

COUNTY ASSEMBLY OF KITUI
THIRD ASSEMBLY – (SECOND SESSION)
COMMITTEE ON LANDS, INFRASTRUCTURE AND URBAN
DEVELOPMENT
REPORT ON WORKSHOP ON ENVIRONMENT, LANDS AND
SUSTAINABLE INFRASTRUCTURE, HELD FROM 13TH TO 18TH FEBRUARY,
2023 IN SINGAPORE.



COUNTY GOVERNMENT OF KITUI

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CHAPTER ONE

1.0 PREFACE

Mr. Speaker Sir,

On behalf of the Members of the Committee on Lands, Infrastructure and Urban Development and pursuant to provision of Standing Order 179(6) and 190(5) (g), it's my privilege to present to the House, the committee's report on Environment, Lands and Sustainable Infrastructure Training conducted by ESAMI in Singapore.

The workshop was undertaken from 13th to 18th February, 2023 and focused on Environment, Lands and Sustainable Infrastructure and was spearheaded by The Eastern and Southern African Management Institute (ESAMI).

ESAMI is a Pan African Regional Management Development Centre owned by ten Member Governments from the Eastern and Southern African regions. The Governments include Kenya, Malawi, Mozambique, Namibia, Seychelles, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe.

The centre is a service and market-oriented institution offering high level specialized management training, consultancy, education programmes and action-oriented management research services.

In May, 1997 the UN Economic Commission for Africa officially designated ESAMI as The African Centre of Excellence in Management Development. This recognition has necessitated ESAMI to extend its services to all countries in Africa. To meet Africa's management challenge in the new millennium ESAMI continues to provide high quality, client centered management development interventions throughout Africa which informed the committee's choice of the institute in facilitating the training.

1.1 Committee Responsibility and Function

Standing Order 190(1) establishes for every County Assembly, Sectoral Committees with specific mandates. Under Standing Order 190 (5), the

Sectoral Committees are charged with the distinct responsibilities which include, to:

- i) Investigate, inquire into, and report on all matters relating to the mandate, management, activities, administration, operations and estimates of the assigned departments;
- ii) Study the program and policy objectives of departments and the effectiveness of the implementation;
- iii) Study and review all county legislations referred to it;
- iv) Study, access and analyze the relative success of the departments as measured by the results obtained as compared with their stated objectives;
- v) Investigate and inquire into all matters relating to the assigned departments as they may deem necessary, and as may be referred to them by the County Assembly;
- vi) To vet and report on all appointments where the Constitution or any law requires the County Assembly to approve, except those under Standing Order 185 (Committee on Appointments); and
- vii) Make reports and recommendations to the County Assembly as often as possible, including recommendation of proposed legislation.

1.2 Composition of Delegation

Mr Speaker Sir,

The delegation consisted of the following members: -

- | | | |
|------|--------------------------------|-------------|
| i. | Hon. Mark Nding'o Kitute | Team Leader |
| ii. | Hon. Harrison Maluki Mawia | Member |
| iii. | Hon. Deborah Katungwa Mutuku | Member |
| iv. | Hon. Charity Syomiti Mwangangi | Member |
| v. | Hon. Benard Munyasya Mwangangi | Member |
| vi. | Hon. Peter Mwanza Kitonyo | Member |
| vii. | M/s Grace Musombo | Secretariat |

1.3 Justification for the Visit to Singapore.

Mr. Speaker Sir,

Devolution in Kenya is based on the supremacy of the Constitution, sovereignty of the people and the principle of public participation. The

characteristic of devolution in the Kenyan context is reflected in the principles and objectives of devolution as stated in the Constitution. Key among these includes the presence of local units that have autonomy and independence from the Centre, with clear and legally recognized geographical boundaries over which to exercise authority and perform public functions.

Mr. Speaker Sir,

Article 6 (1) of the Constitution provides that the territory of Kenya is divided into the forty-seven (47) counties. The Constitution in Article 6(2) recognizes that these National and County governments are distinct and inter-dependent and requires them to conduct their mutual relations on the basis of consultation and cooperation.

Mr. Speaker Sir,

The concept of devolution which means taking services closer to citizens has gained momentum since the promulgation of the current constitution of Kenya in the year 2010. The Constitution of Kenya 2010 upon promulgation and enactment changed the Governance structure from a centralized unit to devolved subunits known as the County Governments. It was expected that the onset of these devolved governments after the 2013 Elections and enactment of subsidiary laws would address these development challenges of the centralized governance that Kenya had faced since independence.

Mr. Speaker Sir,

The World Bank (2012) Survey further argued that management of the state through the central and local authorities in Kenya over the past fifty years of independence had experienced a myriad of challenges. Kenyans have witnessed dismal performance by successive governments due to weak governance systems. Consequently, the County Governments continue to lack effective governance systems necessary for strategic and independent management.

The study visit was in furtherance of the committee's mandate and its work plan. Members undertook study visits to the Country to expose and enable

Mr. Speaker Sir,

1.4 Objectives of the Study visit

It is on this basis that the Committee on Lands, Infrastructure and Urban Development organized a training workshop in the Country to expose and enable Honorable members to get acquainted with knowledge and skills pertaining to Environment, Lands and Sustainable Infrastructure.

The committee believes that for maximum service provision to the citizens, there is a need to continuously engage, interact, exchange and co-opt best skills and practices locally, nationally and internationally.

Mr. Speaker Sir,

The devolved systems in Kenya are designed and programmed specifically to address the key development factors particularly in sustainable Infrastructure.

Singapore is also believed to have a lot in common with many African countries in particular South of Sahara where Kenya lies in terms of cultural and environmental zoning.

Kenya is believed to have been in the same level of development thirty years ago with Singapore. However due to good governance, proper planning and commitment to technological advancement, the Country is already in the developed countries category.

Mr. Speaker Sir,

Owing to the above developments, members of Lands, Infrastructure and Urban Development Committee set out for a workshop to Singapore. This country is believed to be amongst the Asian economic tigers that are rapidly adopting new and emerging technologies in the infrastructure development and Housing sector. This has led to an outstanding effect on movement of goods and services within the Country and other Countries and provision of good housing to her citizens.

Mr. Speaker Sir,

- them to get acquainted with knowledge and skills pertaining to Sustainable infrastructure. The visit was tailored to achieve the following objectives: -
- i. To enable Honorable members to gain knowledge on smart Land and Urban density Management.
 - ii. To gain knowledge on smart infrastructure plans, Construction and maintenance.
 - iii. To acquire know-how to build amicable neighborhoods.
 - iv. Insight in integrated Land use, Urban planning and governance issues.
 - v. Acquire skills in infrastructure financing for County developments.
 - vi. To be exposed to the Singapore story-history and how it developed.

1.5 Historical background of Singapore

Singapore, officially the Republic of Singapore, is a sovereign city-state and island country in Southeast Asia. It lies one degree (137 kilometers or 85 miles) north of the equator, at the southern tip of the Malay Peninsula, with Indonesia's Riau Islands to the south and Peninsular Malaysia to the north. Singapore's territory consists of one main island along with 62 other islets.

Since independence, extensive land reclamation has increased its total size by 23% (130 square kilometers or 50 square miles). The country is known for its transition from third world to first world in a single generation, under the leadership of its founding father, Lee Kuan Yew.

During the Second World War, Singapore was occupied by Japan. It gained independence from the UK in 1963 by federating with other former British territories to form Malaysia, but separated two years later over ideological differences, becoming a sovereign nation in 1965. After early years of turbulence and despite lacking natural resources and a hinterland, the nation developed rapidly as an Asian Tiger economy, based on external trade and its workforce. Singapore is a global hub for education, entertainment, finance, healthcare, human capital, innovation, logistics, manufacturing, technology, tourism, trade, and transport. The city ranks highly in numerous international

The city-state is home to 5.6 million residents, 39% of whom are foreign nationals, including permanent residents. There are four official languages: English (common and first language), Malay, Mandarin Chinese and Tamil; almost all Singaporeans are bilingual. Its cultural diversity is reflected in its extensive ethnic cuisine and major festivals. Singapore is a conservative society and finds that Singapore has the highest religious diversity of any most countries to its citizens.

Singaporean passport is joint first with Japan for visa-free travel granted by Although income inequality is high, 90% of homes are owner-occupied. The highest GDP per capita. It is placed highly in key social indicators: education, Singapore ranks 9th on the UN Human Development Index with the 3rd highest GDP per capita. It is placed highly in key social indicators: education, healthcare, life expectancy, quality of life, personal safety and housing. Singaporean passport is joint first with Japan for visa-free travel granted by

2018 "World's Best Airline".
 Airport" respectively for consecutive years, while Singapore Airlines is the Changi Airport have held the titles of leading "Maritime Capital" and "Best agencies, and one of 11 worldwide. Globally, the Port of Singapore and is the only country in Asia with an AAA sovereign rating from all major rating expensive city to live in, since 2013. It is identified as a tax haven. Singapore The London based Economist Magazine has ranked Singapore as the most

rankings, and has been recognized as the most "technology-ready" nation, top smartest city, world's safest country, third-most competitive country, third-largest foreign exchange market, third-largest Financial centre, third-largest oil refining and trading centre, fifth-most innovative country, and the second-busiest container port.

country. Multiracialism has been enshrined in its constitution since independence, and continues to shape national policies in education, housing, politics, among others.

Singapore is a unitary multiparty parliamentary republic with a Westminster system of unicameral parliamentary government. The People's Action Party has won every election since self-government began in 1959. As one of the five founding members of Association of Southeast Asian Nations (ASEAN), Singapore is the host of the Asia-Pacific Economic Cooperation (APEC) Secretariat and Pacific Economic Cooperation Council (PECC) Secretariat, as well as many international conferences and events. It is also a member of the East Asia Summit, Non-Aligned Movement and the Commonwealth of Nations.

Acknowledgement

The committee is obliged to various institutions and individuals for the support and cooperation they provided which made the workshop successful. They include the Ministries of devolution and Immigration for approving the workshop and timely processing of travel documents respectively.

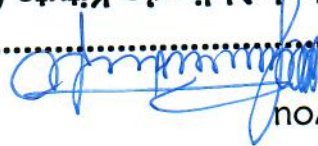
The Committee is grateful to the Offices of the Speaker and Clerk to the County Assembly for facilitating the training.

Gratefully acknowledged is ESAMI for organizing the workshop and dispatching Professor Paul Wanume to facilitate the study sessions and also representatives of the various places visited by the delegation for the warm reception accorded.

It is now my pleasant duty and privilege, on behalf of the delegation, to table this report and recommend it to the house for adoption.

Thank you

Sign:



Hon. Mark Nding'o Kitute (MCA)

Team Leader.

Date: 20/03/2023

ANNEXURES

- Members Signed List
- Members' passports and boarding passes.
- Training Programme by ESAMI.

Report Compiled by Grace Musombo-First Clerk Assistant.

CHAPTER TWO

2.0 HIGHLIGHTS OF THE PRESENTATIONS DURING THE TRAINING

WORKSHOP.

Mr. Speaker,

The facilitator of the workshop Professor Paul Wanume welcomed the Members to the workshop and offered a brief overview on the role of the County Assembly, objectives of the workshop and what the members should expect to gain from the training.

The topics that were dealt in addition to the visits to some of the sites to enable comparison of notes with our County are:

2.1 LAND USE PLANNING

Land is a part of the earth surface that is not covered by water, as opposed to the sea or the air, (Google, 2012). Land use planning is the process of regulating the use of land by a central authority. Often, this is done to encourage better desired social and environmental results along with a more effective use of resources. More precisely, the objectives of contemporary land use planning frequently include environmental preservation, control of urban sprawl, reduction of transportation expenses, avoidance of land use disputes, and a decrease in pollution exposure.

In order to achieve these objectives, planners believe that controlling land use will alter human behavior patterns for the better. It is generally agreed upon that controlling land use alters patterns of human behavior. The second assumption, however, that these modifications are advantageous, is debatable and relies on the setting and rules under consideration. A successful land-use planning promotes synergy between various users and offers guidance on how land-use activities should be carried out. Planning and management across the (often) numerous sectors concerned with land use and land resources in a certain region must be coordinated.

A good land planning ensures the economic needs of a society are met. A good plan should ensure space from shops and business complexes which

for any events in the community. occupants benefit from a community center. This community hall can be used the community members. The neighborhood's terrace and modest housing cemeteries need to be built strategically to ensure a comfortable life between of a nation. Public facilities such as recreational centers, worship centers and too is happy and willing to work with the authorities to better the economy society. When an individual is comfortable with the land use, the community must be met before extending developments to the other components of a in their housing design. An individual's needs as a single unit in the society lovely surroundings, and the public services that the developer has included housing plan must adhere to requirements including a secure community. The must be evaluated in a land use plan that considers people's needs. The on to achieve a holistic success. In an individual segment, the residential area The society consists of various categories that the land use planning must focus

1. The Society

planning:

and stakeholders must collaborate. There are various beneficiaries in land use environment and critical resources, the impacted communities, role-players, economic growth may be satisfied with the least possible impact on the management and planning. To ensure that the requirements of social and social, and economic development and activities thanks to land use It is feasible to allocate land in a way that supports balanced environmental,

Importance of Land Use Planning

In order to identify and implement the best land-use options in a forested (or partly forested) landscape, forestry land-use planning entails systematically evaluating forestland and its potential for various land uses, taking into account the desirability of those land uses, and having an understanding of economic, social, and environmental conditions. Planning for land use is motivated by the need for better management and changing land use patterns, as required by shifting conditions.

bring in business prospects to a society, increasing the demand of an area to external and international prospects. In summary, land planning benefits the society in terms of business, cohesion and endless opportunities within and outside the society.

ii. The Economy

The Oxford Dictionary defines economy as the condition of a nation or region with regard to the creation and consumption of products and services as well as the availability of money. The activities involved in the production and distribution of products and services within a certain geographic area are referred to as economic activities.

Land use planning enables an attraction for investors that lead to easier transfer and sale of property. The value of the land also increases from proper use and management, providing for a stable economy.

A community must exist in order for a strong economy to be developed. A community is necessary for a successful economy. A neighborhood essentially made up of people from various backgrounds. A community generally prefers a serene environment to settle in and develop. Safety is essential too for a community to fully maximize its economic potential.

One of the key determinants in an economy's growth and improvement is business. The investor's closely associated firm has its own conditions for them to invest in the land use planning sector. A strategic location, a parking lot that is appropriate for the area, and the cleanliness of the neighborhood are just a few of the land planning characteristics that might entice an investor to conduct business and choose a location for economic investments. A strategic location is a key requirement for an investment to make a contribution to the land use planning area. This is important since location is a crucial factor in determining whether a firm will be a success.

One of the most important criteria is hygiene. To entice investors, the land use planning area must provide a suitable dumping area that is located away from crowded areas or the target area. The main reasons are to avoid the smell and to attract the rodent's attention. Buyers prefer to visit areas that are

clean and free of trash as opposed to areas that are close to a dumping site. Furthermore, proper drainage system management is essential in order to avoid such incidents. For example, the drain itself must meet the standard requirements to ensure the system works properly, such as being wide and deep enough to hold the water.

!!!. The Environment

Environmental considerations are crucial in land use planning. Not only the planning, but all factors must be considered to ensure that land use planning is perfect and meets all needs. Environment planning is the process of making decisions to carry out development while taking into account the natural environment, social, political, economic, and governance factors in order to achieve long-term results

Individual environmental responsibility has been used to promote public environmentalism by business and government, for example, through green consumerism, passive membership in environmental groups, and domestic recycling. Environmental responsibility is most significant when an individual believes in the utility of their pro-environmental behavior and when the self is regarded as a responsible agent in comparison to other social agents. The translation of environmental responsibility into consistent behavior is complicated and dependent on the individual's social context as well as organized environmentalism.

Gardening and other outdoor activities play an important role in residential daily life in terms of environmental factors.

In land use planning, a residential environmental planner must concentrate on smaller and larger systems of resource extraction and consumption because it may have an impact on the quality of life and health of current and future generations. This also includes the extraction of oil and gas, mining, fishing, and forestry. Lack of management of environmental problems such as land degradation, soil erosion, and pollution can have serious consequences for communities and businesses. A sewage treatment plant is required in order for the land use planning to meet the needs of the community. This is the process of removing contaminants from wastewater and household sewage, both

runoff (effluents) and domestic. This can make the environment's fluid waste stream and solid waste safe for disposal or reuse. Land-use planning, developments on the environment have the potential to help any association, organization, or nation increase its profit.

Generic Approach to Land Use Planning

While there is no single blueprint for land-use planning, a generic framework that can be used as a guide for the process and adapted to suit circumstances can be used as a guide for the process.

Sample Framework for generic steps and activities for land use planning.

Step	Activities
Initial engagement	Identify key stakeholders and stakeholder groups with an interest in the land-use planning exercise and its outcomes
Background information	Gather and document biophysical, economic and social information of relevance to the land-use planning exercise, as well as policy and legal material
Planning team	Establish a planning team containing representatives of all key stakeholder groups Agree on roles and responsibilities in the planning team
Areas of planning interest	Identify and catalog the current and proposed future uses of the land Identify current and potential conflicts associated with actual or potential uses
Terms of reference for land-use plan	Negotiate the objectives of the land-use plan Agree on the process to guide the development of the land-use plan (including conflict resolution)

Urban planning answers questions about how people will live, work, and play in a given area and thus guides orderly development in urban, suburban, and rural areas. Although primarily concerned with the planning of settlements and communities, urban planners are also responsible for the efficient transportation of goods, resources, people, and waste; the distribution of basic necessities such as water and electricity; a sense of inclusion and accessibility.

It is a technical and political process that focuses on the development and design of land use and the built environment, including air, water, and the infrastructure that passes through and out of urban areas, such as transportation, communications, and distribution networks, as well as their

Urban planning is the process of developing and designing urban areas to meet the needs of the community. The practice draws on a variety of disciplines, including architecture, engineering, economics, sociology, public health, finance, and others, to help cities and towns prepare for the future.

Planning should take care of housing, employment, recreation, trade and business. Planning is the establishment of goals, policies, and procedures for a social or economic unit.

2.2 URBAN PLANNING

Draft land-use plan	Negotiate and agree on land-use allocations (using participatory multi stakeholder approaches) and permitted uses, and review requirements
Final land-use plan	Obtain approval of the land-use plan from relevant authorities and stakeholder representatives
Review and amendments	Work together with key stakeholders to review and amend the land-use plan over time

opportunity for people of all kinds, cultures, and needs; economic growth or business development; improving health, and conserving areas of natural environmental significance that act as natural buffers.

Technical aspects of urban planning entail the application of scientific and technical processes, considerations, and features in land use, urban design, natural resources, transportation, and infrastructure planning. Predicting population growth, zoning, geographic mapping and analysis, analyzing park space, surveying the water supply, identifying transportation patterns, recognizing food supply demands, allocating healthcare and social services, and analyzing the impact of land use are all techniques used in urban planning.

The role of city planning in the structure of urban government evolved differently in different countries. Private developers must obtain government permission to build in many countries today. Planning is essential to deal with the mushrooming slums in urban areas. Water, sanitation, waste collection, storm drainage, street lighting, paved sidewalks, and emergency access roads are all lacking in these settlements. Most also lack easy access to schools, hospitals, and community gathering places.

Cities in urban centers rely heavily on urban planning to remain functional and grow in the population. The layout of any urban planning influences the economic functioning of a nation. The best layouts result in a successful economy in a country. Urban planning must be efficient, resilient, provide good quality services and must have the citizen's best interest.

2.3 INFRASTRUCTURE DEVELOPMENT

Infrastructure development is the construction of basic foundational services in order to establish economic growth and improve the quality of life. Advanced economies have improved the effectiveness and competitiveness of regions.

2.4 Water Resources Management

Water is an important factor in infrastructural development. Various infrastructure for securing water resources include water resource management, treatment and flood prevention.

- The world's towns and cities are rapidly expanding. Sustainable urban development entails focusing on the interactions between water, energy, and land use, as well as diversifying water sources to ensure reliable supply.
- The Integrated Urban Water Management (IUWM) framework is used to plan, design, and manage urban water systems. It is an adaptable process that allows stakeholders to forecast the effects of interventions.

The Integrated Urban Water Management (IUWM) as an approach to urban water policy, planning, and management is well established. It has been successfully implemented in cities around the world, but it is not well known to many countries. There are several key points in Integrated Urban Water Management:

Integrated Urban Water Management

Managing the water systems is an essential factor in ensuring infrastructural development in any country as access to water ensures proper health and effectiveness in any sector of the economy.

Most countries are currently putting unprecedented strain on their water resources. The global population is rapidly increasing, and current practices are expected to result in a 40% gap between forecast demand and available supply of water by 2030. Furthermore, chronic water scarcity, hydrological uncertainty, and extreme weather events (flooding and droughts) are viewed as major threats to global prosperity and stability.

Water security is a significant – and frequently growing – challenge for many countries today. Following a natural or man-made disaster, large amounts of contaminated water may need to be contained and treated before safe discharge to the environment or wastewater treatment plant.

World Bank assists countries in ensuring water sustainability, increasing climate resilience, and strengthening integrated management.

More than 40% of the world's population is affected by water scarcity. Water-related disasters account for 70% of all natural disaster deaths. The

- For starters, industries that have been designated as infrastructure are regarded as critical to the economy. This means that these industries act as a catalyst for other industries' rapid growth and development. Roadways and railways, for example, facilitate the movement of goods and services across the country. This makes the country's manufacturers more competitive in the global market. Exports have increased as a

Certain characteristics are shared by industries classified as infrastructure all over the world. Some of these characteristics are listed below:

The formal definitions of infrastructure financing are ambiguous. In most countries around the world, the government issues a list of industries that are to be designated as infrastructure. Infrastructure financing refers to the financing of projects or companies involved in these sectors.

Infrastucture projects is also regarded as critical. As a result, an entire field known as infrastucture financing has emerged.

2.5 INFRASTRUCTURE FINANCING

- IJWM encompasses water management's environmental, economic, social, technical, and political aspects. It combines fresh water, waste water, storm water, and solid waste, allowing for better water quantity and quality management.
- IJWM advocates for integrating urban development and basin management to ensure long-term economic, social, and environmental relationships along the urban-rural continuum. Creating policies and strategies that are supported by financing strategies, technological advancements, and decision-making tools in collaboration with both public and private sector partners can help to put IJWM into practice at all levels.
- Significant funding is required for IJWM projects, but public agencies in many countries have limited capacity to invest in infrastructure.
- Improving economic service efficiency and reducing water losses necessitates system redesign and a shift in consumer behavior. This will necessitate greater collaboration with the private sector.

of the services they provide, infrastructure investments are less liquid. Furthermore, because infrastructure projects are unique in terms of the initial phase of an infrastructure project is fraught with years, and the infrastructure investments do not generate cash flows for many follow pre-agreed-upon contracts.

- Many infrastructure investments do not generate cash flows for many years, and the initial phase of an infrastructure project is fraught with danger. Furthermore, because infrastructure projects are unique in terms of the services they provide, infrastructure investments are less liquid.
- Infrastructure projects are frequently complex and involve numerous parties. Because infrastructure frequently consists of natural monopolies, such as highways or water supply, governments want to retain ultimate control to prevent monopoly power abuse. This requires complex legal arrangements to ensure proper distribution of payoffs and risk-sharing to align the incentives of all parties involved. However, any measures required to limit monopoly power must still ensure that governments follow pre-agreed-upon contracts.
- Infrastructure projects are frequently complex and involve numerous parties. Because infrastructure frequently consists of natural monopolies, such as highways or water supply, governments want to retain ultimate control to prevent monopoly power abuse. This requires complex legal arrangements to ensure proper distribution of payoffs and risk-sharing to align the incentives of all parties involved. However, any measures required to limit monopoly power must still ensure that governments follow pre-agreed-upon contracts.
- Even if the direct payoffs to an infrastructure project's owner do not cover its costs, the indirect externalities can be extremely beneficial to the economy as a whole. Externalities include significant benefits from infrastructure services to a variety of other sectors. Such advantages are notoriously difficult to quantify. Even if they can be quantified, charging for them may be impractical or undesirable.

2.5.1 Challenges to infrastructure financing

- Even if the direct payoffs to an infrastructure project's owner do not cover its costs, the indirect externalities can be extremely beneficial to the economy as a whole. Externalities include significant benefits from infrastructure services to a variety of other sectors. Such advantages are notoriously difficult to quantify. Even if they can be quantified, charging for them may be impractical or undesirable.
 - Infrastructure projects are frequently complex and involve numerous parties. Because infrastructure frequently consists of natural monopolies, such as highways or water supply, governments want to retain ultimate control to prevent monopoly power abuse. This requires complex legal arrangements to ensure proper distribution of payoffs and risk-sharing to align the incentives of all parties involved. However, any measures required to limit monopoly power must still ensure that governments follow pre-agreed-upon contracts.
 - Many infrastructure investments do not generate cash flows for many years, and the initial phase of an infrastructure project is fraught with danger. Furthermore, because infrastructure projects are unique in terms of the services they provide, infrastructure investments are less liquid.
- are also considered critical to the economy and have received infrastructure funding across the country.
- Second, because these industries are considered strategic, too many private sector players are barred from participating. As a result, a monopolistic market with few players emerges. As a result, infrastructure investment opportunities are generally very appealing to investors. It should be noted, however, that because these markets are monopolistic, they are also highly regulated. Because there are so few suppliers, the government determines what prices can be charged.
 - Finally, infrastructure assets stand out due to their low risk and consistent cash flows. These projects are usually built in high-demand areas. As a result, either consumers or the government are willing to pay a relatively consistent cash outflow over time.

These three elements - the time profile of cash flows, high initial risks and illiquidity - make purely private investment difficult and costly.

2.5.2 Ways of Funding Projects

Project funding can be obtained from a variety of sources. The primary funding sources are equity, debt, and government grants. Financing from these alternative sources has significant implications for the overall cost of the project, cash flow, ultimate liability, and claims to project income and assets.

i. Public Funding

In its most basic form, public funding is money from the public treasury. It is taxpayer money, and one of the ways it is spent for the common good to fund health, human service, environmental, community development, and other public service programs. Public funding may be obtained through county, national, or local government channels, which are usually distinct at each level.

ii. Public Private Partnerships (PPP)

Collaboration between a government agency and a private-sector company to finance, build, and operate projects such as public transportation networks, parks, and convention centers is referred to as a public-private partnership. A public-private partnership can allow a project to be completed sooner or even make it possible in the first place.

Concessions of tax or other operating revenue, liability protection, or partial ownership rights over nominally public services and property to private sector, for-profit entities are common in public-private partnerships.

Modules in Public Private Partnerships include:

i. Build-Operate-Transfer (BOT)

This is a contractual relationship in which a company hires a service provider to set up, optimize, and run an IT or business process service delivery operation with the contractual intent of transferring the operation to the company as a captive center. BOT, as a hybrid model, combines elements of both the "build" and "buy" options.

This is a traditional construction project delivery method that entails the sequential completion of three distinct phases. There is no overlap between design and construction because construction does not begin until the design process is completed (and a bid is accepted). The DBB method insists on upfront cost transparency- which is not to say that ballooning change orders won't add to the bottom line later- and has made it a favorite in public contracts subject to rigorous oversight.

Design-Bid-Build (DBB)

A project delivery mechanism in which a government entity sells to a private sector party the right to build and operate a project according to agreed-upon design specifications for a set period of time. In contrast to the build-own-operate-transfer (BOOT) or build-operate-transfer (BOT) structures, the private sector party owns the project and is not required to transfer it to a government entity at the end of the term.

!!! Build-Own-Operate (BOO)

The project is still owned by the government or a government-owned entity. performing its obligations under the agreement.

A project delivery structure in which a contract is awarded to a private sector party to design, build, finance, and operate a capital project. The private sector party may be paid by the government agency (for example, availability payments) or from fees collected from the project's end users in exchange for

!! Build-Finance-Operate (BFO)

CHAPTER THREE

3.0 LESSONS LEARNT

The following are the lessons the delegation was able to learn:

i. Good Governance

Singapore puts strong emphasis on building, sustaining and strengthening institutions of good governance in particular the judiciary, which is the guardian of laws and integrity. The Country is known for having strong oversight institutions, including legislatures, law enforcement agencies, independent media and a vibrant civil society.

ii. Social order

Socially, people belong to different groups in a society, in the process of interaction and association, there are bound to be conflicts culminating from such an interaction. Laws and policy guidelines regulating undesirable behaviors should be in place. Although law will not always be 100% effective, the country government can use these laws as an avenue for creating structural mechanisms and procedures that would push Kitui County residents towards compliance. For these laws to work, it would require the same to make the undesired behavior less profitable or more troublesome. These kinds of structural mechanisms are more effective in regulating population behavior as well as in promoting development of social norms without of course infringing on personal rights. The county government of Kitui would be better placed to advance in development agendas within a socially responsible society.

iii. Water Technology

Through technology, Singapore has been in a position to develop a robust water supply system comprising of the following:

- Local catchment water- this has been achieved through development of systems that collect rain water and used water. These systems have enabled Singapore to collect water through a comprehensive network of drains, canals, rivers, storm-water

- Kitui County is a semi-arid region, justifying a very great and urgent need for water in both small and large quantities for household and farming use respectively. Kitui County can borrow the use of technology to enhance water security and move from vulnerability to reliability and sufficiency. Kitui County can use technological means to enhance harvesting of rainwater, recycling of already used water for use by the Kitui County residents. With technology use, the County Government of Kitui can create endless and limitless opportunities for her residents.
- It is also through technology that the County can procure underground water and treat it for household use. It goes without saying that for the use of technology to succeed within the County of Kitui; deliberate efforts must be exerted from the present County Government to collaborate with the relevant and willing investors. Further, it is important to note that political will from all political leaders within the

Lessons learnt

- Imported water- Singapore has been in a position to import water from Malaysia through Bilateral agreement.
- NEWater- this is Singapore's success story and a pillar of Singapore's water sustainability. This is high-grade reclaimed water through advanced membrane technologies and ultra-violet disinfection making it ultra-clean and safe to drink. Singapore has five NEWater plants which can meet up to 40% of Singapore's current water needs. By 2060, Singapore's Water Agency intends to expand the plants to meet up to 55% of Singapore's future water needs.
- Desalinated Water –this is a technology-based source of water with Singapore housing five of the largest seawater reverse-osmosis plants which produce 195 million gallons of water per day. Other projects that contribute to water security in Singapore include the Marina Barrage.

County must be exhibited for the success of the collaboration as well as the use of technology to transform the lives of the Kitui residents. With water, Kitui County would be in a position to transform the socio-economic wellbeing of its residents.

iv. **Infrastructural Development**

Singapore has developed a highly surface transport infrastructure which ensures optimum mobility and easy access to all economic centers, hospitality and social services. Kitui County and Kenya at large are still grappling with serious underdevelopment 55 years after the Country attained independence. Key roads in Kitui County which ought to be the catalyst for development are still in a state of neglect and can be developed to address the same.

v. **Developing Local Tourism**

The Committee learned that Singapore's significant investments in the tourism sector had reaped significant rewards. The city-state is home to unrivaled hotels, shopping malls, stunning architecture, and world-class entertainment and sporting events. Kitui County has a plethora of tourist attractions that can be developed to increase earnings and job opportunities for local residents.

vi. **Waste Management**

The Committee noted that Singapore has made significant investments in waste management. Around the city, various waste bins are installed, and policies govern the processing and disposal of hazardous and non-hazardous waste, as well as recycling facilities. Kitui County should develop a clear policy on waste disposal and management, as well as recycling waste products to make new products where possible.

vii. **Industrialization**

Using Singapore's experience, the County Government of Kitui can also learn about policy formulation and implementation, ensuring that pro-development policies are implemented and an environment that is

investment-friendly for both foreign and domestic investors, thereby encouraging innovation and industrialization.

CHAPTER FOUR

4.0 COMMITTEE'S RECOMMENDATIONS

Based on the conclusions of training workshops, the committee makes the following recommendations:

- i. The committee recommends that the County Government needs to ensure that all programs and project identification, implementation and evaluation are subjected to public Participation. This is because the Constitution of Kenya makes citizen participation a central part of Kenya's governance system. Article 10 of the Constitution identifies public participation as a National Value and principle of governance. Decision-making needs to recognize the rights of communities to representation and engagement in processes that affect them, the community on the values, goals, and aspirations of the community affected.

- ii. The Committee recommends that the County Government should formulate policies and development plans for sustainable use of proceeds from the extractive sectors to spur development in the County. This should be done in accordance with Article 174 of the Constitution on the objects of devolution and provisions of the Fourth schedule of the Constitution which warrants active involvement of the County government in the aspect of extractive industry.

- iii. The Legislative Authority of a County is vested in, and exercised by its County Assembly. This means that a County Assembly may make any laws that are necessary for, or incidental, the effective performance of the functions and exercise of the powers of the County Government under the Fourth Schedule. In view of this, the committee recommends that the County Assembly should strictly oversee the Executive arm of the County Government to ensure prudent use of public funds as advocated for in Article 201 of the Kenyan Constitution which

emphasizes on accountability, equitable society, prudent use of public Funds and clear fiscal reporting.

iv. Kitui County is endowed with raw materials that can support manufacturing of high-quality furniture, textile, pottery and porcelain products. The Committee recommends that the County Government should come up with actionable plans on how manufacturing industries will be set up and their sustainability. The County Ministry of Agriculture, Water and Livestock Development should come up with policy frameworks on Cotton, Mango, Honey and Ndenngu production which will catalyze setting up of various processing industries for these products in the county hence contributing to wealth creation and creation of jobs.

v. The Committee recommends that sufficient funds be allocated to the County Ministry of Tourism, Sports, and Culture to facilitate the development, management, and marketing of sustainable tourism products through sound policy and program formulation and implementation in order to make Kitui a County of choice for tourism destinations. As a result, Kitui County will become an integral part of the National Tourism Circuit, offering high-quality products and services.

vi. The Committee recommends that the County Government should invest substantial funds in upgrading key roads to bitumen standards and rehabilitate dilapidated rural-access roads to open up the six special economic and investment zones identified in the County's development blueprint-the Kitui Vision for Economic and Social Transformation (KIVEST).

vii. The government is required by Chapter 5 of the Constitution to protect and conserve the environment and natural resources for long-term development. As a result, the Committee recommends that assorted waste bins be installed in Kitui and Mwingi Municipalities, as well as all

The County Government bears a tremendous amount of responsibility for devising novel approaches to improving the residents' economic fortunes. Singapore has been able to turn their misfortunes into economic gains, and political stability is one of the factors that has contributed to her rapid growth. If we want to develop Kitui County, we must avoid divisive politics as leaders, ensure equitable resource distribution across the forty wards, and encourage

Mr. Speaker Sir,

CONCLUSION

- xi. The Committee recommends that technical staff be trained on a regular basis to provide them with the necessary knowledge and skills to operate modern machinery and technology.
- x. The Committee recommends that the County Government construct and operationalize a Soil Testing Laboratory to allow technical staff to make informed decisions about the type of machinery to be used and building designs.
- ix. The Committee on Implementation should expedite the implementation of the Housing Policy so that Kitui County residents have access to a modern and healthy living environment.
- viii. In accordance with Sections 36 and 37 of the Urban and Cities Act, the County Government of Kitui should develop a spatial development framework, including basic guidelines for land use management.
- The County Government should develop urban centers County wide. The County Government should develop a waste management policy that emphasizes sustainability and the recycling of solid and liquid waste. This will create an environment conducive to business growth in a clean and safe environment.






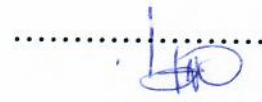
public participation in all County programs, fostering transparency, accountability, efficiency, and responsiveness to the needs of Kitui residents. This Committee, being in the forefront of ensuring that County policy development formulation and legislation on Lands, Infrastructure and Urban Development are done, will endeavor to oversight and ensure that policies on Land use, Waste and environment management are formulated and approved by the Assembly.

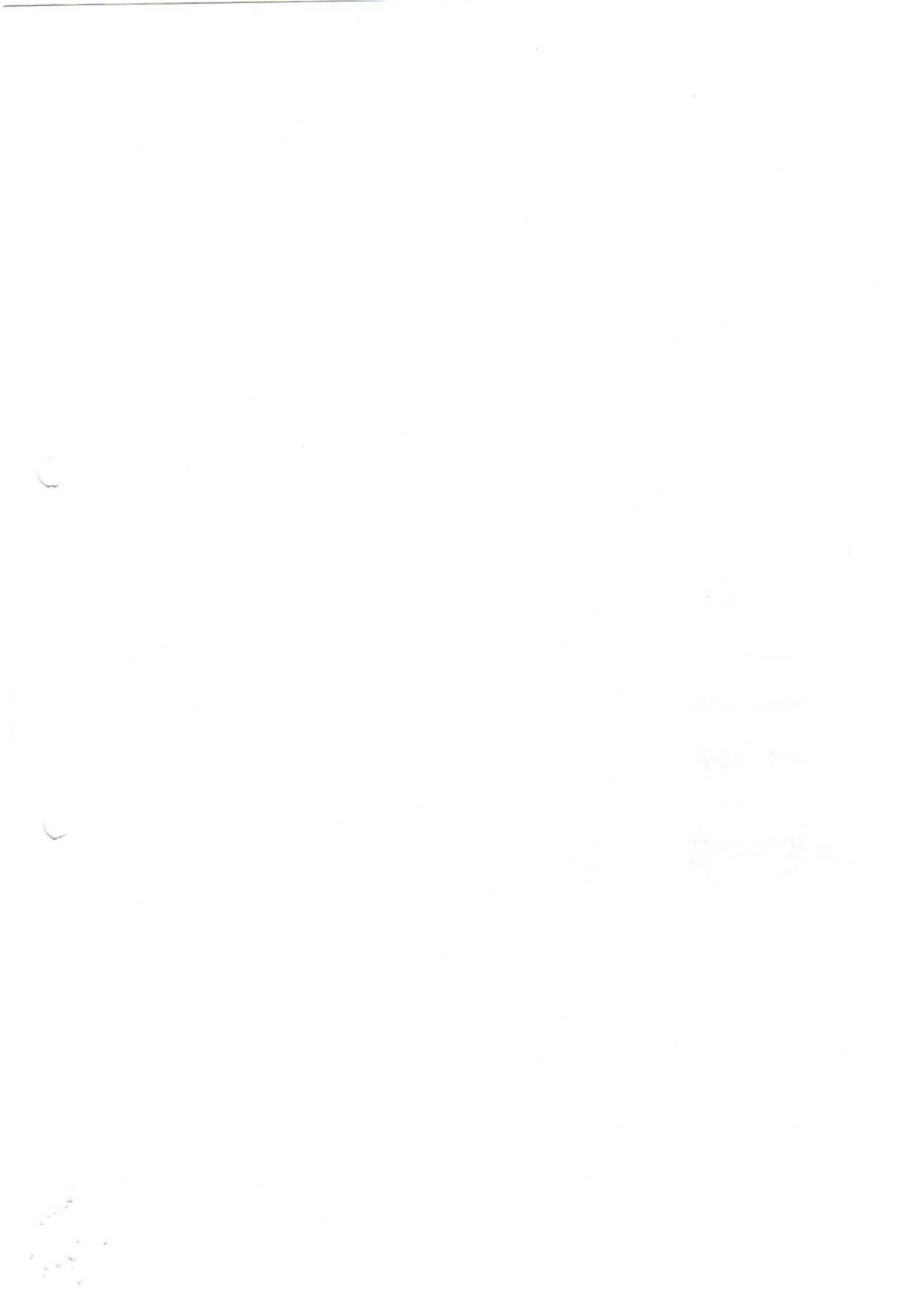
All sectoral Committees need to be extra vigilant on the budgetary allocations to their sector departments so as to ensure funds allocated are utilized for intended projects in the most cost-effective manner.

ANNEX I

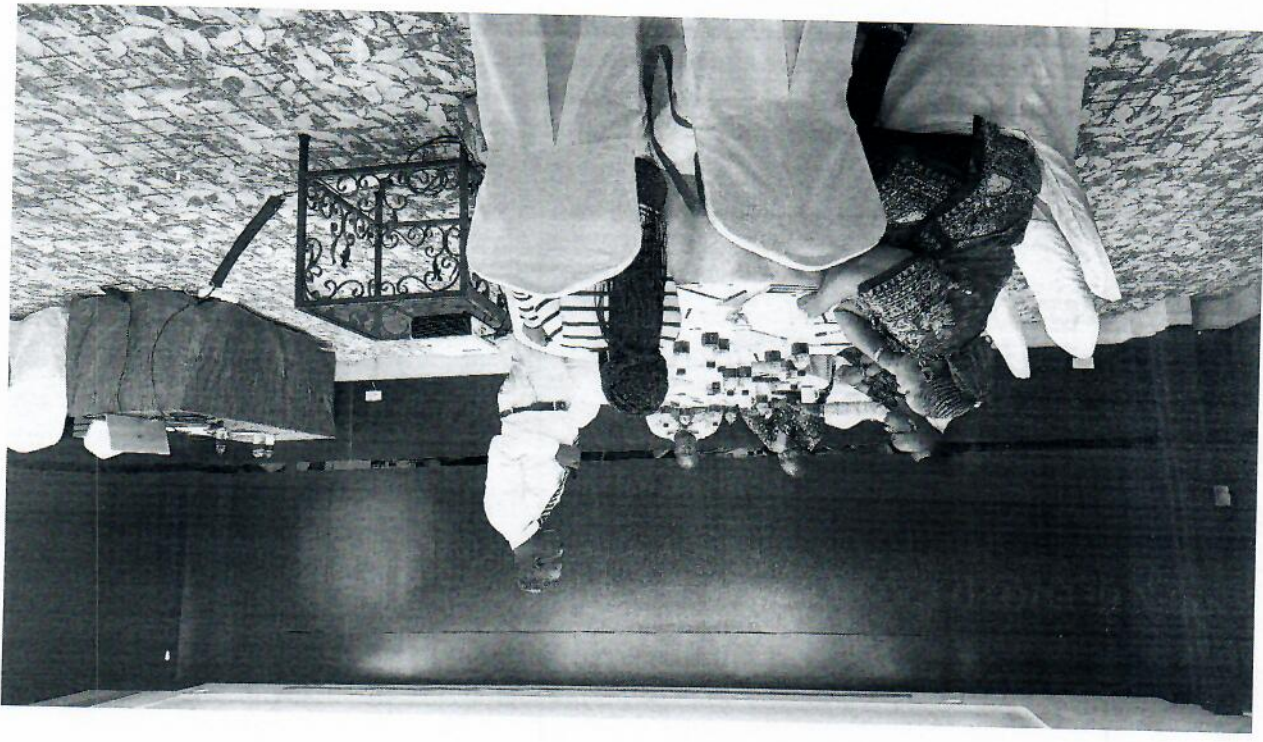
ADOPTION OF THE REPORT

We Honorable Members of the delegation of the Committee on Lands, Infrastructure and Urban Development have adopted this report on the Training Workshop in Singapore on Environment, Lands and Sustainable Infrastructure and affix our signatures to affirm approval, Confirmation, accuracy, validity and authenticity of the report.

<u>NAME</u>	<u>DESIGNATION</u>	<u>SIGN</u>
1. Hon. Mark Kitute Nding'o	Team Leader	
2. Hon. Harrison Maluki Mawia	Member	
3. Hon. Benard Munyasya Mwangangi	Member	
4. Hon. Deborah Katungwa Mutuku	Member	
5. Hon. Peter Kitonyo Mwanza	Member	
6. Hon. Charity Syomiti Mwangangi	Member	



ANNEX II: PHOTO GALLERY



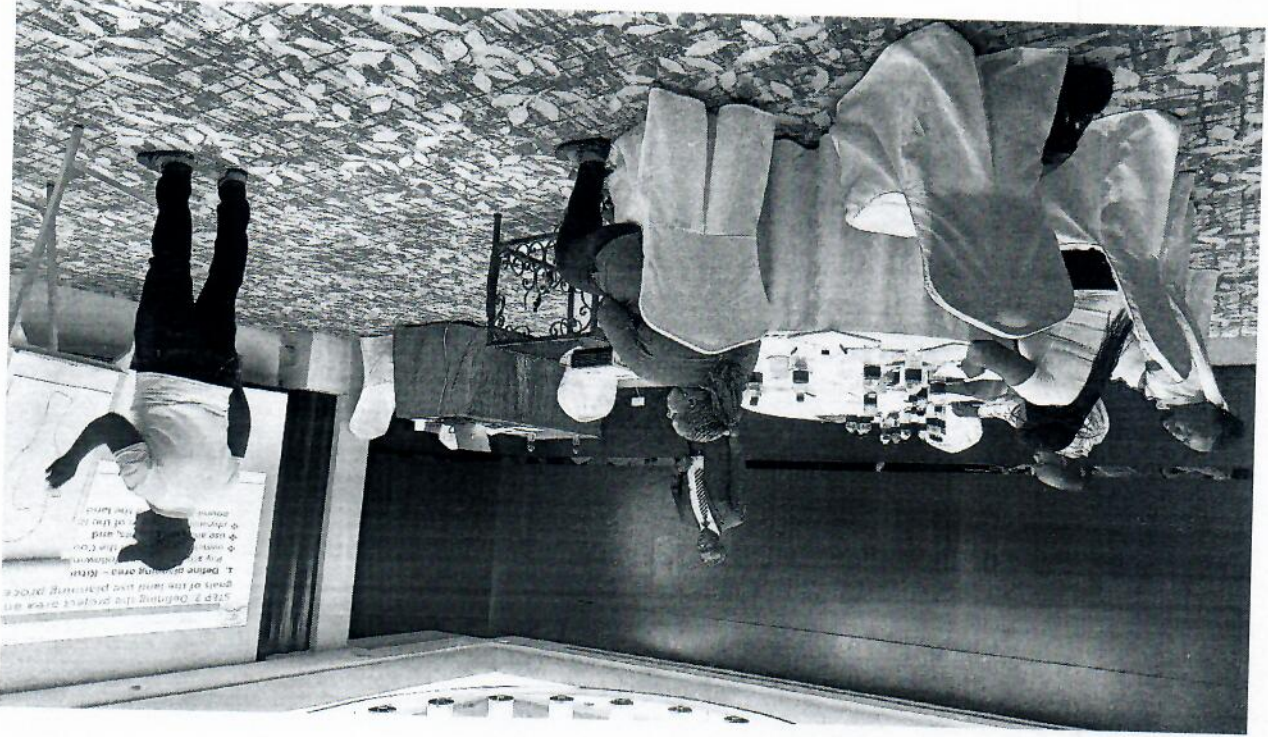
Members attending a Session with the Facilitator at Carlton Hotel- Singapore



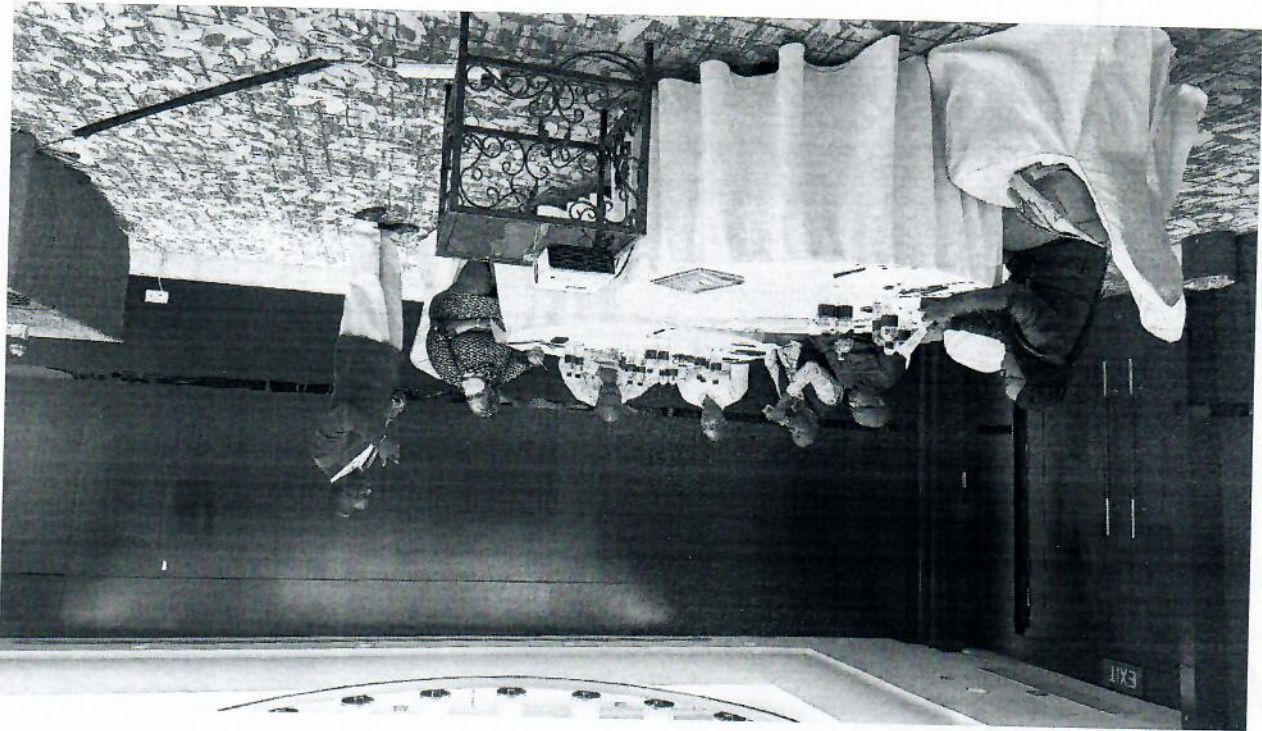
Facilitator taking members through Land Use planning sessions.



Member presenting group discussion findings.



Facilitator taking members through Water Resource management topic at Carlton Hotel-Singapore







Environment, Lands & Sustainable Infrastructure for Lands Infrastructure & Urban Development Committee
Kitui County Assembly, Kenya (13th to 17th February 2023)

Day/Date	8.30 – 10.30 AM		11.00 AM – 1.00 PM		2.00 – 4.00 PM	
Monday 13 th Feb 2023	Registration of Participants: Introduction to Land use, environment protection and Urban planning	B	Land use, environment Management	L	Urban planning requirements	
Tuesday 14 th Feb 2023	Institutional Policy and regulatory framework for land use, environment management and urban development	R	Institutional Policy and regulatory framework for land use, environment management and urban development	U	Institutional Policy and regulatory framework for land use, environment management and urban development	
Wednesday 15 th Feb 2023	Integrated land use, urban planning and infrastructure development	E	Integrated land use, urban planning and infrastructure development	N	Water resources and waste water management	
Thursday 16 th Feb 2023	Infrastructure financing for county development	A	Governance Issues	C	Governance issues	
Friday 17 th Feb 2023	Social equity, Climate change and Land use	K	Social equity, Climate change and land use	H	Course Evaluation and Closure	

Course Facilitator: Paul Wanume Tel/WhatsApp; +256782349670 Email: paulwanume@gmail.com

ANNEX: C

