaluation tool



4. Inadequate statistical coordination. ZamStats does not have a dedicated Department for Statistical Coordination Services and coordination both within ZamStats and between ZamStats and other data producers is not as good as it should be.
5. Inadequate statistical capacity in NSS. Some sectors have no Statistics Units and for those which do, the Units are inadequately staffed, resourced and with insufficient infrastructure.
6. Inadequate investment in statistics. This affects statistical capacity and infrastructure at ZamStats and in sectors and therefore the ability to produce and use high quality statistics.

7. Responding to new data ecosystem and trends. The data ecosystem is expanding and diversifying; there are new trends in statistical organization and management around the areas of data innovation, modernization and transformation, and the NSS needs to respond appropriately. In addition; and renewed emphasis on partnerships for statistics, and the NSS needs to respond appropriately.
8. Covid-19 pandemic has made the collection of data and statistics difficult and more costly.

3.2.12 Risks, mitigation measures and success factors

(a) Risks and mitigation measures

Risks that could stand in the way of effective implementation of NSDS2 and the development of the NSS have been identified, described and taken into account in the elaboration of this strategy. These together with the level of risk and mitigation measures are presented in Table 3.5.

Table 3.5: Risks, their description, level and mitigation measures

Risk	Description/Discussion	Level	Mitigation measures
1. Demand for official statistics does not increase	Policy, planning and decision-making especially in public sector are not evidence-based i.e. are not informed by statistics	Low	• Undertake effective statistical advocacy across society
			• Promote a culture of evidence-based policy, planning and decision-making
2. Unwillingness of some sectors to be coordinated	Sectors believing that efforts to coordinate them aims at taking over their statistical roles	Medium	• Effective awareness creation about the importance of coordination of the NSS
			• Explaining the ZamStats coordination role as per the Statistics Act No. 13 of 2018
			• ZamStats working together with sectors to establish coordination mechanisms
			• Secure statistics funders' buy into coordination arrangements
3. The new Statistics Act No. 13 of 2018 is not implemented	The process of implementing the Statistics Act No. 13 of 2018 stalls	Low	• Prepare a roadmap for implementation of the Statistics Act No. 13 of 2018
4. The Statistics Act No. 13 of 2018 is over-ridden by other laws	Some laws provide for different institutions to produce data	Medium	• Seek to close all loopholes that may allow this to happen.
			• Undertake more vigorous awareness creation about the Statistics Act No. 13 of 2018
5. Inability of the ZamStats to coordinate the NSS	Usually caused by:	Medium	• Give statistical coordination higher priority in ZamStats' work programme
	• Failure by ZamStats to appreciate the strategic importance of statistical coordination		• Strengthen the ZamStats by expanding its establishment
	• Lack of resources including staff to effectively coordinate the NSS		• Ensure creation of coordination mechanisms

Risk	Description/Discussion	Level	Mitigation measures
	• Failure to establish coordination mechanisms and to design coordination tools		• Ensure design of coordination tools
6. Inadequate funding for statistical activities	• Limited appreciation of importance of statistics especially by policy and decision-makers	Medium	• Undertake extensive advocacy for statistics as a continuing activity among policy and decision-makers
	• Limited resources available to governments		• Mainstream statistics in all national policy and planning processes
			• Create partnerships with various organizations (national and international)
			• Mobilize resources for statistics from cooperating partners
7. Data insecurity, inadequate data back-up and recovery	• Lack of awareness about data security	Medium	• Create awareness about data security
	• Poor data archiving and back-up		• Promote data archiving, back-up and recovery programmes across sectors
	• Some sectors have no sound data recovery plans		
8. Political interference	Political leaders in sectors interfering in data production and release which affects the credibility and integrity of official statistics	High	• Create greater awareness about the need for data with integrity and objectivity
			• Promote widely the Statistics Act No. 13 of 2018 across society. The Act provides for data integrity and objectivity
91. Tendency to over-crowd the national statistical programme	Because of various data gaps, huge demand for data may lead to a temptation to have overly ambitious data production operations	High	• The national statistical programme will be prioritized
			• There will be a balance between statistical activities to be undertaken and the absorptive capacity to undertake them
10. Production of poor quality data (administrative data) from sectors	Inadequate, inaccurate, and incomplete data in sectors	High	• Promote standards for data collection and management across sectors
			• Build capacity of sectors to produce better statistics and manage them well
11. Lack of commitment by staff supposed to implement the NSDS	Staff do not understand the importance of the NSDS to the NSS and their role in its implementation	Medium	• Ensure staff participation in the design of the NSDS
			• Create NSDS awareness among staff and other stakeholders.

(b) Critical success factors

The following critical success factors were identified and built into the strategic framework:

1. political support and commitment championed by high-level national official(s);
2. statistics is part of or consistent with national development policy and budget processes and contexts NDP and sector development strategies;
3. effective leadership of the NSS by ZamStats and the Statistician General;
4. statisticians and government ensure that the NSDS, like a national Population and Housing Census, is not taken just as yet another statistical activity but rather as a "game changer";
5. sufficient statistical advocacy across society but more especially among policy and decision-makers and Parliamentarians;
6. stakeholder participation and co-ownership of the NSDS and SSPs;
7. better working environment for statistics units in sectors
8. improved staff morale for statistical personnel;
9. leveraging drivers of strategic success, viz. institutional enhancement, people development, processes improvement and harnessing technology;
10. mindset change in line with changing trends in statistical organization and management;
11. cultivate "champions" and "missionaries" for statistics at various levels; and
12. undertake periodic monitoring, evaluation and reporting on plan outcomes, outputs and activities.

3.3.13 Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis

A Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis was used to summarize the above assessment by:

- identifying and evaluating controllable activities in functional areas among stakeholder agencies in the NSS which are performed especially well (strengths) or poorly (weaknesses), and
- identifying and evaluating trends and events which are external to the system and largely beyond its control (e.g. economic, social, environmental, political, legal, governmental and technological trends and events) but which could benefit (opportunities) or harm (threats) the system.

The results of the SWOT analysis are summarized in **Table 3.6**.

Table 3.6: SWOT Analysis

STRENGTHS	WEAKNESSES
1. Existence of core competencies in statistics. 2. Established statistical infrastructure at ZamStats and in some sectors for statistical production. 3. Ability to comply with international standards and frameworks. 4. Established data sources 5. Existence of Statistics Units in some sectors. 6. Existence of Management Information Systems in some sectors.	1. Low status of statistics especially in sectors. 2. Inadequate statistical advocacy by ZamStats and sectors. 3. Misconception about statistics and Monitoring & Evaluation. 4. Some sectors do not have Statistics Units. 5. Limited national statistical coordination. 6. Inadequate data management especially in sectors. 7. Low automation of data processes especially in sectors 8. Inadequate data quality especially in sectors. 9. Lack of a comprehensive national statistical training programme. 10. Inadequate statistical capacity and resources (staff numbers and skills, funding) across the NSS. 11. Insufficient analysis and dissemination of administrative data despite high demand for it.
OPPORTUNITY	**THREAT**
1. Unprecedented demand for statistics. 2. Existence of international statistical. Standards / frameworks and partnerships. 3. Advances in ICT. 4. Existing and potential funding and technical assistance for statistics from development partners. 5. Recognition of sector statistics as a driving force for statistical development.	1. Lack of a statistical culture in society. 2. Perceived undue interference with statistical production and release in sectors. 3. High cost of censuses and surveys. 4. Limited budgetary allocation for statistical production and development. 5. Inability to attract and retain statistical personnel. 6. Lack of commitment to coordination. 7. Non-cooperation of data suppliers. 8. Failure to meet stakeholder expectations. 9. Use of external and unofficial statistics.

The results of the SWOT analysis are used to identify possible strategies that:

- build on ZamStats' strengths,
- mitigate or eliminate weaknesses,
- exploit or take advantage of opportunities, and
- avoid or reduce the impact of threats.


STRATEGY

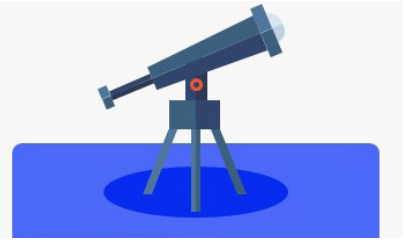
CHAPTER 4:
STRATEGIC FRAMEWORK

Chapter 4: Strategic Framework

The strategic framework which is the core of the NSDS2 speaks to the data revolution that is necessary to unlock the data potential to improve peoples' lives and comprises strategic foundations (vision, mission and core values) and strategic direction (goals, strategic objectives and initiatives (actions). It presents an agenda for reformation, transformation and modernization of Zambia's National Statistical System (NSS), consistent with international frameworks and guidelines as well as the new national Statistics Act No. 13 of 2018 presented earlier.

4.1 Strategic foundations

4.1.1 Vision

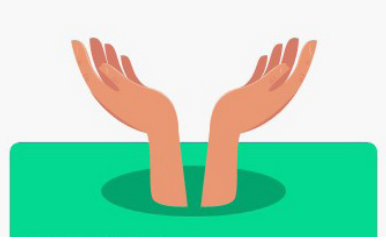


The Vision for the National Statistical System is to be a preferred source of relevant, harmonized and quality official statistics on Zambia.

4.1.2 Mission

To reform, transform and modernize the system to enable provision of relevant, harmonised and quality official statistics that are easily accessible, understandable and usable as evidence for policy, planning, decision-making, monitoring, evaluation and reporting on development progress.

4.1.3 Core values



These are principles or beliefs that are viewed as being of central importance in guiding the conduct and behaviour of staff and decision-making as well as inspiring and galvanizing efforts towards improved performance. The following have been identified as core values for the NSS. They derive from the UN Fundamental Principles of Official Statistics, the African Charter on Statistics and the Statistics Act No. 13 of 2018.

Table 4.1: Core Values of the NSS

User focus	This value aims to position data users at the centre of statistical plans, programmes and processes (user centricity). It is about keeping internal and external data users in mind at all times; it is about proactively identifying user needs and concerns, prioritizing them and striving to address them in a comprehensive manner.
Integrity	The quality of being honest and having strong moral principles. Having integrity means doing the right thing in a reliable way. It is generally a personal choice, to hold oneself to consistent moral and ethical standards.
Transparency	A lack of hidden agendas or conditions, accompanied by the availability of full information required for collaboration, cooperation, and collective decision-making.
Team work	The willingness of groups of people to work together to achieve a common aim. Teamwork means that people will try to cooperate, using their individual skills and providing constructive feedback, despite any personal conflict between individuals.
Quality and performance driven	All activities should be undertaken to deliver the highest possible level of data quality, using the highest level of expertise and professional competence among staff.
Professionalism	Using scientific principles in carrying out work; exercising professional independence; resisting undue pressure when carrying out duty; abiding by professional Code of Practice; and continuously developing oneself to advance career progression and keeping abreast of industry trends and developments.

It is important to underscore the need for the core values not to be taken as slogans but rather to be lived and felt in the NSS. The leadership of NSS is therefore expected to promote these values by living them and then demanding that everybody does likewise. To the extent possible, they should be incorporated into the employee management system to ensure that they make a difference to the conduct of employees.

4.2 Strategic direction

A strategic direction includes measures that are put in place to lead towards the realization of the vision of the future for an organization or system. It enables the organization or system to focus its resources including employees on specific prioritized plans and actions. It also enables employees to understand how each action fits into the larger picture of desired goals. A strategic direction includes goals, objectives and initiatives/activities.

Four (4) mutually supportive goals were identified that would lead to a reformed, transformed and modernized NSS and hence realize the Vision for the NSS. The goals with their outcomes are presented in Table 4.2.

Table 4.2: Strategic Goals and Outcomes

	Strategic Goal	Outcomes
1.	An entrenched culture of evidence-based policy, planning and decision-making at all levels	Greater uptake and use of statistics
2.	Reformed and more responsive National Statistical System	Harmonized and Coherent NSS
3.	Efficient and effective data systems	Increased access and satisfied users with a wide range of products and services
4.	Sustainable funding for statistics	Increased funding for statistics

4.2.1 Goal 1: An entrenched culture of evidence-based policy, planning and decision-making at all levels

Evidence-based policy, planning and decision-making is about making public policy, planning and decisions after an open debate which is informed by careful and rigorous analysis using sound and transparent data. This enables a more accountable and sustainable approach to developing public policies and strategic plans as well as making decisions. It also helps build credibility of public policy, planning and decision-making processes.

This goal, therefore, is about evidence generation, synthesis and evidence informed behaviour change which will be achieved through the following strategic objectives (SOs):

SO 1.1 Increase statistical advocacy

Statistical advocacy is about: (i) creating greater statistical awareness or numeracy as well as demystifying, democratizing and promoting wide use of statistics in society; (ii) making the general case for the importance and role of statistics in the wider context of development and, in particular, in informing the process of governance (e.g. supporting policy development, resource allocation and accountability); (iii) demonstrating the statistics-policy and decision-making chain and in particular, use of statistics for policy, planning and decision-making at all levels; (iv) making a case for specific statistical activities e.g. the Population and Housing Census; (v) making a business case for statistics and mobilizing national and international resources for statistics; and (vi) promoting statistical planning and coordinated investment in developing statistical capacity.

Thus, statistical advocacy is a strategic issue aiming to bring about necessary changes in decision-making behaviour through quality statistics. It should therefore be recognized and addressed alongside the other strategic issues within the NSDS process and in the strategic management of the NSS, so that the NSDS2 is well-designed, well-implemented and well-financed, leading to better use of statistics, better decision-making and better development outcomes. To foster statistical advocacy, a statistical advocacy programme will be developed and implemented. It will have the following initiatives:

Initiative 1: Identification of key advocacy targets

Advocacy targets are of organizations or individuals who are most likely to be able to make a difference in bringing about the changes and investments needed to develop national statistics.

Initiative 2: Develop specific advocacy materials and means of delivery

Emphasis will be on what types of advocacy material will work best with each advocacy target including[5]:

- press clippings, press briefings, press conference, bulletins and newspaper articles;
- school supplies, text messages, jingles, music, radio station programmes, essay competitions;

[5]Advocating for the National Strategy for the Development of Statistics, Country-level Toolkit, PARIS21, Paris, May 2010

- business meetings, seminars especially service clubs;
- PowerPoint presentations, reports, pocket statistical digests, meetings and conferences.

The means of delivery will either be directly or through intermediaries such as the media and other non-government channels) to suit the key audiences. In some cases, this will be one or two people (e.g. President, Minister of Finance) and in others it may extend to very many (e.g. Parliamentarians, civil society, media, other statisticians, users of statistics, potential cooperating partners, etc.).

Initiative 3: Develop key messages for key audiences

Some of the following messages from PARIS21[6] are instructive:

Audience	Message
Minister of Finance	• Investment in statistics will pay for itself many times over by improving the efficiency of resource allocation • Statistics are needed to manage for results
Cooperating partners	• Better statistics will improve allocation and monitoring of aid • Statistics are needed to manage for results
Media	• Better statistics will improve means to hold government accountable for its policies

SO 1.2 Improve data analysis and interpretation

In and by themselves, data do not have much value. Their value derives from the fact that they can be processed, analysed, interpreted and disseminated to those who need them and can be understood and used. Data analysis is about adding value to data by establishing underlying relationships and trends, extracting information from a maze of data and producing value-added products including policy-related information and briefs. Under this initiative, data producers will go beyond basic data analyses to undertake more detailed analyses of data holdings. This helps to better illuminate development issues, inform policy design and programme development, and form a basis for advocacy. Initiatives that will be undertaken to support this strategic objective include the following:

Initiative 1: Build more capacity for data analysis

Data does not have much value in and by itself. Its value derives from the fact that it can be processed, analysed, interpreted and disseminated to those who need, understand and use it. Data analysis is about adding value to data by establishing underlying relationships and trends, and by extracting information from a mass of data. This initiative, therefore, aims to enhance the capacity of ZamStats to create more value out of data holdings by going beyond basic data analyses and doing more detailed statistical analyses. This is expected to help better illuminate development issues, inform policy design and programme development, and form a basis for advocacy. Such analyses will also help to meet specific needs, interests and perspectives of well-targeted users to create impact.

[6]Ibid

Initiative 2: Establish partnerships for data analysis

In addition to establishing the Multi-disciplinary Data Analysis Unit, ZamStats will seek to establish partnerships with experts/researchers in different development areas such as gender, environment, demography/population, energy and governance. These experts will be in government MDAs, Universities, Training and Research Institutions, private sector and civil society.

SO 1.3: Improve data dissemination and communication, uptake and use

Data dissemination and communication is a critical stage in the data production cycle. It serves to justify the existence of the NSS because if its outputs are widely used and found to have impact, government will get more inclined to continue to fund statistical production and development. But even more crucially, since data are produced at public expense, the public has a right to expect and access data for various purposes. It has been argued that data dissemination acts as a vital barometer of the NSS's efficiency and effectiveness. So, if the data from the NSS are used and to good purpose, this demonstrates their worth. It is also important that the NSS "gives back information to society" from whom primary information were collected in the first instance.

However, as mentioned in the last chapter, there was a tendency in the past to focus too narrowly on the collection and production side of the data value chain under the assumption that whatever was produced would be accessed and used. But it has been shown that a "build it and they will come" mentality is obsolete in today's data age. Collecting and publishing data alone does not ensure its usage or lead to positive impacts. More attention is needed on their communication, uptake and use, which the data value chain unpacks and illustrates as the report by AidData on ***"Avoiding Data Graveyards" shows***[7]***.***

Under this strategic objective, the following three initiatives will be undertaken:

Initiative 1: Design and implement an NSDS-wide data dissemination programme

A data dissemination programme that aims to provide information in the form and timeframe that meets users' needs will be designed and implemented. Dissemination should be done in a user-friendly manner, making it easy for users to understand what story is being told by the data. The trend now is to improve availability and use of spatially-enabled information at different levels. This includes developing geo-spatial databases and thematic datasets as well as online applications and services to support regional planning and development interventions. It also includes use of data visualization technologies to assist users appreciate the story the data are telling. In this regard, it can be mentioned that use of poverty maps has helped tremendously to get data users appreciate intensity and geographical distribution of poverty.

Statistical data and information are of no value unless they can reach those who need them, can be easily understood and are usable. It is, therefore, of crucial importance that statistical information are widely disseminated and accessible to users. Dissemination is one of the tail-end activities in the

[7]Custer, S. & Sethi, T. (Eds.), Avoiding Data Graveyards: Insights from Data Producers & Users in Three Countries. Williamsburg, VA: AidData at William & Mary, 2017.

data value chain and it has to be planned and budgeted for well in advance. This should be guided by a well-thought out data dissemination policy that provides a framework for availing statistical data and information to the public in conformity with the Statistics Act No. 13 of 2018 and international guidelines.

The objectives of the data dissemination policy will aim to meet four different objectives:

- disseminate as widely as possible the statistics collected and elaborated by the NSS, adopting high quality standards to facilitate their accessibility and interpretability;
- enhance the credibility of the NSS as a source of high-quality statistics reflecting economic, environmental and social developments in the country;
- reinforce data importance and objectivity, and make them interesting, understandable and usable, and
- contribute to the development of a culture of "informed decision-making" at national and international levels, both in governmental and non-governmental bodies.

In designing data access and dissemination policies, a number of things will be considered including the following:

- **Open data initiative.** Open data have been defined as data that can be freely used, reused and redistributed by anyone – subject only, at most, to the requirement to attribute and share alike[8]. The initiative aims to enhance transparency, deliver social and commercial value and participation and engagement in the process of governance;
- **Dissemination standards.** These standards include the GDDS which sets the standard for data dissemination and access to official statistics. It stresses that dissemination of official statistics is an essential feature of statistics as a public good, and therefore ready and equal access by the public are principal requirements for the public, including market participants. Data access is based on two practices - dissemination of advance release calendars so that users can know when to expect data and simultaneous data release to all parties which facilitate ready and equal access. In characterizing access, "timely" is often added to "ready and equal" to form a triad of desired attributes. Timeliness encompasses both the time needed for statistical processing (or compilation) and the time needed to prepare for dissemination (for example, printing). Two practices are recommended for access, namely dissemination of release calendar and simultaneous release to all interested parties. The standards also require that statistics should be better packaged and released with metadata to enable users to understand the statistics better; and
- **Leveraging ICT.** The advances in ICT, the creation of the "information society" and the launch of national e-government[9] policy initiatives are key factors which explain the main changes to dissemination policies adopted by NSOs and other international organizations. In particular, extensive use of data visualization technologies will be promoted to explore, understand, describe and better communicate statistics. The said technologies include infographics (information graphics), dials and gauges, geographic maps, easy-to-read but detailed bar and pie charts, etc.

[8]http://okfn.org/opendata/

[9]E-government policies have been launched to support the evolution of information societies, to improve the efficiency of the public administration, to minimize the "digital divide" across citizens, etc.

Dissemination media. In the past, the main dissemination media used in most African countries was statistical reports and dissemination workshops. Increasingly, countries are also using press releases and electronic media, including Internet, data portals and social media. Access and use of data from the ZamStats open data portal and from data holdings by different sectors will be promoted. The portal ZamStats was established with assistance from AfDB as part of the Africa Information Highway Initiative. It should also be noted that in many countries there is no one-stop-centre for statistical data and information. This has not made data and information access easy. Under this initiative, a national data warehouse will be built by ZamStats and operationalized during the NSDS 2 implementation period.

Initiative 2: Prepare and distribute Annual Statistical Bulletins

It is critical that data collected at the public expense are put in the public domain for use by the public institutions and other data users. This should be one of the ways for ensuring seamless access to official statistics. Thus, capacity will be built in sectors for data analysis and report writing. It will also be ensured that resources are made available for production and distribution of the bulletins. Of course, the bulletins will be posted on web sites of respective sectors.

Initiative 3: Enhance data uptake and impact

Data uptake

Data uptake involves three activities: connecting data to users; incentivizing users to incorporate data into the decision-making processes; and influencing them to value data. Connections to users will be made in many ways including press releases and online dissemination; holding trainings, seminars or other educational events; and improving the user experience offered by websites, data portals, and archives. Incentivizing users will take many forms including[10]:

- supporting sectors to compile and publish data to make them readily accessible;
- promoting a culture that values evidence-based policies and accurate accounting of outcomes by trainings data users how to access data, make sense of data and building competency to use the data especially for policy, planning, decision-making and reporting on development progress;
- encouraging stakeholders and especially MDAs to incorporate data into their decision making and management practices, and influence them to adopt new habits of data use.
- increasing engagement with data producers to value and demand development data as this is likely to further improve the quality and relevance of the data;
- ensuring that data collection methods and quality controls are as transparent as trust in the quality of the data is a crucial pre-requisite to incentivize users to use data;
- providing metadata which help data users to understand what the data are measuring and how they have been collected and managed;
- building and operationalizing an open data platform to facilitate access, exchange, sharing and use of harmonized statistical data at all levels; and

[10]The Data Value Chain: Moving from Production to Impact, Open Data Watch, N.Y

- demonstrating a high degree of professionalism as data uptake will depend on perceptions of autonomy or lack of political interference, combined with trust, relevance, and quality.

Data impact

Data impact involves three activities: using the data to understand a problem or make a decision; changing the outcome of a project or improving a situation; and reusing the data by combining them with other data and sharing them freely. Data impact will be enhanced by:

- promoting data use culture by creating data-savvy policy makers, planners and decision-makers;
- encouraging data use for decisions and tracking tangible behavioural change;
- using technology to connect to users;
- reprocessing data for new insights;
- reducing cost of data use; and
- encouraging perception of data value.

SO 1.4 Increase data user satisfaction

Data users are the clientele of data production systems and clearly the most important component of the NSS. Statistics are produced because they are demanded and it is widely acknowledged that demand for data is essential for sustainability of statistical systems. In addition, some of the data users are responsible for dispensing resources – the case with policy makers in ministries of finance/ planning. It is, therefore, important that users are satisfied with the data they are getting in terms of relevance, scope, quantity, consistency, quality, disaggregation and timeliness.

To achieve this objective, the following initiatives will be undertaken:

Initiative 1: Scaling up from consultation to engagement with data users

Data users are usually consulted when a new data collection like a survey or census is to be undertaken and when the results of such collection are being disseminated. Data users are so central to the NSS that they should not just be consulted; they should be engaged and should play proactive roles in the development of the NSS. Activities to be undertaken under this initiative include:

- • establishing mechanisms for ongoing engagement with data users. These will enable data producers to better assess and track changing data needs, monitor user expectations, and get users to appreciate statistical processes and indicators as well as challenges that are faced in data production;
- • providing user support to access, understand and better use data; and
- • designing and prominently displaying a Service Charter that outlines commitment to providing quality service to data users and specifies what can be expected when request is made for statistical or other information through any of service channels. The NSS seeks to continually improve data user service, and therefore appreciates feedback on the customer service received, and on its performance on the standards identified in this Service Charter.

This feedback is critical as it will be continually used to improve the development and provision of quality official statistics.

Initiative 2: Undertake User Satisfaction Surveys

Data user satisfaction is used to measure how products or services supplied meet or surpass a user's expectation. Such satisfaction (or lack of it) is established by undertaking a User Satisfaction Survey that provides a metric that can be an important input into improving data production, management and dissemination to users. The specific objectives of the survey will be to:

- determine the level of user satisfaction with the statistical products and services provided by the NSS;
- determine the degree of importance to users of the statistical products and services provided by the NSS,;
- identify particular areas of dissatisfaction and where improvements can be made, and
- gather data that could be used in future years to enable longitudinal analysis.

The survey will be undertaken by ZamStats every other year and will cover main users of a range of statistical information produced by the NSS including reports, publications, statistical data and information, and services like support provided to data users to access, understand and use data and information..

4.2.2 Goal 2: Reformed and more responsive National Statistical System

In recent past, there has been unprecedented increase in demand for data following adoption of development agendas at different levels – national, regional, continental and global levels. The increase is not just in quantity and quality but also in data scope and disaggregation to ensure that no groups are left unaccounted for. The data environment has also been changing with the data ecosystem expanding and diversifying to include new data users, data producers and sources of data; there are new development areas that require development data; new and innovative technological changes are taking place; and indeed, there are new data sources, new ways of gathering data, and new data-based partnerships are being created. There is therefore an urgent need for the NSS to adapt to the increasing complexity of the new data ecosystem and to develop in order to meet the widening, increasing and evolving needs of data users.

To achieve this goal, two strategic objectives will be met.

SO 2.1 Create awareness about the 2018 Statistics Act No. 13 of 2018

Implementation of a Statistics Act No. 13 of 2018 should begin with awareness creation among stakeholders (internal and external) about the Act – its purpose, key provisions, and for internal stakeholders, its relationship with other legal frameworks e.g. SADC Protocol on Statistics, the African Charter on Statistics and the UN Fundamental Principles of Official Statistics. To achieve this strategic objective, the following initiatives will be undertaken:

Initiative 1: Develop and implement an awareness programme about the Statistics Act No. 13 of 2018

It is important that stakeholders are aware about the Statistics Act No. 13 of 2018 and are committed to its implementation. Therefore, an awareness programme about the Statistics Act No. 13 of 2018 will be developed and implemented on an ongoing basis. The programme will be directed at not only data producers and users but also at data suppliers – households, institutions and businesses. In particular, data suppliers need to understand their legal obligations under the Act to provide required information to data producers and to get assurance that the information provided will be treated as confidential and used for statistical purposes only.

Initiative 2: Enhance consistency of all statistical programmes in all sectors with the Statistics Act No. 13 of 2018

Zamstats will review statistical programmes across government to ensure that they are consistent with the Statistics Act No. 13 of 2018. Where they are not, discussions will be held to create alignment with the Statistic Act. It will be emphasised that the exercise is not for ZamStats to take over statistical work of any institution but rather to ensure that there is coordination and collaboration in statistical production across the NSS.

SO 2.2 Operationalise the Statistics Act No. 13 of 2018

To achieve this strategic objective, the following initiatives will be undertaken:

Initiative 1: Prepare regulations

The Statistics Act No. 13 of 2018 provides for the Minister responsible for statistics to issue regulations for giving effect to specific provisions within the Act. Therefore, regulations will be prepared for the Minister to issue in Government Gazette as the Statistics Act No. 13 of 2018 requires. In many African countries, however, these regulations have not been issued and this has made it difficult to handle grey areas during operationalization of their respective Acts.

Initiative 2: Establish structures provided for by the Act

The structures provided for by the Act will be established. These mainly include the Board of Directors as the governing body for ZamStats and the Statistician General as the Secretary to the Board and Chief Executive Officer for ZamStats. The Board will be establishing Committees to handle Board business in greater details provided for by the Act.

Initiative 3: Establish a new data ecosystem

Data ecosystems are organized around "data communities" that generate, manage and/or use certain types of data such as telecommunications providers, land managers, geospatial information producers, financial services providers, etc., and including "official statistics community" or traditional NSS. The idea is to make the data these communities "own' publicly available. This marks

a shift away from the traditional approach, where government "owns" all public data to a new dispensation, the expanded data ecosystem, with data communities which would be in a position to understand their data products and needs, offering timely, reliable, and actionable data to decision-makers, researchers and analysts, investors and the public at large. This is consistent with Principle 5 of the Fundamental Principles of Official Statistics and the Africa Data Consensus[11].

Activities to be undertake under this initiative include:

- mapping the national data ecosystem by determining the individual data communities that provide data that can be of most value to specific target audiences;
- defining the data community data with data communities identifying their respective data elements and protocols for the NSS, forming the database of the expanded national data ecosystem; and
- re-profiling the NSS and developing a partnership map for statistics including with private sector, civil society, academia, etc.

Initiative 4: Develop and promote use of a Code of Practice

A Code of Practice will be developed and promoted. The Code of Practice sets professional and ethical standard for developing, producing and disseminating official statistics in a country. Basically the Code of Practice builds on the UN Fundamental Principles of Official Statistics and establishes common standards that all data producers need to observe to ensure production and dissemination of coherent and trustworthy official statistics. It also helps to promote the application of best international statistical principles, methods and practices by all data producers to enhance the quality of their products and services. As such, the Code of Practice is a good tool for technical coordination and for maintaining quality in official statistics.

SO 2.3 Improve statistical coordination

Statistical coordination is such an important strategic issue to the functioning of the NSS that it is explicitly provided for in the Statistics Act No. 13 of 2018,. The title of the Statistic Bill states, "An Act to establish an integrated National Statistical System; provide for mechanisms for coordination, collection, management and dissemination of statistics ….". Statistical coordination is essential to achieve mutual support and synergy among data producers, avoid duplication of effort and production of conflicting data, rationalize use of available resources for statistics and achieve data quality. It is, therefore, critical that the NSS is well-coordinated. This objective will be realized by undertaking the following initiatives:

Initiative 1: Establish a Department for Statistical Coordination Services at ZamStats

ZamStats has two main functions as per the Statistics Act No. 13 of 2018 -one, to produce certain types of data such as census and survey data and secondly to coordinate the NSS. Generally, undue

[11]Implementing the Africa Data Consensus: Programme Document, UN Economic Commission for Africa, May 2016

emphasis is placed on data production at the expense of statistical coordination. As pointed out earlier, statistical coordination is critical to national statistical development. It is, therefore, important that ZamStats takes its statistical coordinating role more seriously and should be seen to be doing so. Accordingly, coordination will be taken as a strategic issue and will be mainstreamed into ZamStats structures, plans and budgets.

ZamStats will establish a full-fledged Department for Statistical Coordination Services and ensure that it is appropriately staffed and resourced. This department will undertake internal coordination (within ZamStats) and external coordination with key stakeholders out there. Internal coordination will be about ensuring that all staff get to know about the activities taking place or being executed by the agency and ensuring standardization of activities including standard templates for all Agency publications and reports in accordance with Agency corporate objectives. External coordination on the other hand will be about identification of key stakeholders in the NSS, promoting UN Fundamental Principles of Official Statistics and Code of Practice, harmonizing data production procedures to prevent the duplication, wasteful utilization of resources and avoid working at cross purpose, etc.

Initiative 3: Broaden and deepen statistical coordination mechanisms

This initiative aims to break down "silos" and will be achieved by establishing inter-institutional or horizontal coordination mechanisms or deepen them if they already exist. In particular, the following mechanisms will be established with appropriate terms of reference:

A National Data User-Producer Committee - which will convene every year to review national data needs and priorities for national statistical production. This Committee which will be chaired by a key policy maker will bring together key data users and producers including MDAs, research and training institutions, legislators, private sector, civil society and cooperating partners.

A National Data Producer Committee - which will convene every year to review the annual national statistical programme that will be formulated in collaboration with key data producers in the country to harmonize statistical production in the country. This Committee will be chaired by the Statistician General.

A Cooperating Partner Statistics Group – In the past, support to statistics by cooperating partners including funding has generally been fragmentary and uncoordinated. Secondly, such support was focused mainly on helping to produce specific sets of data often to meet immediate data needs. Accordingly, such support did not have lasting impact. This working group will, therefore, aim to coordinate support from cooperating partners, ensuring that such support is mainly geared towards building statistical capacity.

Initiative 4: Revive the Unified Statistical Service

Zambia, like many Anglophone countries used to have what was called a Common Statistical Service. Under this service, all professional statisticians manning Statistics Units in MDAs were seconded to the MDAs by the NSO. However, in Zambia this service was abolished in 2000. The Common Statistical Service had immense benefits for the NSS that included, among others:

(i) promotion of professionalism and better co-ordination of statistical work in MDAs through peer advice and support, ensured training opportunities and a share in joint professional standards and a common sense of purpose;
(ii) cost effectiveness in statistical production through sharing of strategic human resources and skills;
(iii) improved career prospects for statistical personnel. In a number of MDAs, there are two or so staff positions for professional statisticians, which do not offer much in terms of career prospects. By having all statistical staff under one umbrella, an appropriate career path can be developed for them;
(iv) better prospects for training and professional advancement for statistical staff; and
(v) improved quality of administrative data.

In this regard, the NSDS2 design and implementation has considered the re-establishing this service.

Initiative 5: Build Communities of Practice

The NSDS2 will foster establishment of communities of practice in various domains. Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. Communities of practice have three characteristics:

The domain: A community of practice is not merely a club of friends or a network of connections between people. Membership implies a commitment to the domain, and therefore a shared competence that distinguishes members from other people.

The community: In pursuing their interest in their domain, members engage in joint activities and discussions, help each other, and share information. They build relationships that enable them to learn from each other; they care about their standing with each other. However, members of a community of practice do not necessarily work together on a daily basis.

The practice: A community of practice is not merely a community of interest; members of a community of practice are practitioners. They develop a shared inventory of resources: experiences, stories, tools, and ways of addressing recurring problems - in short a shared practice. This takes time and sustained interaction.

Initiative 6: Design statistical coordination tools

In addition to mechanisms and structures, statistical coordination requires design and promotion of coordination tools across the NSS to support production of comparable data over time and between sources. The following tools will be developed and promoted:

- **Code of Practice.** As mentioned earlier, this tool will be needed to ensure that trustworthy statistics are produced across the NSS;
- **Compendium of Main Concepts, Definitions and Classifications.** While this was developed, it was partially used by ZamStats and essentially not used across the NSS. This compendium will be revised and vigorously promoted at ZamStats and across the NSS.

- **National Data Quality Assurance Framework.** This framework will be developed as per the recommendation of the UN Statistical |Commission in 2012 to assure production of quality data;
- **Annual National Statistical Programme.** As mentioned earlier, this programme will aim to harmonize statistical production across the NSS.
- **NSS Newsletter.** This will be established to foster communication in the NSS and may be distributed electronically to cut down on distribution cost.

SO 2.4: Undertake change management

Breakthroughs in performance require that major changes be undertaken as drivers of strategic success. Change is always underway with all organizational systems and processes intrinsically subject to constant review caused by the ever-present social, economic and technological trends in society. It is, therefore, very important that changes are introduced and well-managed so that individuals can see change as an opportunity to enrich their organizations, individual careers and personal lives. While change is an opportunity, it is usually viewed as a threat and is always resisted. Indeed "resistance to change can be considered the single greatest threat to successful strategy implementation" (Kaplan and Norton, 1996). This makes change management an important issue in the discourse on strategic planning.

Initiative 1: Design and implement a change management programme

This strategic objective is about fostering change in the NSS including the following:

- change in the way statistics is viewed by policy and decision-makers, and society in general;
- change in the way statisticians go about understanding the needs of data users and prioritizing them;
- change in the way statisticians reposition themselves to take advantage of the current favourable policy environment for statistical development;
- change in the way statisticians go about meeting ever increasing user needs using limited resources – doing more with less that calls for creativity, innovation, efficiency and leveraging advances in ICT;
- change in the way the Zambian National Statistical Office does business as an autonomous government agency along modern management principles; and
- change in data management – how data are archived, analysed, interpreted and communicated to users.

Initiative 2: Hire a change management expert

ZamStats will seek assistance from cooperating partners to develop and implement a change management programme. This is because many organizations undergoing change usually hire services of change management experts to stem possible faltering. Change will be managed, among other things, by anticipating the focus of resistance, eliminating unnecessary resistance caused by misconceptions through effective communication and creating a situation of participation and full explanation when changes are envisaged. Work ethics and mind-sets will be made to change, and change-oriented thinking will be made to become a habit for everybody.

4.2.3 Goal 3: Efficient and effective data processes

This goal is about achieving data systems that are efficient and effective, capable of producing quality data and also ensuring cost-effectiveness of data production processes. It is about improvement of existing data processes, investing in new processes and innovating to create value (new value-added products and services) that will meet the emerging data needs.

The goal will be achieved through the following SOs:

SO. 3.1 Organisational strengthening

This strategic objective will be about building competent organizations able to address disparate data challenges in sectors. To achieve this, the following initiatives will be undertaken:

Initiative 1: Strengthen ZamStats

Under this initiative, a number of things will need to be done to strengthen ZamStats including the following:

i. Ensuring that ZamStats complies with statutory and regulatory frameworks, including the Statistics Act No. 13 of 2018;
ii. Maintaining an enabling working environment for statistical production and related services;
iii. Providing effective administrative and managerial support to statistical coordination, production and development;
iv. Developing and maintaining a sound financial management system that supports statistical production and related services;
v. Developing and implementing an effective risk management and compliance strategy; and
vi. Maintaining an efficient procurement and disposal system that supports statistical production and related services.

Initiative 2: Establish and resource Statistics Units

There are sectors which do not have Statistics Units, a statistical programme and statistical personnel. All sectors will be supported by ZamStats to establish Statistics Units. In particular, ZamStats will work out an ideal structure of a Statistics Unit in terms of ideal staff complement, data systems, skills, IT equipment, furniture and office accommodation, etc., and promote it across sectors.

There are also sectors which have a Statistics Units but are under-resourced in terms of infrastructure, staff and funding. ZamStats will also backstop sectors and support them with statistical advocacy and capacity building using the NSS-wide statistical capacity building programme.

SO 3.2 Improve statistical infrastructure

One of the weaknesses of African NSSs is that the infrastructure for statistical production and management is generally weak, inadequate and vulnerable. This is because most resources for

statistics are dedicated to data production with fewer resources directed towards infrastructure and capacity development. This objective will be met by undertaking the following initiatives aimed to improve infrastructure for statistics targeting the following for improvement:

- application of international standards and classifications, and
- field organisation.

Initiative 1: Application of international standards and classifications

ZamStats will create greater understanding of and compliance with international standards and classifications across the entire NSS through regular communication and training workshops. Where objective conditions demand it, these will be adapted to local conditions. Where adaptation is not possible, national standards and classifications will be developed within the framework of international standards and classifications.

Initiative 2: Development and maintenance of sampling frames

This initiative will target two frames - geographic frames and business registers.

Geographic frame

The Geographical Frame (GF) includes a list of Enumeration Areas (EAs) together with supplementary information about them including number of households and social facilities in each one of them. The EAs are mapped out and used in Population and Housing Censuses and as sampling frames for household-based surveys which ZamStats undertakes from time to time. The GF is used as a sampling frame for household-based surveys. In addition, the GF makes it possible to do spatial referencing and analysis through the Geographic Information System (GIS). Increasingly, the EAs are being digitized and linked to the geography of the country to produce census atlas, various survey thematic maps as well as generating community statistics wall maps showing location of amenities in communities. This is also enabling socio-demographic spatial analyses and trends as well as poverty mapping using the GIS tools. The EAs will be updated on a continuing basis by mapping staff from the ZamStats.

Central Business Register

A business register is used as a basis for collecting reliable economic statistics in the country. Several business registers are maintained in different MDAs for administrative, regulatory or statistical purposes. These registers will be consolidated into a Central Business Register (CBR) as doing so will guarantee that they are harmonized; the CBR will enable practical application of standard statistical units and their classification, which is crucial for survey outputs to be integrated; and it is more efficient to maintain the CBR as a source of sampling frame for all business surveys than for each survey team to be independently maintaining its own register[12] .

[12]Guidelines for building statistical business registers in Africa: Laying the foundation for the harmonization of economic statistics program, African Development Bank, Tunis, Tunisia, 2014

Initiative 3: Improve field organizations

ZamStats field offices

ZamStats established Provincial Statistics Offices (PSOs) in the ten (10) provinces, as the face of its field organisation (FO). The main objective of a FO is to handle field data collection operations which include controlling the flow of information to and from the headquarters; recruitment, training and supervision of enumerators and supervisors; scheduling field work to ensure that data are collected in a timely and orderly manner; actual data collection; editing filled questionnaires; and co-ordination of all other functions associated with field work.

The FO will be better resourced and field staff (enumerators, supervisors, mappers, etc.) will be better trained, supervised and equipped. This will be particularly important as field data collection is progressively migrated from manual (paper and pencil) to automation.

Data compilation in sectors

As mentioned earlier, under data management and development, a number of sectors are still trapped in a "vicious cycle" of statistical underdevelopment and underperformance. Sectors should be assisted to turn the said "vicious cycle" to a "virtuous cycle" where more and better quality data are being produced and increasingly used to inform development processes; there is increased investment in statistical production; and there is improved performance of sector statistical systems. Systematic and sustained statistical advocacy will have to be undertaken in sectors for this to happen.

Develop and implement policies, instruments and procedures for data collection

With support from ZamStats, sectors will formulate and implement policies for data production including the protection of personal data. Sectors will also be expected to adopt international standards, guidelines and standard operating procedures and classifications in their data collection. This will make it possible for sectors to produce comparable and accurate data. The policies will also promote automation of data collection and compilation in sectors.

SO 3.3: Improve IT infrastructure

The objective for using information technology (IT) is to maximize benefits that accrue to its application including strengthening work processes (e.g. speeding up data collection and processing), facilitating complex data analyses and standardizing work processes (e.g. publications). IT can therefore not be any viewed as just a set of programmes and tools but rather as an enabler that can effectively and efficiently alter the way work is done thus shrinking the effects of time and space. It is, therefore, important that IT resources are harnessed to improve statistical production and management. IT resources include IT equipment (hardware) and software, networks, Internet, databases, Geographic Information System (GIS) and IT standards and policies. However, this will not be possible until IT infrastructure is put in place. Under this strategic objective, the IT infrastructure will be built and/or enhanced to make statistical production across the NSS more effective and efficient.

Initiative 1: Develop and implement IT standards and policies

IT standards and policies will be developed to provide overall and long-term development needs in IT so that the statistical production becomes IT-intensive and focused. In particular, policies will be put in place that support mainstreaming of ICT into all statistical operations. The policies will also help to standardize and guide IT infrastructure acquisition and maintenance of computer hardware and software, computer replacement given fast changes in technology, IT and data security, use of computers and internet resources, etc. Further, a coherent IT infrastructure with a standardized platform of basic hardware, network and office automation applications will be needed for the NSS. Furthermore, attention will be paid to issues of data confidentiality and security, including establishing backup mirror servers as disaster recovery measure.

Initiative 2: Modernize IT equipment and build networks

Appropriate IT equipment will be procured, installed and networked as necessary both at ZamStats and across sectors. It is important to emphasize that IT is undergoing rapid changes and sectors need to catch up with these changes. These changes are not only increasing the power and speed of computers but also they have appreciably lowered the cost of IT equipment.

Local Area Networks will be built to improve efficiency, optimize use of IT resources, increase information sharing, improve communication and provide connectivity to other institutions. Wide Area Networks will also be built to enable data and information sharing between ZamStats headquarters and PSOs. As much as possible, access to Internet will be enhanced to enable staff and institutions share global resource of information and knowledge as well as facilitate collaboration and cooperation among diverse data communities.

Initiative 3: Develop and operationalize databases

Databases for sectors

It has now become best practice to create databases to improve the management of data and information resources; promote better collaboration, networking and sharing of data and information; and to facilitate inter-linked analyses for informed advocacy and policy and decision-making. Databases will be created in sectors and these will be linked to a national database that ZamStats will develop and run as a one-stop-centre for official statistics in the country.

Every effort will be made to ensure that the said databases are developed in a coordinated manner; that data in the databases are serviced and continuously maintained and updated; and that the databases are readily accessible by various data users to meet their individual needs. In particular, users should be able to access the data bases, view and print off tables and carry out basic statistical analyses.

National Statistical Database

A National Statistical Database will be designed and operationalized as a central repository of official statistics in the country as provided for by the Statistics Act No. 13 of 2018. The database will, inter alia:

(i) allow the consolidation of all official statistics from different sources in one location - a central repository,
(ii) provide powerful, yet easy to use analytical tools,
(iii) help "tell a story" and thus improve decision-making, and
(iv) facilitate dynamic publishing and web dissemination to various constituencies.

SO3.4: Improve data production processes

This strategic objective is about ensuring that good quality data are produced on time and within the budget. This will be done by strengthening existing data processes, investing in new data processes and bringing on board new data sources. It will be achieved through the following initiatives:

Initiative 1: Strengthening existing data processes

Administrative data sources and civil registration systems: These will be improved by:

i. establishing Statistics Units in MDAs where such Units do not exist, with ZamStats providing a template architecture and terms of reference for such Units,
ii. increase the scope of data and build capacity through training of staff that collect and/or compile data in MDAs,
iii. promoting use of international standards, methodologies and classifications as well as the Code of Practice across the NSS,
iv. reviewing of existing instruments and methodologies for data collection in MDAs,
v. promote automation of all data processes,
vi. undertaking periodic audits of administrative data systems and resulting datasets; and
vii. promoting better management of administrative data, including storage, database development, data analysis and reporting, and
viii. use innovative technologies to improve the national civil registration system.

Census and surveys: Censuses and surveys will be improved as follows:

Censuses

i. Reducing the total cost of the Population and Housing Census and Census of Agriculture by using the same infrastructure, logistics, personnel and equipment for both censuses.
ii. Sequencing the two censuses with the Agricultural Census undertaken after the Population and Housing Census.
iii. Reducing the scope of the Census of Agriculture by collecting some agriculture data items during the Population and Housing Census.

iv. Enriching data analysis from above two censuses by using a unique household identification number to link datasets from the two censuses.
v. Building a reliable sampling frame for the agricultural census based on the Population and Housing Census information.
vi. Optimizing the sample design of the agricultural census
vii. Undertaking the Economic Census every 5 years.

Surveys

Improvements in surveys will include:

i. increasing frequency of surveys;
ii. lowering costs to make surveys sustainable (currently most surveys are funded by cooperating partners) ;
iii. carrying out plausible multi-purpose surveys;
iv. improving survey processes to collect higher quality data (quality in all its various dimensions) ; and
v. reducing turnaround time for survey processes to meet user needs in a timely manner especially for public policy design, monitoring and reporting on development progress.

Initiative 2: Undertake data innovation

There is a big drive towards data innovation as part of the data revolution in many countries. This initiative will focus on three activities:

- automating all data processes
- undertaking new generation of surveys - high frequency surveys
- exploiting non-traditional data sources

Automating all data processes

ZamStats started the migration from paper-based field data collection to Computer Assisted Personal Interviewing (CAPI) in 2015. The benefits of using CAPI are that it reduces cost of data collection in the longer-term, cuts down on turnaround time and improves the quality of field data.

There is also a drive to systematically automate all data processes as part of the modernization processes at ZamStats.

In sectors, automation of data processes will be undertaken to allow computer systems, network devices or machines to function without manual intervention. Tablets will be used to collect data from data source e.g. institutions (schools, hospitals, etc.) and online facilities will be used for data transfer from the facilities to sector head office. Automation will require that capacity is built on use of CAPI, selection is made of CAPI application which is easy to use and powerful in term of controls and as pointed out earlier, migrate from paper-based systems to automated systems.

New generation of surveys - high frequency surveys

There is huge (latent) demand for high frequency data among decision-makers for monitoring the situation in the country, programme managers for getting a feedback on the success of their activities, NGOs for advocacy for improved service delivery, even the statisticians would benefit from this data to estimate changes in employment or validate GDP estimates, etc. Unfortunately, there are challenges of both timeliness and frequency with which survey data are produced in Africa and developing countries generally. This challenge is caused, inter alia, by lack of adequate capacity, budgetary resources are not enough and main methods for data collection – face-to-face interviews - often using long and complicated paper questionnaires. The consequence of all this is that governments and their partners may not be able to target responses to the vulnerable in a timely and effective manner where help is most needed. Concern about this state of affairs has led to calls for re-engineering traditional surveys to make them faster, more frequent and cost-effective. Innovative surveys that offer precise and timely information about well-being, service delivery, income, security, health and other topics, also called high frequency surveys, are seen as the answer. This new generation of surveys takes advantage of connectivity revolution (wireless technology) to capture required information in real time.

While conducting surveys by phone is standard practice in developed countries, poor countries could not use this practice on account of low telephone ownership especially in the pre-mobile phone era. However, the picture is changing fast and there is now high penetration rate of mobile phones in African countries. Cell phone ownership is widespread and also poor households have access to mobile phones. Therefore, a wide range of data can now be collected on household welfare at high frequency and low cost. The approach draws on two successful pilot mobile phone panel surveys conducted in South Sudan and Dar es Salaam, Tanzania where data were collected on a wide range of topics and in a manner that was cost-effective, flexible, and rapid. The World Bank intends to roll out these surveys in other African countries in what users call Listening to Africa and data producers call Meeting the high frequency data challenges. It is further reported that "Listening to Africa is not only about collecting quality data. It embraces open data principle and is committed to releasing all (anonymized) data within four weeks of its collection. Where possible, Listening to Africa will integrate its data collection into the NSS" (Kiregyera, 2015).

It is, however, important to point out that mobile phone surveys are not meant to replace comprehensive household surveys, but they can offer valuable information about what's happening at that moment in people's lives e.g. How many meals did they have today? Has anybody in the family been sick? Were the kids able to attend school in the last week? These surveys are gaining traction in the age of social distancing due to Covid-19 pandemic and have been used to great effect to establish the impact of the pandemic on socio-economic well-being of the population.

Exploiting new and non-traditional data sources

It was mentioned in the last chapter that new and non-traditional data sources which have been identified mainly include telecom data, GIS data, e-commerce, web crawling and social media. These sources will be leveraged to improve official statistics. In particular, key actions to be undertaken will include:

- identify and remove barriers to the use of new data sources, including registries and administrative data and other data from new and innovative sources, and coordinate efforts to incorporate them into mainstream statistical programmes through, inter alia, confidence- and trust-building measures, legal reforms, better funding and capacity building.
- develop guidelines on the use of new and innovative data generated outside the official statistical system, into official statistics (that is, principles on using new data sources and other data for official statistics).
- build capacity in Data science, Artificial Intelligence (AI) and Machine learning (ML) essential for big data analytics that can be used to improve official statistics. The importance of this lies in a report on "Statistics needs to adapt "new data science era", and fast, because "Statistics is at a crossroads.....it must either flourish by embracing and leading the field of data science or decline and become irrelevant[13]".

SO 3.5: Build statistical capacity across the National Statistical System

As mentioned earlier, Zambia has a low statistical capacity as measured by the World Bank Statistical Capacity Indicator. The indicator shows that statistical capacity for the country as a whole is low and has been declining (downward trend) since 2004. Under the NSDS2, a robust statistical capacity will be built not only to supply needed statistics, on a continuing basis and using best statistical practices but capacity will also be built at different levels and across the data value chain. The following three initiatives will be undertaken to reverse declining statistical capacity and lay a firmer foundation for sustainable statistical capacity:

Initiative 1: Develop and implement a Statistical Training Centre at ZamStats

In the past and for many years, the CSO (now ZamStats) had a very vibrant in-service statistical training programme which helped a lot to build minimum capacity for data collection and compilation across the public sector. This programme became an effective anchor to the NSS. Some CSO staff who went through this programme went on to become Directors of CSO and others became high level officials in international organizations including IMF, UN Statistics Division, AfDB and the UN Economic Commission for Africa.

This initiative is about using ideas and lessons learnt from implementation of the in-service training programme over the years to establish a Statistical Training Centre at ZamStats. The objectives of the Centre will be to:

(i) build minimum skills and competencies in government institutions that compile huge amounts of data with the aim of improving the state of administrative data in the country;
(ii) impart technical skills in traditional areas such as IT, GIS, data management, data analysis, data communication, etc.;
(iii) impart technical skills in non-traditional areas such as data science and data analytics, Artificial Intelligence (AI) and Machine Learning (ML), data visualization, governance and human rights, etc.; and

[13]Statistics at a crossroads: Who is for the Challenge? By Xuming He, David Madigan, Bin Yu and Jon Wellner, Report 2019, The National Science Foundation, USA

(iv) impart soft skills (or life skills) in the NSS such as communication, presentation, report writing, etc.

The Centre will organise regular professional seminars and periodically organise short courses and seminars especially in various areas of statistics. The Centre will also identify external training opportunities (short courses and long-term training) and judiciously select officers to be trained. Once they complete their training, staff shall be assigned to duties that they can perform most efficiently on the basis of the knowledge acquired in their training courses.

Initiative 2: Institutionalize mentoring

Many young statisticians are left to learn important career skills by trial-and-error once they join the workforce. This takes a long time and results are uncertain. Mentoring can greatly shorten the learning period and improve the process of acquiring skills that are important for career development. ***Mentoring is "the practice of assigning a junior member of staff to the care of a more experienced person who assists him [her] with his [her] career".*** There is mounting evidence in the literature indicating that mentoring is an important element for career development of young scientists. This initiative aims to ensure that the young generation of statisticians mainly at ZamStats is mentored appropriately to help them acquire the skills needed for the responsibilities that await them[14]. Professional statisticians who have achieved a high level of specialization will be tasked with mentoring junior colleagues. Specific mentorship guidelines and criteria will be developed and enshrined in a mentorship programme.

Initiative 3: Promote Continuing Professional Development

ZamStats will promote continuing professional development (CPD) for its staff. Under CPD, professional staff will be encouraged to take up different self-study programmes, become members of and participate actively in national and international professional associations, publish professional papers, conduct seminars, teach some practical courses at University, etc. ZamStats will show the way by taking up corporate membership of a number of international statistical associations such as the International Statistical Institute and the Royal Statistical Society.

Initiative 4: Establish a Professional and Practical-Oriented Statistical Training Programme at the University of Zambia

Building statistical capacity in Zambia has been slow because top Universities in the country have not developed full-fledged University Courses on Official Statistics. This means that many personnel undertaking statistical activities are economists or sociologists or geographers, or demographers etc. who have needed a long time of orientation and training on the job. Under this initiative, a Professional and Practical-Oriented Statistical Training Programme will be introduced at the University of Zambia to increase the supply of statistical personnel in the country. The programme will produce job-ready or "turnkey," graduates for running the NSS. Such training programmes were started at national Universities with assistance from UNDP at the behest of Ministries of Planning. This

[14]Lehana Thabane, Marroon Thabane, MLIS and Charles Harry Goldsmith, Mentoring Young Statisticians: Facilitating the Acquisition of Important Career Skills, African Statistical Newsletter, Vol. 2, 2006

was after independence when national governments needed data to plan for national development. A good example of this programme is the Institute of Statistics and Applied Economics at Makerere University which was established in 1968. This Institute trained professional statisticians from all over Africa (including Zambia) and now Uganda is fully self-sufficient in statistical manpower.

ZamStats will work with the Ministry of Finance and National Planning and the University of Zambia with the view for UNZA to host the programme, formulate and cost the training programme, and then mobilize resource for its implementation. Among others, this programme will take into account the changing data environment, increasing complexity of the new data ecosystem; new technological changes; and new development areas that require development data. Training will therefore enable statistical personnel to acquire new knowledge, strategic skills and competences in old and new statistics areas.

4.2.4 Goal 4: Better funding for statistics

Awareness about the importance of statistics has not been matched by adequate funding commitments to statistics by both government and cooperating partners. And yet low and unpredictable funding will negatively affect data supply at a time when demand for data has increased astronomically. So this goal aims at achieving better funding for statistics through the following strategic objectives:

SO 4.1: More and better funding for statistics

Statistical development does not simply need more funding across the NSS (ZamStats and MDAs), it also needs better funding in terms of predictability of funds. It has been observed that not all budgeted amounts by government are disbursed or disbursed in time to enable time-bound statistical activities to be undertaken. Funding by cooperating partners has largely been piecemeal and uncoordinated.

To meet this strategic objective, the following initiatives will be undertaken in addition to what is provided for above:

Initiative 1: Make a value proposition for better funding for statistics

The value proposition will highlight the immense benefits of the country having widely available and readily accessible relevant, accurate, timely and disaggregated data especially on data priorities agreed in national and regional (SADC) statistical strategies. It will also present the cost of policy-making, planning and decision-making without data or good quality data.

Initiative 2: Mapping of cooperating partners supporting statistics

Different cooperating partners support different statistical activities and programmes at different levels – government ministry, department or agency. A mapping of different cooperating partners and their interests in supporting statistics will be done. This will be accompanied by exploration of prospects for establishing a "basket funding" arrangement which has in the past worked well in such countries like Rwanda and Mozambique.

SO 4.1: Make better use of funding for statistics

It is important that once funds are secured for statistical production and other operations, they are well utilized. This will be done through the following initiatives:

Initiative 1: Develop and implement multi-purpose integrated programme of household surveys

Household surveys are the main source of data required for policy, planning, decision-making, monitoring, evaluation and reporting on development progress. In the past, these surveys have been designed and implemented in an ad hoc and uncoordinated manner. In addition, the surveys have not been conducted with appropriate frequency, survey programmes have mainly been funded by cooperating partners, and household survey datasets have often been under-utilised.

A multi-purpose integrated programme of household surveys (MIPHS) will be designed and implemented for purposes of collecting integrated and inter-disciplinary data on a continuing basis and on a wide spectrum of subjects including: household budgets, health and nutrition, demographics, housing, labour force, literacy, agriculture, food consumption, migration, living standards, informal sector, etc. The benefits of MIPHS include:

- historical continuity in the indicators investigated which can facilitate measurement of change over time in these indicators;
- fewer organizational and manpower problems arising from the establishment of a field organization on a permanent basis;
- huge economies, viz. cost reduction owing to availability of basic data from previous surveys and amortization of developmental and start-up costs over a number of surveys;
- making it possible to statistically measure association of different variables as data are from a common source;
- providing an opportunity for step-by-step learning by doing especially if there is limited past experience to go by;
- permitting conduct of methodological experiments, representing greater analytical potential; and
- collection of more accurate data.

Initiative 2: Develop and implement longer-term integrated census and survey programme

A longer-term integrated census and survey programme will be designed and shared widely with stakeholders so that they can know when to expect which data. It will also help ZamStats and other data producers to align their work programme and processes. The programme will be deliberately designed to feed into government policy and planning processes to ensure immediate relevance of data they collect. The programme will also be used as a tool for advocacy and resource mobilization for statistics. Like the multi-purpose integrated programme of household surveys, the longer-term integrated census and survey programme will impart many benefits to the NSS. Few African countries (including Uganda) have developed and are implementing such a programme and can provide useful experience to Zambia on this matter.

Initiative 3: Develop and document better accounting systems and procedures

To ensure accountability for funds received from government and cooperating partners, better accounting systems and procedures will be developed and adhered to.

4.3 Aiming to achieve "quick wins"

In the selection of initiatives, consideration was given to the need for quick wins – initiatives that can demonstrate easily and quickly the benefits of the NSDS. One such, quick win is clear identification of various data producers and collection of scattered data from them, assembling the data and producing Statistics Reports that shed some light on development challenges such as poverty, malnutrition, service delivery, COVID-19 incidence and prevalence. Such a quick win hold the prospect of easily exciting the leadership and securing goodwill and buy-in for statistical development and use. Quick wins will also give confidence and encouragement to those implementing the NSDS to soldier on.

4.4 Sustainability

The issue of sustainability has come to the fore at various fora and engagements on statistical development in developing countries. The concern is that oftentimes, projects and activities started with assistance from development partners, stopped when the assistance ended and a lot of the time the impact of the assistance is not easily seen. It is therefore, important that the strategy addresses the issue of sustainability. Basically, there are two aspects of sustainability which this strategy provides for, namely technical sustainability and financial sustainability.

4.4.1 Technical sustainability

This type of sustainability relates to ability to continue training, attracting, and retaining staff; and to sustain improved capacity to better manage the NSS. This will be ensured by, among other things, by:

- mainstreaming statistics into national policy, planning and budgeting processes;
- increasing the country's absorption capacity for funding from cooperating partners;
- investing more in statistical capacity building both at ZamStats and in sectors to ensure self-sufficiency in the longer term;
- promoting institution building, vis. (i) fostering effectiveness, efficiency, transparency, accountability and innovation, and (ii) promoting the development of the human resource and leadership, professionalism, ethical conduct and commitment by statistics personnel;
- requiring institutionalization of the results of technical and other forms of assistance including counterpart in the institution to which support is being provided for purposes of knowledge and technology transfer;
- using local know-how and experts as much as possible and where not possible, ensuring that external experts are under-studied;
- focusing on sustained training and in particular, training of trainers who will then train others;
- promoting leveraging of international networks and opportunities for professional growth and advancement of knowledge;

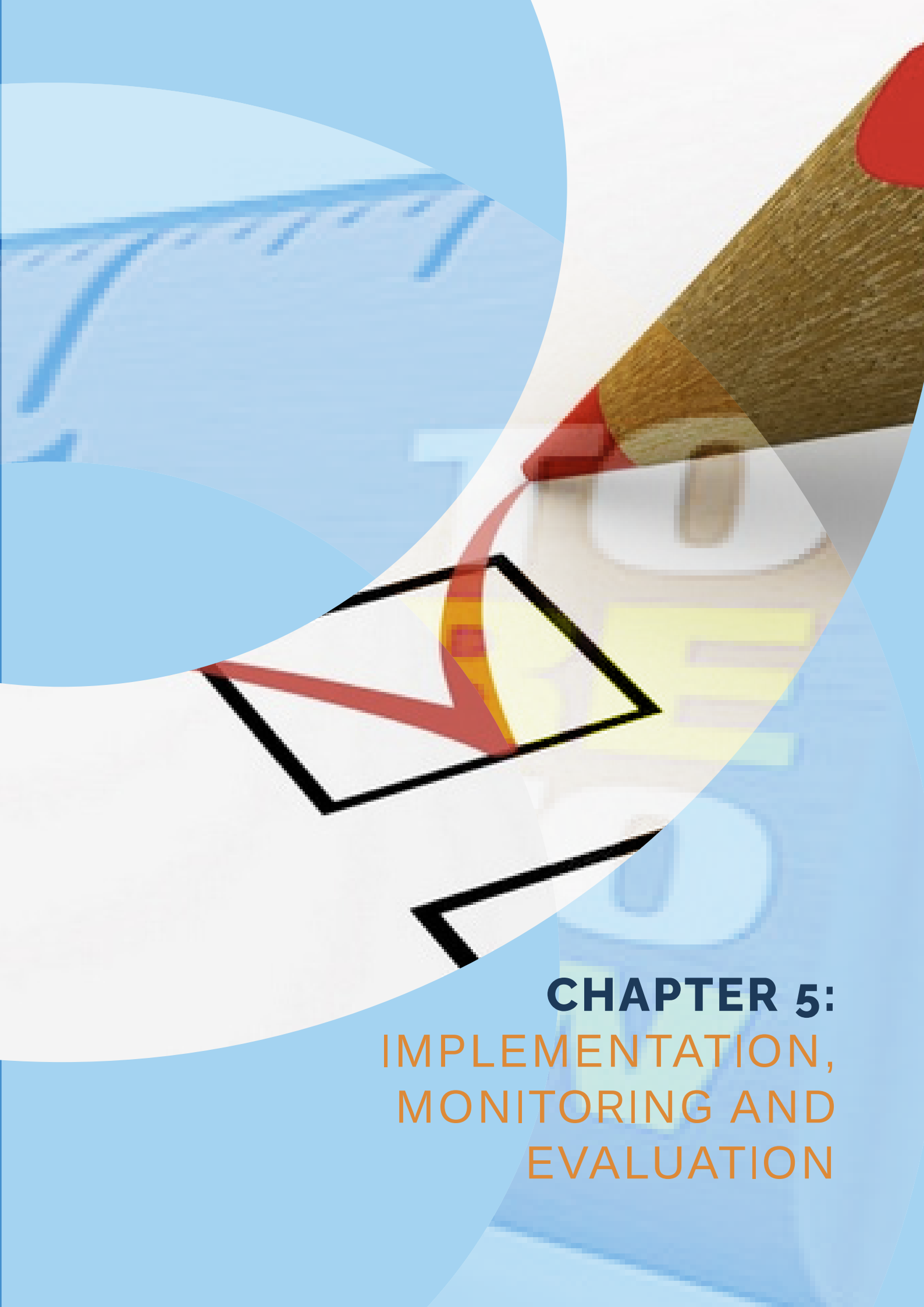
- promoting peer influence and local networking, including through national and regional statistical associations;
- promoting collaboration among cooperating partners by developing mechanisms for coordination and collaboration; and
- providing after-project/programme support.

4.4.2 Financial sustainability

Financial sustainability is about ensuring that financial resources continue to be available for statistical activities into the future. This will be ensured by:

- creating greater demand for statistics among stakeholders in government, private sector, civil society, cooperating partners, and other stakeholders;
- promoting national ownership of statistical programmes from design through implementation. The first of five principles of the Paris Declaration on Aid Effectiveness (OECD, 2005) is about country ownership of development processes. It says that developing countries should strongly own their chosen development strategies, and cooperating partners should help them to do so. In strategic planning, ownership is critical as it is believed to lead to greater commitment, creativity, imagination, innovation and productivity - ownership of strategies is key to success.
- using "multi-year commitments" as opposed to "annual commitments" for financial support from both government and cooperating partners. This will require development of "multi-year statistical programme" such as "Integrated Census and Survey Programme" and "Statistical Capacity Building Programme" to help ensure consistency and completeness of programme activities;
- promoting "basket funding" modality. An increasing number of African countries are opting for "basket funding" as opposed to "project support" modality for support to statistics by cooperating partners. Basket funding is in fact a form of sectoral budget support; so it supports a certain sector, in this case statistics sector. The difference between this mode of support and the "budget support" to countries is that funds from basket funding are not spent following the beneficiary government procedures. Rather specific procedures are followed that have been agreed by the participating cooperating partner and the beneficiary government. Countries that are using this mode of funding include Malawi, Tanzania, Kenya, Uganda, Rwanda, etc.; and
- developing a "National Statistics Fund" as advocated by the Second Strategy for the Harmonization of Statistics in Africa (SHaSAII). This is also contained in the Statistics Act no. 13 of 2018.

To achieve this sustainability, a lot of statistical advocacy will have to be undertaken among various categories of stakeholders, hence the need for a well-thought out statistical advocacy programme.



CHAPTER 5:
IMPLEMENTATION, MONITORING AND EVALUATION

Chapter 5: Implementation, Monitoring and Evaluation

This chapter presents the last stage in the NSDS2 process - implementation, monitoring and evaluation. It is important that this phase of the process is properly planned for.

5.1 NSDS2 implementation

5.1.1 Need for better NSDS2 implementation

Strategy implementation essentially involves translating strategic thought into strategic action. It focuses on efficiency, requires special motivation, leadership skills and coordination among many persons. All these and more make strategy implementation difficult. Indeed, it has been observed that many effectively formulated strategies fail because they are not successfully implemented. Robert S. Kaplan and David P. Norton report that, "fewer than 10 percent of effectively formulated strategies were successfully implemented" . They thus conclude that "the ability to execute strategy is more important than the quality of the strategy itself".

The purpose of strategy implementation is to:

- deliver the results, achieve purpose and contribute effectively to the overall NSDS2 goals;
- manage the available resources efficiently; and
- monitor and report on progress to support performance management.

Strategy implementation is invariably more difficult than strategy design. It has been reported that while strategy design requires coordination among a few people, implementation on the other hand involves coordination among many people. Implementation is primarily an operational process requiring considerable leadership skills, staff motivation, coordination and funds.

Implementation of the NSDS2 will involve, among other things, mobilization of drivers of strategic success, viz. institutional and organizational enhancement, people development, processes improvement and harnessing technology..

5.1.2 Institutional and organizational arrangements

(a) Creating NSDS2 awareness

Often strategies are designed but not adequately communicated to stakeholders including the workforce. It is important, therefore, that stakeholders in the NSS including policy and decision-makers get educated about and understand and share the vision and mission of the NSDS2, the strategies for achieving them and how their individual actions and those of others will contribute to the success of the NSDS2.

This will require developing an extensive and consistent communication programme among stakeholders in the NSS beginning with statistical staff of ZamStats and in sectors and covering policy and decision-makers in the public, private and civil society sectors and among cooperating partners. The programme should mobilize statistical personnel to support its implementation, educate staff about management systems and provide for feedback about the strategies. Provision was made in the strategic framework to develop this communication programme. Awareness creation about NSDS2 will be started by launching the strategy at a high level event attended by key stakeholders from government institutions, the private sector, the civil society, research and academic institutions, international organizations and the media. It will help a lot if the official launch of the NSDS2 is done by a very high level government official, champion and a newsmaker. Then the launch can receive maximum publicity.

(b) The Statistics Act No. 13 of 2018

It was mentioned earlier that Zambia has a new and modern Statistics Act No. 13 of 2018 that transformed the CSO, a Department in the Ministry of National Development Planning into an autonomous government agency, Zambia Statistics Agency, responsible for official statistics in the country. While implementation of the Statistics Act has started, it should be stepped up so that it can have desired impact on the NSS. The Act provided for a Board of Directors as the governing body for the agency. This Board has since been constituted and operationalized. The Board will be responsible for all appointments including the appointment of the Statistician General, the Chief Executive Officer of the Agency.

(c) Responding to changes

Environmental scanning shows that there are many changes - in social, economic, environment and technology – which will impact statistical development in the country. Some of these changes present opportunities while others pose threats to the NSS. It is critical that the NSS is able to adapt to these changes in terms of perceptions, values, work ethics, statistical systems and processes. It will be necessary that the NSS becomes a "learning system" in which change-oriented thinking becomes a habit for every actor.

However, there is always resistance to change. Change creates anxiety among staff about job-security and about their work habits. It is not naturally seen as an opportunity that can enrich careers and personal lives. This is usually due to failure to communicate and make staff understand what is happening or why changes are taking place. All this call for effective change management that focuses on the development of staff's openness to change and uses change as a stimulus to encourage new ideas and harness enthusiasm for improved performance.

Change management will be crucial in the implementation of the NSDS2. Change management will not only respond to change by anticipating the focus of resistance, eliminating unnecessary resistance caused by misconceptions through communication and mastering the power base to support change, but will also foster change. What changes to effect will depend on the analysis of the current situation and the desired long-term objectives.

(d) Structures for implementing the strategy

Institutional arrangements include statistical coordination. Therefore, as early as possible, the coordination structures identified and described in the previous chapter will be established. These include:

- Establishing an NSDS2 Implementation Unit which will transform into a Department/Division for Statistical Coordination Services at ZamStats;
- Repurposing the Inter-agency Statistics Committee as a Steering Committee for the NSDS2;
- Repurposing Sector Statistics Committees as standing committees for statistical development in sectors; and
- National Thematic Technical Committees/Working Groups/Task Forces on various areas of statistics.

Establishment of these structures will involve securing buy-in and support from both political and technical leadership of the public sector as well as other stakeholders. Awareness creation will therefore be given top priority in the NSDS2 implementation process.

(e) NSS coordination tools

The following tools for coordinating the NSS were elaborated in the last chapter. Given their importance in ensuring technical coordination, they will be prepared in the first two years of the NSDS2 implementation period.

- **Code of Practice.** This will be designed and promoted across the NSS to ensure that trustworthy statistics are produced across the NSS;
- **Compendium of Main Concepts, Definitions and Classifications.** This will be updated and more vigorously promoted across the NSS to support production of harmonized data;
- **Data Quality Assurance Framework.** This will be designed and promoted across the NSS to ensure production of quality data;
- **Sector Statistics Plans.** Continue to encourage sectors which do not have, to design and implement these plans aligned to the NSDS2;
- **NSS Newsletter.** This will be established to foster communication in the NSS and may be distributed electronically to cut down on distribution cost.

(f) National Annual Statistical Programme

On an annual basis, a National Annual Statistical Programme will be prepared, approved by the Board of Directors and shared extensively with key stakeholders. The programme will aim to rationalize production of official statistics in the country.

Staff development

Staff are the most important asset and anchor of the NSS. They need to be developed and motivated if we are going to get the best out of them. There are many ways of how staff development will be done including:

Empowering staff - to be more productive, contributing and happy. This will be done by recognizing them and demonstrating that they are valued, sharing with them the vision and goals for the NSDS2, providing them with information on and involving them in decision-making, delegating to them authority, and providing them feedback.

Developing staff - through training, skilling and reskilling. In order to do this, a Statistics Training Centre will be established and institutionalized in the ZamStats structures to cater for basic and intermediate level statistical training needs of the NSS. The Statistical Training School at the National Institute of Statistics of Mozambique can be used as a model for this training centre. For professional training, ZamStats will work closely with the Ministry of Finance and National Planning to get the University of Zambia, and others to initiate a Professional and Practical-Oriented Statistical Training Programme. This training programme was expounded in the previous chapter. Countries which have successfully implemented such a training programme and which offer good lessons include Tanzania (Eastern African Statistical Training Centre) and Uganda (School of Statistics and Planning at Makerere University). A good number of statistical personnel from Zambia have been trained at these institutions.

Opportunities will also be made available for staff to go on study tours, short course and also undergo longer-term training abroad.

To build requisite capacity and skills will, however, take some time. As a stop-gap measure, technical assistance will be sought from cooperating partners. This assistance will include hiring both international and national advisors and consultants to support specialized tasks such as sampling, modeling, production of satellite accounts, data analytics, population projections, environmental statistics, etc. A key element of the said technical assistance will be staff empowerment – technology transfer, training and skilling.

5.1.5 Process improvements

This lever of strategic success will be harnessed by improving existing processes, investing in new processes and innovating to create value – produce new value-added products and services – as well as harnessing innovative technologies to cut down on cost of data collection, improve data quality and achieve timeliness in data dissemination. Much of the process improvement will be driven by innovation and technology.

To be able to use non-traditional data sources and especially Big Data, a number of challenges will have to be resolved. The challenges include the following :

- **Disparate sources:** The data reside in multiple electronic systems. Aggregating these data into a single, centralized platform is needed to make data accessible and actionable.
- **Disparate formats:** The data are structured, unstructured, free text, numeric, scanned paper, and multimedia-digital pictures, videos. Sometimes the same data exists in different formats depending on the system (e.g. dates, degree Celsius versus Fahrenheit, inches versus centimeters).

- **Disparate data quality:** Data quality issues often overtake the use of analytics and business intelligence. The lack of quality data is one of the key factors impacting the results from analytics.
- **Data management:** Because the data are complex, it is clear that traditional approaches to managing data will not work. A different approach is needed that can handle the multiple sources, the structured and unstructured data, the inconsistency, the variability, and the complexity within an ever-changing regulatory environment.
- **Rights and access:** Privacy of records and use of information is also an obstacle for data mining. A sizeable number of records are required for data mining to be accurate and actionable. Many of these records are proprietary. For instance, healthcare records are private information and patients have the right to opt-out or refuse their information to be shared with care providers and researchers. Yet, those records are needed to provide effective treatment and prevention of diseases.

A Global Working Group (GWG) on Big Data for official statistics was established by the United Nations Statistical Commission in March 2014. The GWG was mandated to provide strategic vision, direction and coordination of a global programme using new data sources and new technologies for official statistics, including indicators for the 2030 Agenda for Sustainable Development. Zambia will learn a lot from guidelines on this working group. In addition, ZamStats will partner with organizations which are already doing a lot of work on use of Big Data. A case in point is the Office for National Statistics in UK. Also study tours will be undertaken to countries in Africa that are already leveraging Big Data analytics to learn from their experiences.

5.1.6 Harnessing technology

Extensive and effective use will be made of IT across the entire data value chain – from data collection through data management and dissemination using a variety of digital channels including data portals and social media platforms. This is consistent with the Fourth Industrial Revolution that is radically transforming every business sector at unprecedented pace.

5.1.2 Resource mobilization

Statistical advocacy will be undertaken to mobilize resources for statistical production and management from government to undertake production of priority statistics such as Consumer Price Index (CPI), Gross Domestic Product (GDP), employment, poverty and other key social statistics in sectors such health, education and governance. . In addition, efforts will be made to mobilize resources for statistics from cooperating partners.

5.1.8 Aiming to achieve "quick wins"

The selection of initiatives for the action plan has included some "quick wins" or "low hanging fruits" – initiatives that can demonstrate easily and quickly the benefits of the NSDS2. One such quick win is clear identification of various data producers and collection of scattered data from them, assembling the data and producing Statistics Reports that shed some light on development challenges such as poverty, malnutrition, service delivery, etc. Such a quick win holds the prospect of drawing attention

of the leadership and securing goodwill, buy-in and support for statistical development and use especially in sectors. It will also serve as "proof-of - concept", showing that some activities can be done without necessarily spending too much money.

5.1.9 Business plans

On annual basis, business plans will be prepared and implemented. Such plans are essential for strategy implementation because they:

- serve as guidelines for action and represent the basis for allocating resources,
- serve as standard of performance and are the major instrument for monitoring progress towards achieving long-term objectives, and
- establish annual priorities.

The business plans will outline the specific actions to be taken, when and by whom in order to achieve the objectives of the NSDS2 within a budgetary and resource framework. The business plans will be monitored through quarterly reports.

5.2 Monitoring and evaluation

5.2.1 Monitoring

Best practice requires that strategy implementation is monitored especially with respect to its deadlines and ensuring the required quality of deliverables and at the end, its impact should be evaluated.

Monitoring is essential to:

i) ensure that stated objectives are being achieved;
ii) track inputs, activities and outputs;
iii) determine if implementation is on course or not;
iv) alert management to problems or potential problems before the situation becomes critical; and
v) take corrective actions to ensure that performance conforms to strategy or that the strategy is revised in light of new experience.

Hence, by monitoring the implementation of the NSDS2, managers and other stakeholders will be able to get a picture of whether set objectives and targets are being achieved or are likely to be achieved. Monitoring will be ineffective unless there are actions taken in response to what is monitored and reported. Monitoring will thus provide an opportunity to learn from insights and experiences. For instance, if monitoring shows that a particular activity is on a wrong track, corrective measures will need to be taken or the implementation strategies will need to be revised. In that sense, NSDS2 will be a living document that will require adjustments as objective conditions change. Monitoring will also be essential for providing information that is required for accountability purposes. The Action Plan gives measures of performance, targets to be met and associated timelines.

5.2.2 Evaluation

At the end of the NSDS2 implementation period, there will be an evaluation to assess the most significant constraints, the most successful activities and generally, how well the strategies have met the set objectives. It has been observed that evaluation works best when the emphasis is on learning for the future. Evaluations of the NSDS2 will very much take this into account.

5.3 Reporting mechanisms

Monitoring implementation of NSDS2 will make sense to the extent that monitoring information is reported and acted upon by appropriate officials. It is, therefore, crucial that an appropriate mechanism is established upfront for the said purpose. Such a reporting mechanism will provide for preparation and distribution of periodic progress, mid-term and final reports, specifying who is to prepare, distribute and receive which report and when, and what actions are expected from recommendations in the reports.

For meaningful monitoring and evaluation, only a few indicators selected on each of the four goals will be monitored. Where there is no baseline information, this will be generated in the course of NSDS2 implementation. Performance indicators are given in the Action Plan. The following table presents the reporting frequency:

Table 5.1: Reporting frequency

Report	Narrative
Quarterly Progress Report	A Quarterly Progress Report (QPR) will be prepared by ZamStats, covering all statistical activities undertaken during the quarter, constraints and successes, and highlighting plans for the next quarters, and presented to the ZamStats Board of Directors for information and action. This report will be the basis for preparation of a progress report for the Minister of Finance and National Planning.
Annual Review Report	In addition to the QPR, there will be a need for an annual process of monitoring the implementation of NSDS2, with mechanisms for changing activities and targets, if this proves necessary. The Annual Review Report (ARR) will be prepared by ZamStats and presented to the Board of Directors, and through the Board to the Minister, Cabinet and then Parliament.
Mid-term Review report	The Mid-term Review (MTR) is a more formal process that will be undertaken to ensure that the NSDS2 is still relevant and for agreeing on changes in the strategy, work programmes and budget, where these are needed and justified. In addition, the mid-term review will reallocate resources according to performance and needs. This review will be undertaken by an independent body e.g. a consulting firm or cooperating partner agency. The report will be presented to the Board and the Minister.
Terminal Review (TR)	At the end of the NSDS2 implementation period, there will be an external evaluation, which will also be undertaken by an independent body and presented to the Board, the Minister and Cabinet.

5.4 Budgeting and funding arrangements

An estimated K810,986,759.00 will be required over the five-year strategy period for implementation of NSDS2. Government is expected to provide most of the funding for implementation of the strategy. Government will also mobilise funding from cooperating partners to fill any financing gap.

5.4.1 Budgeting

(a) Assumptions made in costing the NSDS2

The following assumptions were made in costing the NSDS2:

i. This is not a budget for implementing NSDS2 activities in the sectors. Rather it is a budget for implementing those activities for which economies of scale will be realized –activities that will be centrally implemented e.g. preparation and promotion of advocacy materials, data innovation, designing a national data warehouse, developing and implementing NSDS-wide statistical training programme, developing NSDS-wide data dissemination policies, etc.
ii. The budget assumes a number of meetings and workshops with members of the National Statistical System in order to create awareness about the Statistics Act and to actually operationalise it. This awareness creation is necessary at National, Provincial and District Levels.
iii. The establishment of the Coordination Department within ZamStats is critical and will require a number of procurement activities to be undertaken such as procurement of furniture, Office equipment, conference accessories, photocopiers and scanners etc. The Coordination Department needs to have its own vehicles for ease of mobility to have physical interaction with stakeholders across the NSS where necessary.
iv. Development coordination tools will involve engagement of members of the NSS for purposes of validating the tools. This will entail holding meetings and undertaking workshops.
v. Capacity building across the NSS will involve setting up of a training centre and facilitation of the training programme.
vi. Planning and implementing surveys and censuses will involve a huge cost. It is assumed that during the five-year period two surveys, one Agricultural Census and one economic census will be conducted.

(b) Components of the budget

The budget is based on the four (4) identified goals that would lead to a reformed, transformed and modernized NSS. These are the four main components of the budget:

i. The budget provides for a total amount of K7,536,900 over the five-year period, in order to achieve the first goal which is, an entrenched culture of evidence -based policy, planning and decision making at all levels. A number of Activities will be undertaken including, advocacy and awareness involving a number of stakeholders in the NSS, capacity building in data analysis and interpretation as well as activities to improve dissemination and communication, including

data use.

ii. To achieve a reformed and more responsive National Statistical System, a total amount of K 7,652,187 is required. This budget will cover sensitisation on the Statistics Act of various stakeholders, establishment of ZamStats Structures, identifying data communities in order to establish a new data ecosystem. This will also cover the cost of developing various tools for coordination of the NSS.

iii. Achievement of the goal on efficient and effective data system a total budget of K87,212,881 is provided in the budget. This amount will cover the cost of implementing international standards and classifications, development of integrated sampling frames, development of IT standards and policies and conducting of high frequency data.

iv. To achieve the fourth goal which points at better funding for statistics, a total amount of 708, 584, 791 is provided for over the five-year period. Activities will include planning and implementing censuses and surveys (Agricultural and economic census and an integrated survey). This will also cover the cost of regular of conferencing with donors.

Table 5.2: Budget for NSDS2

Goals/Strategic Objectives	Amount (K)				
	2023	2024	2025	2026	2027
Goal 1: An entrenched culture of evidence-based policy, planning and decision-making at all levels (K7,536,900)	**1,609,500.00**	**1,531,500.00**	**1,346,500.00**	**1,346,500.00**	**907,900.00**
1.1 Increase statistical advocacy	940,900.00	754,900.00	657,900.00	657,900.00	219,300.00
1.2 Improve data analysis and interpretation	632,600.00	632,600.00	600,600.00	600,600.00	600,600.00
1.3 Improve data dissemination, communication, uptake and use	36,000.00	144,000.00	88,000.00	88,000.00	88,000.00
1.4 Increase data user satisfaction	35,000.00	380,000.00	-	380,000.00	-
Goal 2: Reformed and more responsive National Statistical System (K7,652,187.50)	**-**	**2,745,000.00**	**1,985,500.00**	**1,421,250.00**	**1,500,437.50**
2.1 Create awareness about the 2018 Statistics Act	-	600,000.00	400,000.00	350,000.00	300,000.00
2.2 Operationalize the Statistics Act	-	845,000.00	635,000.00	731,250.00	840,437.50
2.3 Improve statistical coordination		1,100,000.00	800,500.00	240,000.00	260,000.00
2.4 Undertake change management		200,000.00	150,000.00	100,000.00	100,000.00
Goal 3: Efficient and effective data processes (87,212,881.25)	**27,470,500.00**	**25,250,000.00**	**14,722,500.00**	**9,920,875.00**	**9,849,006.25**
3.1 Organizational strengthening	-	450,000.00	172,500.00	498,375.00	228,131.25
3.2 Improve statistical infrastructure	70,500.00	10,000,000.00	1,200,000.00	1,750,000.00	2,050,000.00
3.3 Improve IT infrastructure	22,400,000.00	11,700,000.00	11,200,000.00	5,700,000.00	5,550,000.00
3.4 Improve data production processes	5,000,000.00	3,100,000.00	2,150,000.00	1,972,500.00	2,020,875.00
3.5 Build statistical capacity across the NSS	-	1,100,003.00	1,265,003.45	1,454,753.97	1,672,967.06
Goal 4: Better funding for statistics (K708,584,791.59)	**85,002,300.00**	**90,354,100.00**	**253,102,215.00**	**119,077,547.25**	**161,048,629.34**
4.1 More and better funding for statistics	-	550,000.00	180,000.00	660,000.00	240,000.00
4.2 Make better use of statistics	85,002,300.00	89,804,100.00	252,922,215.00	118,417,547.25	160,808,629.34

5.4.2 Funding arrangements

Statistics is both a national and an international "public good". The responsibility to produce statistics as a "national public good" lies with national governments. In particular, it is expected that government will fund production of basic data by ZamStats and sectors. It is therefore expected that government will mainstream the cost of implementation of the NSDS2 and associated funding for SSPs in its annual development budgetary provisions. Cooperating partners will be approached to fill funding gaps especially for undertaking heavy and costly censuses and surveys as statistics is also an "international public good".

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ANNEXURES

ANNEX I: Major challenges, objectives, priority initiatives and budgets for Statistics Plans for selected sectors

Sector	Major data c challenges	Objectives	Priority initiatives	Budget(ZK)
1. Ministry of Fisheries and Livestock	• Low statistical awareness • Inadequate funding • Low staffing levels and limited statistical skills • Inadequate equipment and analysis tools • Absence of a Statistics Unit • Absence of coordinating mechanism for statistics • Inadequate transport to facilitate field data collection	• Raise the awareness of the importance of statistics and its use • Establish a Statistics Coordinating Unit in the ministry • Improve coordination among professional departments that collect data • Establishment of a training programme to develop capacity of fisheries and livestock statistics personnel • Strengthen statistics human resource at Headquarters and in Provinces • Enhancement and strengthening collaboration to support sustainable funding for statistical activities • Improving the compilation, analysis and dissemination of statistics including those derived from administrative records	• Establishing an effective Statistics Unit in the Ministry • Having adequately trained and skilled statistical staff to produce reliable and accurate statistics • Sourcing for adequate resources to support statistical activities	80,355,814
2. Ministry of Agriculture	• There is no advocacy programme in place • Resource constraints to support statistical work • Lack of coordinating mechanism between units in the ministry • There are no staff positions in provinces and districts • Limited skills in data analysis and interpretation	• Advance the awareness of the importance of agricultural statistics • Promote coordination, collaboration and networking among stakeholders • Provide appropriate and adequate physical infrastructure • Adopt an integrated census and survey programme • Expand the compilation, analysis and reporting of data including from administrative records • Establish and retain a critical mass of professional agricultural statistical personnel	• Improving coordination & management of agriculture statistics • Meeting the national and international demand for agriculture statistics • Strengthening statistical operations & processes • Implementing a comprehensive human resource strategy for statistics • Developing a sustainable funding strategy for statistical operations	153,700, 850

Sector	Major data c challenges	Objectives	Priority initiatives	Budget(ZK)
3. Gender Division	• Inadequate dialogue between data producers and users of gender responsive statistics • Lack of gender awareness among data producers • Lack of quality data hinders efforts to track progress on gender inequality and the design of policies and programmes that could address the gender gaps • Failure to adopt international statistical standards and practices resulting in production of conflicting statistical data • Limited capacity for statistics production and dissemination	• Increase awareness of gender statistics • Develop a coordinated statistical system in the sector • Enhance credibility of produced gender statistics • Improve dissemination mechanisms for gender statistics	• Establish a Statistics Unit • Promoting and enhancing the production of reliable and accurate gender statistics • Strengthening coordination mechanisms and management of the sector statistics system • Enhancing sustainable advocacy for the production and use of gender statistics • Enhancing dissemination platforms for gender statistics	26,408,200
4. Ministry of Finance	• Poor infrastructure is one of the major impediments to an effective statistical system in the sector. The sector uses different kinds of software to process data specific to departments • Resources allocated to statistics in the sector are very limited. • Weak coordination in statistics generation among departments in the sector • Staff in the sector have limited skills and capacity to navigate and handle all relevant statistical modules in the sector • Data completeness and reliability is a challenge in the sector	• Strengthen statistical advocacy in the sector and stakeholders • Develop statistical capacity of the staff in the sector • Invest in advanced IT infrastructure • Create a Statistics Unit • Enhance quality of financial and economic statistics • Improve coordination and management of statistics	• Promoting enhanced advocacy by creating awareness about the use of statistics in the sector • Improving coordination and collaboration • Enhancing the quality of financial and economic statistics	35,000,000

Sector	Major data c challenges	Objectives	Priority initiatives	Budget(ZK)
5. Ministry of General Education	• Moderate data use and statistical awareness • Limited finances for statistical work • In adequate skills in statistics • Obsolete equipment • Inadequate IT technological advances and Infrastructure.	• Improve advocacy • Increase awareness and usage of statistics • Improve statistical coordination • Undertake in-depth data analysis • Building capacity by improving the skills base across the entire statistics value chain through training • Producing quality statistics	• Develop a sustainable advocacy strategy and create viable demand for education statistics • Production o reliable and accurate education statistics • Improving statistical coordination within the sector	40,240,200
6. BOZ Bank of Zambia	• Advocacy for statistics is ad hoc • Manual and to some extent paper based processes which are time consuming and impose heavy reporting burden. • Overburdening data providers because of duplication of data requests to providers resulting in low response rates • Lack of consolidated database • Limited in technological infrastructure in terms of the amount and speed of transmission, storage and analysis of data; • Inadequate statistical programming capacity	• Streamline mechanisms for smooth exchange of data within the Bank and Financial institutions • Digitize and automate data management processes to improve operational efficiency and enhance analysis • Standardize data quality control processes and protocols to assure accuracy and reliability of statistics • Develop a Bank wide consolidated data warehouse that will serve as a central repository for data • Improve skills of staff in statistics through training, workshops, exposures and mentoring • Enhance quality of tax statistics • Undertake periodic surveys • Improve data management	• Improving the timeliness, quality and efficiency of data collection, analysis and dissemination • Enhancing capacity of staff in data processing, analysis and dissemination • Upgrading technological infrastructure to support statistical activities • Improving intra and inter agency coordination in data collection and exchange	33,062,000
7. Zambia Revenue Authority	• The specialized software for data management and analysis needs to be upgraded • Low capacity computers not meant to handle large datasets • Limited specialized skills in IT and sampling methodology	• Advocate for statistics among stakeholders • Enhance coordination and collaboration within ZRA and with stakeholders • Strengthen the Statistics Unit • Enhance quality of tax statistics • Improve data management	• Providing quality statistics of acceptable standards to enhance policy formulation • Raising the advocacy of statistics and its increased utilization among the stakeholders • Enhancing customer focus and collaboration • Leveraging technology to facilitate effective service delivery • Strengthening the Statistics Unit at ZRA	2,310,000

Sector	Major data c challenges	Objectives	Priority initiatives	Budget(ZK)
	• Inadequate resources to undertake field surveys. This affects the scope of data collected and its reliability • There is no central database for the different data sets produced in functional areas	• Undertake periodic surveys		
8. Zambia Statistics Agency	• ZamStats has a shortage of statisticians and specialized staff in areas such as IT, sampling and modeling • While a progressive new Statistics Act No. 13 of 2018 is in place its implementation is still in an embryonic state. The structure is therefore not yet enabling • Most of the departments within ZamStats work in silos so there is limited internal coordination • There was no comprehensive strategic plan • Lack of a data dissemination policy • Limited data archiving • Insufficient coordination with other sectors and data users • Inadequate funding	• Work towards having a fully coordinated NSS • Enhance capacity building statistics and IT professional within the sector and other sectors in the NSS • To increase statistical advocacy among the officers in the sectors that are part of the NSS .	• To increase statistical advocacy among stakeholders • To become the leading producer and supplier of quality official statistics in the country. • To foster a fully coordinated National Statistics System • To increase statistical capacity at ZamStats and other sectors in the National Statistics System	250,049,602
9. Ministry of Health	• limited automation of data processes which adds to the burden of work of the data collectors and also compromises the quality of data • Inadequate data quality • Parallel reporting systems increase the burden of work on the frontline staff	• Set up a robust health information system (HIS) generate reliable and timely statistics • To improve HIS functions in the country with updated legislation • Increase the availability, distribution and use of resources for HIS	• Setting up a Health Information Systems (HIS) robust enough to generate reliable and timely information to aid policy, planning and decision-making • Providing guidance to all levels in data handling processes	63,743,500

Sector	Major data c challenges	Objectives	Priority initiatives	Budget(ZK)
	• Inadequate capacity in data use affects all levels of the health delivery system • Some positions for information officers in some districts remain vacant	• Strengthen the HIS performance by expanding the availability and use of ICT in the health sector • Imp4rove data quality and disaggregating the health information • Improve data quality by further integrating and harmonizing health management information system (HMIS) and data from other institutions and agencies • Provide reliable, timely and complete mortality and cause of deaths data by improving the vital registration coverage	• Improving the HIS functions in the country with an updated legislation • Increasing the availability, distribution and use of resources for HIS • To strengthen the data quality by further integrating and harmonizing the HMIS and data from other institutions and agencies • Enhancing the HIS data completeness and timely reporting among all health facilities (Public, Private and Faith based) • Promoting in-depth analysis and use of data for decision-making • Strengthening the HIS relevance by expanding the availability and use of ICT in the health sector • Improving the data quality and disaggregation in the information sub-systems	
10. Ministry of Commerce, Trade and Industry	• Marginal awareness on the importance of statistics • Inadequate financial resources to support statistical activities. • There is a limited number of professional statisticians within the sector • There is no Statistics Unit in the Sector • Lacking a well-equipped IT Statistics Centre within the sector	• Increase awareness and usage of statistics • Produce quality statistics • Strengthen coordination of statistical activities • Effective resource mobilization • Efficient resource management	• Improve on statistical advocacy • Improving data production, dissemination and use in the sector • Promoting coordination, among different departments and agencies, to create a viable sector statistics system • Establishment of a Statistics Unit for in the sector • Strengthen resource mobilization	11,600,000

Sector	Major data c challenges	Objectives	Priority initiatives	Budget(ZK)
	· Lack of appreciation of statistics by data users impedes the development of statistics in the sector · Most of the required statistics are not collected	· Strengthen the engagement with data users · Improve dissemination of statistics · Establish a Statistics Unit for the sector		

ANNEX II: Action Plan for NSDS2

Strategic objective	Strategic initiative	Output	Performance indicator	Milestone/ target	Responsibility (ZamStats, Sectors, Partners)
Goal 1: An entrenched culture of evidence-based policy, planning and decision-making at all levels					
1.1. Increase statistical advocacy	Develop and implement an advocacy programme	An advocacy programme	Progress reports on statistical advocacy	Annual report on statistical on statistical advocacy	ZamStats + Other sectors
	Improve skills and capacity for statistics advocacy	Trained statistical personnel on statistical advocacy	Reports of training activities in statistical advocacy	At least 100 statistical personnel trained in statistical advocacy each year	ZamStats + Other sectors
1.2 Improve data analysis and interpretation	Build more capacity for data analysis and interpretation	Trained staff in data analysis	Number of staff trained in data analysis	At least two training workshops on data analysis every year	ZamStats + Other sectors
	Establish partnerships with individuals and institutions better endowed with capacity for data analysis	Memoranda of Understanding (MoUs)	Number of MoUs signed	At least four MoUs signed each year	ZamStats + Other sectors
1.3 Improve data dissemination, communication, uptake and use	Design and implement an NSDS-wide data dissemination policy	NSDS-wide data dissemination policy	NSDS-wide data dissemination policy in place	NSS-wide data dissemination policy in place by December 2022	ZamStats + Other sectors+ Partners
	Prepare and distribute Annual Statistical Bulletins	Annual Statistical Bulletins	Number of sectors producing Annual Statistical Bulletins	At least 5 sectors able to produce Annual Statistical Bulletins by 2023	ZamStats + Other sectors+ Partners
	Post data releases on web sites	Data releases posted on web sites	Number of sectors posting data releases on their web sites	At least half the sectors post data on their web sites by 2023	ZamStats + Other sectors+ Partners
	Use social media platforms for data dissemination	Social media postings	Number of sectors posting data on special media platforms	At least 8 sectors using social media platforms for data dissemination by 2024	ZamStats + Other sectors
1.4 Increase data user satisfaction	Advance from consultations to engagement with data users	Map of data users	A map of data users developed	Develop a map of data users by December 2021	ZamStats + Other sectors
		Map of needs of data users	A map of needs of data users developed	Undertake a review of data users every two years	ZamStats + Other sectors
	Undertake User Satisfaction Surveys	User Satisfaction Surveys	User Satisfaction Surveys undertake n	Undertake User Satisfaction Surveys every two years	ZamStats + Other sectors

Goal 2: Reformed and more responsive National Statistical System					
2.1 Create awareness about the 2018 Statistics Act No. 13 of 2018	Create greater awareness about the Statistics Act No. 13 of 2018	Statistics Act No. 13 of 2018 awareness activities	Number of Statistics Act No. 13 of 2018 awareness activities undertaken	Throughout implementation period	ZamStats + Other sectors+ Partners
	Enhance the consistency of all statistical programmes in sectors with the Statistics Act No. 13 of 2018	Reports of awareness creation about the Statistics Act No. 13 of 2018	Number of statistical awareness creation activities	Permanent activity	ZamStats + Other sectors+ Partners
2.2 Operationalize the Statistics Act	Prepare Regulations for the Statistics Act No. 13 of 2018	Guidelines	Reports with guidelines	Guidelines established by December 2019	ZamStats
	Establish structures provided for in the Statistics Act No. 13 of 2018	ZamStats structures	ZamStats structures established and operational	Board of Directors established and operational in 2020	ZamStats
				Other ZamStats structures established and operational by June 2021	ZamStats
	Establish a new data ecosystem	New data ecosystem	New data ecosystem established and operational	Establish and operationalize the new data ecosystem by *****	ZamStats + Other sectors+ Partners
	Develop and promote a Code of Practice	Code of Practice	Code of Practice established and promoted	Code of Practice established by June 2021	ZamStats + Other sectors+ Partners
2.3 Improve statistical coordination	Establish a Department of Statistical Coordination Services at ZamStats	National Statistics Steering Committee	National Statistics Steering Committee in place and operational	National Statistics Steering Committee in place and operational by December 2019	ZamStats + Other sectors+ Partners
	Broaden and deepen statistical coordination mechanisms	National Statistics Technical Committee	National Statistics Technical Committee in place and functional	National Statistics Technical Committee in place and functional by December 2019	ZamStats + Other sectors+ Partners
	Revive the Unified Statistical Service	Establish Sector Statistics Committees	Sector Statistics Committees in place and operational	Sector Statistics Committees in place and operational by December 2019	ZamStats + Other sectors+ Partners
	Build communities of practice	Establish Technical Committees/ Working Groups/ Task Forces at national and sector level	Technical Committees/ Working Groups/ Task Forces established and functional at national and sector level	Technical Committees/ Working Groups/ Task Forces established by June 2019	ZamStats + Other sectors+ Partners
	Develop tools for statistical coordination	Code of Practice document for all public agencies that produce data	Code of Practice developed and operational	Develop a Code of Practice by December 2020	ZamStats + Other sectors+ Partners

		Compendium of Main Concepts, Definitions and Classifications	Compendium of Main Concepts, Definitions and Classifications in place	Develop a Compendium of Main Concepts, Definitions and Classifications by December 2022	ZamStats + Other sectors+ Partners
		Metadata dictionary	Metadata dictionary in place	Develop a metadata dictionary for the NSS by April 2020	ZamStats + Other sectors+ Partners
2.4 Undertake change management	Design and implement a change management programme	Change management programme operational	Change management programme	Change management programme operational in place by 2022	ZamStats + Other sectors+ Partners
				Annual reports on change management reports after 2022	ZamStats + Other sectors+ Partners
Goal 3: Efficient and effective data processes					
3.1 organizational strengthening	Build competent organizations	Strong ZamStats	Improved turnaround time in statistical production	Surveys produced with a time lag of ***	ZamStats
		Strong Statistics Units in sectors	Production of Annual Sector Statistics Bulletins	80% of sectors are producing Annual Sector Statistics Bulletins by 2024	Sectors + ZamStats
3.1 Improve statistical infrastructure	Application of international standards and classifications	International statistical standards, methodologies and classifications adopted	Number of staff trained on international standards and classifications	30 staff from sectors trained each year	ZamStats + Other sectors+ Partners
	Develop and maintain integrated sampling frames	Up-to-date sampling frames	Number of up-to-date sampling frames	Household-based and business-based sampling frames updated annually	ZamStats + Other sectors+ Partners
	Improve field organization	Enabling field organization			ZamStats + Other sectors
3.2 Improve IT infrastructure	Develop and implement IT standards and policies	IT standards and policies	IT standards and policies in place	NSDS IT standards and policies established by 2022	ZamStats + Other sectors
	Procure and install appropriate IT hardware and software	Appropriate IT hardware and software	Number of computers procured and installed in sectors	Number of Sector Statistics Units well computerized	Sectors + ZamStats
			Number of software packages procured and in use in sectors.	Number of software packages procured and in use in sectors	ZamStats + Other sectors+ Partners
	Develop and operationalize databases	Operational databases in sectors	Number of sectors participating in NSDS that have operational statistical databases	At least half the sectors participating in NSDS have operational statistical databases	ZamStats + Other sectors+ Partners

	Undertake skilling of IT personnel	Trained personnel in IT	Number of trained personnel in IT	At least 50 statistical personnel trained in IT every year	ZamStats + Other sectors
3.3 Improve data production processes	Strengthen existing data processes	Census reports	Number of censuses undertaken as per established periodicity	All scheduled censuses undertaken during the 2021 -2025 period	ZamStats + Other sectors+ Partners
		Survey reports	Number of surveys undertaken as per established periodicity	All scheduled surveys undertaken during the 2021 -2025 period	ZamStats + Other sectors+ Partners
		Sector Statistics Bulletins	Number of sectors producing Annual Statistics Bulletin	70% of all sectors producing Annual Statistics Bulletin by 2025	ZamStats + Other sectors+ Partners
	Data innovation	Reports of data automation processes	Number of Sectors with automated data processes	All sector data processes automated by 2025	ZamStats + Other sectors+ Partners
		Reports of High Frequency Surveys	Number of High Frequency Surveys undertaken	At least 3 High Frequency Surveys undertaken each year	ZamStats + Other sectors+ Partners
		Non-traditional data sources	Number of non-traditional sources used	Use of non-traditional sources by 2023	
3.4 Build statistical capacity across the NSS	Develop and implement a Statistical Training Centre at ZamStats	Statistical Training Centre	Functional Statistical Training Centre	40 staff trained at certificate level	ZamStats + Other sectors
	Institutionalize mentoring of younger professional staff	Mentoring programme	Number of staff participating in the mentoring programme	10 staff mentored each year	ZamStats
	Promote Continuing Professional Development (CPD)	CPD programme	Number of staff participating in CPD programme	Professional staff participating in CPD programme every year	ZamStats + Other sectors
	Establish a professional and practical-oriented statistical training programme at University of Zambia	A professional and practical-oriented statistical training programme at University of Zambia	A professional and practical-oriented statistical training programme at University of Zambia in place	A professional and practical-oriented statistical training programme at University of Zambia in place by 2024	ZamStats + Ministry for National Development Planning
		Improved statistical capacity	Score on World Bank Statistical Capacity Indicator	75 by 2024	ZamStats + Other sectors

Goal 4: Better funding for statistics					
4.1 More and better funding for statistics	Make a value proposition for better funding for statistics	Value proposition for funding statistics	Report of Value proposition for funding statistics	Report produced by 2021	ZamStats + Other sectors+ Partners
		Undertake a "Donors Conference" for Statistics	Report of a "Donors Conference" for Statistics	Undertake a "Donors Conference" for Statistics in 2021	ZamStats + Ministry for Development Planning + Partners
	Mapping cooperating partners supporting statistics	Map of cooperating partners	Map of cooperating partners	Map of cooperating partners in place by 2021	ZamStats + Other sectors+ Partners
4.2 Make better use of statistics	Develop and implement multi-purpose integrated programme of household surveys	Multi-purpose integrated programme of household surveys	Multi-purpose integrated programme of household surveys in place	Multi-purpose integrated programme of household surveys in place by 2022	ZamStats + Other sectors+ Partners
	Develop and implement a longer-term integrated census and survey programme	A longer-term integrated census and survey programme	A longer-term integrated census and survey programme in place	A longer-term integrated census and survey programme in place by 2022	ZamStats + Other sectors+ Partners
	Develop and document better accounting systems and procedures	Accounting systems and procedures	Accounting systems and procedures in place	Accounting systems and procedures by 2022	ZamStats + Other sectors+ Partners

ANNEX III: NSDS2 Activity Chart

Goal 1: An entrenched culture of evidence-based policy, planning and decision-making at all levels	2023	2024	2025	2026	2027
Develop and implement an advocacy programme					
Improve skills and capacity for statistics advocacy					
Build more capacity for data analysis and interpretation					
Establish partnerships with individuals and institutions better endowed with capacity for data analysis					
Design and implement an NSDS-wide data dissemination policy					
Prepare and distribute Annual Statistical Bulletins					
Post data releases on web sites					
Use social media platforms for data dissemination					
Advance from consultations to engagement with data users					
Undertake User Satisfaction Surveys					
Goal 2: Reformed and more responsive National Statistical System	**2023**	**2024**	**2025**	**2026**	**2027**
Create greater awareness about the Statistics Act No. 13 of 2018					
Enhance the consistency of all statistical programmes in sectors with the Statistics Act No. 13 of 2018					
Prepare Regulations for the Statistics Act No. 13 of 2018					
Establish structures provided for in the Statistics Act No. 13 of 2018					
Establish a new data ecosystem					
Develop and promote a Code of Practice					
Establish a Department of Statistical Coordination Services at ZamStats					
Broaden and deepen statistical coordination mechanisms					
Revive the Unified Statistical Service					
Build communities of practice					
Develop tools for statistical coordination					

Design and implement a change management programme					
Goal 3: Efficient and effective data processes	2023	2024	2025	2026	2027
Build competent organizations					
Application of international standards and classifications					
Develop and maintain integrated sampling frames					
Improve field organization					
Develop and implement IT standards and policies					
Procure and install appropriate IT hardware and software					
Develop and operationalize databases					
Undertake skilling of IT personnel					
Strengthen existing data processes					
Data innovation					
Develop and implement a Statistical Training Centre at ZamStats					
Institutionalize mentoring of younger professional staff					
Promote Continuing Professional Development (CPD)					
Establish a professional and practical-oriented statistical training programme at University of Zambia					
Goal 4: Better funding for statistics	2023	2024	2025	2026	2027
Make a value proposition for better funding for statistics					
Mapping cooperating partners supporting statistics					
Develop and implement multi-purpose integrated programme of household surveys					
Develop and implement a longer-term integrated census and survey programme					
Develop and document better accounting systems and procedures					


STRATEGY