

LOCAL PHYSICAL AND LAND USE DEVELOPMENT PLAN (LPLUDP) AMENDMENT SUMMARY REPORT FOR THE ACTION AREAS

PREPARED BY:

INTERNATIONAL PROJECT PLANNING AND MANAGEMENT CONSULTANTS LIMITED

MAY 2023

TABLE OF CONTENTS

	i
TABLE OF CONTENTS	
List of Figures	ii
1.0 OVERVIEW	4
2.0 ACTION AREA PLANS	4
2.1 Action Area 1A	5
2.2 Action Area 1B	7
2.3 Action Area 2	10
2.4 Action Area 3A	13
2.5 Action Area 3B	16
2.6 Action Area 4	18
2.7 Action Area 5	20
2.8 Action Area 6	22
2.9 Action Area 7	24
2.10 Action Area 8	26
2.11 Action Area 9	28
3.0 Conclusion	30
List of Tables	
Table 1: Proposed Land Uses in Action Area 1A	
Table 2: Proposed Land Uses in Action Area 18	
Table 3: Proposed Land Uses in Action Area 2	
Table 4: Proposed Land Uses in Action Area 3A	
Table 5: Proposed Land Uses in Action Area 3B	
Table 6: Proposed Land Uses in Action Area 4	
Table 7: Proposed Land Uses in Action Area 5	
Table 8: Proposed Land Uses in Action Area 6	
Table 9: Proposed Land Uses in Action Area 7	
Table 10: Proposed Land Uses in Action Area 8	
Table 11: Proposed Land Use Plan for Action Area 9	30

List of Figures

Figure 1: Approved & Proposed Layout for Action Area 1A	6
Figure 2: Approved & Proposed Layout for Action Area 18	9
Figure 3: Approved & Proposed Layout for Action Area 2	12
Figure 4: Approved & Proposed Layout for Action Area 3A	15
Figure 5: Approved & Proposed Layout for Action Area 3B	17
Figure 6: Approved & Proposed Layout for Action Area 4	19
Figure 7: Approved & Proposed Layout for Action Area 5	21
Figure 8: Approved & Proposed Layout for Action Area 6	23
Figure 9: Approved & Proposed Layout for Action Area 7	25
Figure 10: Approved & Proposed Layout for Action Area 8	27
Figure 11: Approved & Proposed Layout for Action Area 9	29

List of Acronyms	
AfDB	Africa Development Bank
BRT	Bus Rapid Transport
CAHF	Centre for Affordable Housing Finance
CBD	Central Business District
DCC	Development Control Company
EIA	Environmental Impact Assessment
EMCA	Environmental Management and Coordination Act of 1999
GDP	Gross Domestic Products
ICT	Information, Communication & Technology
ISUDP	Ruiru Integrated Strategic Urban Development Plan
JKIA	Jomo Kenyatta International Airport
KENHA	Kenya National Highway Authority
KPLC	Kenya Power and Lighting Company
KWAL	Kenya Wine Agency Limited
LPLUDP	Local Physical and Land Use Development Plan
NCWSC	Nairobi City Water and Sewerage Company
RUJUWASCO	Ruiru-Juja Water and Sewerage Company
SEA	Strategic Environmental Assessment
SPC	Spatial Planning Concept
TATUWASCo	Tatu City Water and Sanitation Company
TIP	Tatu Industrial Park
TOD	Traffic Oriented Development
WARMA	Water Resources Management Authority

1.0 OVERVIEW

Tatu City development is planned on two different parcels of land owned by Tatu City Limited. The two properties are abutting each other, and their Land Registration (L.R.) Nos. are 28867/1 and 31327 measuring approximately 1948.96 hectares (less wayleaves/riparian reserves). It has been segregated into different land uses as per the Physical Planning Standards, market demand as well as proposals by the client. These land uses are further grouped into nine (9) action areas with each having a detailed action area plan. The Action Area plans focus on individual precincts and are important because implementation of the Tatu City LPLUDP is taking place within each action area as discussed in the subsequent sections. A brief background and spatial layout of each action area has been given to provide an indication of the different land uses proposed in each of these areas, noting that implementation of these action areas is ongoing, especially in Tatu City Phase 1. Furthermore, a summary of the amendments in each of these action areas has been discussed.

It is worth noting that the detailed Action Area plans for 1AA, 1AB, 1BB, 2A, 3BA, 3BB, 4A-1, 4B-2, 6A, 6B, 6C, and 9 have been prepared and the same reflected in the overall LPLUDP. Most of these areas have been developed or are in the process of being developed.

The detailed plans for the pending Action Areas, which are 7, 8, 2B, and 3A, will be prepared when implementation of these particular areas kick off and presented to the Ministry of Lands, Public Works, Housing and Urban Development for approval.

2.0 ACTION AREA PLANS

This section focuses on individual Action Areas which are important and form the basis for implementation of the Tatu City LPLUDP. There are nine (9) Action Areas, and each of these is discussed in subsequent sections. A brief background and spatial layout of each Action Area will be given to provide an indication of the different land uses proposed in each of these areas, noting that implementation of these Action Areas are ongoing, especially in Tatu City Phase 1. Furthermore, a summary of the amendments in each of these Action Areas have been discussed. The layout for each of the city's action areas comprises the following elements:

- Vehicular movement networks
- Pedestrian movement networks
- Development sites, with earmarked land uses

2.1 Action Area 1A

This action area is made up of 1AA and 1AB. 1AA is the CBD of Tatu City (the primary node), and it is located at the center of Tatu City Phase 1, thus easily accessible from all directions. The site abuts major roads, namely B115 and D399, to the south and west, respectively, thus enhancing its accessibility and visibility, making the place the most highly valued location in the development and, as such, the most appropriate for the development of CBD.

In the approved 2019 LPLUDP, this Action Area was made up of commercial and high-density residential uses, and a linear park running from one end of the CBD to the other. The proposed amendments are mainly within 1AA and include minimizing access links emanating from the CBD to reduce disruption of traffic flow along the D399, replacement of high-density residential use with commercial use, and an increase in the size of land for public purposes.

With the new changes to the plan, commercial use remains the key land use in 1AA (as shown in figure 1), and it is expected that it will offer a wide range of small-, medium, and large-scale businesses and services. However, a section of 1AA has been earmarked for mixed-use development, which will provide low-scale, high-density residential use to ensure that the CBD remain vibrant even at night. The public purpose land has been increased and centralized to the north of 1AA to necessitate the ease of access for users from both 1AA and 1AB. Recreational land has also been increased and redistributed within the Action Area to accommodate more users and make them easily accessible, especially within the CBD. These areas will be utilized for active and passive recreational activities, thus making the CBD an attractive, vibrant, and safe environment. The detailed design for this Action Area is ongoing, and implementation of some areas have commenced.

On the other hand, 1AB has been maintained as a high-density residential zone and it is located within a radius of approximately 600m around the future central public transport facility, and this is in line with the TODs principles. Additional minor change within this area is the increment of educational land use from 7.13 hectares to 12.16 hectares.

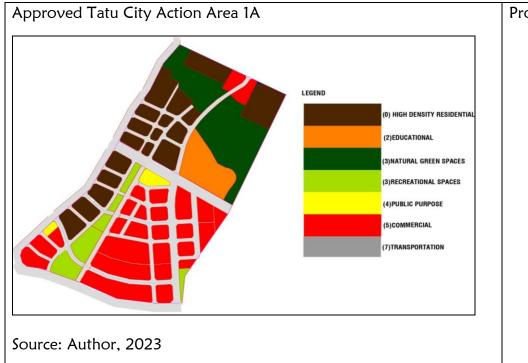
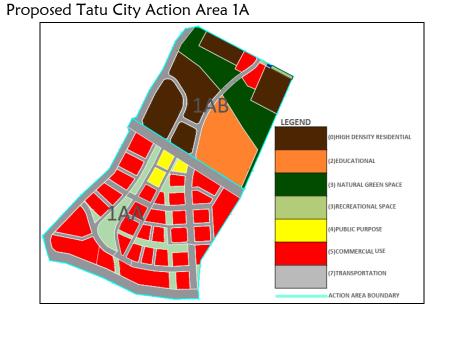


Figure 1: Approved & Proposed Layout for Action Area 1A



The secondary urban node to the north of the Action Area has been retained to offer services to the residents living in the neighborhood. This is the location where Unity Homes has constructed more than 600 apartments, as of this writing, which are either sold or already occupied.

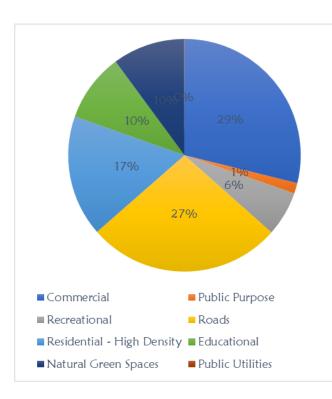


Table 1: Proposed Land Uses in Action Area 1A

Land Use	Area (Ha)	Percentage
Commercial	36.94	28.85%
High density residential	21.57	16.84%
Public purpose	2.3	1.87%
Educational	12.16	9.50%
Green open spaces	12.86	12.86%
Recreational	7.97	6.22%
Public utilities	0.06	0.05%
Road networks (internal)	34.57	26.99%
Total	128.08	100.00%

Source: Author, 2023

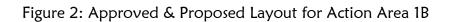
2.2 Action Area 1B

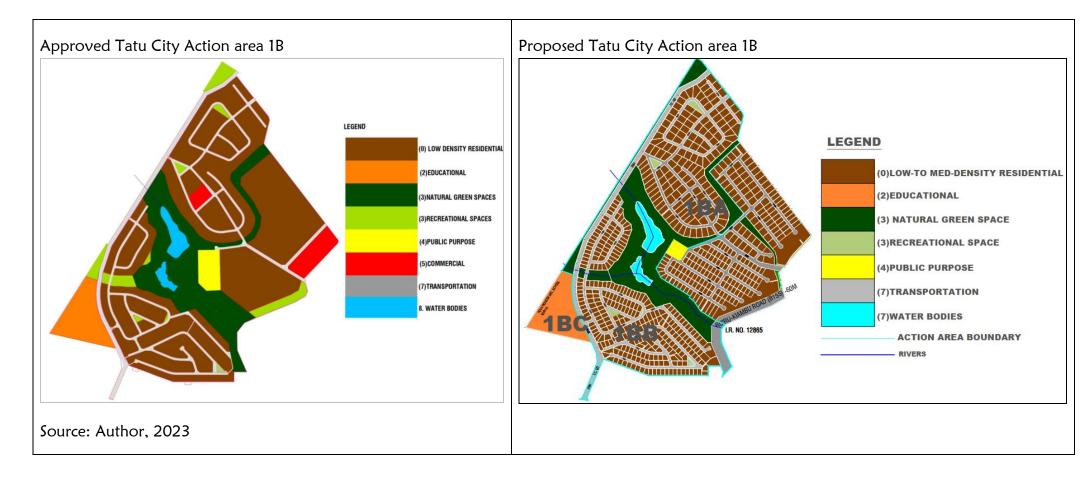
Figure 24 indicates land use categories within the study area. These are residential, educational, public-purpose, and recreational. Action Area 1B, as per the approved LPLUDP, had pieces of land for a clubhouse and commercial use measuring 3.18 hectares and 0.47 hectares, respectively, allocated as supporting facilities to the low-density residential use. However, the land size for the clubhouse has been reduced to 0.89 hectares, and commercial use has been replaced with low- to medium-density residential.

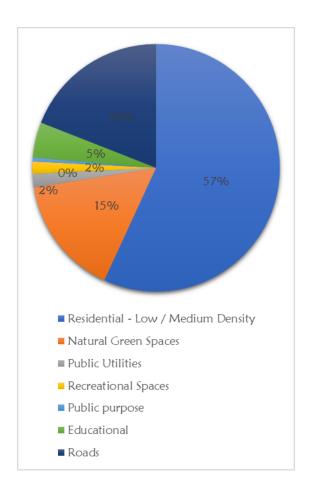
The reduction of the parcel of land for public-purpose (the club house) was informed by a survey done among the Kijani Ridge residents on the facilities that they would require within the club house. This therefore facilitated further engagement of a clubhouse design expert, who came up with the required development footprints for the facilities and thus the reduction in land size. However, it is worth noting that the site is close to about 79 acres of green open space, which can be used for outdoor facilities such as badminton pitch and a children's play ground that complement the clubhouse's use. Moreover, an additional land for public purpose has been provided in Action Area 2B (refer to Figure 3) to compensate for the reduced public purpose parcel in this Action Area.

The omission of commercial element within this Action Area was because it is close to the CBD and there is also a commercial node within Action Area 2A (refer to Figure 3) that will provide commercial services to the residents. Moreover, a small

commercial use has been strategically provided within Action Area 4B-1, which Kijani Ridge residents can make use of (refer to Figure 6). Presently, low- to medium-density residential is the predominant land use in the amended Action area plan. The section on the eastern part of the action area that is separated from the west by a natural green space has 0.2-hectare plots, while the parcels to the west have 0.1-hectare plots. Additionally, an educational space was retained for a school in the southwestern flank of the Action Area. It is the portion that Nova Pioneer Secondary School has built. There are also a few plots assigned for "soft" recreational use in different parts of this Action Area.







Land Use	Area (Hectares)	Percentage	
Low/medium density residential	99.49	56.87%	
Public purpose	0.89	0.51%	
Educational	8.09	4.62%	
Green open spaces	31.79	15.57%	
Recreational	2.95	1.61%	
Road networks (internal)	30.35	19.04%	
Public Utilities	3.10	1.77	
Total	176.25	100%	

Source: Author, 2023

2.3 Action Area 2

The proposed land use categories, as shown in Figure 25, within the Action Area are low- to medium-density residential use, high density residential use, educational, and public purpose. The major amendments in this Action Area include relocating a proposed school site, which was opposite Crawford International School, to Action Area 3A (refer to Figure 4), and repositioning of the public purposes, but the area remains the same (refer to Figure 4). The relocation of the parcel for the school was necessitated by the significant volume of traffic generated during the peak hours at current Crawford School. The above trend has also been observed within Nova Pioneer Primary School. Since these schools opened between the year 2017 and 2018, they have attracted more than 3,000 students daily and a traffic of hundreds of vehicles, which sometimes spill onto the B115. Therefore, it was prudent to shift the proposed school to avert future potential traffic challenges for the residents within the area.

The amount of land for low- to medium-density, as per the changes, has been reduced from 59.89 hectares to 29.87 hectares. High-density residential land, which had not been planned for in the approved LPLUDP, has been proposed on a piece of land measuring 40.58 hectares. The high-density residential land use will be located at

the center and southern part of the site, whereas low- to medium-density will be to the north of the Action Area. An extra piece of land has also been set aside for public purposes to be used by the impending increased population, and some of the probable public facilities expected to be set up here include a community center, churches, and health facilities, among others.

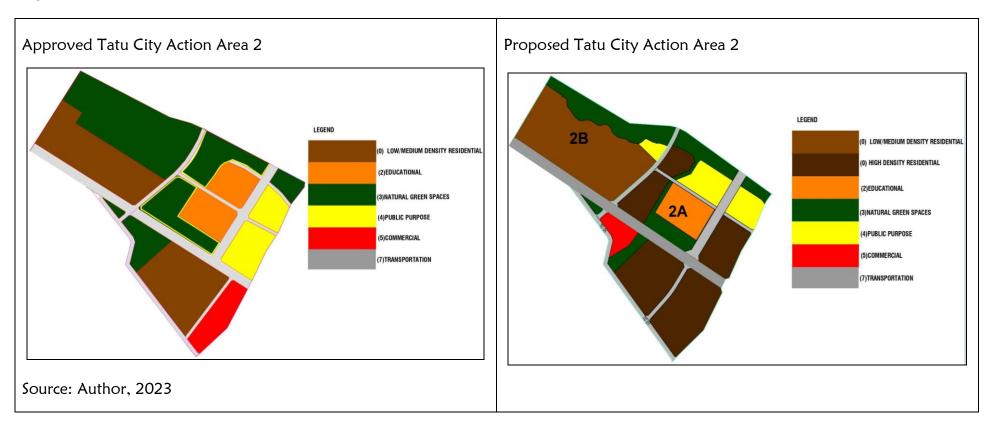
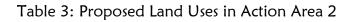
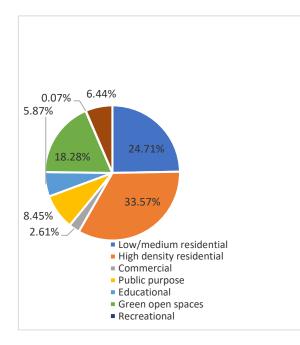


Figure 3: Approved & Proposed Layout for Action Area 2





Land Use	Area (Ha)	Percentage	
Low/medium residential	29.87	24.71%	
High density residential	40.58	33.57%	
Commercial	3.15	2.61%	
Public purpose	10.21	8.45%	
Educational	7.10	5.87%	
Green open spaces	22.10	18.28%	
Recreational	0.09	0.07%	
Road networks (internal)	7.79	6.44%	
Total	121.69	100%	

Source: Author, 2023

2.4 Action Area 3A

Figure 4 shows the land uses proposed in Action Area 3A, which include residential (low/medium density and high density), educational, commercial, public purpose, infrastructure, and green open spaces.

The approved LPLUDP had proposed predominantly low-to medium- density residential, pockets of commercial parcels, and a public purpose on pieces of land that were measuring 100.03 hectares, 17.12 hectares, and 2.23 hectares, respectively; however, on the amended LPLUDP, the commercial sections that were near the dam and the junction of TC301 and D399 on the approved plan have been replaced by low- to medium-density residential and educational (3.76 hectares) uses. This is meant to create a continuity of the low- to medium-density residential belt along the green belt as well as reduce insecurity within the area. Additionally, secondary nodes (with a total land size of 3.75 hectares) have been introduced to the northern and southern junctions of TC301 and D399, and TC301 and a local access road, respectively. These locations are more accessible to the residents within and outside the area.

On the other hand, public purpose land has been relocated south of the residential plots (refer to Figure 4), and its size has been increased to 6.65 hectares. The objective is to position the public purpose site closer to the high-density residential zones to serve majority of the population. In addition, high-density residential land use, which was not allocated in the approved LPLUDP, has been proposed on the southern end and low- to medium- density to the north of the Action Area (refer to Table 4 for the proposed areas). The aim of introducing high-density residential use in 3A is to provide affordable housing close to working areas (in this case, TIP 1—Action Area

3B) (refer to Figure 5). This is an optimal location for such land use as it reduces the need for and cost of travel to work.

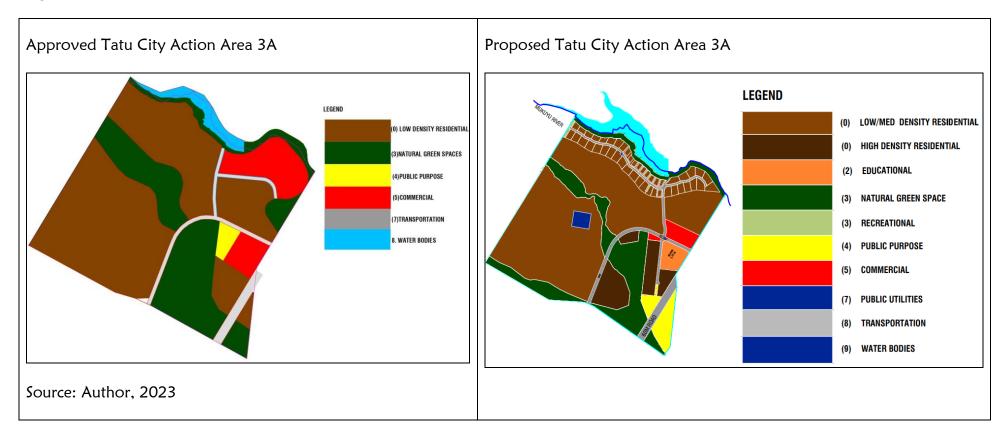


Figure 4: Approved & Proposed Layout for Action Area 3A

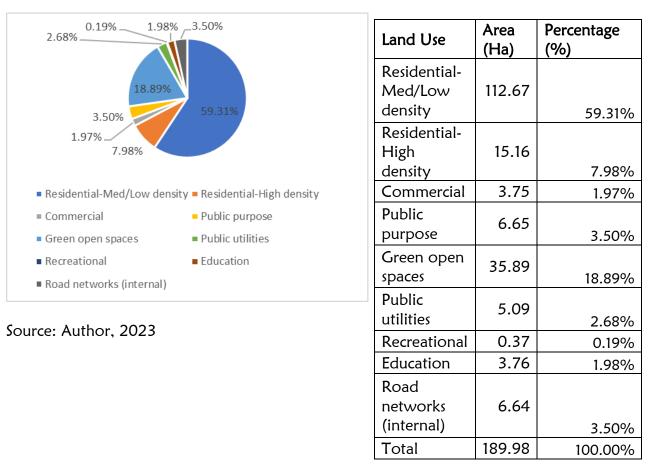


Table 4: Proposed Land Uses in Action Area 3A

2.5 Action Area 3B

Figure 5 illustrates the types of land use within the study area. These are industrial, high-density residential, public utilities, and recreation.

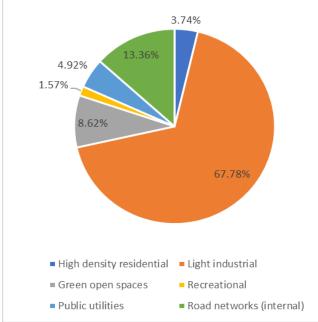
The area is mainly a light industrial zone known as Tatu Industrial Park (TIP). TIP accommodates land uses such as light industry and manufacturing, logistics, data centers, gas refilling stations, machinery yards, and office uses that support these functions. Industries such as Dormans, ALP, CKL, Copia, Twiga Foods, Freight Forwarders Solutions, and Davis & Shirtliff are already operating from the TIP.

Minor changes have been proposed in Action Area 3B; as per the proposed alterations, the land for light industrial has been slightly increased from 145.61 hectares to 151.06 hectares. Similarly, the land size for public utilities has been increased from 8.82 hectares to 10.96 hectares. Presently, a power substation with a 135 MVA capacity has been constructed on the northern eastern boundary of the Action Area, which will supply power to the whole of Tatu City.

Moreover, a high-density residential use has been introduced to the north of the site (see the areas for these land uses in Table 5), where low-cost housing will be constructed. This is an ideal location for housing industrial workers thus reducing the cost and need to travel far to access the working areas.

Figure 5: Approved & Proposed Layout for Action Area 3B





Land Use	Area (Ha)	Percentage (%)
High density residential	8.34	3.74%
Light industrial	151.06	67.78%
Green open spaces	19.21	8.62%
Recreational	3.51	1.57%
Public utilities	10.96	4.92%
Road networks (internal)	29.78	13.36%
Total	222.86	100.00%

Source: Author, 2023

2.6 Action Area 4

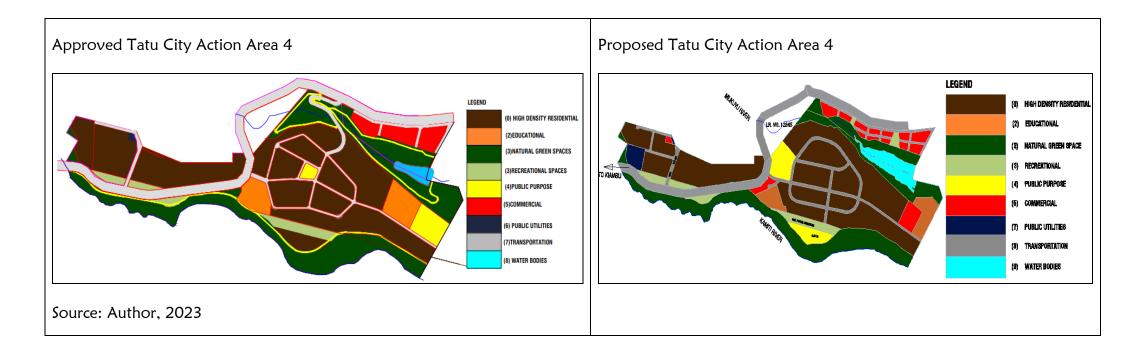
Figure 6 demonstrates the land use categories of development footprints within the Action Area, which includes residential (predominantly high density), commercial, educational, public utilities, public purpose, and green open spaces.

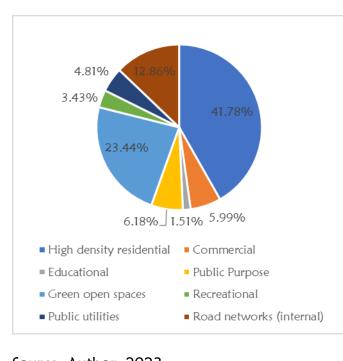
The key amendment in this Action Area is the provision of a five-acre (2.29 hectares) substation to the west of the site, slightly reducing the land for high-density residential from 75.22 to 72.85 hectares and increasing the size of land for commercial use from 6.45 hectares to 10.44 hectares (refer to Figure 6 and Table 6 for land uses illustrations and areas, respectively). The high-density residential area has been increased due to increase in demand for low-cost housing while the commercial land has been increased to complement the increase in population within this area.

The high-density residential is uniformly spread across the site. This denser land use will complement the neighboring existing developments. Some sites of this high-density residential use have been developed; for example, Lifestyle Heights has been constructed.

The education facility (Tatu Primary School), which was originally located near the dam, has been relocated to the east of Tatu House. This facility is an integral part of the residential neighborhood, as it presently serves schoolchildren from there, and it has therefore been moved closer to the main users. The relocation of the school has also been necessitated by risks of crossing the dam by the schoolchildren. Enough land has also been set aside for public purposes, which is also a significant part of development within this Action Area.

Figure 6: Approved & Proposed Layout for Action Area 4





Land Use	Area (Ha)	Percentage	
High density residential	72.85	41.78%	
Commercial	10.44	5.99%	
Educational	2.63	1.51%	
Public Purpose	10.77	6.18%	
Green open spaces	40.87	23.44%	
Recreational	5.98	3.43%	
Public utilities	8.38	4.81%	
Road networks (internal)	22.43	12.86%	
Total	174.36	100.00%	

Table 6: Proposed Land Uses in Action Area 4

Source: Author, 2023

2.7 Action Area 5

Figure 7 indicates the land use categories of development parcels within the planning area. The site is one of the smallest Action Areas of Tatu City. The land uses here are: light industrial, public purpose, and commercial.

The commercial use is small in scale and intended to support the industrial use; it is located to the east of the site. In the proposed LPLUDP, the land size for commercial use has been reduced from 4.06 hectares to 2.87 hectares, and a public purpose has been introduced (refer to Figure 7 and Table 8 for the spatial location and areas of the proposed land uses, respectively).

The only industrial establishment that is operational on site is Coopers Kenya Limited (CKL), which supplies poultry and animal products as well as farm inputs. The total area for the light industrial zone, as indicated in Table 8, however, remains unchanged.

Furthermore, the planning area is composed of an aviation facility. An airstrip exists onsite and is operational; it might be converted to a helipad if approvals from relevant authorities are granted.

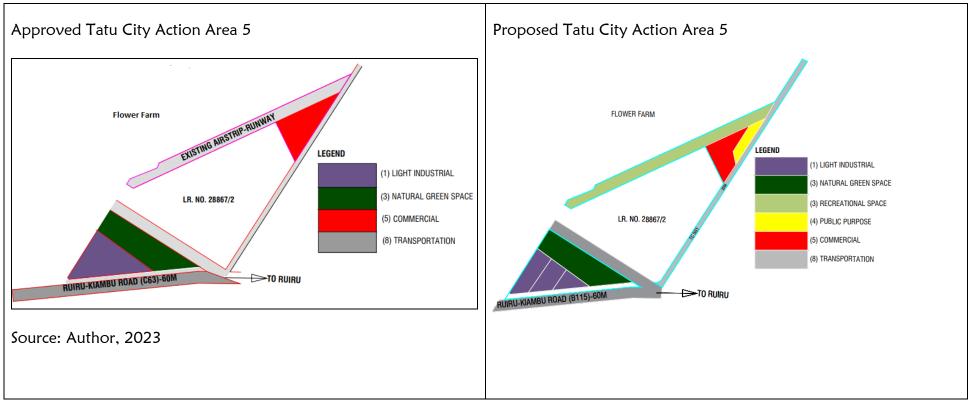
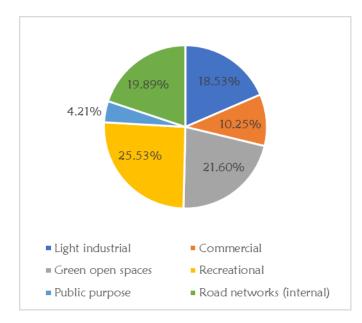


Figure 7: Approved & Proposed Layout for Action Area 5



Land Use	Area (Ha)	Percentage	
Light industrial	5.19	18.53%	
Commercial	2.87	10.25%	
Green open spaces	6.05	21.60%	
Recreational	7.15	25.53%	
Public purpose	1.18	4.21%	
Road networks (internal)	5.57	19.89%	
Total	28.01	100%	

Table 7: Proposed Land Uses in Action Area 5

Source: Author, 2023

2.8 Action Area 6

This Action Area comprises mainly industrial, commercial, public utility, publicpurpose, and recreational facilities. The area is an extension of TIP 1 with similar light industrial uses. These land uses are shown in Figure 30. Kenya Wines Agencies Limited (KWAL) phase 1 is already operational and phase 2 under construction within the Action Area, where civil infrastructure construction has commenced.

The proposed land use plan for this Action Area is almost similar to the approved LPLUDP in terms of the layout configuration. The only alteration, however, is the increase or decrease in land sizes for the above uses. The initial area for light industrial use was 164.91 hectares. With reference to table 11, there is no change in the size of land for light industrial use. Also, there was a public utility sited on the southeastern edge of this Action Area in the approved LPLUDP, which was to be utilized as a power substation for Tatu City Phase 2; however, the parcel of land for the public utility has been relocated to northeast and increased in size to 6.11 hectares.

Moreover, in the amended LPLUDP, the sizes of land for secondary nodes and public purposes have been increased to 21.35 and 4.29 hectares, respectively. These secondary nodes and public purposes have been planned in strategic locations, thus making them highly accessible.

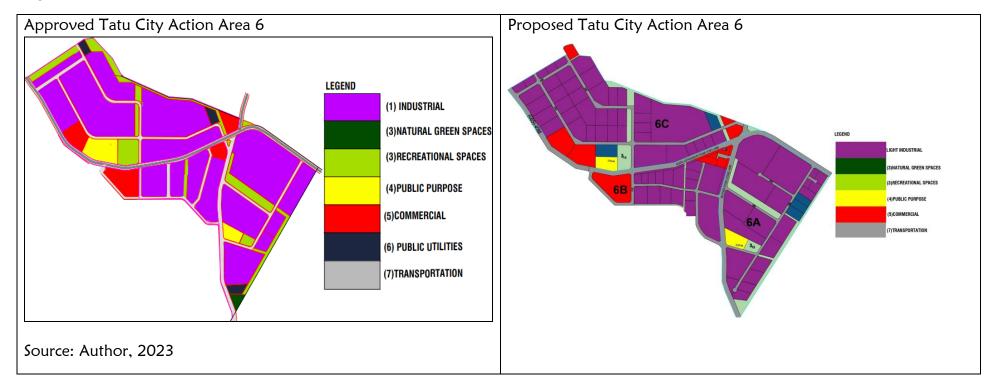
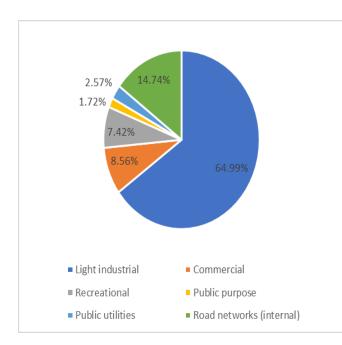


Figure 8: Approved & Proposed Layout for Action Area 6



Land Use	Area (Hectares)	Percentage
Light	164.73	
industrial	104.75	64.99%
Commercial	21.35	8.56%
Recreational	18.06	7.42%
Public	4.29	
purpose	4.29	1.72%
Public	6.11	
utilities	0.11	2.57%
Road		
networks	36.77	
(internal)		14.74%
Total	251.31	100.00%

Table 8: Proposed Land Uses in Action Area 6

Source: Author, 2023

2.9 Action Area 7

Action Area 7 was largely set aside for high-density residential development, but amendments have been made to include a mix of low- to medium- density and highdensity residential uses with pockets of public purpose and commercial uses, as shown in Figure 9. The land use area for the high density has been reduced to 49.77 hectares, which is close to a 50% reduction, to accommodate these additional land uses.

On the layout configuration, some minor changes have been made on the fringes of the Action Area, mainly on the northern edges; low- to medium-density residential use has been proposed in this area (refer to Table 9 for the proposed area). This portion is suitable for high-end housing because it provides spectacular views of the Ruiru River and its landscape, which makes it an area of high economic value. Other changes include a proposal to have a commercial node on the southeastern edge of the action area. This node will cater for the retail needs of the residents within this Action Area as well as those working within the light industrial areas.

Public purposes have been proposed to serve as a common destination for both communities. They are in the middle and on the northwestern edge of the Action Area. Other uses include a school and public utilities.

Figure 9: Approved & Proposed Layout for Action Area 7

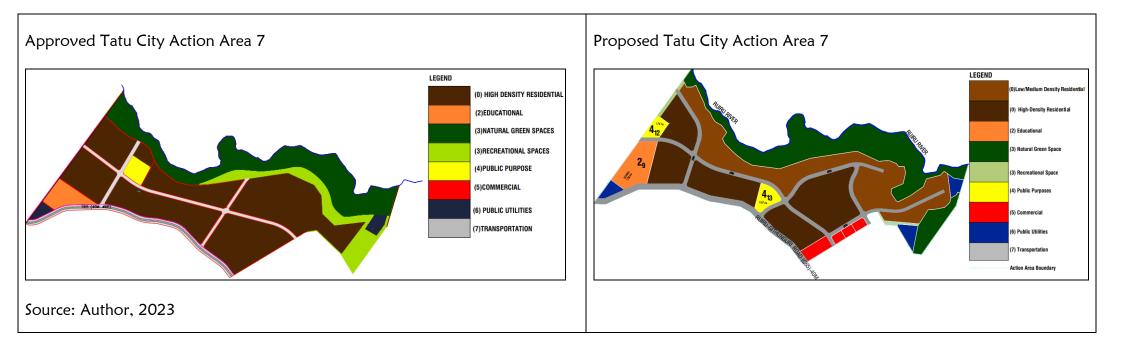


Table 9: Proposed Land U	ses in Action Area 7		1	
^{2.46%} 7.15		Land Use	Area (Hectares)	Percentage
0.74%	29.32%	High density residential	49.77	29.32%
25.62%	25.37%	Low/medium density residential	43.07	25.37%
4.29%		Commercial	4.13	2.43%
High density residential	Low/medium density resident	Educational	7.28	4.29%
Commercial	 Educational 	Public	4.46	2.63%
Public purpose	Natural green spaces	purpose	1.10	2.03 70
 Recreational spaces 	 Public utilities 	Natural green spaces	43.49	25.62%
Road networks (internal)		Recreational spaces	1.25	0.74%
Source: Author, 2023		Public utilities	4.17	2.46%
		Road networks (internal)	12.14	7.15%
		Total	169.76	100%

2.10 Action Area 8

Action Area 8 was entirely a low- to medium-density neighborhood; however, the amended plan proposes a mix of low- to medium- density and high-density residential uses coupled with public purposes and green spaces (refer to the land use plan, figure 10). The low- to medium-density residential area has been reduced to accommodate the proposed high-density use. The high-density residential use has been earmarked for the center of the Action Area; this area is low-lying, making it suitable for development of apartments without overlooking the low-density developments that have been retained on the outer edges of the site (refer to Figure 10).

On the other hand, the low- to medium-density residential uses have been planned along the periphery of the Makuyu and Gaia Rivers. These areas sit on elevated ground.

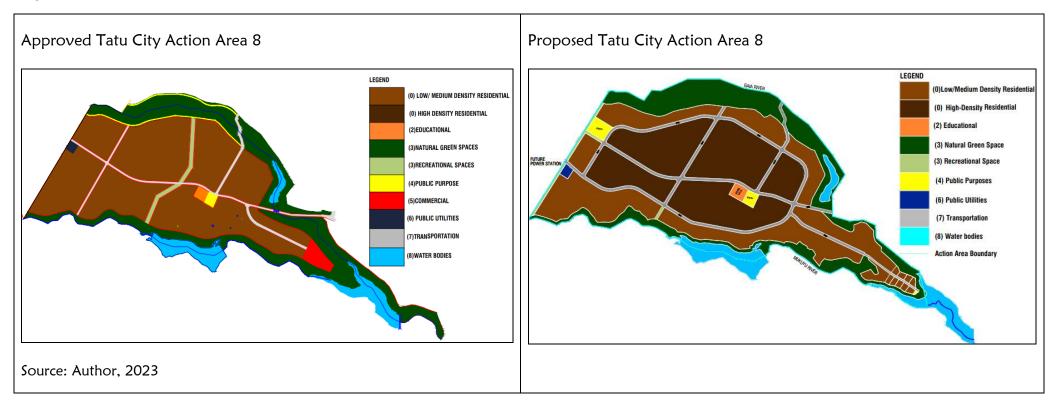
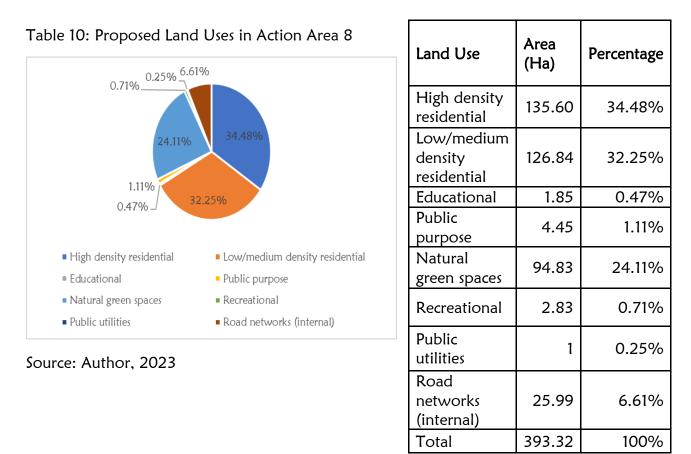


Figure 10: Approved & Proposed Layout for Action Area 8

An additional parcel of land for public purpose has been set aside at the western boundary of the Action Area, which increases the total land for public purpose to 4.45 hectares. The additional land for public purpose is intended to serve the additional high-density residential use. Green open spaces are on the northern and southern boundaries of the Action Area. These areas will be conserved but integrated into the development instead of being left as isolated riparian areas.



2.11 Action Area 9

The Action Area comprises low- to medium-density residential use located to the south, a high-density residential area located to the north, educational use, and pockets of secondary nodes. The land use layout remains the same as in the approved LPDLP; however, minor changes have been made in terms of the land use areas (refer to Table 11 for the proposed sizes). The low- to- medium-density area in this Action Area will occupy an area of 26.04 hectares along the southern edge. Additionally, Ngewe Primary School is within this Action Area, and it will be retained to serve the residents within and outside Tatu City.

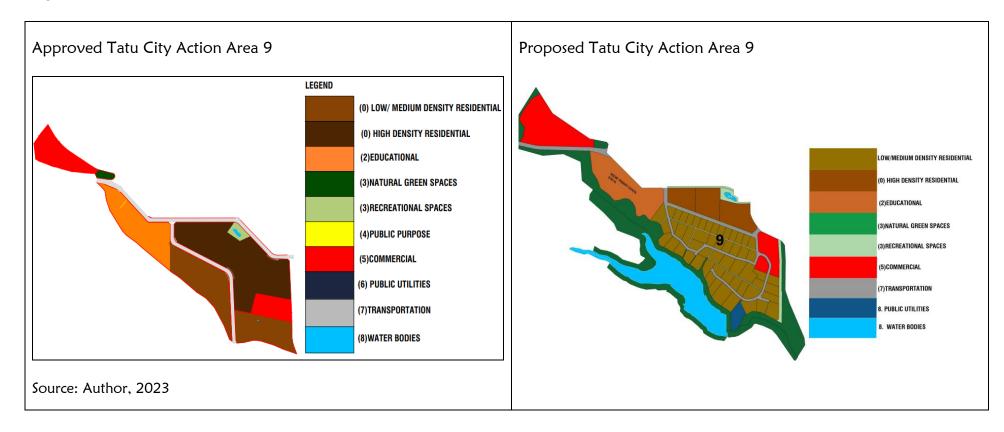
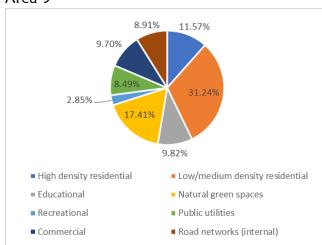


Figure 11: Approved & Proposed Layout for Action Area 9

Table 11: Proposed Land Use Plan for Action Area 9



Source: Author, 2023

Land Use	Area (Hectares)	Percentage
High density residential	8.64	11.57%
Low/medium density residential	26.04	31.24%
Educational	8.86	9.82%
Natural green spaces	15.7	17.41%
Recreational	2.57	2.85%
Public utilities	1.14	8.49%
Commercial	11.94	9.70%
Road networks (internal)	8.04	8.91%
Total	82.95	100.00%

3.0 Conclusion

The proposed amendments are intended to create a more flexible, market-responsive city designed to meet the changing needs of the growing population. One of the objectives of the plan is to increase land for the development of affordable housing. This has therefore necessitated the revision of the 2019 Tatu City LPLDP.

The plan has also been amended to increase the amount of land for public utilities, as summarized in the action area plans. Because the development will attract thousands of commercial, residential, and industrial premises, more power is needed to cater for all these uses. Some of the precincts have been amended to achieve this intention. These precincts are 1AA; 1AB; 1BA; 1BB; 2A; 2B; 3A; 3BA; 3BB; 4A1; 4B-1; 6B; 6C; 7; 8; and 9.

Jane M. Manasseh

smananel

Registered and Practicing Physical Planner (RPP0002)