

Dodoma City Diagnostic

Phase 3 Report: Action Plan

December 2021



AFRICAN DEVELOPMENT BANK GROUP

UMLDF Urban and
Municipal
Development Fund
Improving the quality of life in African cities

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1. Part One: Vision

Where have we come from, where are we going, and where do we want to go?

Part One of this report sets out the logical framework for the Action Plan in terms of the desirable, sustainable development path for the city. Supporting information including evidence and statistics are contained in the Phase Two: City Diagnostic Report.

1.1 Where have we come from?

Originally a small market town known as Idodomya, the modern city of Dodoma was founded in 1907 during construction of the Tanzanian central railway.



Figure 1-1 : The new Dodoma Station & Hotel in the early 20th century

The Government of the United Republic of Tanzania made a decision to transfer the national capital from Dar es Salaam to Dodoma in October 1973. The decision was propelled by, among other reasons; stimulating economic development, improving wellbeing and redistributing economic benefits to the wider population of Tanzania, particularly in its central regions. This was coupled with the need to stem the growth of Dar es Salaam which was becoming critically congested and over developed. The decision was also aimed at promoting city productivity and bringing government services closer to the people geographically.

Following this decision, the Capital Development Authority (CDA) was established as a planning and development agency in charge of implementing the national transfer programme. One of the initial activities that were undertaken by CDA was the preparation of the National Capital City Master Plan. The first comprehensive master plan for Dodoma was approved in 1976. The city has been subject to continual population growth and ongoing urban planning cycles since that time.

The plan for Dodoma at this time was as a low-density capital planned for and symbolizing the country's agricultural base, coupled with Julius Nyerere's 'Ujamaa' philosophy of cooperative economics. Covering 1,000 hectares, the city was intended to be "the chief village in a nation of villages", built at a human scale meant to be experienced on foot. Its basic principles followed the Garden City model of a town set amongst a garden with green belts separating segregated zones for living areas and industry.

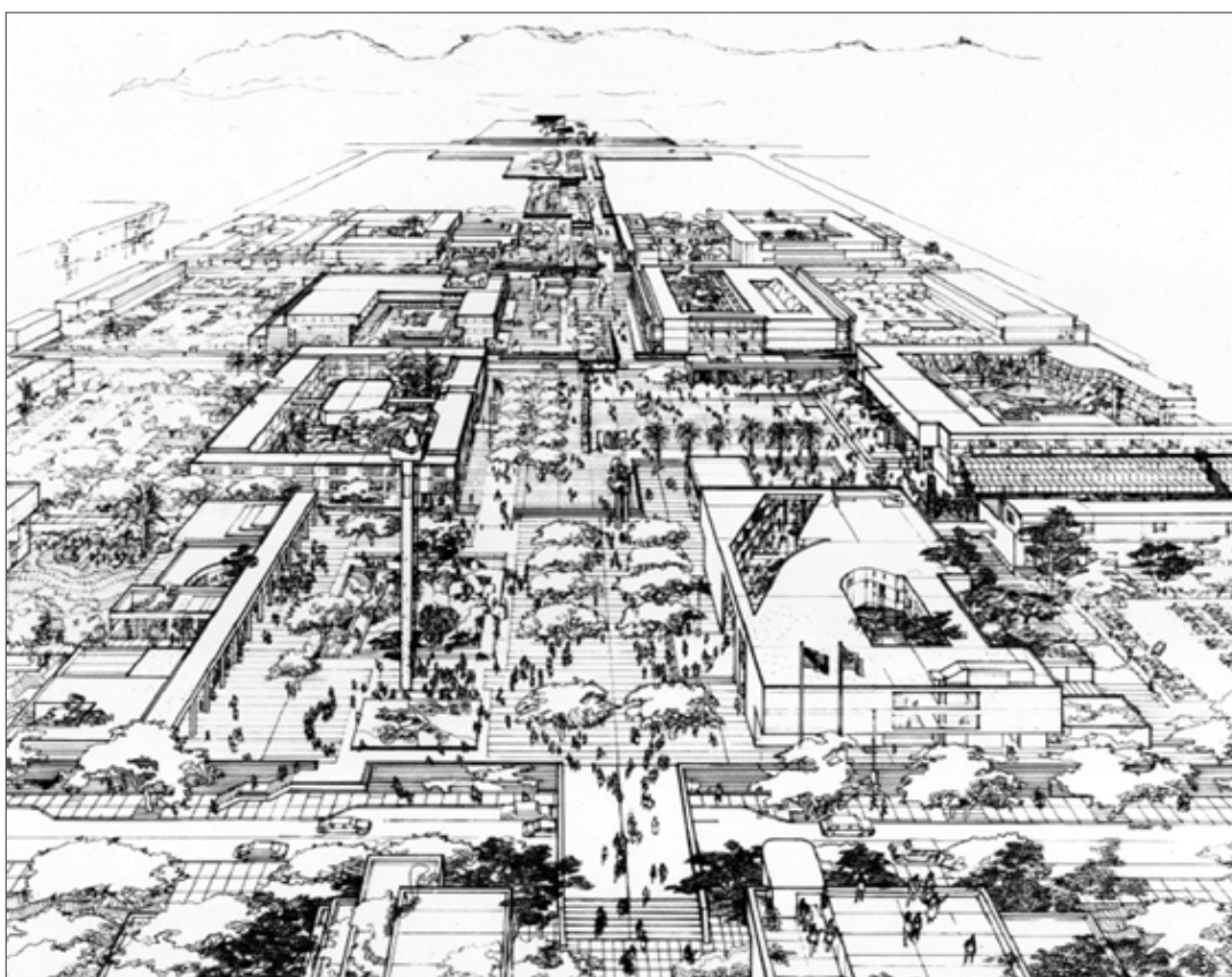


Figure 1-2 : A New Capital: Vision for Central Dodoma by James Rossant

1.2 Where are we going ?

Rural-urban migration coupled with natural population increase in the region, along with the migration of the Government administration functions from Dar es Salam to Dodoma has created significant population increase and will continue to for the foreseeable future. According to growth rates sourced in the Phase Two report, the population will have grown from around 600,000 today to 1.6 million in 2039 and further to 8.4 million in 2069.

Whilst this represents a great opportunity for the city it also presents serious challenges including demands on housing, infrastructure, and other social services along with a growing environmental footprint and increasing vulnerability for many communities.

Dodoma is also one of the few major cities in Tanzania that is under continual statutory spatial planning cycles. Whilst the strict regulation of the Garden City model has been eroded over time by informal development, this remains a key tool to manage urban growth both today and in the future. Along

with this have been key primary infrastructure investments at a regional and national level, particularly in transport infrastructure.

Dodoma is a fast-growing city in terms of population, but not in terms of density. It remains a comparatively open and low-density capital by Sub Saharan African standards, with sprawl being the characteristic feature rather than high-rise buildings and intensive over development. The thrust of urban growth follows an eastward direction (towards Dar es Salaam Road) which was predicted by the 1976 master plan. This has been attributed to availability of gently sloping land to the east that is suitable for all kinds of developments and further cemented by the designation of key land uses.

As things stand then, there are several clear opportunities and challenges in the city, evidence for which are explained in detail in the Phase Two Report: City Diagnostics. These represent a high-level summation of the sector-based evidence gathering contained in the earlier reports, set against Sweco's critical framework for sustainable urban development. They are listed as follows:



Figure 1-3: Dodoma today: a fast-growing and sprawling low density city, with a diverse local biosphere

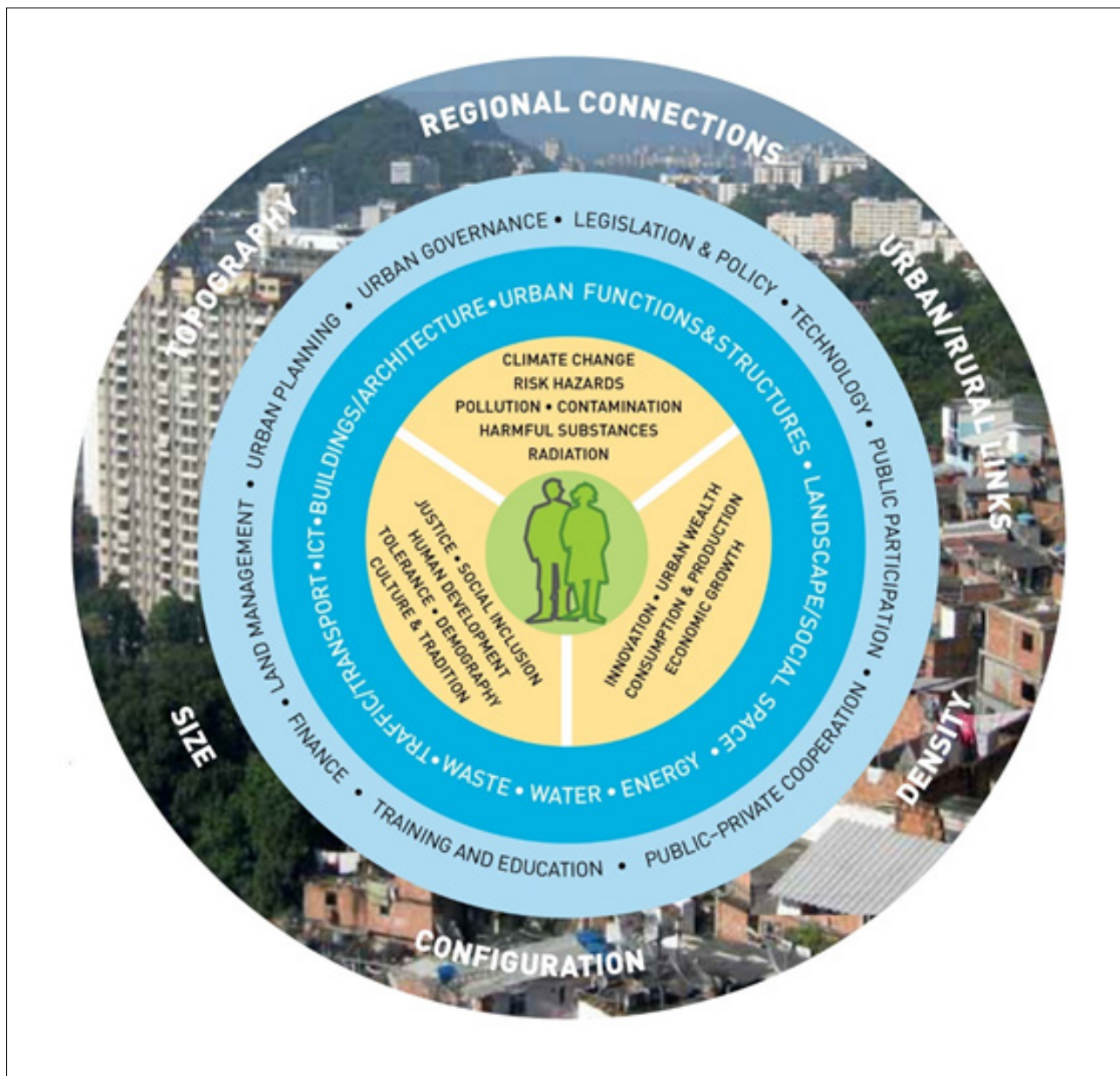


Figure 1-4: The SymbioCity Approach; A Conceptual Framework for Sustainable Urban Development was developed by Sweco Architects in partnership with KTH Stockholm and provides a critical framework for Dodoma as a future sustainable city.

1.2.1 Key Opportunities in Dodoma

- Strong growth in GDP
- Rapid population growth
- Increasing skilled workforce and a young population profile
- Recent and committed investments in core primary transport infrastructure
- Regular and functioning strategic planning cycles
- The rich local biosphere and the ecosystem services that it provides
- Increasing competitive positioning and profile as the de-facto national capital
- Strong governance and participatory planning structures

1.2.2 Key Challenges In Dodoma

- Deficit of utilities and community infrastructure to meet rapidly increasing demands; particularly solid and liquid waste management, education, healthcare and integrated public transport.
- Inefficient own-source revenue collection and overreliance on national funding
- High level of income inequality
- Lack of evaluation and monitoring of strategic planning & investments
- Lack of comprehensive cross-sector digital spatial data platform
- Poor digital connectivity and assimilation at the national and local level
- Overly sectorized structures of governance, urban planning & civic administration
- Deteriorating environmental quality and biosphere due to unmanaged urbanization and increasing motorized traffic
- Increasing vulnerability of citizens due to unmanaged urbanization
- Direct effects of climate change

1.2.3 Dodoma Masterplan - Vision & Themes

The Vision of the Dodoma Masterplan is to develop a National Capital City that is economically competitive, socially inclusive, environmentally sustainable, vibrant, safe and convenient. Nine themes have been developed which form important guiding principles for the City Diagnostic Vision, as follows:

- Dodoma as a regional economic hub
- Dodoma as an academic city
- Dodoma as a tourist destination
- Dodoma as an inclusive city
- Dodoma as a sports and recreational city
- Dodoma as an eco-friendly and green city
- Dodoma as a smart city
- Multi-centrality of Dodoma city
- Transit Oriented Development (TOD) city

1.3 Where do we want to go ?

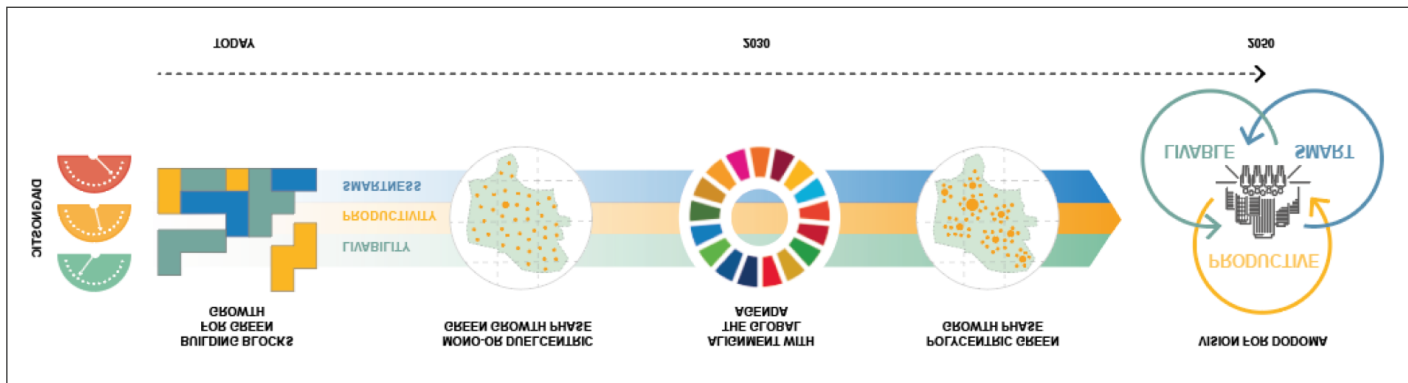
The vision for Dodoma in terms of what the City Diagnostic specifically has been formulated to address builds on its opportunities and challenges to present an ambition for future green growth:

For Dodoma to become the most PRODUCTIVE, LIVABLE & SMART capital city in Sub Saharan Africa by 2050

A development pathway in support of this ambition was originally set out in the City Diagnostic Phase One report. It provided a framework to assist in the identification of critical issues which the diagnostic should address to assist green economic growth in the city and was based on desktop study along with a number of initial interviews with stakeholders in the city.

Now, at the conclusion of the Diagnostic process, this framework has been further developed by the work done to date and again provides a theoretical framework with which to formulate the Action Plan in response to the results of the diagnostic. It is described in more detail below.

I. Part One: Vision



The Development Pathway for Dodoma City Diagnostic (Updated from Phase One Report)

1.4 Justifying the Ambition: The Urban Potential in Dodoma

This rapid growth of cities in sub-Saharan African region has been shown to threaten sustainability through the loss of natural habitats and their ecosystem services, increasing carbon footprints, social inequalities and exposing communities to an increased vulnerability to natural disasters.

In as much as cities represent a problem however, if planned and managed with sustainability in mind and using an urban systems approach, cities in the region can be part of providing the solution to sustainability.

The current disparity between the potential performance of cities and the reality is due mainly to a lack of capacity and funding to provide urban planning and governance for sustainable growth. The opportunity to act is

now: approximately 60% of the area expected to be urbanized by 2030 is still to be built. Sustainable construction and climate adaptive interventions can also be a source of new green jobs.

Dodoma is a city poised on the cusp of dramatic transformation. The planned growth and diversification of the city as Tanzania’s capital city is coupled with expected population increase due to wider trends experienced elsewhere in the region. With several major recent and planned infrastructure investments in the city along with its relatively low urban density there is a huge opportunity now to leverage green economic growth for the city and for Tanzania through spatial, fiscal and governmental city management.

In order for Dodoma to fulfill its potential for delivering sustainable growth, it must be characterized as **PRODUCTIVE, LIVABLE** and **SMART**.

1.5 Characterising the Vision: Dodoma's Core Performance Indicators

1.5.1 PRODUCTIVE Dodoma

Cities have always been engines of economic development for societies. Cities today generate 80% of global GDP. At the city level, spatial and systemic economies of scale and efficiencies can be achieved through spatial planning, fiscal management & governance. Urbanization can thus be a key driver of structural transformation and socio-economic development in Dodoma – driving jobs, employment, quality of life and investment in sustainable development.

Conversely dysfunction and inefficiency through unmanaged urbanization will represent a large opportunity cost for Dodoma and Tanzania. The principle of 'exponential efficiency' demonstrates that relatively small incremental investments in planning leads to much greater efficiency and productivity in the long run.

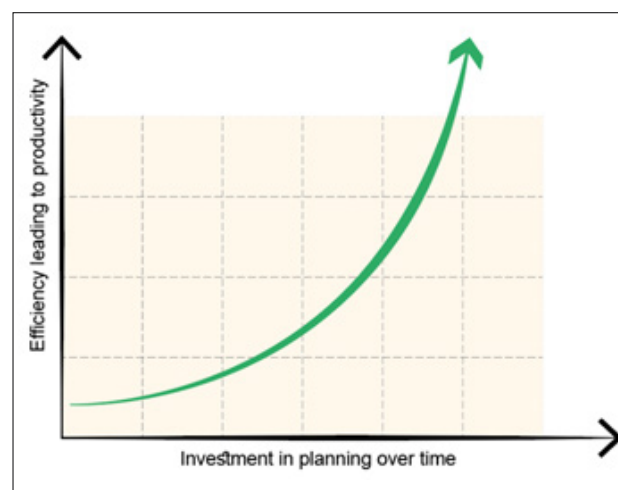


Figure 1-6: The principle of 'exponential efficiency' dictates that small incremental investments in planning over time and starting early in the process will reap exponential benefits in long term efficiency and productivity.



Bogotá, Columbia has seen a dramatic rise in GDP to USD83 billion in 2019. This is attributable in large part to investment in urban management during a time of rapid population increase to achieve urban livability, thereby creating a healthy and dynamic business environment.

1.5.2 LIVABLE Dodoma

Livability is the level of life quality achieved in an urban context and includes health and wellness, public safety, social inclusion, resilience, disaster risk reduction, availability and quality of services and prospects for socio economic development. In a globalizing world it is increasingly a critical factor in the competitiveness of cities to attract inward investment. This especially the case in cities with growing services and tourism sectors such as in Dodoma.

There is a natural synergy between livability, 'greenness' and a positive cost-benefit outcome from investment. Green economic growth is essential for achieving all aspects of livable cities. Green Dodoma will be climate resilient and resource efficient. It will offer 'passive' resilience to climate threats and vulnerability to disasters through its spatial layout, design and management and through nature-based solutions. Dodoma's citizens will create sustainable wealth creation from a local low-carbon circular economy. Thus Livable Dodoma can continue to be low in carbon and low in cost in terms of capital investment, construction and operation - while increasing levels of livability.



Accessible local centres which create a virtuous cycle of livability, with space for commercial shops and services to thrive and plenty of local footfall to keep them buoyant. These focal points can be further enhanced by planning community facilities close by.

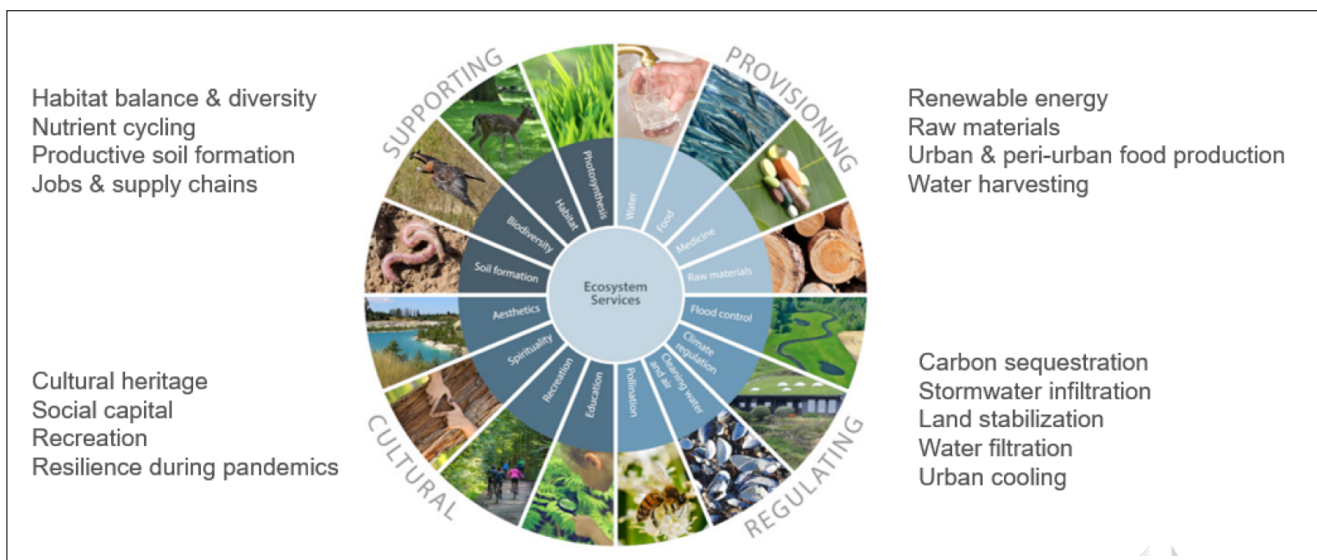


Figure 1-7 The illustration shows the broad range of ecosystem services which the biosphere provides to support human life. This list is particularly focused on tropical and equatorial ecosystems in LDCs.



Figure 1-8 Nature based solutions; the natural biosphere in cities like Malmö, Sweden enhances quality of life and climate resilience by funneling ecosystem services into the urban community; a high quality of life return on a relatively low cost investment with a net positive impact on the environment.

I. Part One: Vision

1.5.3 SMART Dodoma

Technological innovation is providing multiple ways to optimize productivity and livability, along with resource efficiency and sustainability in cities. So called 'smart' solutions often represent great value for money for developing countries; leapfrogging traditional linear development models by leveraging digital infrastructure and human resources together to efficiently achieve social and economic inclusion, service delivery, better governance, green-tech innovation, and better financial management and competitive positioning.



Figure 1-9: Digital inclusion is key to leveraging the holistic socio economic benefits of smart solutions.

1.6 The Building Blocks of Sustainable Growth in Dodoma

The Building Blocks have specifically identified to exploit Dodoma's current strengths and overcome barriers to fulfilling the city's urban potential for sustainable development and to evolve into a Productive, Smart and Livable city. They should be seen as critical components of the city's spatial planning and governance structures - to be prioritized immediately because they provide multiple and exponential benefits and economies of scale across many sectors in the long term. They are especially critical to address when they overlap with priorities that have emerged from the diagnostic.

1.6.1 People and Strong Communities



Sustainable economic growth in Dodoma should be people-centered, focusing on Dodoma's young and growing population in terms of both resources and positive impacts. Critical components are:

- A young and growing urban population acting as a source of ideas, creativity, innovation, and service provision.
- A healthy, safe & happy workforce.
- Self-sustaining, mixed use walkable communities.
- Leveraging the existing informal economy as an opportunity for economic development.

1.6.2 A Diverse Urban Biosphere



Green cities create a virtuous cycle, providing livability, climate mitigation / adaptation and wider ecosystem services at relatively low capital and operational cost. Critical components are:

- An integrated, diverse and interconnected green and blue network.
- Prioritizing nature-based solutions

1.6.3 Connectivity and Data



Digital connectivity matched with digital inclusion allows the leveraging and optimizing of all other building blocks. Critical components are:

- High quality reliable internet connectivity and coverage (either broadband or minimum 4G mobile internet) - digital inclusion.
- Potential application of frontier technologies, such as AI (Machine Learning), Internet of Things (IoT), 5G and Blockchain.
- Improving data collection, storage analytics and sharing processes.
- Public sector regulation on data security and privacy.
- Digitalisation of commercial and public service provision.

1.6.4 Integrated Mobility



Social and economic development relies on quality, inclusive mobility which as a co-benefit enhances livability, carbon management and place promotion for the city. Critical components are:

- Integrated walking, cycling & public transport plan.
- Mobile enabled smart service provision - real time information and ticketing.
- Motorized traffic management

1.6.5 Urban Governance



Strong urban governance will enable the cross-sector coordination of complex urban systems to achieve efficiency. It provides a framework within which citizens can invest their trust, increasing participation, revenue collection and human resources and creating an attractive de-risked investment environment. Critical components are:

- A coordinated cross-sector vision and committed leadership for implementation.
- Clear and realistic spatial planning and legal frameworks for regulation.
- Set targets and monitoring frameworks to meet Tanzania's Nationally Defined Contributions and alignment with the UN's Sustainable Development Goals.
- Meaningful public and stakeholder participation.
- Mobile enabled smart systems for revenue collection and urban land management.
- A cross-sector GIS spatial data platform.

1.7 Spheres of Change & Key Outcomes

Dodoma must evolve in the following ways in order to deliver on the Goal and Vision:

1.7.1 Increased prosperity of the city and Tanzania



- Managed urban population growth.
- More efficient own source revenue collection.
- Increasing attractiveness of the city for investment.
- Increasing numbers of business licenses and patents including formalization of the informal sector.

1.7.2 Increased quality of life and reduced inequalities for citizens



- Reparation of a diverse and interconnected green network.
- Sufficient community facilities and waste management to meet growing demand.
- Integrated public transport network & TOD.
- Quality and climate responsive affordable housing.

1.7.3 Future proofing for climate action



- Reparation of a diverse and interconnected green network.
- Integrated public transport network & TOD.
- Quality and climate responsive affordable housing.
- Whole lifecycle low carbon supply chains.

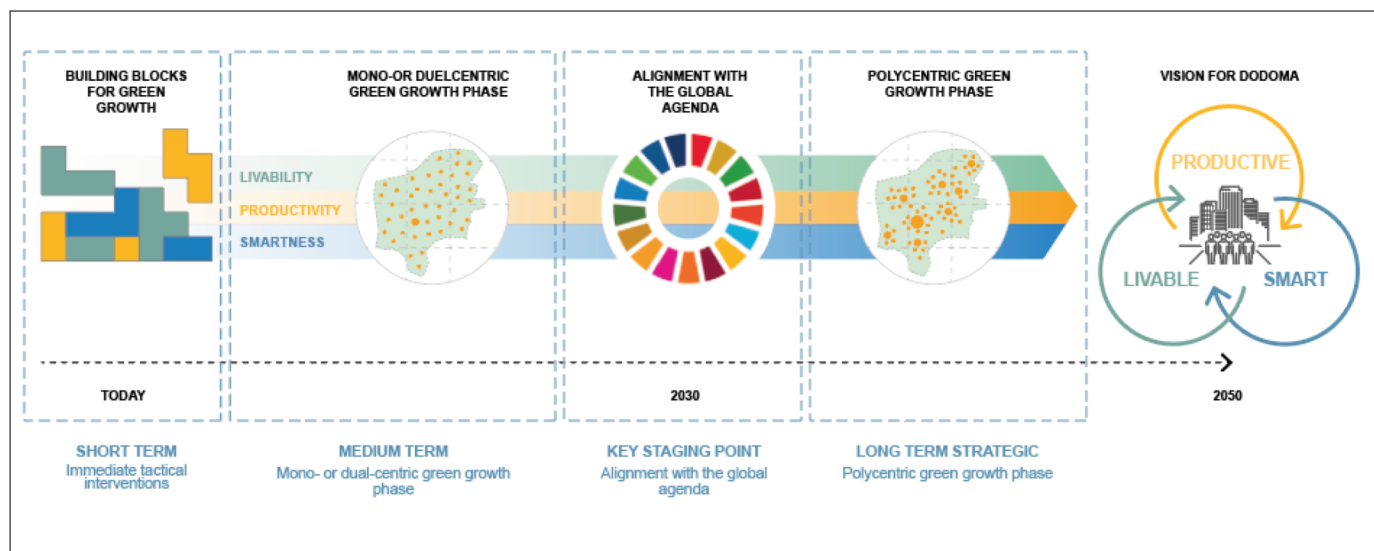
1.7.4 Disaster risk reduction with strengthened resilience and adaptation



- Formalization of informal housing areas.
- Nature based solutions for disaster risk reduction.
- Smart solutions for disaster risk reduction.
- Emergency response planning

1.8 Intervention Phases and Timeline

In accordance with the Theory of Change, the development trajectory for Dodoma is broken down into four key phases and staging points and two broad spatial development scenarios.



I. Part One: Vision

1.8.1 Short term; Immediate tactical interventions

The first phase is to secure strong foundations for future green growth. The City Diagnostic Action plan is designed to tackle this phase with a view to enabling and optimizing future phases:

Tackle the priorities areas identified by the diagnostic head-on
Prioritize other key building blocks

1.8.2 Medium term; Dual-centric green growth phase

The next phase is to direct the growth of the city in two directions; higher density transit oriented development poles in the CBD and

station, and rationalization and formalization of low density residential areas which also secure the important green network:

- Manage & direct growth within the CBD and secondary growth poles around transport nodes to leverage economies of scale through density increase and achieve cost coverage for sustainable urban infrastructure in those areas.
- Small-scale infill and formalization of low-middle income residential areas.
- Low density green development within the urban growth boundary.
- Safeguard strategic green corridors.
- Safeguard district centres and future polycentric growth poles.
- First phase of urban transit infrastructure

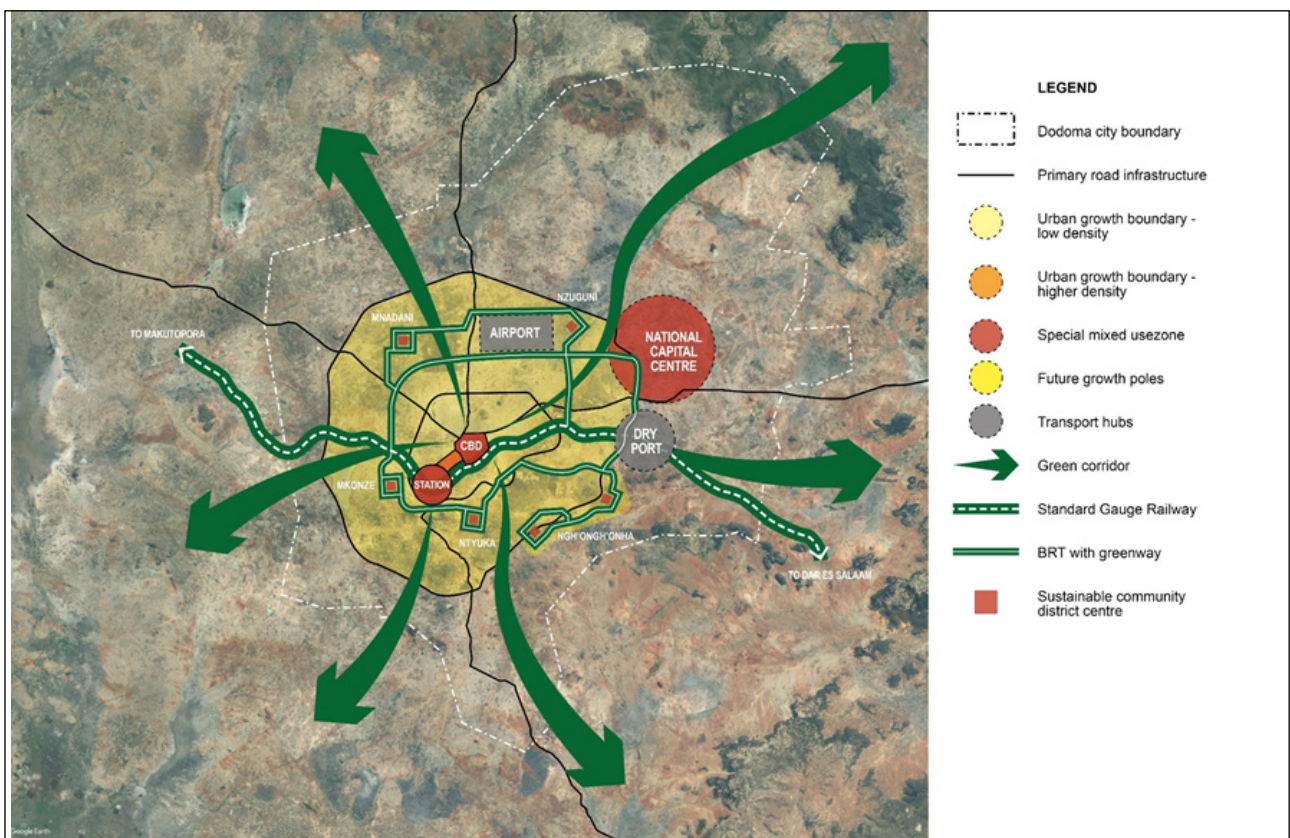


Figure 1-10 Medium term; Dual-centric green growth phase

1.8.3 Key staging point; Alignment with the global agenda

By 2030 the city should have followed the development path to date and be in a position to meet Tanzania’s Nationally Defined Contributions and alignment with the UN’s Sustainable Development Goals. Frame green growth through the SDGs and NDCs. Meet obligations.

1.8.4 Long term strategic; Polycentric green growth phase

Post-2030 the city will continue to grow in population through polycentric growth poles of high density transit oriented development which respect the established green network.

- Further densification of earlier phase growth poles.
- Manage & direct growth within outlying growth poles around transport nodes to leverage economies of scale through density increase and achieve cost coverage for sustainable urban infrastructure from sustainable communities.
- Continuation of small-scale infill and formalization of low-middle income residential areas.
- Continuation of low density green development within the urban growth boundary.
- Continued safeguarding of green & blue city-wide network.
- Further extension of the urban transit infrastructure.

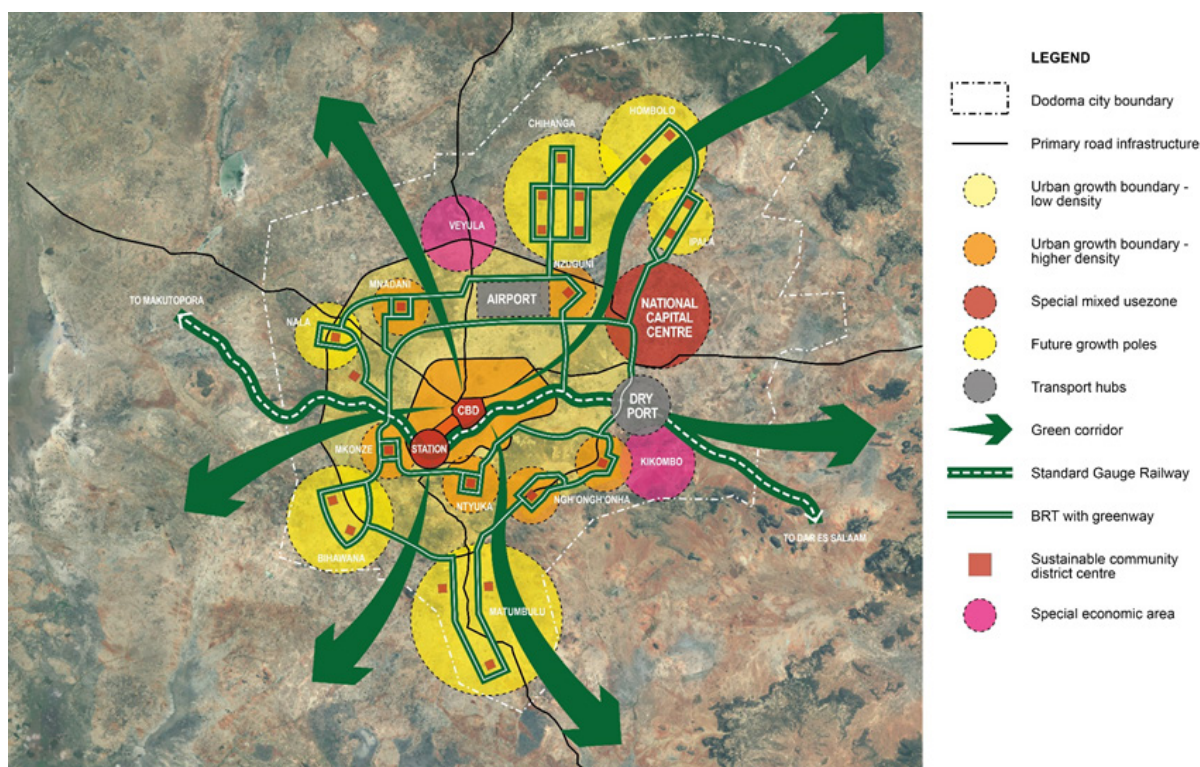


Figure 1-11 Long term strategic; Polycentric green growth phase*

*Spatial plans contained here are based on the Dodoma Masterplan; Adopted Concept and Land Use Masterplan. They have been simplified to illustrate the key spatial principles and intent relevant to the Diagnostic Action plan.

2. Part Two: Workshops

2.1 Aims of the Workshops

The Stage Three stakeholder workshops provide an opportunity to:

- Update stakeholders on the progress of the Diagnostic assignment.
- Discuss and ratify the outputs of stages one and two of the diagnostic Rapid Approach to Prioritization methodology for Dodoma.
- Undertake stage three of the diagnostic Rapid Approach to Prioritization methodology for Dodoma (policy alignment).
- Discuss the vision and draft action plan and gather inputs, thoughts and comments on proposed interventions and their prioritization.
- Develop an improved participatory dialogue;
- Encourage cross sector exchange and;
- Support an increased ownership/ stewardship for the next phase(s) of the project.

2.2 Workshop Format and Programme

2.2.1 Considerations

The Diagnostic assignment has been carried out during the Covid 19 global pandemic and as a result restrictive social distancing and travel policies have been in place. Sweco perceives that during this (and other parallel) assignment,

previous attempts at using a remote working platform to run the intended half day workshop format have not been very successful. This has been due to several issues:

- connectivity problems in the city,
- stakeholder's lack of capacity to use collaborative platforms such as Zoom and MS Teams,
- reticence and caution among the stakeholders to contribute to large interactive workshops,
- stakeholders' perceived lack of authority to participate.

It is believed that had physical meetings been possible during the early stages of the assignment, the groundwork could have been better laid for a more participatory process. This is unfortunate but a useful lesson learned on the importance of relationship building to create working collateral for future participation and value addition.

What has proved very successful however are direct online group calls to a maximum of 3 or 4 attendees, and Sweco's online survey tool that was used for the public participation stage of the RAP in Phase Two. It is our experience therefore that the format for Stage Three workshop should be built around these positive experiences.

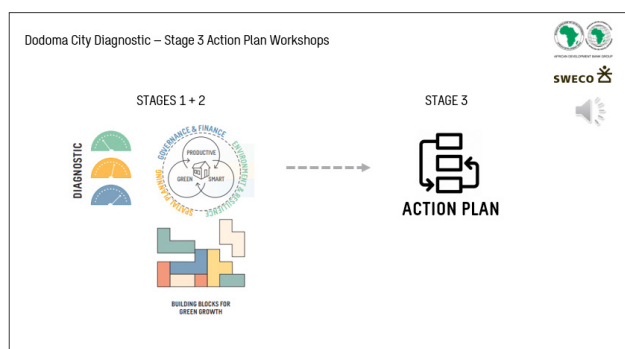
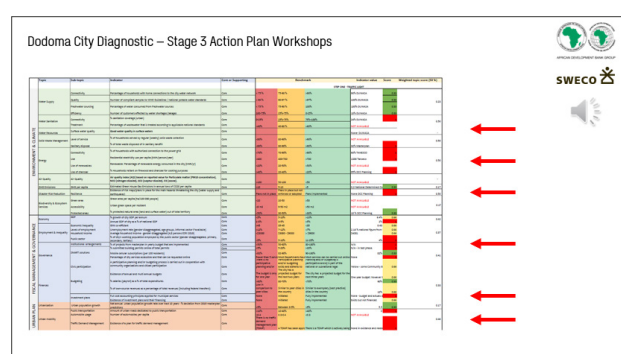
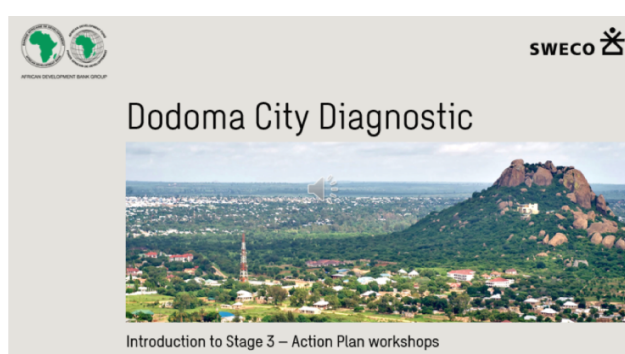
Sweco has successfully and frequently used the SymbioCity Approach worldwide. The basic components from that approach can be used as inspiration for the workshop format, albeit adapted to the above.

2.2.2 Format

Ahead of the workshops, a 5 minute summary presentation was produced to set up and provide context for the workshop process, and shared via a secure online streaming platform. Screenshots are shown below.

Instead of running one half day interactive workshop, a sequence of semi-structured stakeholder conversations were organized (with

3-5 participants) coupled with internal Sweco-Apex workshops to review and synergize the results, followed by online response surveys to ratify results with stakeholders. The more “intimate” format was considered more practical in terms of the above highlighted challenges, allows all participants to interact, generate ideas and share concerns about bottle necks etc.



Screenshots of the summary presentation and showing the workshop sequence

Each structured conversation was scheduled for 30 minutes and focused on a specific theme, with eight themes in total. The agenda was structured as follows;

- Diagnostic RAP results to date,
- City Vision and backcasting,
- Interventions (including priorities and interrelations),
- Action plan (including priorities and interrelations).

The results were then discussed and synergized during an internal Sweco-Apex workshop and the final Action plan was confirmed, with cross sectoral constraints and opportunities explored to inform the Action Plan.

Following that, the online survey tool was used again to share the final Action Plan results and achieve a consensus on policy alignment (Stage 3 of the RAP process).

2. Part Two: Workshops

2.2.3 Workshop Invitees

The list of invited Stakeholders has been drawn from those that have engaged in the earlier stages of the assignment along with specific sectors which declined involvement on previous attempts. The participants have been selected with the approval of AfDB. The list is as follows:

TOPIC & ATTENDEE	TIMESLOT & REPRESENTING
Leadership	Thursday 2nd Dec. 15:30am (Dodoma)
Prof Davis Mwamfupe	City Mayor
Joseph Mafuru	City Director
Aisha Masanja	Town Planning
Eng Lusako Kilembe	Dodoma Region
T.P. Alfred Luanda	City masterplan
Babati Mokgethi	AFDB
Urban utilities (Water, waste & energy)	Tuesday 30th Nov. 11:30am (Dodoma)
Aisha Masanja	Town Planning
Eng Lusako Kilembe	Dodoma Region
Herieli O. Samweli	Ministry of Works, Transport & Communications
Emmanuel Nahozya	Ministry of Water
Eng Aron Joseph	Dodoma Urban Water Supply and Sanitation Authority
Babati Mokgethi	AFDB
Environment, climate & resilience	Tuesday 30th Nov. 13:30am (Dodoma)
Aisha Masanja	Town Planning
Eng Lusako Kilembe	Dodoma Region
Mr. Ally s. Mfinanga	Environmental Management
Yustina Munishi	City Agriculture, Irrigation and Cooperative Officer (CAICO)
Dicksom Kimaro	City Environment Officer
Nestophony K.Subira	Ministry of Agriculture
Babati Mokgethi	AFDB
Economics & finance	Tuesday 30th Nov. 9:30am (Dodoma)
Aisha Masanja	Town Planning
Eng Lusako Kilembe	Dodoma Region
Mr. Shabani Juma	City Economist
Mr Fred Mchumi	Department of Finance and Trade
Donatula Vedasto	City Trade Officer (CTO)
Sekunda Kasese	Tanzania Social Action Fund (TASAF) Coordinator
Babati Mokgethi	AFDB

Governance	Wednesday 1st Dec. 11:30am (Dodoma)
Aisha Masanja	Town Planning
Eng Lusako Kilembe	Dodoma Region
Gratian Mwesiga	City Legal Officer
Daniel Masolwa	Tanzania National Bureau of Statistics
Hidaya Maendeleo	City Community Development Officer (CCDO)
Babati Mokgethi	AFDB
Community facilities	Wednesday 1st Dec. 13:30am (Dodoma)
Aisha Masanja	Town Planning
Eng Lusako Kilembe	Dodoma Region
Hidaya Maendeleo	City Community Development Officer (CCDO)
Upendo Rweyemamu	Secondary Education Officer (CSEO)
Joseph Mabeyo	City Primary Education Officer (CPEO)
Dr. Andrew Method	City Medical and Health Officer (CMOH)
Babati Mokgethi	AFDB
Mobility	Wednesday 1st Dec. 15:30am (Dodoma)
Aisha Masanja	Town Planning
Eng Lusako Kilembe	Dodoma Region
Isaya Kimai	Transport Officer
ACP Nuru K. Seleman	Ministry of Home Affairs: traffic
Eng Chrispianus B AKO	TANROADS
Eng. Mohamed Mkwata	TARURA
Eng. Happiness Rashid	Tanzania Railway Cooperation (TRC)
Babati Mokgethi	AFDB
Housing & development	Thursday 2nd Dec. 11:30am (Dodoma)
Aisha Masanja	Town Planning
Eng Lusako Kilembe	Dodoma Region
Eng. Omari Chitawala	National Housing Cooperation (NHC)
Mwangole	Ministry of Land
Alfred Luanda	City masterplan
Babati Mokgethi	AFDB

2.3 Results of the Workshops

Despite many attempts by the team to contact the groups at the appointed times, attendance at the workshops was disappointing. Reflections on the reasons for this are contained in Section 4. A record of the key points from the discussions are contained below. It was felt that the comments by stakeholders were broadly confirmatory of the diagnostic and prioritization to date, so that these comments have been integrated where possible into the specification of project priorities in the Action Plan rather than any significant changes to the list of interventions or prioritizations.

LEADERSHIP

Attendees: Alfred Luanda

- The city benefits from strong and consistent leadership and custodianship of the Dodoma Masterplan.
- The Masterplan benefits from formal support and adoption by the municipality.

URBAN UTILITIES

Attendees: Aisha Masanja

- Important to showcase delivery of masterplan interventions and important that the action plan has considered this background when developing the interventions.
- Good to include improved revenue collection and capacity building for increased own funding for interventions in the masterplan
- Important to improve property registry, introducing postal codes for example would aid the municipality in planning and introducing new services

ENVIRONMENT, CLIMATE & RESILIENCE

Attendees: Ally Mfinanga

- Linking blue and green interventions for flood management to groundwater protection as the main source of water supply in Dodoma is needed.
- Promote affordable housing that are resilient to climate hazards and provide green jobs from waste and urban agriculture

ECONOMICS & FINANCE

Attendees: Hidaya Maendeleo

- Interest rates should be lowered to enable startup of businesses and employment opportunities.
- The city needs new job-creating green industries that local people have access to; especially in;
 - the agri sector (wine, sunflower seeds);
 - manufacturing and/or upcycling of packaging, baskets and bags for transporting goods will help mobilize economic activity and create jobs;
 - locally sourced building materials such as clay bricks.
- The city needs more local markets within walking distance.
- Hands-on training should happen in schools in green industries (such as above).

GOVERNANCE

Attendees: Hidaya Maendeleo

- Public participation in the city and the Masterplan has been very good.
- Structures for future participation are good.

COMMUNITY FACILITIES

Attendees: Hidaya Maendeleo

- Economic opportunities (above) will help provide better goods & services to the community.
- Economic activity should be aimed at building industries and enabling entrepreneurship at local community level.

MOBILITY

Attendees: Alfred Luanda

- It was agreed that mobility should be a top priority as a sustainable development catalyst.
- Inner & outer ring roads will relieve congestion but longer term BRT (instead of light rail) and airport zone are needed.
- Walking & cycling is a good investment but only if linked with BRT.
- Linking of the government functions into a cohesive transit-oriented precinct should be a priority. A location is suggested in the Dodoma Masterplan.

HOUSING & DEVELOPMENT

Attendees: Alfred Luanda

- The sustainable communities pilot was supported in order to provide a model for sustainable affordable homes. Job creation and economic activity at the local community level is positive for longer term.
- Attention was drawn to the importance of economic development, diversification and first and foremost jobs.
- New employment and industry areas as shown in the Masterplan are key; Agri (wine), construction materials, education as a growth sector.
- Attractiveness of the city for investment should be a priority.

2.4 Follow-up Stakeholder Questionnaire

(RAP Stage 3 – Policy Prioritization)

A final questionnaire using the familiar online survey format was issued as a last stage of the RAP methodology. The purpose was to produce the final prioritization adjustment based on Policy Alignment. Sadly, the number of responses was again disappointing and despite attempts to encourage participation only five responses were received. A sample screenshot of the questionnaire is shown below.

ENVIRONMENT: POLICY ALIGNEMENT IN DODOMA

Below you will find three sections (Environment, Governance & Management, and Spatial Planning) each with a set of subquestion that address a Specific topic. For each topic, specify if there are no or indirect/direct/explicit reference to the topic as a priority in any/ national/city policy or plan.

For each topic, please check the box that you feel agrees most to the city of Dodoma.

2.5 Follow-up Stakeholder Questionnaire (RAP Stage 3 – Policy Prioritization)

A final questionnaire using the familiar online survey format was issued as a last stage of the RAP methodology. The purpose was to produce the final prioritization adjustment based on Policy Alignment. Sadly, the number of responses was again disappointing and despite attempts to encourage participation only five responses were received. A sample screenshot of the questionnaire is shown below.

	No reference to the topic as a priority in any policy or plan	Indirect reference in a national policy or plan	Indirect reference in city policy or plan	Direct reference in a national policy or plan	Direct reference in city policy or plan	Explicit priority of the city
Water sanitation: access to decent sanitation systems (such as sewerage, wastewater treatment etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water supply: connectivity to drinking water networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water resources: overall water quality (such as lakes, streams, reservoirs etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Solid waste management: access to solid waste collectors and waste disposal	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy: access to power grid and to stable power supply	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Air quality: air pollution (such as exhaust fumes from cars and trucks)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate Change: Greenhouse Gas emissions that contribute to climate change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disaster Risk Reduction: measures to mitigate impacts from severe events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biodiversity & Ecosystem Service: access to city's green areas and protected natural areas such as forests & wetlands	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 2-1: Sample screenshot of the final Policy Prioritization stage online survey.

3. Action Plan

The final Action plan is shown in **Figure X** below. This Plan contains the list of prioritized interventions resulting from the whole 3-stage process of the Diagnostic, as well as the final stakeholder interviews explained in section 2.

A final question was added to the final stakeholder survey to give an impression of Stakeholder prioritization of the final list of interventions. Due to the low number of responses (five) along with the diversity of opinions across the respondees the results are of questionable value, but they are summarized below for the record:

Action plan: City of Dodoma
 Which of these proposed interventions do you find most/least important?

Please select **three (3) interventions that you find most important** and **one (1) intervention that you find least important**.

	Most important	Least important
Household waste separation and collection	<input type="checkbox"/>	<input type="checkbox"/>
Digital billing for waste collection	<input type="checkbox"/>	<input type="checkbox"/>
Solar PV plant (finance already agreed)	<input type="checkbox"/>	<input type="checkbox"/>
Household biogas production (from food waste) pilot project	<input type="checkbox"/>	<input type="checkbox"/>
Sustainable and affordable housing pilot project	<input type="checkbox"/>	<input type="checkbox"/>
Water resource management plan	<input type="checkbox"/>	<input type="checkbox"/>
Flood risk management plan	<input type="checkbox"/>	<input type="checkbox"/>
Community based entrepreneurship initiatives	<input type="checkbox"/>	<input type="checkbox"/>
Bus Rapid Transport (BRT)	<input type="checkbox"/>	<input type="checkbox"/>
Walking & cycling masterplan & pilot project	<input type="checkbox"/>	<input type="checkbox"/>
Capacity building for improved revenue collection with postcode implementation	<input type="checkbox"/>	<input type="checkbox"/>
Improved digital connectivity (broadband and/or mobile) with virtual community services pilot project	<input type="checkbox"/>	<input type="checkbox"/>

	Most important	Least important
Household waste separation and collection	●	●
Digital billing for waste collection	●	●
Solar PV plant (finance already agreed)	●	●
Household biogas production (from food waste) pilot project	●	●
Sustainable and affordable housing pilot project	●	●
Water resource management plan	●	●
Community based entrepreneurship initiatives	●	●
Bus Rapid Transport (BRT)	●	●
Walking & cycling masterplan & project	●	●
Capacity building for improved revenue collection with postcode implementation	●	●
Improved digital connectivity (broadband and/or mobile) with virtual community services pilot project	●	●

RANK	INTERVENTION	VOTES
Most important		
1	Water resource management plan	3
2	Sustainable & affordable housing pilot project	2
2	Community based entrepreneurship initiatives	2
3	Household waste separation and collection	1
3	Digital billing for waste collection	1
3	Solar PV plant	1
3	Household biogas production (from food waste) pilot project	1
3	Flood risk management plan	1
3	Bus Rapid Transport (BRT)	1
3	Capacity building for improved revenue collection with postcode implementation	1
3	Improved digital connectivity (broadband and/or mobile) with virtual community services pilot project	1
4	Walking & cycling masterplan & pilot project	0
Least important		
1	Household biogas production (from food waste) pilot project	2
1	Sustainable and affordable housing pilot project	2
2	Digital billing for waste collection	1
2	Solar PV plant	1
2	Bus Rapid Transport (BRT)	1
3	Household waste separation and collection	0
3	Water resource management plan	0
3	Flood risk management plan	0
3	Community based entrepreneurship initiatives	0
3	Walking & cycling masterplan & pilot project	0
3	Capacity building for improved revenue collection with postcode implementation	0
3	Improved digital connectivity (broadband and/or mobile) with virtual community services pilot project	0

3. Action Plan

	PROPOSED INTERVENTION TOPIC	DIAGNOSTIC SECTOR SCORE	DETAILS OF INTERVENTION AND SECTORS ADDRESSED	SYNERGIES AND INTERDEPENDENCIES WITH OTHER INTERVENTIONS	IMPACT TIMELINE	ESTIMATED COST (DEVEX & CAPEX)
A	Solid waste management	0,80	At source waste separation (organic and residual) for households and a formalized waste collection system for all parts of the city. Introduction of digital and/or co-billing of collection fees and an optimized logistics plan.	Optimized by: J - Digital connectivity. I - Urban Finance Optimizes: C - Biogas Pilot. D - Sustainable Community Pilot.	Action can be taken in both short and medium terms. The impacts are relatively fast and visible to citizens.	Medium: Devex: Solid waste management upgrade plan ~\$450 000. Capex: Further study is needed. Opex: Further study is needed. Waste collection cost varies with type of collection hardware as well as vehicles.
B	Renewable energy supply	0,80	Solar PV A 80 MW plant has been agreed with finance from AFD including energy storage.	Optimized by: I - Urban Finance J - Digital Connectivity. Optimizes: D - Sustainable Community Pilot	Medium term planning work commencing 2022	High
C	Renewable energy supply	0,80	Biogas Production Pilot Small scale industrial use biodigester (container based) handling 2-6 tons per day to showcase sustainable cooking fuel using food waste. Pilot organizational capacity and gas delivery to the market. Pilot can later be scaled up to process more waste	Optimized by: A - Solid Waste Management. F - Training & Inequality. I - Urban Finance Optimizes: D - Sustainable Community Pilot.	Short-medium term. Small scale container based biodigesters can be available 9-12 months after placing orders	Medium-High: Depending on scale and technology choice. Devex: Feasibility study ~\$200 000 Capex: Small scale industrial biogas reactor (container based equipment only and excluding transport) ~\$600 000 Opex: Further study is needed.

POTENTIAL (CO-) FINANCING OPTIONS	RELEVANCE TO CLIMATE CHANGE MITIGATION/ AND OR ADAPTATION	KEY STAKEHOLDERS	IMPORTANT RISKS	REQUIRED NEXT STEPS	OTHER RESOURCES
MLDB Private sector City of Dodoma	Significant: Reduction of methane emissions from waste. Platform for recycling / upcycling. Reduced flood risk by clearing drainage channels and riverbeds.	City of Dodoma and sub-cities. Private sector waste collection companies. Households of Dodoma. Local NGOs and environmental groups.	Risk of exclusion of private sector when formalizing collection system. Service delivery standard. Household compliance with sorting requirements. Cost coverage risks. Current fees might not be adequate to operate SMW system and fee increases might be a necessity.	Feasibility study of how to organize the waste collection system city-wide including Capex and Opex for implementing new collection system.	Iswa waste management plan guide.
AFD	Significant: Reduced demand for energy from non-renewable sources.	Private sector Tanezco	E&S concerns. Power purchasing happening according to plan	Project design process already in progress	https://www.imf.org/external/pubs/ft/fandd/2020/03/pdf/powering-Africa-with-solar-energy-sy.pdf
DFIs Private sector Climate Mitigation Finance	Significant: Reduced demand for energy from non-renewable sources. Reduced emissions from organic waste treated in landfill.	City of Dodoma Private sector DFIs MLDBs NGOs	Capacity to collect, handle and treat food waste. Capacity to supply cooking gas to the market.	Feasibility study selecting the site for pilot, collection system and hardware and determine Capex & Opex.	https://energypedia.info/images/4/46/Guide_to_Biogas-_From_Production_to_Use.pdf

3. Action Plan

D	Affordable & informal housing	0,7	<p>Sustainable Community Pilot</p> <p>Pilot a sustainable development model for low-middle income households founded on:</p> <ul style="list-style-type: none"> Affordable & equitable development Climate mitigation & adaptation Urban livability and resilience Job creation <p>Study area circa 100ha and located on a transit corridor and polycentric growth pole. Location should be identified from Investment Plan / Masterplan.</p> <p>The pilot will demonstrate the added value of integrating many components including:</p> <ul style="list-style-type: none"> Affordability & Financing. Local markets and community scale logistics. Green (EDGE) buildings. Green mobility. Nature based solutions and urban farming. Community facilities hub (physical) Education, training & entrepreneurship Formalization of housing & service provision. Community level circular economies. Part of the polycentric growth model proposed in Dodoma Masterplan. 	<p>Optimized by: All the other interventions.</p> <p>Optimizes: All the other interventions.</p> <p>This intervention synergizes and demonstrates the combined feasibility of the priority interventions through an holistic, affordable sustainable urbanization model.</p>	Medium-long term.	<p>Devex: Cost of Feasibility Study dependent on site size & location.</p> <p>Capex: Cost depending on size and density but as a benchmark the target cost point would be ~\$10 000 per home, or affordable to low- & middle-income earners with mortgages of no more than 35% of household income.</p> <p>Opex: Further study is needed.</p>
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<p>Local banks and mortgage institutes</p> <p>Credit guarantee facilities</p> <p>MLDBs</p>	<p>Significant:</p> <p>Resource efficient construction and land use planning.</p> <p>Climate adaptation in urban design.</p> <p>Control of urban heat island.</p> <p>Financial model demonstrates viability of climate responsive development.</p>	<p>City of Dodoma.</p> <p>Local communities.</p> <p>Local developers.</p> <p>Local banks and mortgage institutes</p> <p>Local service providers.</p>	<p>Reliant on reasonable mortgages being secured and that developers present in the market are financially solvent throughout the project period.</p>	<p>Feasibility Study including financial model not only for the project but also for future purchasers of the units.</p>	<p>Green City Kigali Feasibility Study & Urban Design Handbook.</p> <p>The SymbioCity Approach.</p> <p>Several publications by UN Habitat.</p> <p>EU's Evaluating the Impact of Nature-Based Solutions.</p>
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3. Action Plan

E	Water supply management and protection action plans	0,7-0,5	<p>Water management action plan</p> <p>Including integration of best practices for water conservation / rain water harvesting and reuse, recovery and recycling systems.</p> <p>Flood management plan</p> <p>and recommendations for improved drainage systems prioritizing nature based solutions</p>	<p>Optimized by:</p> <p>J – Digital Connectivity. I – Urban Finance.</p> <p>Optimizes:</p> <p>D – Sustainable Community Pilot.</p>	Short-Medium term	<p>Devex:</p> <p>~\$525 000 (See Finnoc project description).</p> <p>Capex:</p> <p>Further study is needed.</p> <p>Opex:</p> <p>Further study is needed.</p>
F	Employment and Inequality	0,67	<p>Community Based Entrepreneurship initiatives</p> <p>In Climate responsive industries - entrepreneurship and service delivery to support sustainable urbanization. Key components include:</p> <ul style="list-style-type: none"> • Prioritizing women and youth • Climate responsive construction systems and materials • Recycling / upcycling of materials, including glass, plastic, metals and fabrics. • Urban farming & agri-tech. • TVET • Biogas production and marketing 	<p>Optimized by:</p> <p>J – Digital Connectivity. I – Urban Finance.</p> <p>Optimizes:</p> <p>A – Solid Waste management. C – Biogas Production Pilot. D – Sustainable Community Pilot.</p>	Medium term	<p>Devex:</p> <p>~\$180 000 for programme development.</p> <p>Capex:</p> <p>Further study is needed.</p> <p>Opex:</p> <p>Further study is needed.</p>
G	Urban Mobility	0,66	<p>Bus Rapid Transport</p> <p>As identified in the Dodoma Masterplan and Investment Guide, a cost-effective catalyst for sustainable and inclusive mobility. Design and construction of the bus network as well as the operation system. Integrated climate corridors. Intermodal integration up and down the hierarchy; active travel, urban transit, regional rail, road and air.</p>	<p>Optimized by:</p> <p>J – Digital Connectivity. I – Urban Finance.</p> <p>Optimizes:</p> <p>D – Sustainable Community Pilot. F – Community Based Entrepreneurship initiatives.</p>	Medium term	<p>Devex:</p> <p>Feasibility study Bus way/BRT international standard (excluding E&S) \$600 000</p> <p>Capex:</p> <p>Further study is needed.</p> <p>Opex:</p> <p>Further study is needed.</p>

<p>Climate Adaptation Finance</p> <p>MLDB</p>	<p>Significant:</p> <p>Better resilience to climate change.</p> <p>Better protection of waste resources.</p> <p>More efficient use of the available water resource.</p>	<p>City of Dodoma</p> <p>DUWASA</p> <p>RUWASA</p> <p>Sub-cities</p>	<p>No major risks identified.</p>	<p>A plan of suggested activities has been provided in "Building Resilience Through Sustainable Land Management and Climate Change Adaptation in the City of Dodoma" prepared by Finnoc in 2021</p>	<p>Global Center for Adaptation Climate Risk Assessments</p>
<p>City of Dodoma</p> <p>Microfinance Institutions</p> <p>MLDBs</p>	<p>Significant:</p> <p>Capacity building.</p> <p>New value & supply chains</p> <p>Climate responsive skills, materials and service delivery.</p> <p>Food security.</p>	<p>Local women's and youth organizations</p> <p>Sub-city organizations</p> <p>NGOs</p> <p>Global River Centre ©</p>	<p>Establish commercially viable businesses.</p> <p>Develop clear and realistic business plans.</p> <p>Formalization of informal sector.</p>	<p>Development of program implementation plan, including implementing bodies and ambition levels.</p>	<p>UNESCO Strategy for Technical and Vocational Education and Training (TVET)</p>
<p>DFIs</p> <p>City of Dodoma</p> <p>MLDBs</p>	<p>Significant:</p> <p>Key catalyst for low carbon transport infrastructure and Transit Oriented Development.</p> <p>Facilitates shift to low carbon transport modes.</p> <p>Reduction of urban heat island.</p>	<p>City of Dodoma.</p> <p>Local & regional transport authorities.</p> <p>Local landowners</p>	<p>High quality + affordability of service provision.</p> <p>Commercially viable business model.</p> <p>Land acquisition.</p>	<p>Feasibility study</p> <p>Bus way/BRT (international standard).</p> <p>BRT corridor identified and made available for purpose.</p>	<p>ITDP's BRT Planning Guide</p>

3. Action Plan

H	Urban Mobility	0,66	<p>Active Travel Masterplan</p> <p>Improving urban mobility through better walking & cycling environment. Integrated climate corridors. Integration with BRT and green-blue networks.</p>	<p>Optimized by:</p> <p>J – Digital Connectivity. I – Urban Finance. Optimizes: D – Sustainable Community Pilot. F – Community Based Entrepreneurship initiatives.</p>	Short-medium term	<p>Devex:</p> <p>Active Travel Masterplan including detailed implementation proposals of pilot project ~\$200 000</p> <p>Capex:</p> <p>Further study is needed.</p> <p>Opex:</p> <p>Further study is needed.</p>
	Urban Finance	0,63	<p>Improved Cost Recovery for Services.</p> <p>Capacity building program for city officials and identification of prioritized revenue streams to strengthen and make more transparent. Service provision improvement through the implementation of postcodes.</p>	<p>Optimized by:</p> <p>J – Digital Connectivity. Optimizes: All the other interventions.</p>	Short-Medium term	<p>Devex:</p> <p>Training program and targeted actions to digitalize and strengthen revenue collection. Postcode registry. ~\$200 000.</p> <p>Capex:</p> <p>Further study is needed.</p> <p>Opex:</p> <p>Further study is needed.</p>
I	Digital Connectivity	Intervention was not scored in diagnostic due to lack of data.	<p>Improved Broadband & 4G Capability</p> <p>Feasibility study:</p> <p>Understanding the current level of internet service in Dodoma and plans for improved services over coming 2 or 3 years. Understanding the barriers to internet coverage delivery. Recommendations to government and to MNOs.</p> <p>Pilot project:</p> <p>To be defined by the feasibility study, but could, for example, i) test partnerships / incentives for more effective delivery of broadband or mobile internet, or ii) catalyse public private partnership in delivering digital solutions that are enabled by internet services (sanitation, waste management, Pay as you go (PAGY) energy etc. iii) virtual community services & social entrepreneurship hub</p>	<p>Optimized by:</p> <p>I – Urban Finance. Optimizes: All the other interventions.</p>	Short term	<p>Devex:</p> <p>~\$180.000 for feasibility study (~60.000) and pilot project (~120.000).</p> <p>Capex:</p> <p>Further study is needed.</p> <p>Opex:</p> <p>Further study is needed.</p>
	Digital Connectivity					
J						

3. Action Plan

DFIs City of Dodoma MLDBs	Significant: Key catalyst for low carbon transport infrastructure. Facilitates shift to low carbon transport modes. Reduction of urban heat island.	City of Dodoma. Local & regional transport authorities. Local land owners.	Land acquisition. Possible reduction of road capacity.	Active Travel Masterplan	ITDP Africa's Streets for Walking & Cycling.
MLDBs Bilateral Donors National Government	Catalyst: Optimizes cost coverage from climate responsive interventions.	City of Dodoma. Municipal utilities providers	Affordability of fee increases. Transparency & trust in revenue collection.	Training programme and action plan	https://sustainabledevelopment.un.org/content/documents/1732The%20Challenge%20of%20Local%20Government%20Financing%20in%20Developing%20Countries%20_3.pdf
MLDBs Bilateral Donors National Government Mobile Network Operators Private sector investors / tech impact hubs	Catalyst: Optimizes resource efficiency and reduces demand. Better connectivity and related access to e-governance or other services can reduce need for travel within the city. Provides platform for access to markets, boosting jobs and economic growth and supporting Covid-19 recovery and resilience to other pandemics. Improves resilience through data collection, analytics and early warning. Optimizes other climate resilient interventions such as mobility.	City of Dodoma. National Government. Mobile Network Operators. Private sector innovators. Digital tech hubs Civil society groups with a focus on digital inclusion.	Data security. Affordability of service provision. Coverage: avoiding the prioritization of higher income areas for mobile internet coverage. Gender and inclusion: Pilot project must mainstream digital inclusion, which is often limited by access to devices, affordability of mobile data, relevance of online content, digital literacy, etc	Feasibility Study & pilot project	GSMA Mobile for Development – Digital Transformation in Tanzania and other resources and toolkits. UN Habitat Digital Cities Toolkit Digital Tanzania Project / World Bank The World Bank Digital Development Partnership International Telecommunications Union (ITU) GAATES - Global Alliance on Accessible Technologies and Environments Research ICT Africa (RIA) Collaboration on International ICT Policy for East and Southern Africa (CIPESA) Alliance for Affordable Internet (A4Ai)

4. Final Conclusions on the City Diagnostic Process

The RAP methodology has been effective in highlighting priority areas for intervention in the city of Dodoma and structuring a weighting system to those results which reflects participatory input from citizens and stakeholders. The methodology holds up as an adaptable tool to diagnose critical gaps and problems efficiently and cost-effectively against an agreed vision in a city, as well as integrating participatory inputs through a weighting system.

In Dodoma, this is reflected in the overwhelmingly confirmatory responses from the local stakeholders at the close of the process during Stage 3 and in the final stakeholder interviews. Whilst commitment to the consultation process weakened off in terms of numbers (explained below), those consultees who did stay involved were very supportive of the results.

As a pilot project for City Diagnostics however, it is perhaps most useful to focus on the lessons learned and room for improvement, which can be summarized from the perspective of the Sweco-Apex team as follows.

4.1 Vision first

The first deviation from the original ToR that the Dodoma team made was to shift part of the 'Visioning' stage of the assignment from Stage 3 to Stage 1. It was felt at the time that there lacked a logical framework by which to identify

the critical parameters for the Diagnostic, and that a high-level Vision was needed to provide a broad set of performance criteria for the city to be diagnosed against, which also took into account the early stakeholder consultation.

In the case of Dodoma we adopted the terms 'Building Blocks for Green Growth' and defined them in terms of three spheres of performance for a city of its type, in its location and phase of growth - Green, Livable and Smart.

This high-level vision was later developed into an actual Theory of Change in Stage 3 using the results of the Diagnostic, which put some 'flesh on the bones' of this Vision. The Theory of Change in turn influenced the more detailed specifications, descriptions and impacts of projects in the Action Plan. In this way a theoretical framework - from Vision and building blocks to Theory of Change - was developed in parallel to the diagnostic RAP methodology and greatly helped to contextualize the list of interventions which in their basic form responded directly to the 'red' Diagnostics.

Whilst perhaps not a flawless sequence, it is our reflection that the Diagnostic in future should be initiated with more of a participatory (see 4.3 below) Visioning stage in the early phase, which the teams should develop in parallel to the Diagnostic and as part of the consultation process to develop a theoretical framework in support of the final Action Plan.

4.2 Acceptance of data weaknesses

As pointed out at the start of the process (Phase One Report) it can be fairly hypothesized that a good Diagnostic system can only succeed with good data as its source. The SMART mnemonic system was used by our team to characterize the quality of data that would be required; **Specific, Measurable, Achievable, Relevant and Time Bound.**

Several potential pitfalls were raised in the Phase One and Inception reports with regard to this, all of which have seemingly been confirmed. Not only has SMART data for any given parameter been very difficult to source, but to ensure the same level of SMARTness for around 20 other parameters which are intended to be used on an equal basis, coupled with equally comparable benchmarks for all those parameters, has sometimes felt like an impossible task.

The process of struggling to find data that meets these exacting standards has however led to some important realizations about the other critical success factors of a Diagnostic process.

4.3 The Importance of strategic communication

The most successful attempts at sourcing data or covering data gaps in Dodoma has almost always been down to the invaluable input of key stakeholders in the city and AfDB. Whilst not admonishing the problem of data consistency (see further point 4.4 below) stakeholders have proven to be the highest source of information collateral for the assignment.

Relationship building with stakeholders is a critical part of strategic communication in any complex urban planning-based project. Whilst the digital toolkit that Sweco developed as a 'proxy' for live consultation was fairly successful given the communication constraints created by the travel ban, the process was weak in comparison to the intended approach, and undoubtedly resulted in disconnection and consultation fatigue in the latter stages.

Had the assignment been carried out as planned, with live events at the start, the team would have managed to secure even greater levels of stakeholder custodianship and commitment, and higher standards and coverage of data.

It is recommended therefore that a cross-sector participatory workshop event is an indispensable component at the start of the Diagnostic process to confirm the key stakeholders, explore critical issues and cross sector synergies, define the Vision (as 4.1 above), build relationships between and among the diagnostics team stakeholders, and to source data. The time and cost investment in this stage will pay dividends later in the process.

This workshop should be followed up once during each of the following work stages to ensure effective consummation of the process, validation, prioritization, continuation of the theoretical framework and so-forth. With the groundwork having been done; more cost effective remote / online consultation (as trialed by the team in Dodoma) would be more engaging, and fatigue less likely.

4. Final Conclusions on the City Diagnostic Process

Finally, political support and weight was found to be a critical success factor in the involvement or otherwise of stakeholders; not so much in terms of support for the initiative (though that is key and was not found to be lacking in the case of Dodoma) but more to create an authorizing environment among sector-based stakeholders who are not very familiar or comfortable with speaking out about topic that may be considered outside their remit. This 'siloes' environment seemed to be endemic in many administrative-oriented cities and prevents getting the most out of any stakeholder collateral that had been built.

4.4 Diagnostics is a mentality as well as a spreadsheet

The Sweco-Apex team originally approached the assignment with a data-driven mentality. This was this proven to be highly time consuming and frustrating for the reasons stated (see 4.2 above). Our conclusion on this point is that it is important to approach a city with a **diagnostic mentality** as much as - or perhaps more than - a data-driven methodology. It should certainly require a blend of the two.

We define this 'diagnostic mentality' as taking an efficient and targeted approach to rapidly diagnosing the most critical gaps against the fulfillment of the vision; by focusing on opportunities and solutions concurrently and digging deep for information wherever possible with the support of stakeholders - who themselves feel as custodians of the shared vision.

Not, in contrast, to slavishly rejecting information because it fails to meet a set of data standards upon which the mechanics of a spreadsheet will succeed or fail. And not to embark on hours of deep analysis of every aspect of the city in the hope that priorities will somehow emerge clearly as a result.

This requires a small, versatile, multidisciplinary Diagnostic team with a **mix of creativity, experience and pragmatism**, coupled with an **enquiring and empathetic approach** to relationship building with stakeholders.

Finally, a more collaborative mentality across a set of cities within a Diagnostic programme (e.g., Diagnostic Cities Network) would also help to foster collaboration and knowledge sharing, and ultimately improve the methodology across the board. Whilst fully intended at the start of the assignment, this collaborative environment was not a feature of the process - probably due also to the pandemic related constraints; but should be a priority for the future in our view.

4.5 Diagnostics still needs the spreadsheet

Given that we feel that this 'looser' definition of the methodology can be a strength when combined with a creative and solutions-oriented approach, the conclusion overall was that the principles and basic framework of the RAP methodology was successful and can provide clear, cost effective and transparent framework and audit trail for the prioritization of interventions.

4. Final Conclusions on the City Diagnostic Process

A final anecdotal reflection however is that after the three stages of the RAP had been carried out (and especially after the third stage) there appeared to be something of an 'ironing out' of the results. Striking red and green results appeared to be somewhat diluted into various shades of orange. It is not clear what led this to happen, and perhaps requires further analysis of the methodology and comparison with other cities' results.

In summary we viewed the overall pilot of the RAP a success in Dodoma, allowing for the unfortunate constraints of the global pandemic and the above recommended room for improvement.





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