



Hakmana Development Plan

2021-2030



Urban Development Authority
Ministry of Urban Development & Housing

Hakmana Development Plan 2021-2030



Urban Development Authority
Ministry of Urban Development & Housing

Hakmana Development Plan 2021 - 2030

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Hakmana Development Plan 2021 – 2030 mainly consists of three parts as Part I, II and III. The part I consists of the background study, preliminary studies, the need of plan, the planning framework, the SWOT analysis and the plan. The Part II consists of the Planning and Building Regulations and Zoning Guidelines pertaining to the planning boundary for the period of 2021 – 2030. The Part III consist of the zoning boundaries with the coordinates and all the annexures.

Hakmana Development Plan 2021 - 2030 has been prepared by the Matara District Office, Urban Development Authority.

Supervision

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Environment and Landscape Division – UDA (Preparation of the PORS, DRR, Conservation, Cultural & Heritage Plans)

GIS Division – UDA (Providing Arc GIS Spatial data layer & technical assistants)

Research and Development Division – UDA (Conduct awareness programs to introduce new techniques)

Acknowledgement

Matara District Office of Urban Development Authority has taken the lead to prepare Hakmana Development Plan 2021 – 2030. The objective of this plan is to facilitate the harmony of nature and green trace with the aggravated agro environment, enabling the inhabitants of Hakmana and its natural habitats to serve as a natural setting for nature." The vision of the Hakmana Development Plan 2021 – 2030 is in line with the ‘Vistas of Prosperity and splendor’ the government policy direction of the His Excellency the President Gotabaya Rajapaksa.

It is our proud privilege to Honourable Mahinda Rajapaksa subject Minister of Urban Development & Housing for approving the Hakmana Development Plan 2021 – 2030 under the provision of Urban Development Authority Act No. 41 of 1978 as amended by the Act No. 04 of 1982.

Further, it is our privilege to Dr. Nalaka Godahewa, State Minister of Urban Development, Coast Conservation, Waste Disposal and Community Cleanliness and Mr. Sirinimal Perera, Secretary to Ministry of Urban Development & Housing for their guidance and supports in this process.

Special gratitude offered on behalf of the planning team and the UDA, to Mr.W.P. Krishan Anuradha Premarathna, Chairman Hakmana PS, members of the PS and the staff. Secretary Hakmana Divisional Secretariat and the staff for their generous support given for the successful completion of this development plan.

Appreciatively thankful to Chairman of UDA Archt. Harshan De Silva, Director General of UDA Plnr. N.P.K. Ranaweera, Additional Director General of UDA Plnr. H.A. Dayananda, Deputy Director General (Planning) of UDA Plnr. M.P.Ranatunga, Director Southern Province of UDA Plnr. Anura Medawela, Consultant (Legal) of UDA Attorney at Law C. Jayawardena, Director (Strategic Planning) of UDA Plnr. Priyani Nawarathne on behalf of the planning team for their incomparable courage, guidance and welcoming support.

In the end, Director – Environment & Landscape division L.Arct. C.K.E. Kalupahana and the staff of the division and Director - Geographical Information System & ITS Plnr. J.P.S. Somasekara and the staff of the division and the staff are gratefully appreciating on behalf of the planning team for their support to the successful completion of this task.

Honorable Minister’s Foreword



The Urban Development Authority was established under the Urban Development Authority Act No. 41 of 1978, for the systematic planned urban development in the declared urban areas and continue to actively contribute towards it.

Steps have been taken to formulate comprehensive development plans for each urban development area, based on the efficient and effective use of physical space so that all areas of Sri Lanka make an equal contribution to the development process of the country.

The Hakmana Town provide services to a large population. Accordingly, Hakmana Planning Area has the potential to become a town that continues to provide residential and commercial services. This potential is further enhanced by the natural ecosystem of the surrounding area. These development plans aim to develop the Hakmana Town by utilizing the potential of the area.

For the realization of His Excellency the president’s vision “Vistas of Prosperity” the new Re-urbanization Programme has been formulated in wide consultation with Professionals, Specialists, Stakeholders & communities with strategies having an excellent technological methodology and innovative approach.

Accordingly, I commend the Chairman of the Urban Development Authority, the Director General, the planning teams and all the officers of the Urban Development Authority who assisted in making this work a success. Further, I also appreciate and believe through the support and contribution of the relevant Local Government Institutions, Public and Private Sector Institutions and the general public, Hakmana Development plan would be successfully implemented.

Hon. Mahinda Rajapaksa (M. P)
Minister of Urban Development & Housing

Honorable State Minister's Foreword



As a pioneer in Sri Lanka in achieving modern sustainable development goals, the Urban Development Authority has a great responsibility. Accordingly, it is essential to prepare development plans for the Urban Development Areas declared by the Hon. Minister in charge of the subject in terms of the Urban Development Authority Amendment Act No. 04 of 1982 (Part II, Section 8A (1)).

The development plans thus formulated are primarily aimed at building a productive citizen, a happy family, a dignified society and a prosperous nation, which are the core aspirations of the vistas of prosperity. I also believe that these development plans will go a long way in achieving the objectives of urban development and regulation through a formal Re - urbanization plan that will bring economic stability to the urban population.

Therefore, I would like to express my heartfelt gratitude to the planning team and to all those who have played a very responsible role in preparing this plan and I hope that you will all contribute to the expectations of the vision of prosperity.

Dr. Nalaka Godahewa (M.P)

State Minister of Urban Development, Coast Conservation,
Waste Disposal and Community Cleanliness

Honorable Chairman’s Foreword (UDA)



Throughout the last four decades, Urban Development Authority has been serving as the apex planning authority in Sri Lanka having the statutory powers to prepare and enforce urban development plans.

Urban Development Plans cover a number of fields including optimum, effective and efficient use of land and managing the quality of its environment. These development plans are prepared for the promotion and regulation of public well-being in urban areas and the people.

According to the present government’s manifesto, it is compulsory to prepare development plans for areas which have been declared as urban development areas by the subject minister as per section 8 A (1) under part II of Urban Development Authority Act No. 04 of 1982 (Amendment).

The Development Plan for Hakmana Pradeshiya Sabha area has been prepared for the period 2021 – 2030 considering the physical, economic, social and environmental factors, while successfully overcoming the challenges in preparing the development plan through tools and methodologies with which the Urban Development Authority is equipped.

Therefore, I extend my heartfelt gratitude to the planning teams who dedicatedly worked for ensuring successful completion of this plan and to those who contributed in numerous ways. At the same time, I also expect that all parties who contributed for the preparation of this plan will also effectively contribute in future as well for successful implementation of the plan.

Archt. Harshan De Silva

Chairman

Urban Development Authority

Honorable Chairman's Foreword (Hakmana PS)



I would express my gratitude to the Urban Development Authority for preparing a development plan for the Hakmana Urban Development Area, protecting the unique features in the area. Especially the effort made to protect the environmental resources and thereby maximize the benefits to the people of the area is commendable.

The Development Plan prepared by the Urban Development Authority for Hakmana Pradeshiya Sabha area for the period of 2021 to 2030 aims to improve the physical, economic, social and environmental sectors in a planned manner. Hakmana Pradeshiya Sabha and I offer best wishes for the effort of the Urban Development Authority.

W.P. Krishan Anuradha Premaratne

Chairman

Hakmana Pradeshiya Sabha

Preface

The necessity of a regular development plan was created in order to face the challenges occur due to the haphazard development activities taking place in Hakmana town as well as surrounding urban areas recently. With the intention of overcome this situation, the development plan has been created to guide the development of physical, economic, social and environmental sectors and to protect the blue-green environment and to preserve the residential character of the town for the future.

Hakmana Development Plan 2021-2030 consists of three main sections such as part I, II and III and. The part I consists of the background study. Preliminary studies, the need of the plan, the planning framework, the SWOT analysis and the plan. Part II consists of the Planning and Building Regulations and Zoning Guidelines pertaining to the planning boundary for the period of 2021 – 2030. The Part III consist of the zoning boundaries with the coordinates and all the annexures.

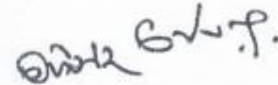
Part One - Chapter 1 of the plan detailed out the meaning of the term development plan, its legal context, the stakeholders of the plan, its context and the planning process followed. Chapter 2 & Chapter 3 respectively include the planning area, history of the area, boundary delineation of the area and need of the plan in detail. Chapter 4 consists of Vision, Goals and Objectives and Strategic Plans while Chapter 5 include the detailed description on the baseline SWOT analysis for each Goal. Further, Chapter 6 of the plan describes the conceptual plan and proposed land use development plan. Under that the main strategic plans of the Hakmana Development Plan such as Road and Transport Development strategy, Sustainable Environment development strategy, Economic development strategy, Infrastructure development strategy and implementation strategy has been detailed out as sub sections.

Similarly, Part Two - Chapter 7 has been dedicated to describe planning & Building Regulations and in chapter 8 described the identified zones and Zoning Guidelines and Chapter 9 included proposed road width, building line and reservations.

Thus, the intention of this Authority and the Government of Sri Lanka is to implement the Hakmana Development Plan 2021-2030 in near future.

**APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT AREA
OF PART OF HAKMANA PRADESHIYA SABHA AREA**

I, Mahinda Rajapaksa, Minister of Urban Development and Housing do hereby approve the development plan for the Urban Development Area of Part of Hakmana Pradeshiya Sabha Area, having considered the recommendation made by the Board of Management of the Urban Development Authority on 24th September, 2020 by virtue of the powers vested in me under section 8 “F” of the Urban Development Authority (Amendment) Act No.4 of 1982.



Mahinda Rajapaksa (M.P)

Minister of Urban Development and Housing

Ministry of Urban Development and Housing,
17th and 18th Floors,
“Suhurupaya”,
Sri Subhuthipura Road,
Battaramulla.

Date: 15 April, 2021.



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PART I : SECTION (I) — GENERAL

Government Notifications

**APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT AREA OF
PART OF HAKMANA PRADESHIYA SABHA AREA**

I, Mahinda Rajapaksa, Minister of Urban Development and Housing do hereby approve the development plan for the Urban Development Area of Part of Hakmana Pradeshiya Sabha Area, having considered the recommendation made by the Board of Management of the Urban Development Authority on 24th September, 2020 by virtue of the powers vested in me under section 8 "F" of the Urban Development Authority (Amendment) Act, No. 4 of 1982.

MAHINDA RAJAPAKSA (M.P.),
Minister of Urban Development and Housing.

Ministry of Urban Development and Housing,
17th and 18th Floors,
"Suhurupaya",
Subhuthipura Road,
Battaramulla.
15th April, 2021.

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NOTICE OF APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT AREA FOR A PART OF PRADESHIYA SABHA LIMIT OF HAKMANA

NOTICE is hereby given to the General Public of the Democratic Socialist Republic of Sri Lanka under Section 8 (G) of the Urban Development Authority Law No. 41 of 1978 as amended by the Act, No. 4 of 1982 that I, Mahinda Rajapaksa, the Minister in charge of the subject of Urban Development Housing, by virtue of the powers vested in me under Section 8 (F) of the said Act, have approved the Development Plan for the Urban Development Area for a part of Pradeshiya Sabha limit of Hakmana, prepared under Section 8 (A) of the said Act, on the 15th day of April, 2021.

MAHINDA RAJAPAKSA (M.P.),
Minister of Urban Development Housing.

Ministry of Urban Development & Housing,
17th and 18th Floors,
"Suhurupaya",
Subhuthipura Road,
Battaramulla.
12th July, 2021.

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APPROVAL OF THE DEVELOPMENT PLAN FOR THE URBAN DEVELOPMENT AREA OF A PART OF PRADESHIYA SABHA LIMIT OF HAKMANA

PUBLIC are hereby informed that the Development Plan prepared for the Urban Development area for a part of Pradeshiya Sabha limit of Hakmana under section 8 (A) of the Urban Development Authority Law, No. 41 of 1978 as amended by the Act, No. 04 of 1982, has been approved on 15th April 2021, by Hon. Mahinda Rajapaksa, Minister of Urban Development Housing, by virtue of powers vested on him under Section 8 (F) of the said Act.

Archd. **HARSHAN DE SILVA,**
Chairman,
Urban Development Authority.

12th July, 2021.

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PART I

Chapter 01

Background of the Development Plan

1.1.Introduction

Development Plan is a major factor that determines the future of a city. The formulation of a Development Plan depends on the social, economic, physical and environmental factors of the relevant area. The Urban Development Authority is the main regulatory body of Sri Lanka which has been assigned the power for urban development for the areas declared under the Urban Development Authority Act No. 41 of 1978. The authority is responsible for the preparation of a development plan for the area once the Gazette declared any area as an urban development area in terms of the powers vested under section 3 (a) of the above Act. The legal basis for this has been provided by the Amendment Act, No. 04 of 1982, prepared in terms of the Urban Development Authority Act No. 41 of 1978.

Hakmana urban area has been declared as an Urban Development area by the extraordinary Gazette No. 1286/7 dated 29.04.2003. It consists of 11 Grama Niladhari Divisions covering an area of 3.06 sq. Km (306.73 ha) in the city center of Hakmana Divisional Secretariat. As no development plan has been prepared for the Hakmana Urban Development Area so far, a study has been conducted on the existing economic, social, physical and environmental conditions in the area. This Development Plan has been prepared with the objective for identifying the existing problems and potentials by using the optimum use of these potentials to minimize the present problems with addressing future issues. This Development Plan will be valid for the period from 2021 to 2030.

1.2 Stakeholders of the plan

The Development Plan for Hakmana Urban Development area was prepared by the Matara District Office of Urban Development Authority based on the ideas and suggestions provided by the following institutions,

❖ Main stakeholder

1. Hakmana Pradeshiya Sabha

❖ **Advisory Bodies/ Resource Persons**

1. Divisional Secretariat - Hakmana
2. Archaeological Office - Galle
3. Sri Lanka Transport Board - Hakmana
4. Kongala Maha Vidyalaya - Hakmana
5. Methodist Central College - Matara
6. Zonal Education Office - Hakmana
7. University of Ruhuna - Matara
8. Road Passenger Transport Authority - Southern Province Office
9. Central Environmental Authority - Matara
10. Department of Irrigation - Matara
11. Coconut Cultivation Board - Matara
12. Electricity Board - Matara
13. Multi Service Co-operative Society - Hakmana
14. Agrarian Services Office - Hakmana
15. National Housing Development Authority - Matara
16. MOH Office - Hakmana
17. National Water Supply Board - Matara
18. Road Development Authority - Matara
19. Department of Export Agriculture - Matara
20. National Building Research Organization
21. Post Office - Hakmana
22. Farmer Organizations - Hakmana

❖ **Supporting team**

1. Development Planning Division (Urban Development Authority)
2. Environmental and Landscaping Division (Urban Development Authority)
3. Geographic Information Systems Division (Urban Development Authority)
4. Research and Development Division (Urban Development Authority)

1.3 Scope of the Development Plan

Hakmana Development Plan has been prepared for Urban Development Authority area which consists of 11 Grama Niladhari Divisions after conducting an analytical study for 15 Grama Niladhari Divisions in the Hakmana Pradeshiya Sabha area.

Hakmana town is situated at a radial intersection where Matara, Walasmulla, Beliatta and Kamburupitiya towns are connected with a secondary road network. Also, the location of Grade A railway station in Beliatta, 11 km away from Hakmana town and Beliatta and Aparekka interchanges of Southern Expressway 11 km from Hakmana town can be considered as key potentials to develop Hakmana Town as a residential town in terms of physical, social and environmental aspects.

In addition to intra and inter connections of the town, it is expected to prepare the development plan that is applicable at the regional level which adapt and support the aspirations of Vistas of Prosperity and national policies identified by the Department of Physical Planning.

The main strength of the urban area is the wetland ecosystem with paddy cultivation lands spreading around 108 hectares (37%) in the city center. It is realized that in the field survey as well as discussion had with stakeholders that the paddy lands in the area been filled for various development activities annually. Therefore, this plan is focused on the introduction of an appropriate solution to minimize the filling of the paddy lands in the area.

The plan also focuses on the physical, environmental and social backgrounds of the town and formulate an appropriate integrated development plan, identify relevant projects and introduce relevant legal regulations on physical development. By the year 2030, Hakmana town will be a planned town with a sustainable economy, attractive, comfortable and healthy lifestyle.

1.4. The Planning Process

Preparation of Hakmana Development Plan for the urban development area was started in June 2017. Its planning process can be summarized as follows.

Table 01: Planning Process

Background studies	<ul style="list-style-type: none"> – Secondary data was collected through study of books, newspapers and other publications written about the study area. – Obtaining Primary data on economic, social, physical and environment information from government institutions. – Summaries of primary and secondary data collected through Surveys. – Field survey on land use pattern
Scoping	A study has been conducted to examine the impact of existing development projects and proposed development projects within Hakmana town and the main development projects undertaken by the government of Sri Lanka such as Southern expressway and its interchanges, Matara – Katharagama railway project and its impact in relation to adjoining towns of Beliatta and Yatiyana.
Identification of problems and potentials	In order to identify the problems relation to economic, social, physical and environmental sectors, a stakeholders meeting was conducted in Matara on 12 th December, 2017 to obtain data from each agency in relation to the preparation of the proposed development plan.
Vision, Goals and Objectives Formulation	Formulating the vision, goals and objectives in order to achieve urban development activities in the area in the context of economic, social, physical and environmental by achieving balanced development.

Detailed Analysis (based on Goals, and Objectives to achieve the Vision)	Detailed analysis by using SWOT analysis (Identification of Strengths, Weaknesses, Opportunity and Threats), Sensitivity Analysis (Identification of conservative space of the area), Connectivity Analysis, Development Potential Analysis (Identification of suitable lands for activities) in the planning area to achieve the Vision.
Formulation strategies of the development plan	The outcomes of the above detailed analysis were prioritized and identified objectives to achieve the goals of the development plan. The objectives were designed to develop the potential of the area for a specified period of time and to develop the area within the target time, avoiding the prevailing problems in the area. The goals and objectives of the development plan were analyzed the way in which vision should be achieved. Subsequently, strategic plans were prepared and active projects were identified
Formulation of planning regulations	Establishment of Planning and Building Regulations in relation to land use related matters, and minimize the effects of problems can be occurred in future.
Consent of the Local Government Institution	Forward the Draft Development Plan to public comments & Local Authority consent. Keep the Draft plan in LA 60 days for public awareness.
Submission of the development plan to the main planning committee	After obtaining the views and suggestions of the Local Government Institute, the revised development plan will be presented to the main planning committee of the Authority to obtain necessary instructions and suggestions. Then it will be finally submitted to the development plan division.
Approval and publishing	Strategic Planning Division perform the activities and follow legal procedures for the establishment of the Development Plan.

Chapter 02

Preliminary Study

2.1 The Planning area

Hakmana town is situated in the eastern boundary of the Matara district in the Southern province, 23km away from the Matara town in the Matara – Middeniya road. The Hakmana divisional secretariat division consists of 34 Grama Niladhari divisions and covering 53.8 square km of area. According to the census and statistic data in 2020, the total population of the area is 34,816 and number of families in the area is 9720. (Resource Profile - 2020, Divisional Secretariat, Hakmana)

The area under the study covers of 13.34 square kilometers and it consists of 15 Grama Niladhari divisions. They are Beruweawala (293C), Gammadapiṭiya (286 C), Kabiliyapola South (284A), Kōngala Central (295 B), Kōngala East (295), Kōngala South (295C), Kōngala West (295A), Lalpe (294B), Murutamuraya (293), Murutamuraya West (293B), Murutamuraya East (293A), Uḍupillegoḍa East (294), Uḍupillegoḍa West (294A), Wepathaira South (283A), Weapaatha West (283 B).

Map 1: Hakmana Urban Development Area

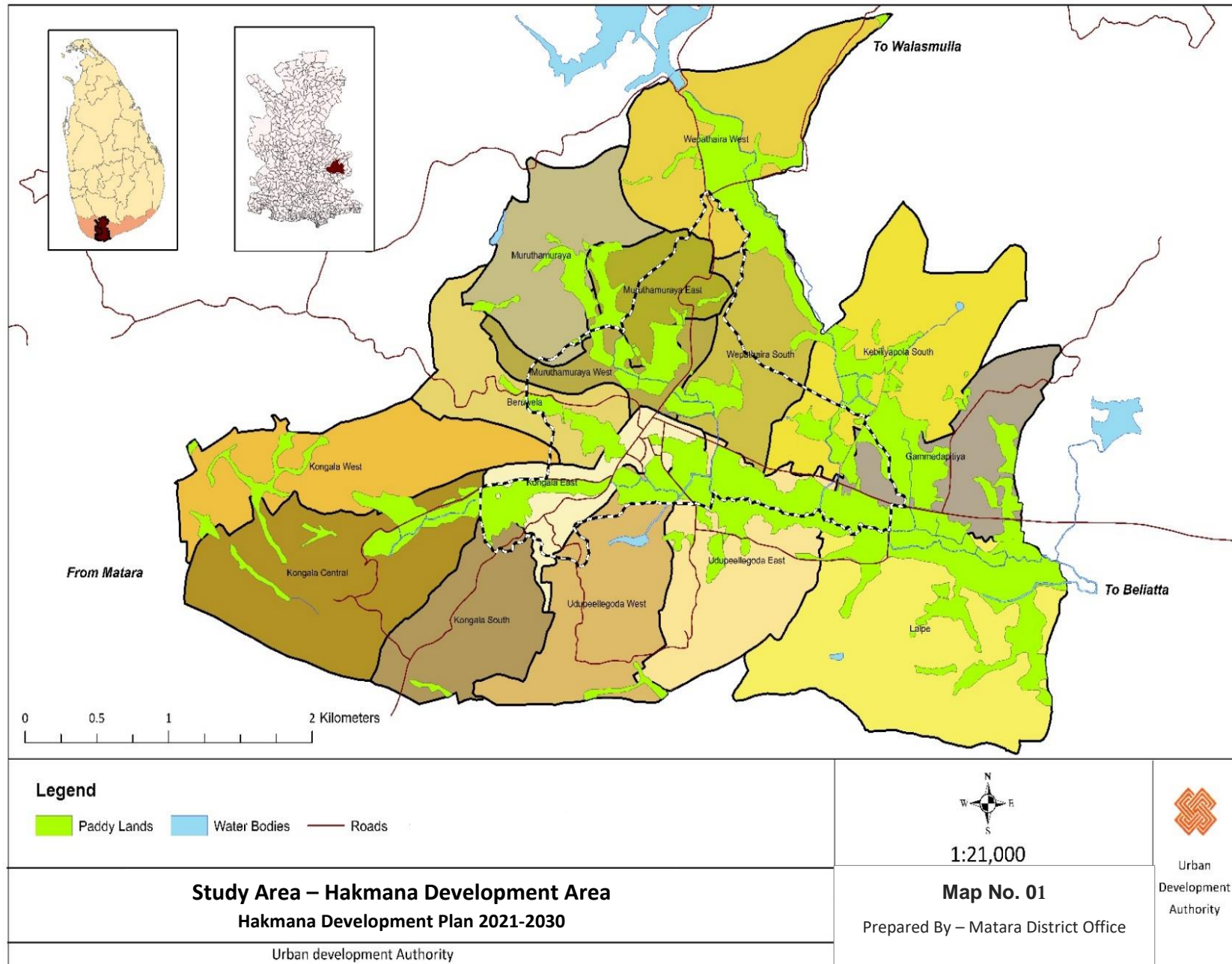
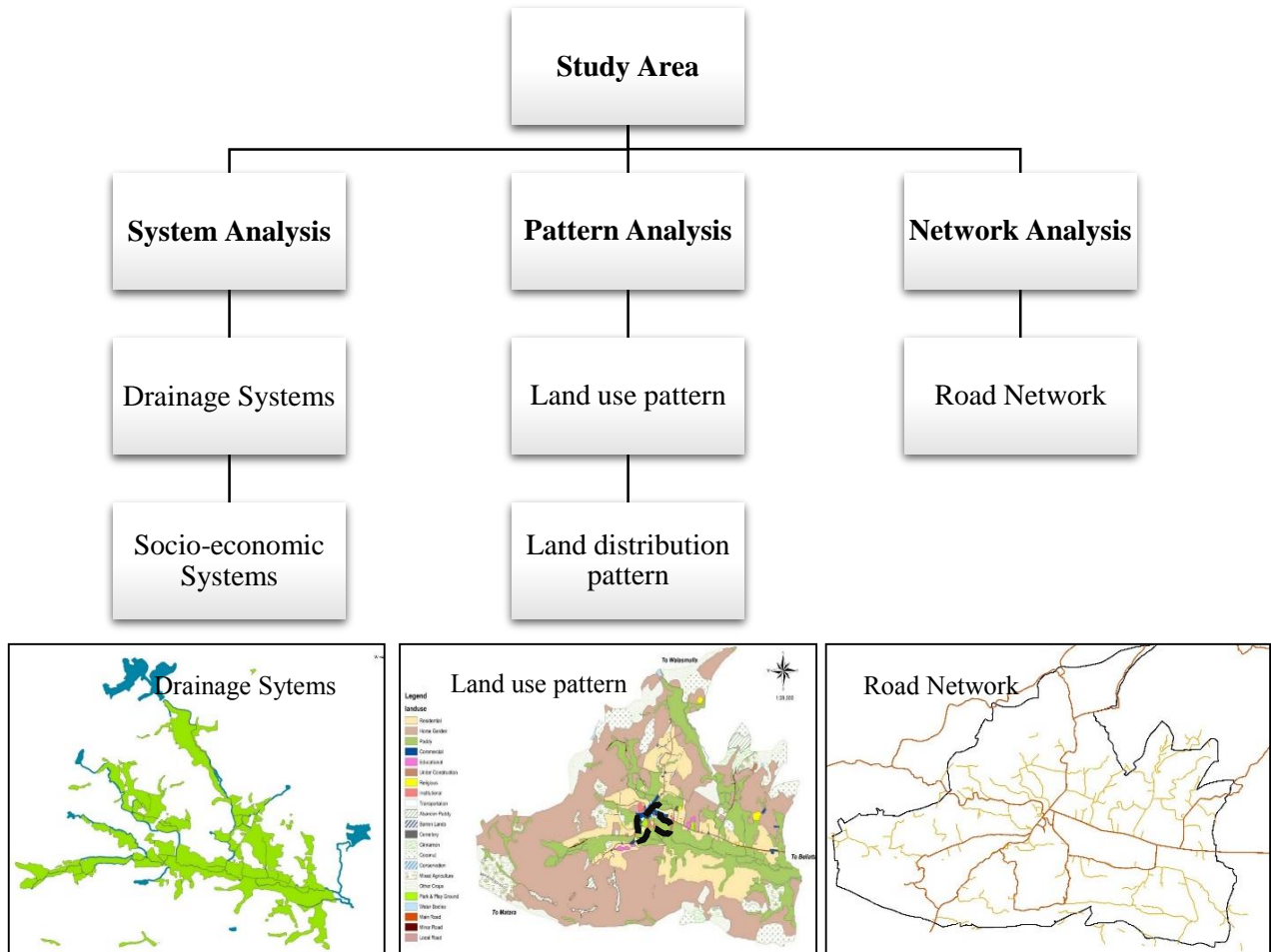


Figure 1: Study area- Hakmana Urban Development Area



Source: Urban Development Authority, Matara District Office

2.2 Determining the Planning Area

In determining the Planning Area, a preliminary analysis was made based on the study area, the functional area, the physical boundary and the administrative boundary, and the Planning boundary was identified based on that.

2.2.1. The Functional Boundary

To determine the boundaries of the functional area the Developmental orientation, Land value, network-centric analysis, and population migration were considered

2.2.2. The Physical Boundary

Environmental sensitivity, geographical location, and water systems were analyzed to determine geographical boundaries.

The paddy land system of 113 hectare in the city center was identified as an Ecologically Sensitive Area, which is spread over an area in the shape of 05 fingers. Also, according to the geographical location, the town center can be identified as a plain area at an altitude of about 100 meters above mean sea level, a highland can be identified beyond that area. It can be seen that the drainage system flowing through five tanks located in the vicinity of those highlands contribute a great deal to the agricultural fertility of the town. These sensitive areas within the study area are a criterion used to define the Planning area, and it is important to protect these areas for future generations, and to make optimal use of them.

2.2.3. Administrative Boundary

Administrative boundaries considered as another criterion used to determine the Planning Boundary. Accordingly 15 GN Divisions Beruweawala (293C) , Gammadapiṭiya (286 C) , Kabiliyapola South (284A) , Kōngala Central (295 B) , Kōngala East (295) , Kōngala South (295C), Kōngala West (295A) , Lalpe (294B) , Murutamuraya (293) , Murutamuraya West (293B) , Murutamuraya East (293A) , Uḍupillegoḍa East (294) , Uḍupillegoḍa West (294A) , Wepathaira South (283A) , Weapaatha West (283 B) were identified as the study area of this development plan. However, in the study of other criteria, it was difficult to apply the existing administrative boundaries in the same way to determine the planning boundary.

2.2.4. Planning Boundary

In order to determine the planning boundary of the Hakmana Urban Development Plan, identifying the functional boundaries, geographical boundaries and administrative boundaries as described above, an area of 3.06 square kilometers (306.73 ha) published by the Urban Development Authority in the Extraordinary Gazette Notification No. 1286/7 dated 29.04.2003 has been selected as the planning jurisdiction and a development plan has been prepared for that area. (Map No. 2)

2.3.Planning and situational context

It is evident that after the prehistoric period a king called Minikirula had lived in Hakmana area during the period around 240 BC. It is also mentioned that Premasiri Dharmayathanaya was the palace of the king, which was situated at a distance of about one kilometer from Hakmana – Beliatta road. (“*Hakmana Puranaya*”1994, Kamburupitiye Wanaratana Thero)

The history of the Hakmana area has been well-known as a historical and royal fortified area with a long history and the historical information of the area has been revived with the arrival of Ruhunu, the son of King Mutaseewa, who reigned in Ruhuna during the era of Naga tribe. The caves have been inhabited by people in the most fertile land areas and the Naaga tribe has spread to Hakmana and the names of the villages such as Nadugala, Naimala, and Nakankanda around the Hakmana area. After the conquest of the Matara district, the Portuguese built fortresses in the main towns of Galle, Matara as well as in Hakmana and Katuwana. (“*Matara Puranaya*”, *Wanathana Thero, 1994, 199*). On January 1st of 1645, the Dutch occupied the Matara district through the Dutch-Portuguese agreement. The Dutch built fortresses at Matara, Gandara, Tangalle, Hakmana, and Katuwana. The Hakmana archaeological history says that in 1645 AD the Dutch built a fort at Kotugodella in front of the Kongahawatta which is at about 150 yards from the Hakmana Shopping Mall.

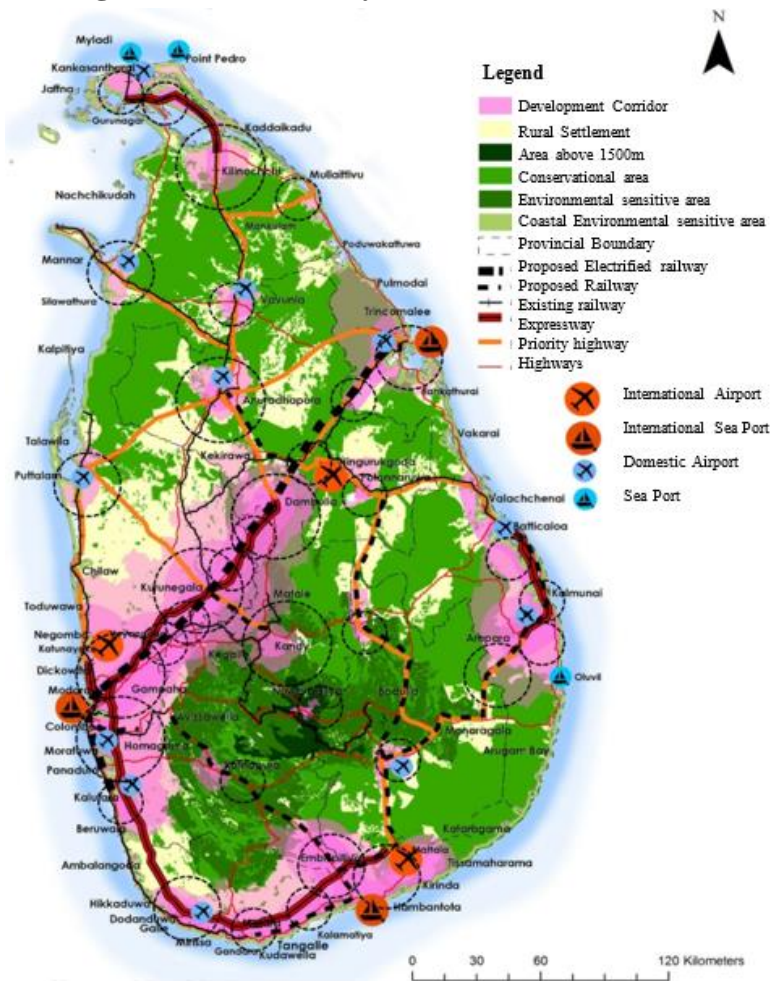
Since ancient times, a lot of historical information has been connected with Hakmana, and the town that expanded was included in Hakmana - Walakada village council area in the Southern Province of Matara District in 1987. It was declared as Hakmana Pradeshiya Sabha on 01.01.1988.

The physical planning of Hakmana town was carried out under the Town and Country Planning Ordinance up to 28.04.2003 and as per the No. 1286/07 dated 29.04.2003 the Hakmana urban area has been declared as an Urban Development Authority area. Accordingly, the planning and development of the area are being carried out by the Urban Development Authority (UDA) incorporated under the Urban Development Authority Act No. 41 of 1978.

Hakmana town is an area of wet and dry mixed climatic conditions. According to the National Physical Disaster-Prone Area map prepared by the National Physical Planning Department, the city is located in a disaster-free zone. The subsoil and red mixed soil in this area belong to the wet zone and there is a suitable environment for agricultural purposes. There are several environmentally friendly and economically important tanks in the Denagama wewa, Uyan wewa, Thiththamugunu Lake. Coconut, cinnamon, areca, tea plantations are economically important crops that are spread in the area and the city has been of ancient importance as a center for purchasing agricultural crops.

The purpose of the National Physical Planning Policy and Plan published by the National Physical Planning Department is to exploit the maximum possible use of Sri Lankan natural resources to maximize the benefits for the preparation of land use plan as well as infrastructure development plan.

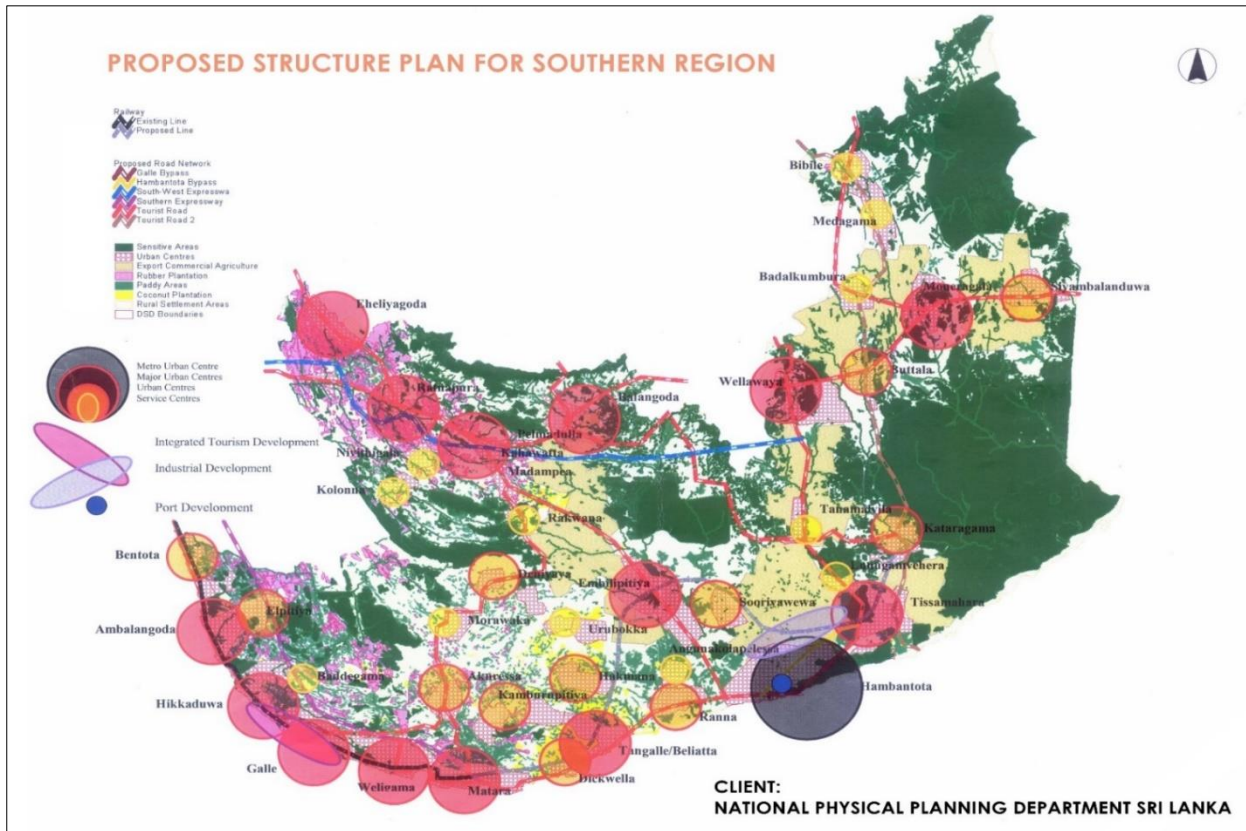
Figure 2: National Physical Plan 2050



Source: National Physical Planning Department - 2020

According to the Southern Regional urban hierarchy (Map 3) prepared by SWA (Surath Wickramasinghe Associate – Sri Lanka) for National Physical Planning Department, Galle and Matara towns have been identified as major urban centers while Hakmana was identified as an urban center.

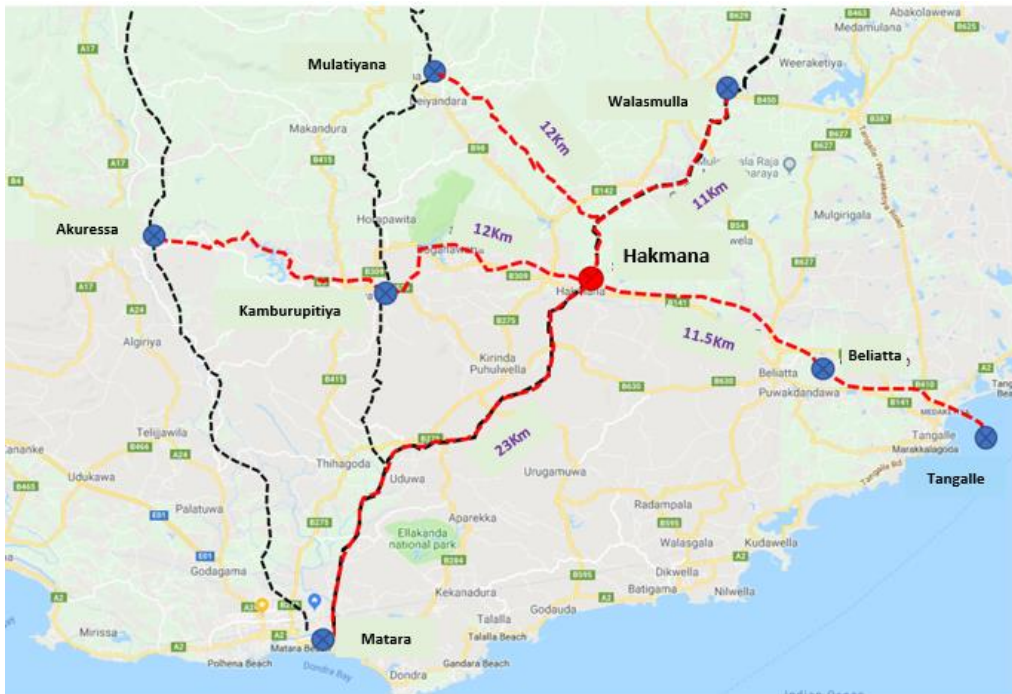
Figure 3 : Future Urban Hierarchy of Southern Region - 1997



Source: Surath Wickramasinghe Associate – Sri Lanka - 1997

Under the present government manifesto on “Vistas of Prosperity and Splendour” has identified C shaped 9 economic corridors. The corridor in-between Hambanthota port and Mattala International Airport has recognized as International industrial and service supply center would affect the regional and national connectivity of Hakmana urban area. Galle city has been identified as a national city under that vision and need to be considered in the planning process due to its regional connectivity. Furthermore, Matara has been identified as a connecting city under the “Vistas of Prosperity and Splendour” Vision will have a significant impact on the future role of Hakmana.

Hakmana Urban area is situated on the second level road which connects regional important towns of Matara - Embilipitiya, and also connected to the second level road network with Beliatta, Walasmulla, Deiyandara, Kamburupitiya, and Akuressa. The city has been able to get social and economic significance in the region through the ability of the Mattala International Airport, the Hambantota International Port and the Sooriyawewa cricket stadium to connect with the road network directly from the Hambantota district. Figure 04 depicts the prime location of the town relative to the road network. The Matara-Hakmana bus service, which operates Matara-Hakmana town from the Matara town, and the bus service from Walasmulla, Middeniya, Deiyandara to Hakmana town to Colombo and connect directly with the city of Colombo will have an impact on the future growth of the bus service.

Figure 4: Location of the Hakmana town

Source: Urban Development Authority, Matara District Office - 2021

According to the Census of Population and Housing in year 2011, Matara district population is 965,291, while the Hakmana Divisional Secretariat's population is 30,994 and the Hakmana Urban Development area has a population of 3,093. By the year 2020, the population of Hakmana Urban Development Area has increased to 3144 (Resource Profile – 2020).

Population in Hakmana during the period of 2011 - 2020 indicates a very low growth rate of 0.17, and it is clear that the total population in the urban area has been increasing at a minimum rate of growth.

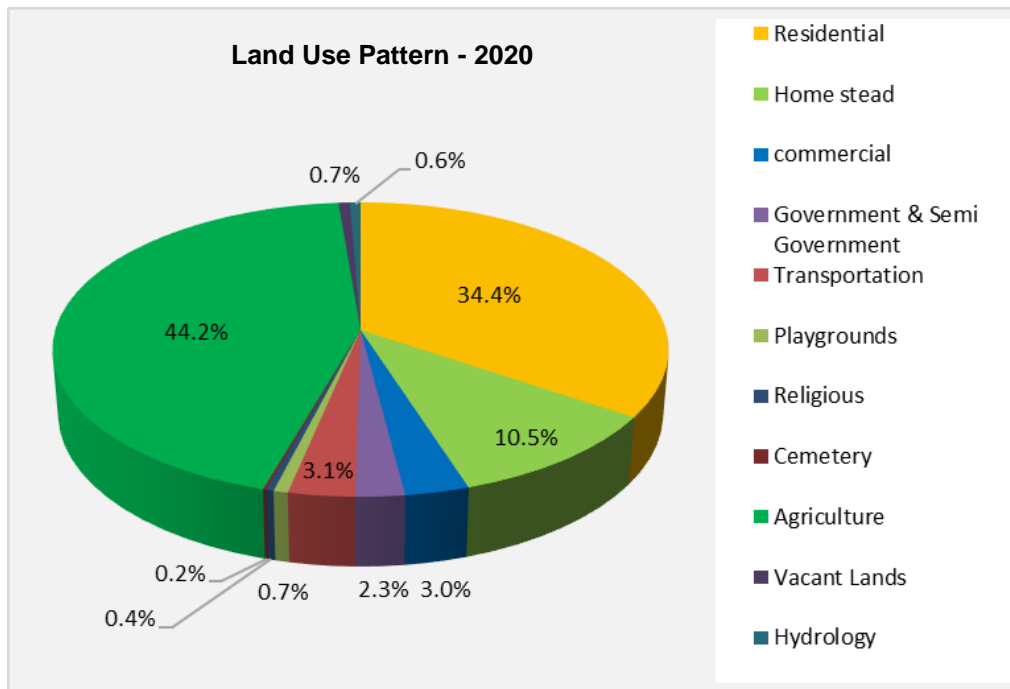
The total land extent of Hakmana urban area is 3.06 square kilometers (306.73 hectares). According to the 2011 census statistics, the gross population density of the area is 10 persons per hectare and the net population density is 16 persons per hectare. By the year 2020, the gross population density of the area has increased to 11 persons per hectare.

Hakmana town function as a transit center connecting major towns such as Matara and Tangalle and Urban Service Centers of Beliatta, Kumburupitiya, Akuressa and

Walasmulla. Furthermore, the daily service area in the town expands into major area of Kirinda-Puhulwella, Kamburupitiya, Mulatiyana Divisional Secretariat Divisions in the Matara District and the western regions of Walasmulla and Okewela Divisional Secretariats in Hambantota district. Therefore, the daily commuter population in the town amounts to approximately between 7000 – 7500.

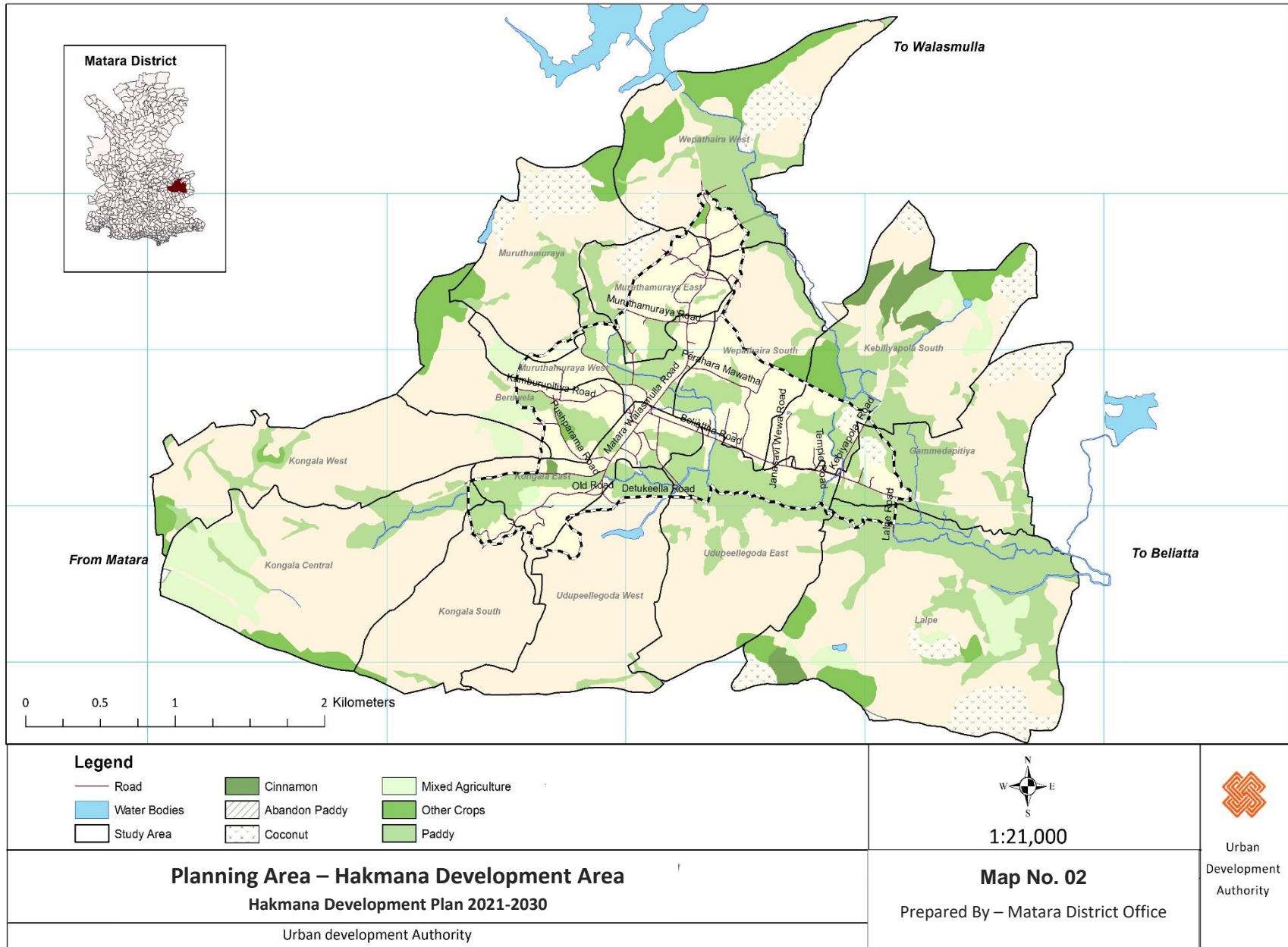
The total area of the Hakmana town is 306.73 hectares, and out of which 170.2 hectares (55.5%) are used for construction purposes when compared to the land utilization plan prepared in 2008, year 2020 plan indicates 13.72% growth in land used for construction. Accordingly, 136.3 hectares or 44.5 percent of the land area has not been used for construction. Those include environmentally sensitive areas like paddy lands, water ways, agricultural coconut lands, other crops and vacant lands which are not currently used for development purposes. Accordingly, Figure 05 shows how the land is used for each use.

Figure 5: Land Use Pattern – 2020



Source: Land Surveys - Urban Development Authority, Matara District Office (2020)

Map 2: Planning Area: Hakmana Urban Development Area



Chapter 03

Need of the Plan

A key requirement in preparing a development plan is to optimize the utilization of the available potentials to avoid the physical, economic, social and environmental problems that arise in that area.

In preparing Hakmana Urban Development Plan, the primary requirement is to protect the paddy lands with 37% of the total area and to achieve a systematic development. A major problem identified in Hakmana town is the undertaking of unauthorized constructions of paddy fields that are damaging the rain water, environmental sensitivity and the visibility of paddy lands. The extent of paddy land that was 118 hectares in 2008 has been reduced to 113 hectares by 2020. For example, the Pradeshiya Sabha and the Sathi Pola were built by filling this paddy field. Meanwhile, despite the development of infrastructure facilities in relation to other cities in Hakmana, 3% of the total land area has been converted for commercial purposes and most of the total floor area of public buildings constructed will not be used for identified purpose and remaining as underutilized. Examples city hall, bus stand, trade stalls, weekly fairs and private shops. Therefore, it is also a basic requirement of this development plan is to use these obsolete buildings for optimum use.

Hakmana is situated 23 Km from Matara town through Matara – Middeniya main road and a distance of 11.5 km from the Beliatta town, 12.0 km to the Walasmulla town and 11.0 km from the Kamburupitiya town.

Similarly, ecosystems that can also be used for agro and eco-tourism industry are located in the area. And also, it presence with 37% of paddy lands cultivated in both seasons, tanks and biological ecosystems. The area covered by the land is 44.5% Green and 10.5% home gardening, "NIYARA WAGAWA", "KORATU WAGAWA" and traditional farming methods.

The location of the irrigation systems of Muruthamuruwa, Denagama, Ellewela, Wewala, Uyanwewa and Udupillagoda, paddy land system used as natural drainage p and the geographical location of the city has the reduce the risk of natural disasters. The

use of these potentials for the development and the preservation needs to be considered in the development plan.

With the construction of Southern Expressway development of Beliatta –Yatiyana as interchanges which is 11 Km away from the Hakmana town center emergence of new rail way stations at Beliatta with Matara Katharagama railway line development could be identified as development projects targeted at Beliatta parallel to the Greater Hambanthota development plan could be identified as development opportunities for Hakamana.

In addition, presence of Wakwela, Uyanwewa and Ellewela reservoirs have contribute to develop as a residential urban center and having environment system with scenic beauty have depicts the need for the development plan.

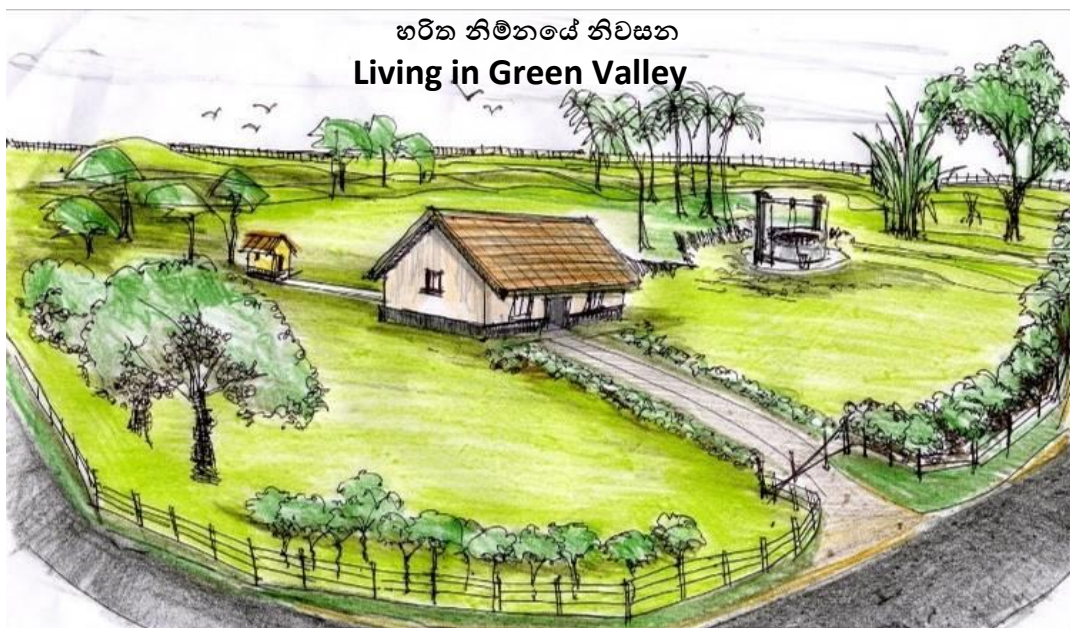
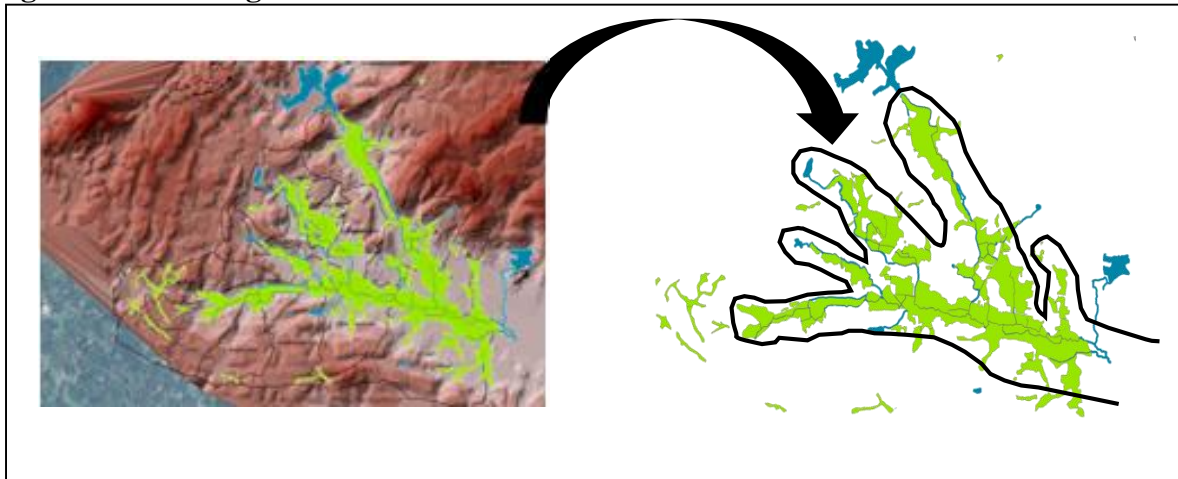
Chapter 04

The Planning Framework

4.1 Vision

In order to formulate the vision of the Hakmana Development Plan, the socio, economic, physical and historical situation of the area and the national and regional relations were examined. Subsequently, issues and potentials were examined and, accordingly, the basic information was analyzed and the vision of the development plan was created as “Living in Green Valley”

Figure 6: The Design of the Vision



Source: Urban Development Authority, Matara District Office (2021)

4.2 Vision Statement

“Living in Green Valley”

“Green Valley”

Hakmana Urban Development Area geographically located between 30 -180 meters above from the mean sea level. Beyond Hakmana city center, it boasts 180m-360m mountain range systems. Agriculture is the main economic activity in this area. Therefore, 44.5% green system can be found in the area. 37% of them are paddy fields. In addition, 10.5% are home gardens and 0.64% are reservoirs. The mountainous area beyond the urban area has a green cover with crops such as rubber, cinnamon and coconut.

“Living”

The idea of living is being home. According to land use studies in the development area, 34.4% (103.2 hectares) are residential. Accordingly, the development plan envisages a residential development that corresponds to the natural environment. Therefore, Hakmana town is a favorable urban area for residential development with a minimum risk of natural disasters, wet and dry climate.

In terms of pipe borne water, electricity and roads, the infrastructure required for residential development in this area is very satisfactory (100% completed). Furthermore, since the Hakmana is located 11 km and 9 km away from the two Expressway Interchanges and 11 km away from the A Grade railway station built at Beliatta will be upgraded the connectivity of the area with any other part of the country. Accordingly, the vision of this development plan is to "facilitate the harmony of nature and green trace with the aggravated agro environment, enabling the inhabitants of Hakmana and its natural habitats to serve as a natural setting for nature."

4.3. Goals

It is expected to achieve the vision of the plan with two objectives developed through the analysis of strengths, disadvantages, opportunities and constraints in the development area. They are,

1. Creating a residential city with the beauty of nature.
2. Protect the Green Environment, based on the agriculture.

4.4. Objectives

To achieve the first goal **“Creating a residential city with the beauty of nature”** following objectives were followed.

Objectives

1. Creating an ecological unique environment for Hakmana town by the year 2030 by creating four density zones.
2. By 2030, reaching to a planned residential development based on the existing natural and physical environment and urban infrastructure.
3. Reducing the 50% of underutilization of existing buildings up to 10% by 2030

The second goal is to **“Protect the Green Environment, based on the agriculture”** and following objectives are followed to achieve the second goal.

Objectives

1. Maintain and keep the 44.5% of existing green cover as it is by 2030.
2. Introducing an agro based tourism industry with the objective of promoting traditional agriculture by 2030 and facilitate to attract 3500 tourists annually to the city. (Local Tourists-3000, Foreign Tourists-500)

Chapter 05

SWOT Analysis

Goal 01: Creating a residential city with the beauty of nature.

Table 02: Strengths, Weaknesses, Opportunities and Threats analysis for "Creating a Residential city with the Beauty of Nature"

<p>Strengths</p> <ul style="list-style-type: none"> • Since the area is located in a natural disasters minimum area, the total area can be used for the development. • Hakmana area has the required urban infrastructure for residential uses. • The development of human and demographic factors has created a conducive environment for living. • Proper access to the neighboring towns by grade II road corridor. 	S	W	<p>Weakness</p> <ul style="list-style-type: none"> • Unauthorized uses of public and private buildings and the lack of proper maintenance of existing infrastructure. • Inadequate Pedestrian Paths. • Increase income distribution disparity and reducing the investment potential of the Pradeshiya Sabha. • Absence of a proper solid waste management system.
<p>Opportunities</p> <ul style="list-style-type: none"> • The shortest time period for residents to reach A-class Railway Station at Beliatta, under the Matara-Kataragama Railway Extension. • Accessibility of Southern Expressway using Yatiyana and Beliatta interchanges. • According to the national physical plan prepared for 2017-2030, Hakmana belongs to Rural Settlement Development Zone. 	O	T	<p>Threats</p> <ul style="list-style-type: none"> • The development of peripheral urban centers has caused to create an Obstacle to the development of the city.

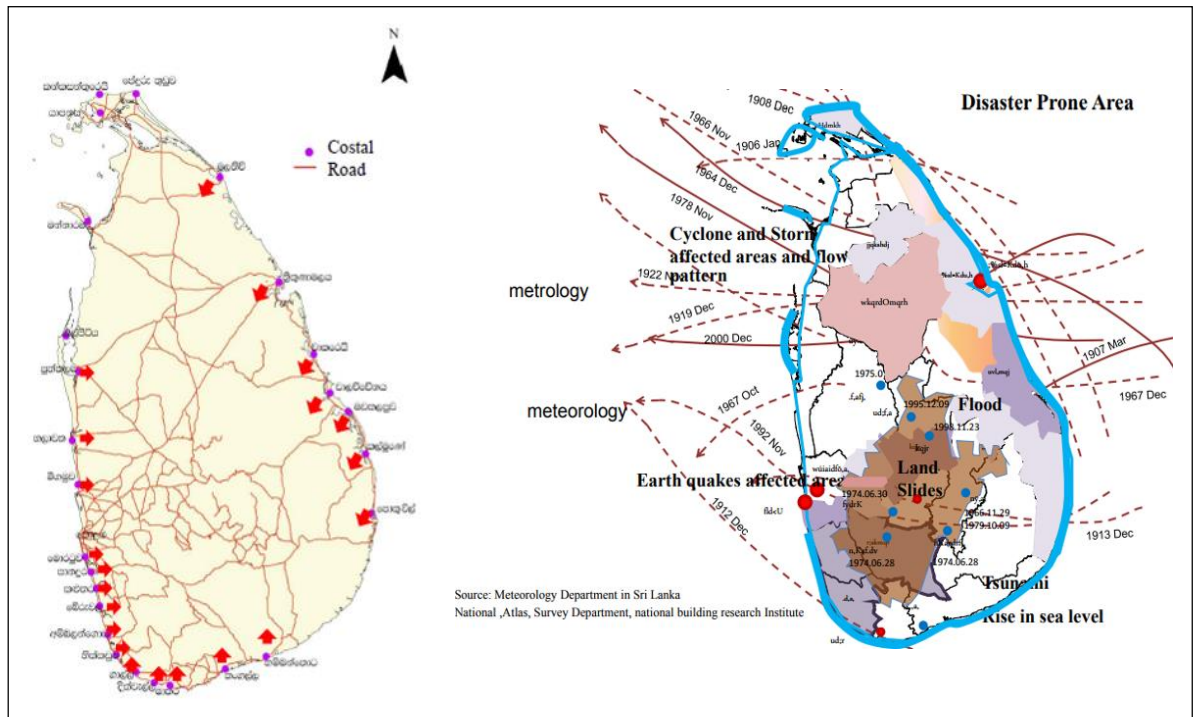
Source: Urban Development Authority, Matara District Office (2020)

Strengths

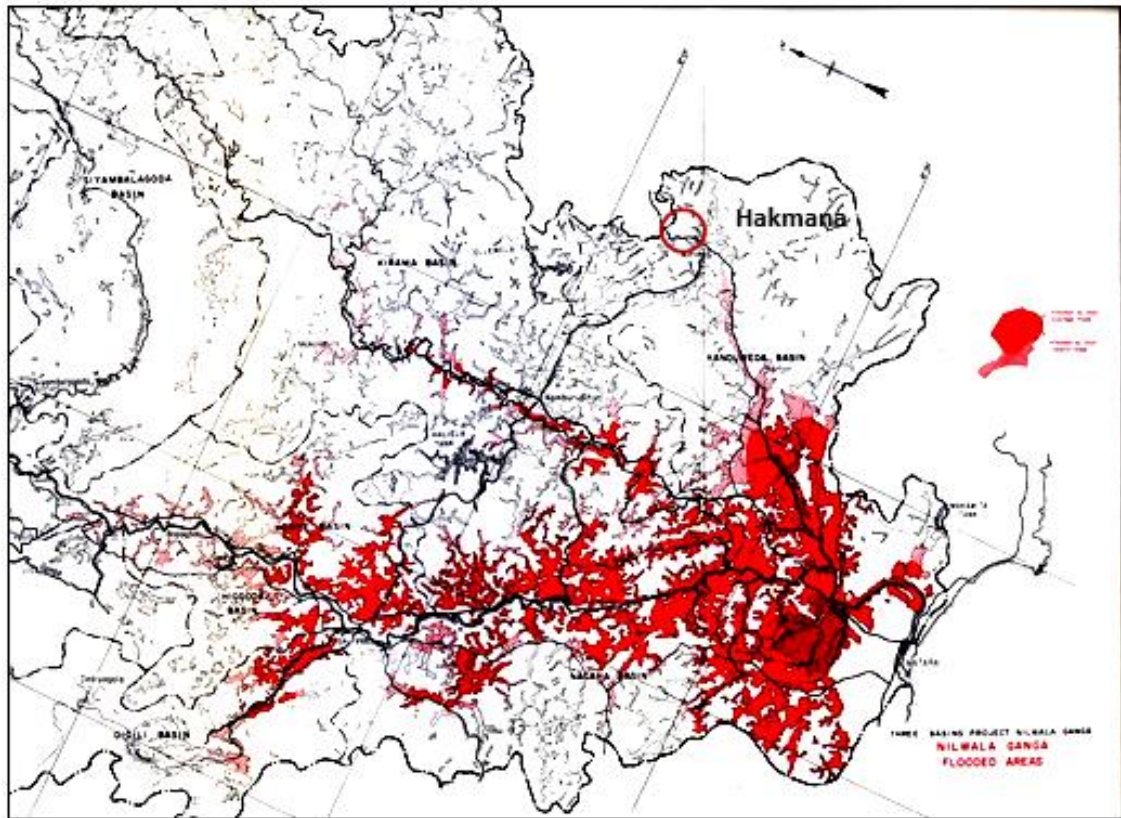
1. The area is located within natural disasters minimum area

The major natural disasters affecting Matara district can be identified as floods, cyclones, tsunami and landslides. However, Hakmana town is located 23Km away from Matara town and located above sea level. Also, the city is free from natural disasters. Further, 113 hectares of wetland in the city center has solve the problem in rain water draining and there are 5 tanks in the upper areas which have reduced the impact of disasters like floods. According to the map prepared by the Disaster Management Center (Map no.3) and the Matara District Water Distribution Map prepared by the Irrigation Department (Map no.4), this city is located outside the disaster risk zone. Accordingly, the total land area of the development area can be used for residential and other development purposes.

Map 3: Matara District Disaster Prone Areas



Source: Disaster Management Center (2020)

Map 4: Matara District flood prone Areas

Source: Irrigation Department - Matara (2020)

2. Hakmana area has the required urban infrastructure for residential uses.

The basic infrastructure required for a residential township is already in a satisfactory level in Hakmana town, and there are four B grade roads within the city limit and they are developed with two lanes. Pipe water, Electricity facilities are in accordance with the need of the area (100% completed) and other than that 200-meter track and a stadium with a playground, a children's park, a 600-seat fully-fledged city hall, a full-fledged library, weekly fair and common toilets with an audience have already been established in the city. Furthermore, out of the 2694 housing units in the development area, 2576 (96%) households have been provided with electricity, and 100 % of the state, commercial and religious sites are covered with the electricity. Accordingly, sufficient urban infrastructure facilities for residential development are evident in the city.

Figure 7: Infrastructure Development: Hakmana Urban Development Area

Playground



Town Hall



Road Development



Children's Park



Weekly Fair



Crematoriums



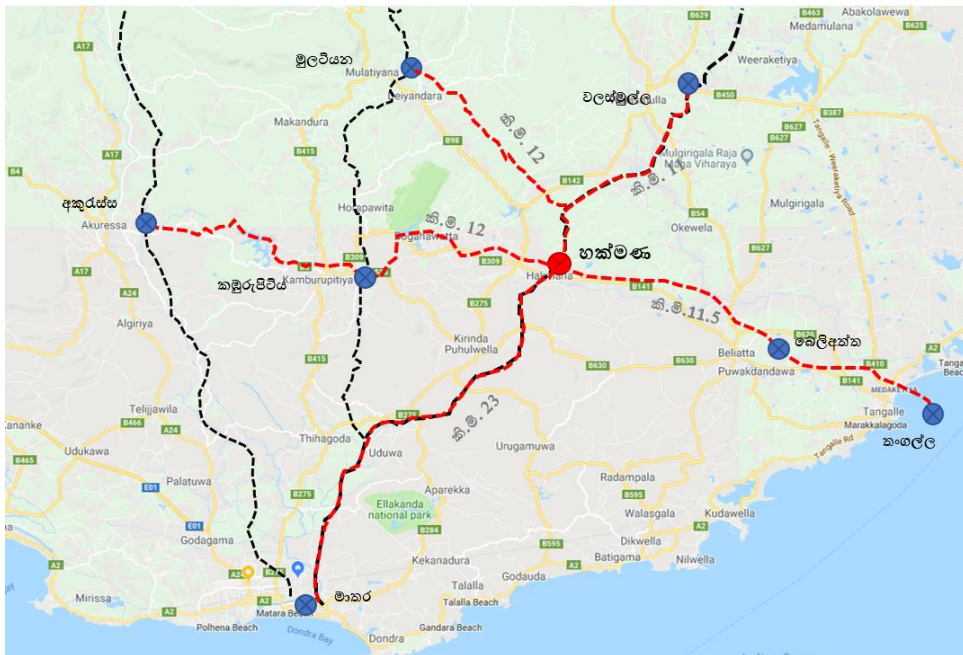
Source: Field Surveys, Urban Development Authority (2020)

3. Location in a junction where Proper access to the neighboring towns by grade II road network.

Hakmana town is located 23.0 km away from Matara town, from Kamburupitiya town. 12 km, from Deiyandara 11 kms, and it is 11 km away Walasmulla and Beliatta towns which is belongs to Hambanthota district (Figure.08). Accordingly, the Hakmana town indicates a local connection to neighboring towns via the public transport system. Further, when considering the public transportation system of the city, there are 36 buses traveling through the city and it circulates 149 times per day, and 69 buses starting

from the city provide 353 daily travel times. Accordingly, Hakmana townships have easy access to the surrounding cities within a short period of time.

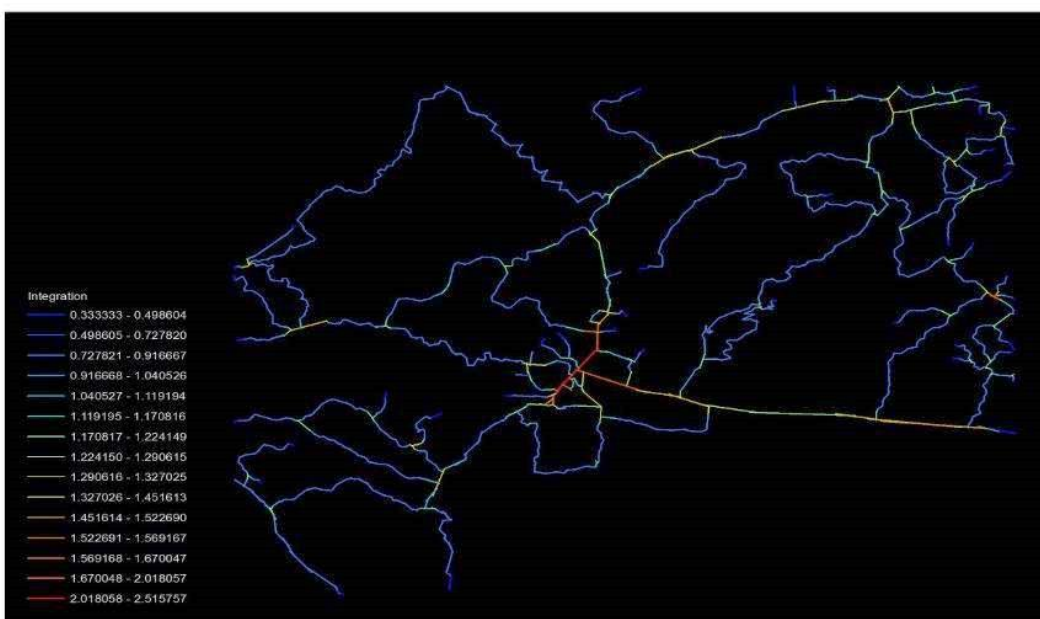
Figure 8 : Regional Connectivity



Source: Urban Development Authority, Matara District Office (2020)

Based on the above road network, the Hakmana town’s connectivity analysis was carried out, and this is emphasis commercial zone has taken more activities. this area is identified as one of the highest performing areas due to direct links with four main roads and several by-roads.

Figure 9 : Connectivity Analysis



Source - Urban Development Authority – Matara (2020)

4. The development of human and demographic factors has created a conducive environment for living.

According to the census of the population and housing data in 2011, the literacy rate of the people in Hakmana city area is 98%, and that is equal to the district's literacy rate. Moreover, the standard rate is 98%, and public employment is 32.7%. Accordingly, the literacy of the people in the city is high and public employment is high.

Weakness

1. Unauthorized use of public and private buildings and the lack of proper maintenance of existing infrastructure

In Hakmana city, 3% of land use in urban areas has been allocated for commercial purposes. Nonetheless there is a lack of use of existing government and private buildings in the area. (Figure 10). Even though there was a town hall with 600 seats, in 2020 it was only used for the seven pre-school ceremonies. Also, the market which is being constructed at the upper floor of the bus stand has been closed down by 05 out of 10, and the stalls in the upstairs of two storied building of the old market and 22 shops and the old Pradeshiya Sabha building are in a state that is not in use at present. Further, in the public fair only 65% of the buildings have been recently occupied and functioning. Accordingly, it is clear that the city's commercial economy is not growing. It has reduced the residential attraction of the city.

Figure 10: Underutilized buildings: Hakmana Urban Development Area

Upper floor of Bus stand



Public Fair



Town Hall



Pradeshiya Sabha Building



Source – Field Survey -Urban Development Authority – Matara 2020


2. Inadequate Pedestrian Paths

There are several institutions such as Divisional Secretariat, Police, Cooperative Society, Post Office, Telecom etc. via Kamburupitiya through Hakmana Ellewela road, but there are no pavements constructed and Kongala Maha Vidyalaya is located about 1.5 km away from Matara Hakmana road. Accordingly, there is a large number of vehicles on these roads daily and the vehicles that are coming to take services from these institutes are parked in either of the roads however, the pavements of these roads were only 200 m from the city center. Therefore, there is a need to build new pavements along the main roads in the city and this will hinder the city's economy.

3. Absence of a proper solid waste management system.

87% of the total solid waste collected in the city is in the decaying waste, 13% the non-decaying waste. However, these wastes are disposed of in one place without doing any categorization. Moreover, according to Table number 03, 14% of the total solid waste is excluded to the roads. Accordingly, in the city, as a result of the absence of suitable solid waste, there is an obstacle to the beautiful environment of the city due to the dumping of irregular waste.

Table 03: Solid Waste Management Methods - Hakmana Urban Development Area

Method	Percentage %	Disposal of waste
Burned by the owner him self	6%	
Burial by the owner	35%	
Composting the householder	45%	
Discharge into the road.	14%	

Source: statistics reports of Hakmana PS - 2020

4. Increasing income distribution inequality and decreasing investment power of PS.

According to the employment rate of the urban community, 32.7% of public servants, 25.9% private sector employees, 36% self-employed persons and 5.4% are foreign employment. However, according to the income distribution 35% is below the income of Rs. 6000. Around 56% is having monthly income is less than Rs. 12000. Furthermore, the percentage of persons who is taking monthly income above Rs. 70,000 is less than 2%. (Figure 11) reducing the investment potential of the Pradeshiya Sabha is directly affecting the urban economy. Revenue status of the council is important especially for

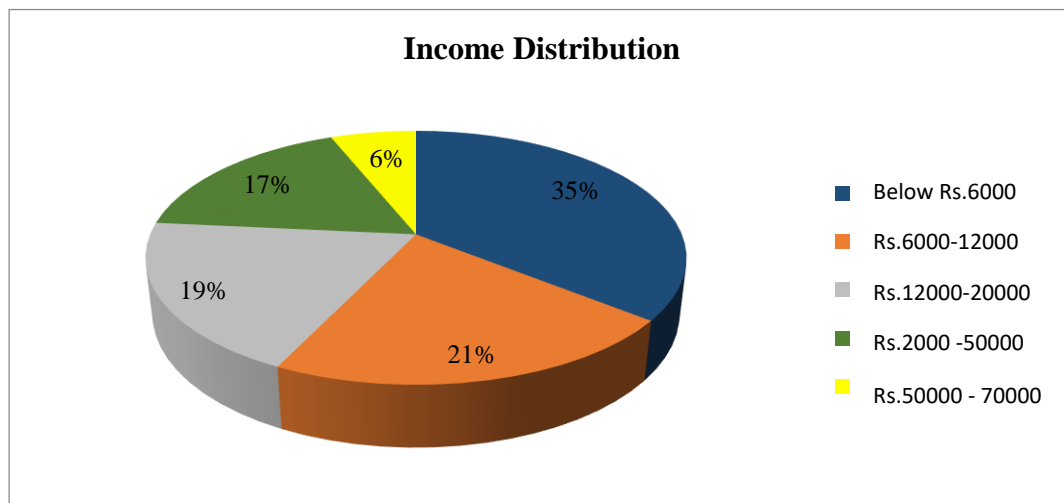
urban infrastructure development as well as for maintenance. According to the Table 04 it is clear that the expenditure of the Pradeshiya Sabha is higher in terms of the revenue level of the Pradeshiya Sabha in 2019 and 2020

Table 04: Income Expenditure Data - Hakmana Pradeshiya Sabha

Year	Income (million rupees)	Cost (million rupees)	Excess (million rupees)
2015	16.74	15.00	1.3
2016	17.42	18.58	-1.16
2017	18.58	22.17	-3.59
2018	21.84	21.10	0.74
2019	26.29	26.29	-
2020	29.96	29.67	0.29

Source: Hakmana Pradeshiya Sabha Budget reports 2015-2020

Figure 11: Income Distribution- Hakmana Pradeshiya Sabha - 2020



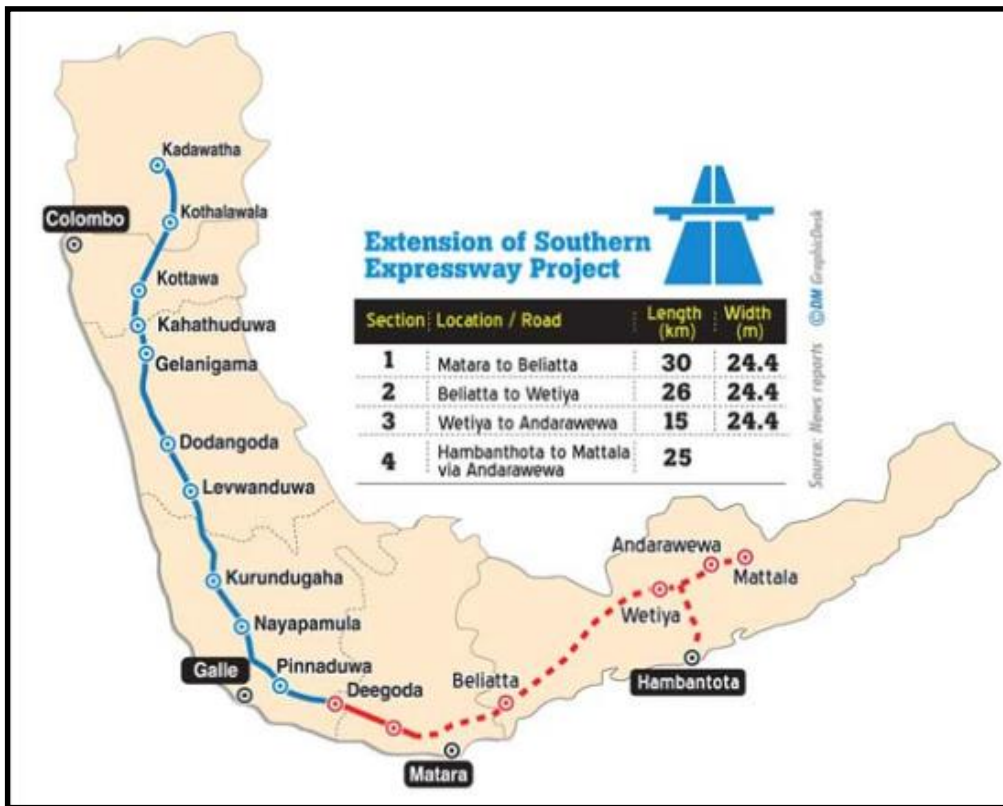
Source: Hakmana Pradeshiya Sabha Budget reports 2015-2020

Opportunities

1. Impact of Matara - Kataragama railway project which aimed Hambantota Port City and impact of Matara - Hambantota Southern Expressway extension project

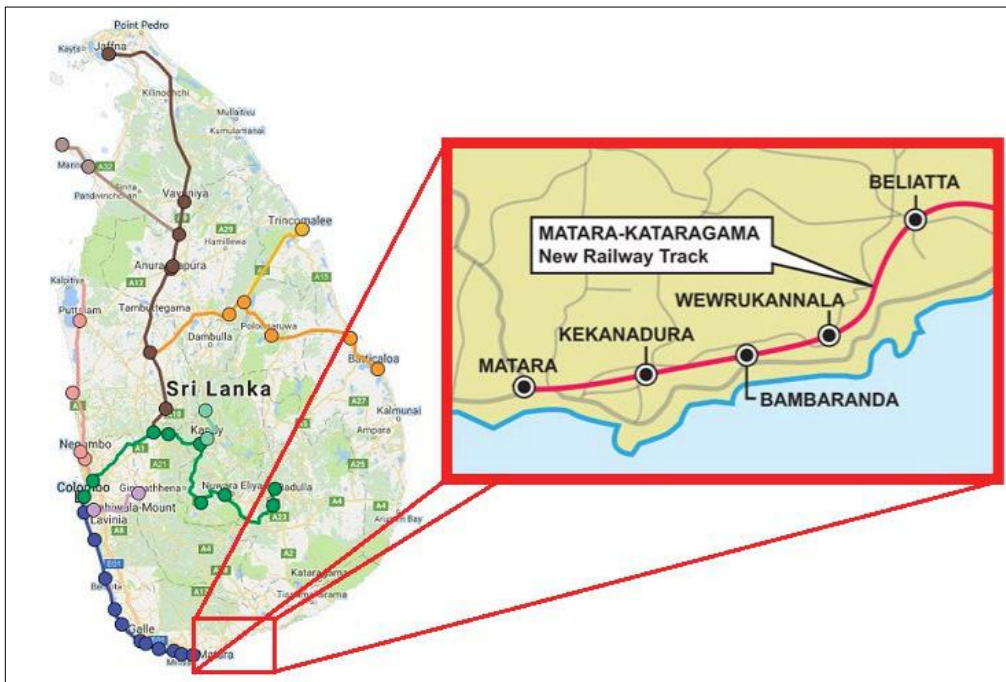
The ability of the people of Hakmana to connect with other major cities in the island in a short time via Beliatta Railway Station, this station is located only 11km away from the Hakmana Town and the interchange of the expressway which is in Aparekka is located at a distance of 11 km. It is illustrated on Figures 12 and 13.

Figure 12: Southern Expressway Extension Project



Source: www.dailymirror.lk

Figure 13: Matara Kataragama Railway Development Project



Source: www.drwingler.com

Threats

1. Development in peripheral urban centers

In 2005, when the Kirinda Puhulwella Divisional Secretariat was established, the shares of Karakota, Narada, Kumbalgoda and Galkanda Grama Niladhari Divisions belonging to the Hakmana Divisional Secretariat area were joined to Kirinda Puhulwella, and that was reduced the daily commuter population of the Hakmana town due to the attraction of people towards Kirinda Puhulwella town .Similarly, Hakmana town’s economic growth was hampered due to the expansion of the agricultural purchasing centers in adjacent cities.

Goal 02: Protect the Green Environment, based on the agriculture

Table 05: SWOT Analysis for Protect the Green Environment, based on the agriculture

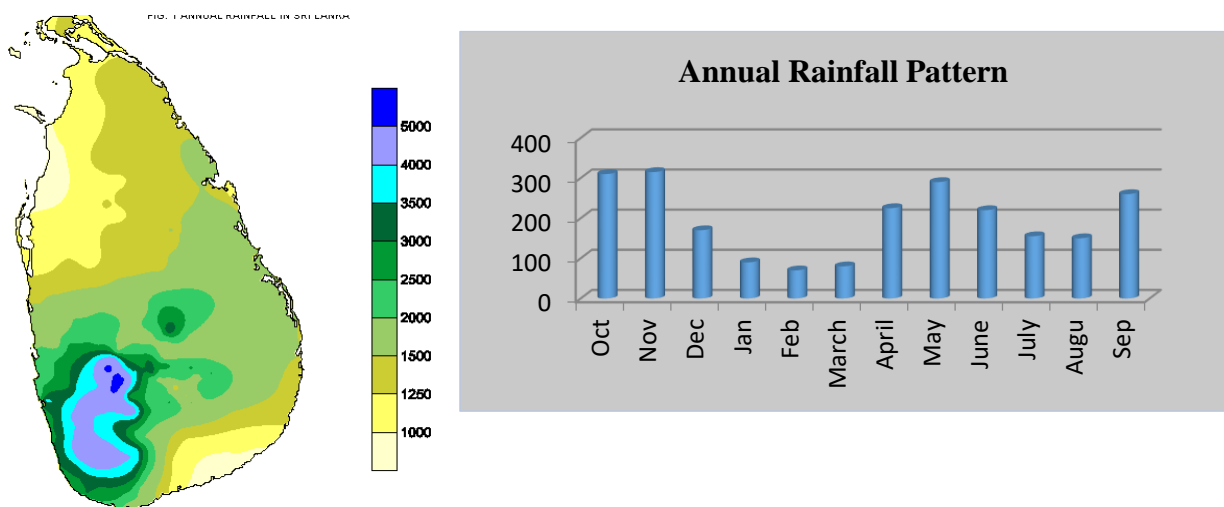
<p>Strengths</p> <ol style="list-style-type: none"> 1. The favorable geologic condition for agriculture encourages the blue green environment of the area. 2. The prevailing blue green environment 3. Location of tanks and paddy lands as potentials for Agro and eco based tourism industry. 4. 36% of people are engaged in self-employment. 	<p>S</p>	<p>W</p>	<p>Weakness</p> <ol style="list-style-type: none"> 1. Reclamation of paddy lands to disrupt the natural drainage system. 2. Diseases related to agriculture
<p>Opportunities</p> <ol style="list-style-type: none"> 1. Potential for agro and eco-tourism 	<p>O</p>	<p>T</p>	<p>Threats</p> <ol style="list-style-type: none"> 1. Change of rainfall pattern with the climatic changes.

Strengths

1. The geological environment favorable for agriculture

Urban villagers can cultivate agricultural crops throughout the year since the Hakmana is located in intermediate climatic zone with alluvial and podzolic soils and the annual rainfall between 2500 - 3000 mm in the region. And also, water for irrigation activities is supplied through tanks. The annual rainfall pattern of Hakmana urban development area is shown in Figure 14.

Figure 14: Annual Rainfall Pattern -Hakmana Development Area (2020)

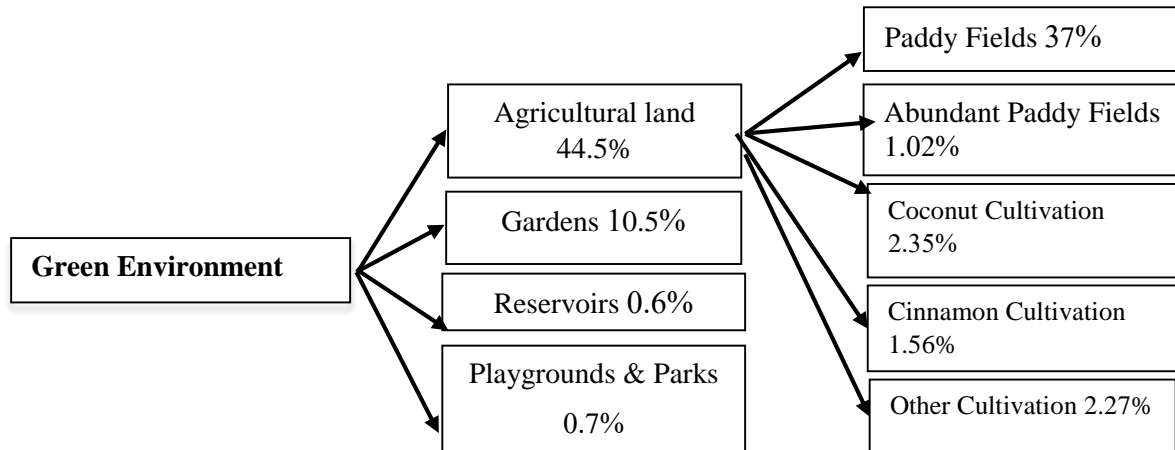


Source: Irrigation Department – 2020

2. The prevailing blue green environment

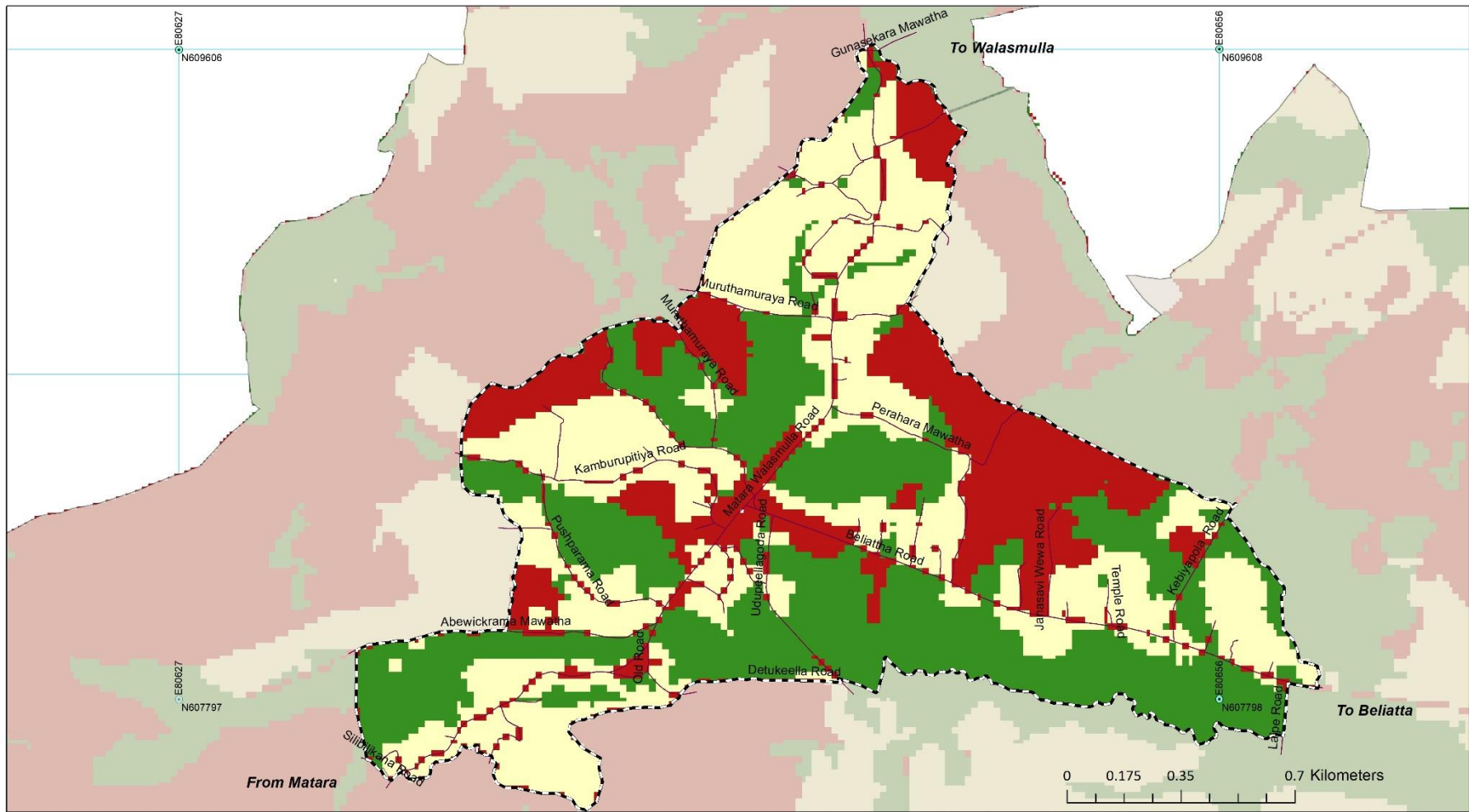
Out of the total land in the Hakmana city, 44.5% are agriculture lands, 37% is comprised with paddy lands, 0.7% are Playgrounds & Parks and 0.6% are reservoir systems. Therefore, conservation of above lands is important for urban land use pattern and landscape which enables to promote agriculture based blue green environment. Further, environmental sensitivity analysis was carried out in 05 regions in the Hakmana Urban Development Area. Accordingly, the wetland is located in the center of the city. According to the above study, it is on the highly sensitive region and this situation is gradually decrease when move to the peripheral areas.

Figure 15: Composition of the Existing Green Environment



Source: Urban Development Authority, Matara District Office – 2020

Map 5: Sensitivity Analysis: Hakmana Urban Development Area 2020



Legend

-  High : 5
-  Low : 1
-  Roads
-  Hakmana UC Boundary



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Sensitivity Analysis – Hakmana Development Area – 2020
Hakmana Development Plan 2021-2030

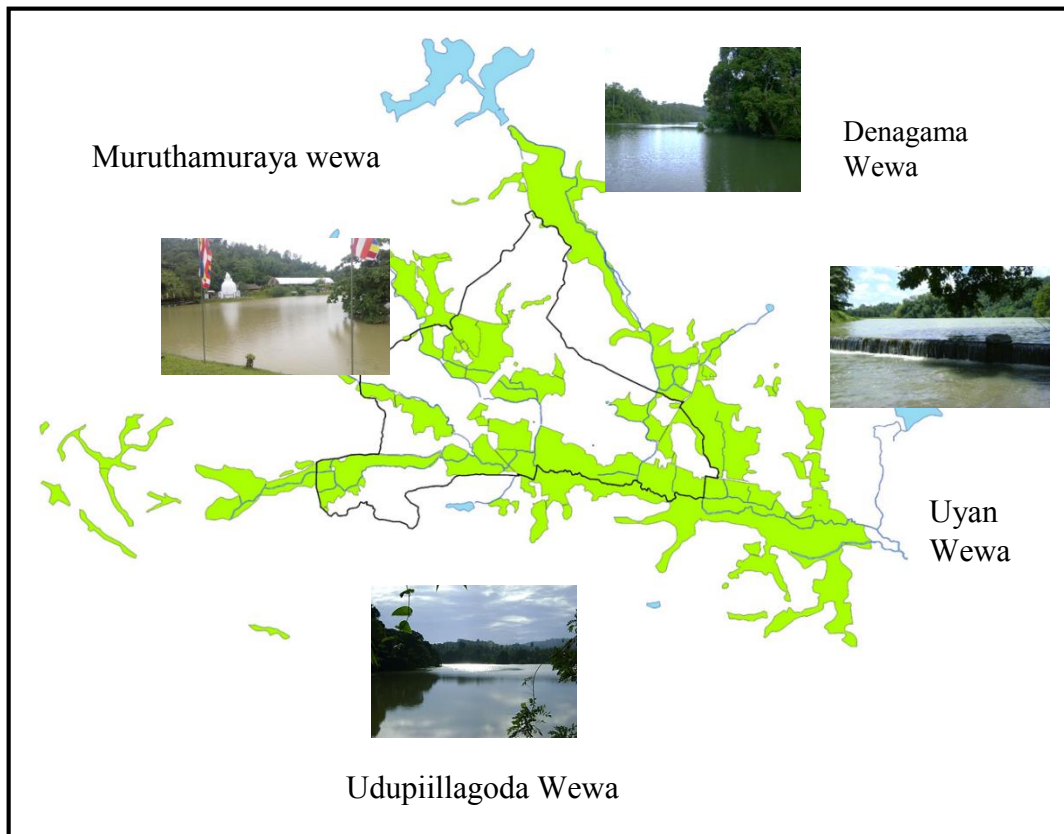
Map No. 05
Prepared By – Matara District Office

Urban development Authority

3. Tanks and wetlands that can be used as potentials for agro and eco based tourism industry.

Denagama Wewa, Muruthurumu Wewa, Uyanwewa and Beruwawela tanks which are presence with higher bio diversity,close to the development area are potential for paddy cultivation (37 % of total land) and tourism industry. Denagama Wewa, takes special consideration since it has a capacity of 1050 acre feet and covers 81 acres of land. This tank consists with 6 – 7 sq km catchment area and enriched by Heen dola Ara, Ma dola Ara,and Sapugaha Ara. The tank bunt is 650 meters in length and provide water for 342.9 hectares of paddy lands. The tourism industry can be promoted using the biodiversity of these wetlands environment. Therefore, farmers tend to maintain their paddy lands as the agro related tourism create new income generating opportunities for them. Hence, it contributes for conserving blue-green environment. Figure 16 illustrates the network of tanks and paddy fields that have potential to be used for agro and eco based tourism in the city.

Figure 16: Wetland System – Hakmana DS Division 2020



Source: Urban Development Authority, Matara District Office, Field Survey Reports 2020

4. Having a high rate of Self-employment

Out of the total population of Hakmana urban area, about 2210 are employed while government sector employees 32.7 % and private sector employees 25.9% of the total employed population. 36% of employees are engaged in self-employed agriculture-based manufacturing industries (minor export crops). As a result, it is widely recognized that potential labor force is available for labor intensive agriculture. (Table No.06)

Table 06 : Employment population in Hakmana Urban Development Area - 2020

Job type	Number of those engaged	Percentage %
Government jobs	721	32.7
Private employment	573	25.9
Self-employment	796	36.0
Foreign Employment	120	5.4
The Total	2210	100

Source: Hakmana Divisional Secretariat, resource profile – 2020

Weaknesses

1. Disruption of natural water flow due to reclamation of paddy lands.

According to the Land Use Survey in 2008, the extent of paddy land is 118 hectares, but it has been decreased up to 113 acres as identified by the land use survey in 2020. For the construction of Pradeshiya Sabha Building 5 acre and 2 rood of paddy lands, for weekly fair 2 acre and 1 rood of paddy lands and for reestablishing Buddha Jayanthi Vidyalaya 2 acre and 32 perches of paddy lands were filled and resulted in decreasing the paddy lands in the area. Disturbance to paddy cultivation due to deposition of sludge in paddy lands and reducing the blue green environment are major impacts of it. Proposed and existing filled up paddy lands are depicted in Figure17 and 18.

Figure 17: Disturbance to natural water flow due to reclamation of paddy land



Source: Urban Development Authority, Matara District Office, Field Survey Reports 2020

Figure 18: Proposed and existing paddy land for filling



Source: Urban Development Authority, Matara District Office, Field Survey Reports 2020

2. Diseases related to agriculture

Paddy cultivation is the main agricultural crop in the Hakmana area, but due to the spread of diseases in the paddy lands new generation does not willing to involve in agriculture. This has caused issues in labour-based agriculture. Table 07 shows the spread of non-infectious diseases from 2013 to 2020.

Table 07: Spread of Non-Infectious Diseases (Leptospirosis) 2013-2020

Year	Number of Leptospirosis Patients	Year	Number of Leptospirosis Patients
2013	07	2017	12
2014	09	2018	21
2015	21	2019	17
2016	06	2020	13

Source: MOH Office –Hakmana (2013-2020)

Opportunities

1. Potential for environmental tourism industry in the Southern province.

Coastal cities such as Tangalle, Dikwella and Mirissa have been developed as foreign tourism destination in the coastal towns of Southern Province. However, those townships do not have potentials to develop in eco-tourism. Further, tourists travel to Kataragama, Udawalawa and Sinharaja across Hakmana town center is another potential in developing the tourism sector. Moreover, traditional agriculture language and knowledge have been included in primary educational curriculum at government schools.

As Hakmana area have potential to be develop for eco-tourism by introducing tourism industry farmers will tend to engage in agricultural activities as it opens new income generating method. Further it contributes for conserve agriculture related blue-green environment.

Threats

1. Changes in rain fall pattern due to the climate change.

Global Warming has cause for climatic and global changes in the recent decade. This cause for changes in rainfall pattern and in rainfall intensity.

As Hakmana town center is based with agriculture related economy these climatic and global changes directly influence on reduction of crop yield (Yala and Maha seasons), increase in insect hazards, flash floods and droughts.

Chapter 06

The Plan

6.1. Introduction

Hakmana city concept provides a comprehensive definition of the city's future development. This conceptual plan has been developed on the basis of the geographical location, environmental system and practices of the area, and it is consisting of 03 main sections as residential development, agricultural development and environmental conservation.

Hakmana town is situated along Hakmana – Beliatta, Hakmana - Kamburupitiya roads and Matara - Middeniya road. The main potential of the city is the paddy field cultivated in both Yala and Maha Season which looks like fingers of a hand. This paddy field system helps to protect the environmental balance, rain water management, natural beauty of the city and creates open spaces for the city. Moreover, disaster mitigation and accessibility are major strengths provide by it.

The vision of the development plan is to develop Hakmana as the “Living in Green Valley”. The mission of the development plan is to develop the inhabitants’ environment of Hakmana and the people of the catchment area by 2030 as a residential city with the harmony of nature while protecting the agricultural environment of nature and the green shade. In order to achieve this mission, it is expected to optimally utilize the city's strengths and opportunities.

Accordingly, it is expected to protect the green environment in future development activities and to force development into higher lands. Since this development expanding only in the spaces between the fingers, urbanization distribute as fingers of a hand and residents will have opportunity to live very close to the green ground and this has incorporated principles such as the development of a pearl necklace, knitted with thread.

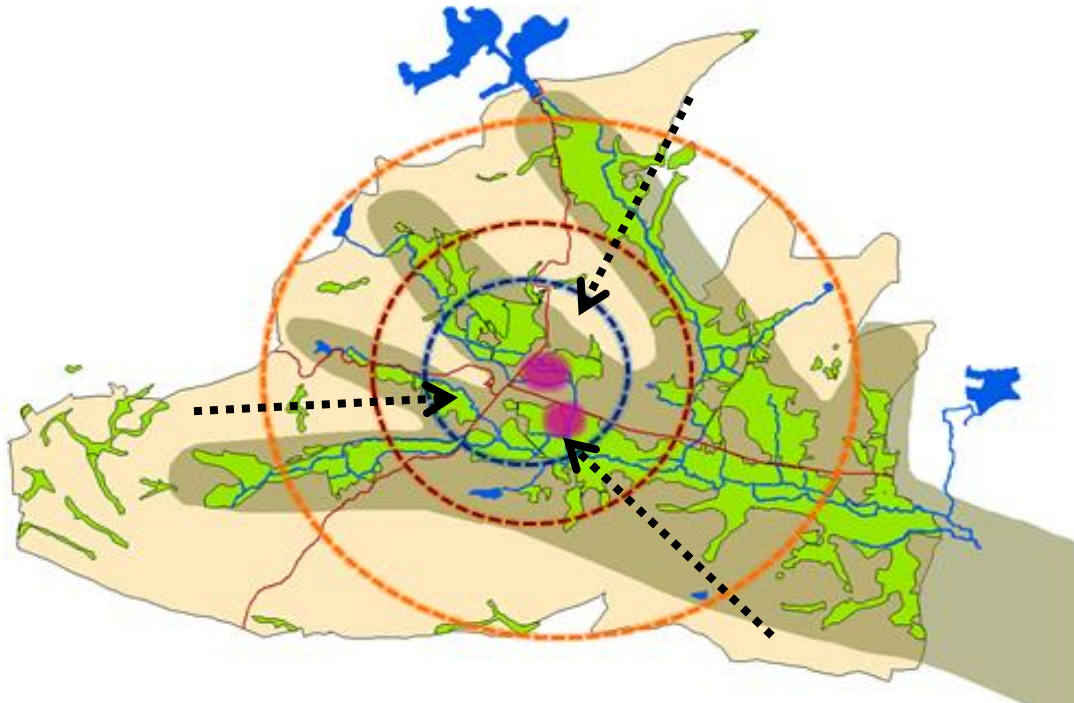
6.2. Strategic Plans

Attention has been paid in this towards the strategies for the Development Plan (2021 -2030) and how such strategies could be implemented. The objectives to realize the vision of the Development Plan and the strategies suitable to implement each of the objectives can be lined up as follows. These strategies proposed to implement under 06 main Strategic Plans.

1. Land Use Strategic Plan
2. Social and Physical Infrastructure Development Strategic Plan
3. Economic Development Strategic Plan
4. Sustainable Environment Development Strategic Plan
5. Cultural and Heritage Management Strategic Plan
6. Implementation Strategic Plan

6.3. The Concept Plan

Figure 19: Conceptual Plan



“හරිත නිම්නයේ නිවසන”

“Living in Green Valley”

6.4. The Proposed Land Use Strategic Plan

6.4.1. Introduction

Land use plan depicts the desired urban structure of Hakmana town by 2030. Accordingly, the town has identified to developed as “The Living in Green Valley” by moving incompatible uses in town for appropriate places and the desired arrangement of Government institutes, Commercial activities, Tourism activities, Water ways, Roads and landscape by the proposed land use plan.

According to the potentials and strengths of the development plan the main focus have been given to residential development in the city. Accordingly, the plan is being made to expand residential facilities in the Moderate intense zone and in low intense zone. Furthermore, commercial activities are given priority in the intense zone while maintaining highly controlled residential activities within the zone. Priority has given for the vertical development than the horizontal development. Similarly, educational institutes and large land occupied uses are not allowed within this zone.

Similarly, giving priority to commercial activities, in this zone and allowing activities which reduce traffic congestion of the city. In the same way, lands which are belongs to the educational institutions and the activities which are need in terms of larger lands are not permitted in the respective area. Especially, some offices have been planned to be relocated to the medium density zone.

Green Conservation Zone has been identified to maintain the existing paddy lands in the town. In addition, it has been identified to develop roads with green lanes and the green zones have been allocated to protect the drainage system. However, the land use plan has been identified to use two locations in the zone for the agro-based tourism industry. two locations have been identified in paddy cultivation, in order to achieve the beauty and commercialism of the city so that wetlands will not be harmful to the ecological system.

Especially in front of Sathipola, the paddy belt has been identified to spread a paddy pattern in the shape of a lion. Further, the land use plan is planned to create an environment conducive to the creation of an agro-ecology tourism near the bus stand and the proposed construction of the Buddha Jayanti Vidyalaya. Further, to preserve

the water system of the paddy field, which is like a palm lines of a hand and based on the conservation of canal banks, it has planned to develop walking paths with a unique green shade. The proposed land use plan is depicted in the map number 06 and several cross-sectional drawings are shown in figure 20

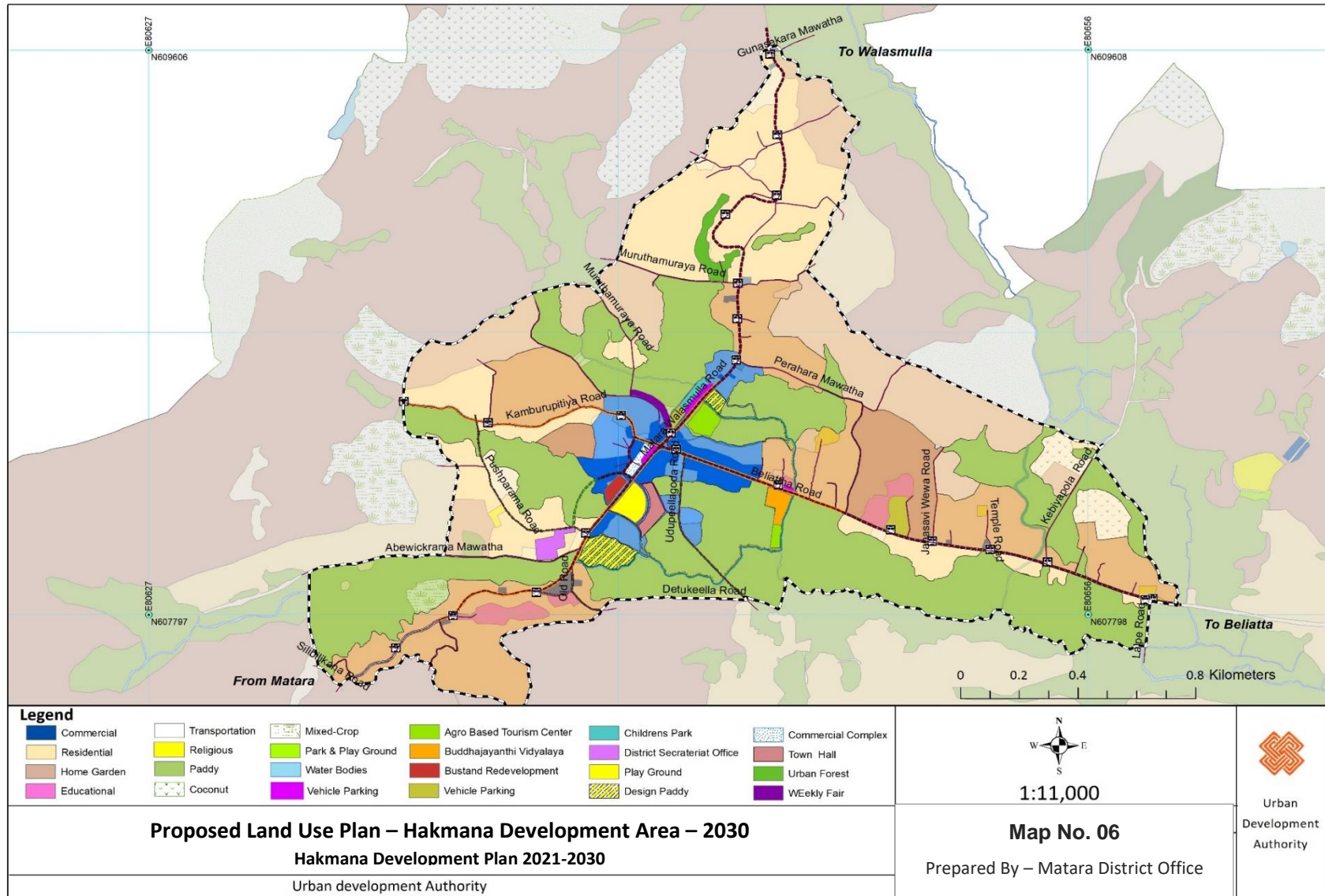
The A - A cross section- go through the main commercial area and directed on northeastern corner. The cross-section is designed to give more priority to the density zone, which shows that the buildings are designed according to the terrain of the other zones on either side. Further, the proposed landscape structure by 2030 onwards along the Matara -Walasmulla road is illustrated from B-B cross-section.

The C-C Cross section explains how Hakmana town is visible from the Hakmana Weekly Fair. This illustrated the cross-section through main road at the same time paddy fields, and further, by 2030 how density zone will be formed and the development scatters in mountain areas.

Cross section D - D Walasmulla - Matara Road is clearly arranged in the direction of Beliatta. Especially, identified project of the proposed small tourist center, mountain range, paddy lands and other infrastructure to achieve social attractiveness is illustrated from this section. Further, the zoning plan and the land use plan are designed to develop the city as a city traveler gradually moves away as the urban, semi urban and rural. The E - E cross - section is created to reflect this situation.

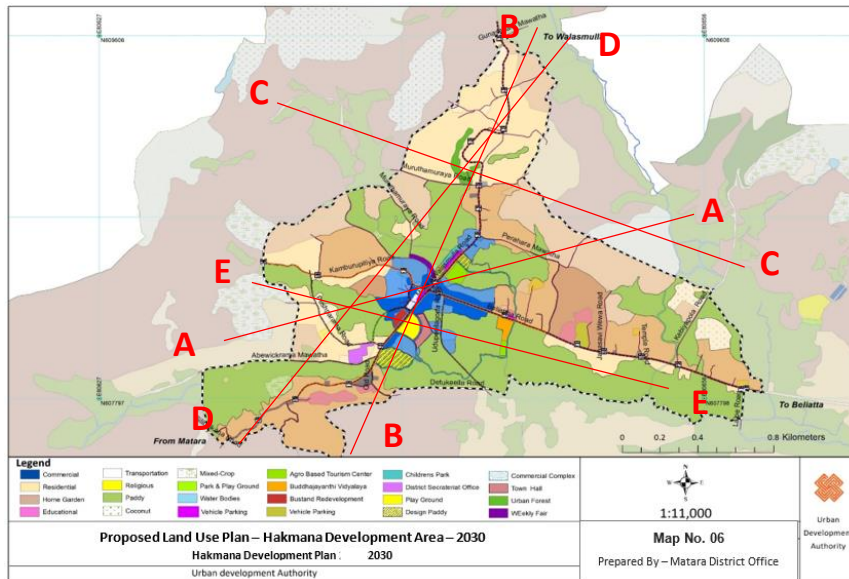
6.4.2. Proposed Land Use Plan

Map 6: Proposed land use plan: Hakmana Urban Development Area (2030)



6.4.3. Future Urban Form

Figure 20: Cross-section of the proposed land use plan



Cross Section A – A



Cross Section B – B

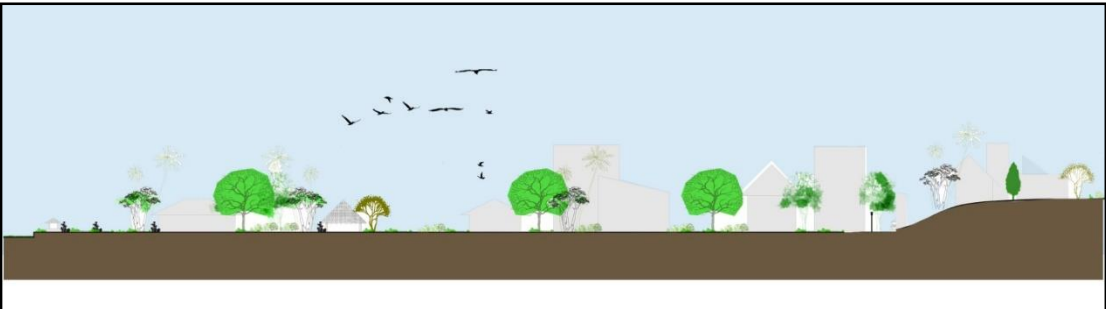
Cross Section C – C



Cross Section D – D



Cross Section E – E



6.5. Social and Physical Infrastructure Development Strategic Plan

6.5.1. Proposed Service Plan

There are various services in the city which are need for the day today activities of the people. These include housing, health, education, water, electricity, roads and travel.

In the proposed service plan, in the year 2030, the city has identified the required services based on the estimated population and the current service requirements. It is identified that the required supply of the predicted population or how the supply will be made to suit the demand.

The Hakmana city is planned to provide housing, health and educational services required predicted population by the plan 2030.

The Hakmana Divisional Secretariat is consisted of 53.8 square km of area and 3.06 square kilometers belongs to the urban development area. The expected population is as given in table no.08

Table 08: Population and Housing - Hakmana Urban Development Area

Description	Year 2020		Year 2030
	Area	Gross	306.93
Net		194.47	194.47
Total population	3093		3220
Number of houses	820		854
Housing density	Gross	2.67	2.78
	Net	4.21	4.39
Density of population	Gross	10.07	10.49
	Net	15.9	16.55

Source: Urban Development Authority, Matara District Office (2020)

According to the table No. 08 above, the difference in population between the years 2020-2030 is 127 people in the Hakmana Urban Region. Accordingly, there is a need of 34 new houses in addition to the number of existing houses. At present, there are 41 number of temporary houses in this region and that is also added to the housing requirement.

According to the development plan, the town has been identified as a residential town. Accordingly, priority will be given to residential dwellings in the low-density and moderate-density zone, and 25% of the land is to be developed for residential purposes. It is used as a strategy of achieving the future housing requirement.

Accordingly, the extent of the land required for the development of Hakmana town as a residential city is already exist in the city and for each family, or one house, one hectare of lands will be available. It is a strength to reach the vision of the development plan.

Health sector

In accordance to the health sector, there are two government hospitals serving in the area which is located close proximity to the Hakmana urban area. Narawelpita Government Hospital is located about 4km away from the city and Gangodawagama Government Hospital is about 3km away. Further, in the urban area, the Office of the Public Health Officers of Health and the Government Medical Office is located. In addition, six private medical centers have been established in the city.

Details of government hospital in the area are given below.

Table 09: Government Hospital Information - Hakmana Urban Development Area (2020)

Hospital	No. of annual residential patients	Annual OPD patients	No. of beds	Bed rate (%)	No of Doctors	No of nursing officers
Gangodawagama Government Hospital	4000	11362	54	30	03	11
Narawelpita Government Hospital	3387	51968	66	38	03	08

Source: Archive information of Government Hospitals – Gangodagama, Narawelpita - 2020

According to the table No.09 above, the number of annual outpatients in both local hospitals is higher than the number of residential patients. The bed rate is 30% in Gangodagama hospital in 2020 and 38% in Narawelpita Hospital By the year 2030, there is not enough space for the existing government central dispensary in the city and there are no modern laboratory facilities and adequate infrastructure. Also, there is not enough space in the office building of the MOH Office. Accordingly, this plan proposes

to construct a three storied building with Government Central Dispensary, MOH office and laboratory and hostel facilities for doctors in the existing land of the MOH Office and the adjoining Pradeshiya Sabha land.

Education Sector

Hakmana town has two primary schools and two central schools. The following table No.10 shows the current human and physical resources in these schools. According to the Census of Population and Housing in 2011, the literacy rate in Hakmana is around 98% which is equal to the level of literacy in the district. Accordingly, the literacy rate in Hakmana town is at a satisfactory level.

There are four government schools that provide education facilities in the area, while the Buddha Jayanti Vidyalaya and the Kongala Primary School are primary schools, while the Kongala Central College and Methodist College are national schools.

Their details are given in Table 10.

Table 10: Information of Schools: Hakmana Urban Development Area - 2020

No .	School name	No.of Teachers	No. of Students	Student Teacher Ratio	Building space Sqm.	Class room space per student	Play grounds
01	Kongal Primary School	28	703	25	1004	1.43	No
02	Kongala Central College	62	656	11	1376	2.10	Yes
03	Buddha Jayanthi Primary School	24	632	26	802	1.28	No
04	Methodist Maha Vidyalaya	65	1267	19	1097	0.87	Yes
Total		179	3258	18	4279	1.3	

Source: School Report, Divisional Education Office, Mulatiyana – 2020

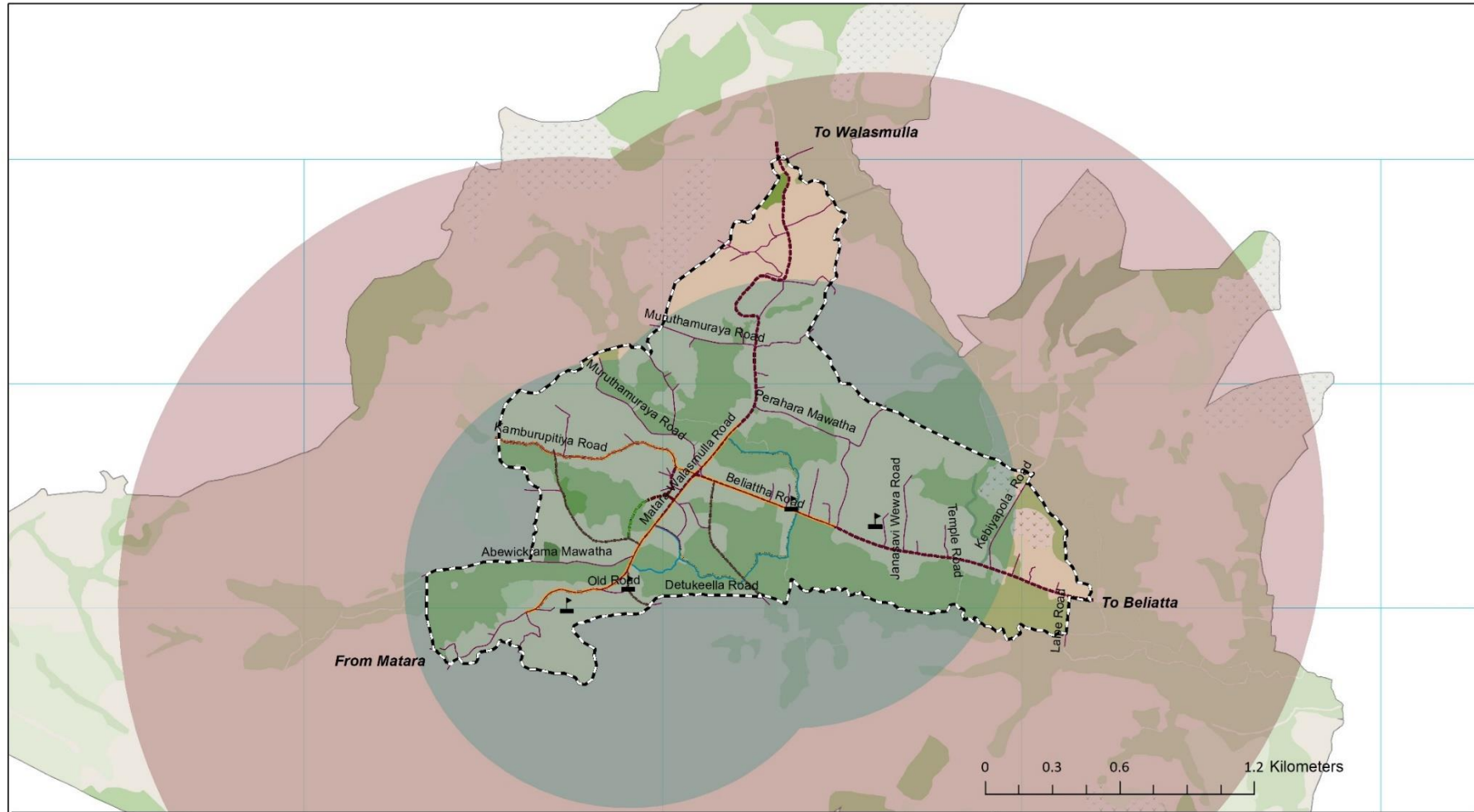
According to the above table No.10, there are 3258 students are studying in schools which are located in Hakmana town and 179 teachers were employed. Accordingly, the teacher student ratio is 18 for one teacher, since the standard status of the subject is 19 for one teacher, it is possible to identify that the teacher ratio is very satisfactory in this area schools.

As a whole, the class room space for a student per square feet is 1.3 square meters, and it is well above the standard value of 0.9. That is also in the level of satisfied.

In addition to above government schools, there is a computer training institute maintained by the National Apprentice and Industrial Training Authority. Also, 07 tuition classes and 05 pre-schools are located in the urban area.

Major problems related to education can be identified as inadequate development of facilities for primary schools and inadequate playground facilities. For this purpose, the existing primary school Buddha Jayanthi Vidyalaya in the city, has been identified to develop infrastructure with all facilities by acquiring about 02 acres of paddy land in front of the present premises of the school.

Map 7: Catchment of Educational Services: Hakmana Urban Development Area



Legend

- Hakmana UC Boundary
- Educational-Institutions
- Buffer 1KM
- Buffer 2KM



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Catchment of Educational Services – Hakmana Development Area – 2020
Hakmana Development Plan 2021-2030

Map No. 07

Prepared By – Matara District Office

Urban development Authority

6.5.2. Proposed Transport Plan

Hakmana town is located within a junction where connecting main roads from Matara, Walasmulla, Kamburupitiya and Beliatta. Therefore, a regular bus service connected with these cities and currently operating in the city. Also, long-distance buses connecting with cities such as Akuressa, Middeniya, Embilipitiya, Kataragama and Colombo will also be started from Hakmana. Furthermore, the bus service which is going through the city has also become a strength in the development of the city. Accordingly, Table 11 shows the current transport facilities.

The transportation condition in the city as at 2020 is as follows.

Table 11: Transportation Status: Hakmana Urban Development Area - 2020

Serial No.	Description	2020	
		No. of Buses	No. of Trips
01	The number of buses passing Hakmana town	36	149
02	The number of buses starting from Hakmana town	69	353

Source: Road Passenger Transport Authority

The following strategies are identified by the proposed transport plan for the expected urban population, to reach the vision of the development plan.

Transportation strategies:

While giving the Priority for Residential Development, the following transport strategies are in place to achieve environmental friendliness development.

The construction of bus stands at a distance of 500 meters, has been identified in order to regularize public transport and preserve the identity of the city and cover all major roads. (Map 08) Further, it has been identified to take part of public market land and parking places near the Buddha Jayanthi Vidyalaya as a strategy of create a formal traffic flow pattern and to minimize traffic congestion in the city.

As the existing bus stand not sufficient for circulate 15,500 populations per day, as a strategy there is an implementing of the second stage bus stand to expand it, and for open-air long-distance bus service, identified locations for establish bus stands.

Also, construction of paved lanes with green lanes and identifying canals with Green Paths have been identified to encourage of pedestrian movements and walkability, reduction of atmospheric carbon dioxide, lead percentage and reduction of global warming.

Moreover, by the year 2030, the public transport service does not require a massive increase in the transport needs of the targeted occupants and travelers, and facilities for private transport services need to be improved. Accordingly, upgrading of existing roads, alternative road development, new road development, road development and vehicle parking developments have been identified as a major transport strategy and that can be mentioned as follows.

By 2030, increasing the efficiency of traffic in Hakmana, improving pedestrians and their security and improving urban beauties of the area through roads is expected from the transportation strategies. (Map 08). Road development strategies have been identified in order to create an efficient transport pattern.

Main Road Development

To encourage pedestrians, develop Pedestrian Lane from Matara - Walasmulla main road (B grade) with two lanes and from bus stand to Kongala Maha Vidyalaya pedestrian lane from Hakmana - Kamburupitiya high way (B grade) main road to Muruthomuraya tank 02 lane road have been identified for development.

Circular Road Development

From Matara - Hakmana Road to Pushparama Road to Ellewela, Ellewela to Bantis Samaraweera Mawatha via Muruthomuraya, and again to Hakmana - Matara main road, from there it has been identified Perahera Mawatha along Beliatta road, Udupillagoda to Kongala primary school is the area which is going to be develop as the road around the city.

New road development

Develop a new road linkage by connecting Beliatta road and the Matara - Middeniya road as a junction linking the starting point of the Ellewela road. (As four road junction)

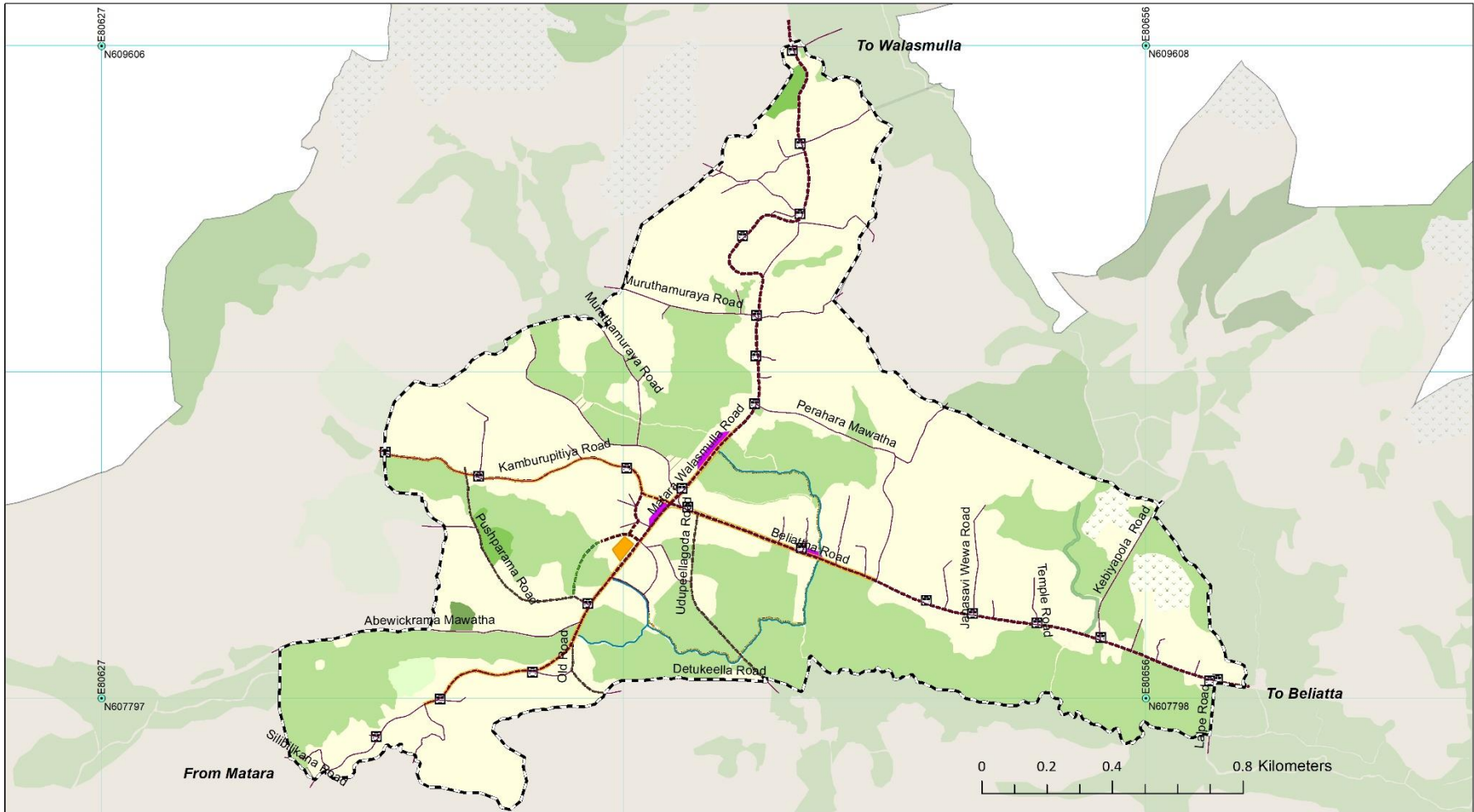
By-roads Development

Several roads which can use for pedestrians have been identified for development.



1. Road from the bus stand to the proposed Divisional Secretariat
2. The proposed pedestrian lanes through the canals across the paddy field, which is starting from the building of the bus stand and connect proposed Buddha Jayanthi Primary School and the weekly public fair.
3. Road with two lanes connecting the bus stand and Ellewela road.

In parallel to road development, vehicle parking places are also planned in several locations in the city to regulate the traffic flow in the city and to prevent traffic congestion on roads. These places can be identified as the existing non-use land part of the weekly land, the backyard of the current public market, part of the existing land near the proposed primary school premises can be mentioned mainly.

Map 8: Transportation plan: Hakmana Urban Development Area



<p>Legend</p> <ul style="list-style-type: none"> Main Road Green Paths Vehicle Parking Walking Paths Ela Bustand Pedestrian Paths Bus Stop 		
<p>Transportation Plan – Hakmana Development Area – 2030 Hakmana Development Plan 2021-2030</p> <p>Urban development Authority</p>		

 <p>1:11,000</p>	 <p>Urban Development Authority</p>
<p>Map No. 08</p> <p>Prepared By – Matara District Office</p>	

6.5.3. Proposed water supply plan

The National Water Supply and Drainage Board (NWSDB) distributes piped water to Hakmana town and only 32% of the urban population uses it. At present, 68% of Hakmana town residents use the well water. This development plan explains the expected population and quantity of water required by 2030 are given below.

Table 12: Water requirement Forecast: Hakmana Urban Development Area

Year	Population	Water Requirement (m ³)
2011	3093	2273.1
2015	3113	2276.7
2021	3144	2282.3
2025	3180	2288.4
2030	3220	2296.0

Source: Urban Development Authority, Matara District Office (2020)

The above table is built on the following assumption.

According to the standard values of the National Water Supply and Drainage Board, the daily per capita requirement for the residential population is 180 liters.

Table 13: Water requirement for daily Commuters: Hakmana Urban Development Area

Year	Daily commuter population	Water Requirement (m ³)
2011	7500	240
2015	9500	264
2021	11500	288
2025	13500	332
2030	15500	356

Source: Urban Development Authority, Matara District Office (2020)

The above table is built on the following assumptions.

Assumptions:

1. Daily commuter population will double by 2030, with the expected development of the Hakmana development plan and existing upgraded infrastructure facilities.
2. According to the standard values of the National Water Supply and Drainage Board, daily water requirement for daily commuter population is 12 liters.

Table 14: Daily Water requirement - Hakmana Urban Development Area 2030

Year	Daily residential population water requirement (m ³)	Daily commuter population water requirement (m ³)	Total (m ³)
2011	2273.1	240	2513.1
2015	2276.7	264	2540.7
2021	2282.3	288	2570.3
2025	2288.4	332	2620.4
2030	2296.0	356	2652.0

Source: Urban Development Authority, Matara District Office – 2020

By 2030, the expected residential population in the city is 3220 and the daily commuter population is 15,500. According to the field survey carried out in 2021, the city uses 32% of the population of tap water. Accordingly, by the expected development by the year 2030 the water requirement of the pipe born is assumed to be 50% of the total population and daily water is 1,148 cubic meters per day. By 2030, the expected daily commuter population required 356 cubic meters' water. Therefore, the daily water requirement is 1504 cubic meters, but that water is not safe. Therefore, there is a need for a new water supply Project and the following proposals have been identified.

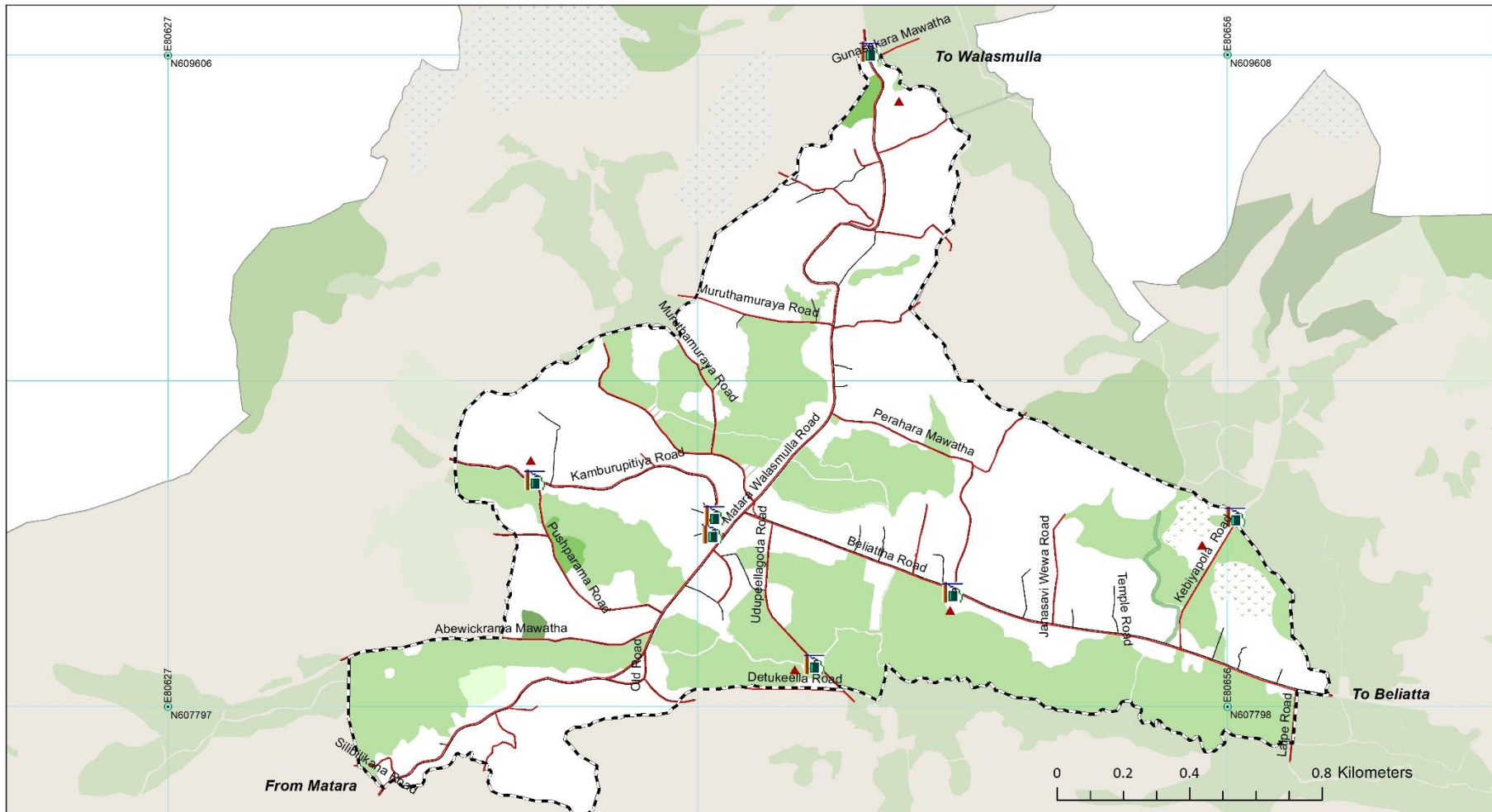
Extension of Matara Phase VI Water Supply Project to Hakmana area or

Initiation of a new water supply project using the Kirama Ara water source

6.5.4. Proposed power supply plan

The Ceylon Electricity Board (CEB) has complied with the power requirement covering the entire Hakmana Urban Development Authority. Further, the future power requirement is also sufficient to meet the requirements of a proposed dwelling city. It has been illustrated by Map 09.

Map 9: Electricity supply: Hakmana Urban Development Area



Legend

- ▲ Electricity Substation
- Transformers
- Electricity Line
- Roads
- - - Hakmana UC Boundary



1:11,000



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Electricity Line – Hakmana Development Area
Hakmana Development Plan 2021-2030

Map No. 09
 Prepared By – Matara District Office

Urban development Authority

6.5.5. Waste water management and Drainage System

According to the physical location of the Hakmana Town Area, there is a paddy land which is located in the city center that looks like fingers. Residential and commercial developments are positioned on both sides of that. So, there will not be any problems with the rainwater flow. Further, the Beliatta road, Walasmulla road and Matara road have already been developed with necessary drainage system. According to the proposed plan it is planned to construct pavement platform and drainage system with the road developments.

Since the proposed zoning plans is allowed 10.0 perches for residential developments, it is proposed to use sewage treatment in the inside of the garden.

6.5.6. Solid waste management

Domestic, Commercial, industrial, agricultural production as well as in other public affairs waste is considered as solid waste. Solid waste can be identified and it is consisting with food waste, packaging waste, metals, plastics, glass, useless cloths, waste generated in the construction site and the things that are dumped from the industrial factories.

According to data provided by the Hakmana Pradeshiya Sabha, the daily generated solid waste amounts to approximately 2000kg and from these, about 1600 kg are degraded and 400 kg are non-degraded. The total amount of waste, about 1000kg generated from residential, 800kg in shops, 150kg in hotels, 50kg in banks, government buildings and other places in each day. The Hakmana town area (separated garbage and mixed waste) is collecting garbage in twice a week through the Pradeshiya Sabha. In addition, a tractor is also available on Wednesday for collecting plastic and polythene only.

The Pradeshiya Sabha has three tractors, a compactor, and five carts for the process of collecting garbage in the area. Eight skilled workers and an unskilled worker are employed for this task and are assisted by two drivers and five workers and a work administrator. There is no any system to collect biodegradable waste in byroads in the vicinity of the Pradeshiya Sabha and those household has been provided with compost bins. Solid waste management plan is given by Map No. 10

The daily generated solid waste density of Hakmana area is as follows,

Table 15: Daily Solid waste generation - Hakmana Urban Development Area

Serial no.	Solid waste	Percentage
1.	Vegetable	63%
2.	Papers	20%
3.	Glass	04%
4.	Metals	03%
5.	Clinical waste	01%
6.	Industrial waste	04%
7.	Other	05%

Source: Pradeshiya Sabha – Hakmana 2020

These collected decaying and non-decaying waste have been temporally filling in 2 acres, an open deck which is located in Kongala and this land is belongs to Hakmana Pradeshiya Sabha. When constructing the garbage anchorage in this land, the Hakmana Pradeshiya Sabha is hoping to collect and separate waste and make compost in future. However, there is a problem with proper management and disposal of garbage or garbage disposal.

In addition, the separated non-decaying garbage is collected in a part of public market land. This collection of non-decaying waste is not sold or recycled, or it still does not follow a proper procedure, and ultimately this waste also has the possibility of diverting the landfill into the previously mentioned landfill. This has been identified as a problem at present.

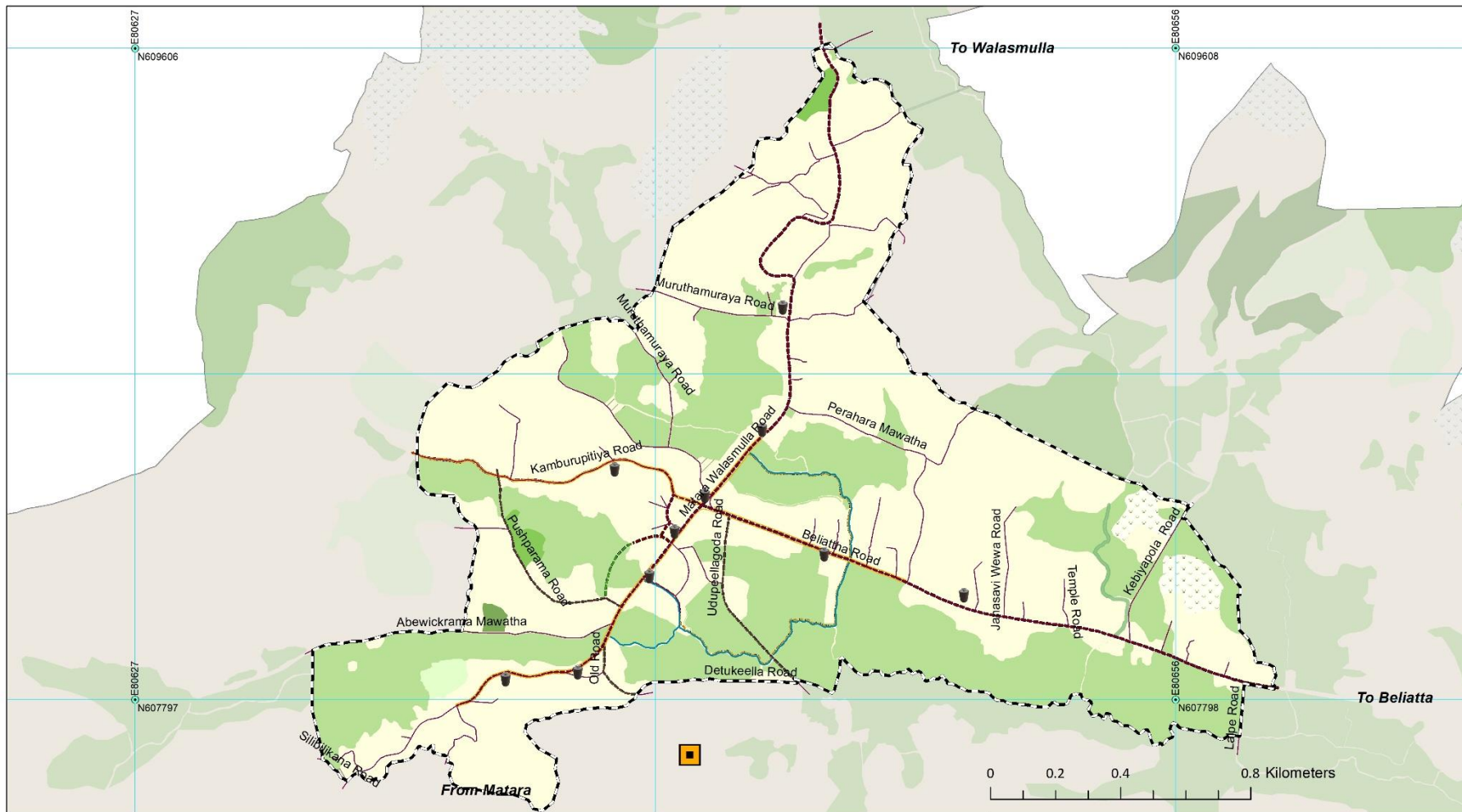
Solid waste Management Strategy






1. Implementation of a proper solid waste management project.

It has been identified to implement a compost project in the 02-acre land taken over by the Pradeshiya Sabha in the area.

2. As a strategy to reduce the environmental impact of informal solid waste disposal in the city locating of garbage containers has been identified and locations are given in Map No. 10.

Map 10: Proposed Solid Waste Management Plan - Hakmana Urban Development Area 2030



<p>Legend</p> <ul style="list-style-type: none">  waste management project  Garbage Collecting Points  Hakamana UC Boundary 	 <p>1:11,000</p>	 <p>Urban Development Authority</p>
<p>Proposed Solid Waste Management Plan – Hakmana Development Area – 2030 Hakmana Development Plan 2021-2030</p> <p>Urban development Authority</p>		<p>Map No. 10 Prepared By – Matara District Office</p>

6.6. Proposed Economic Development Strategies

6.6.1. Economic plan

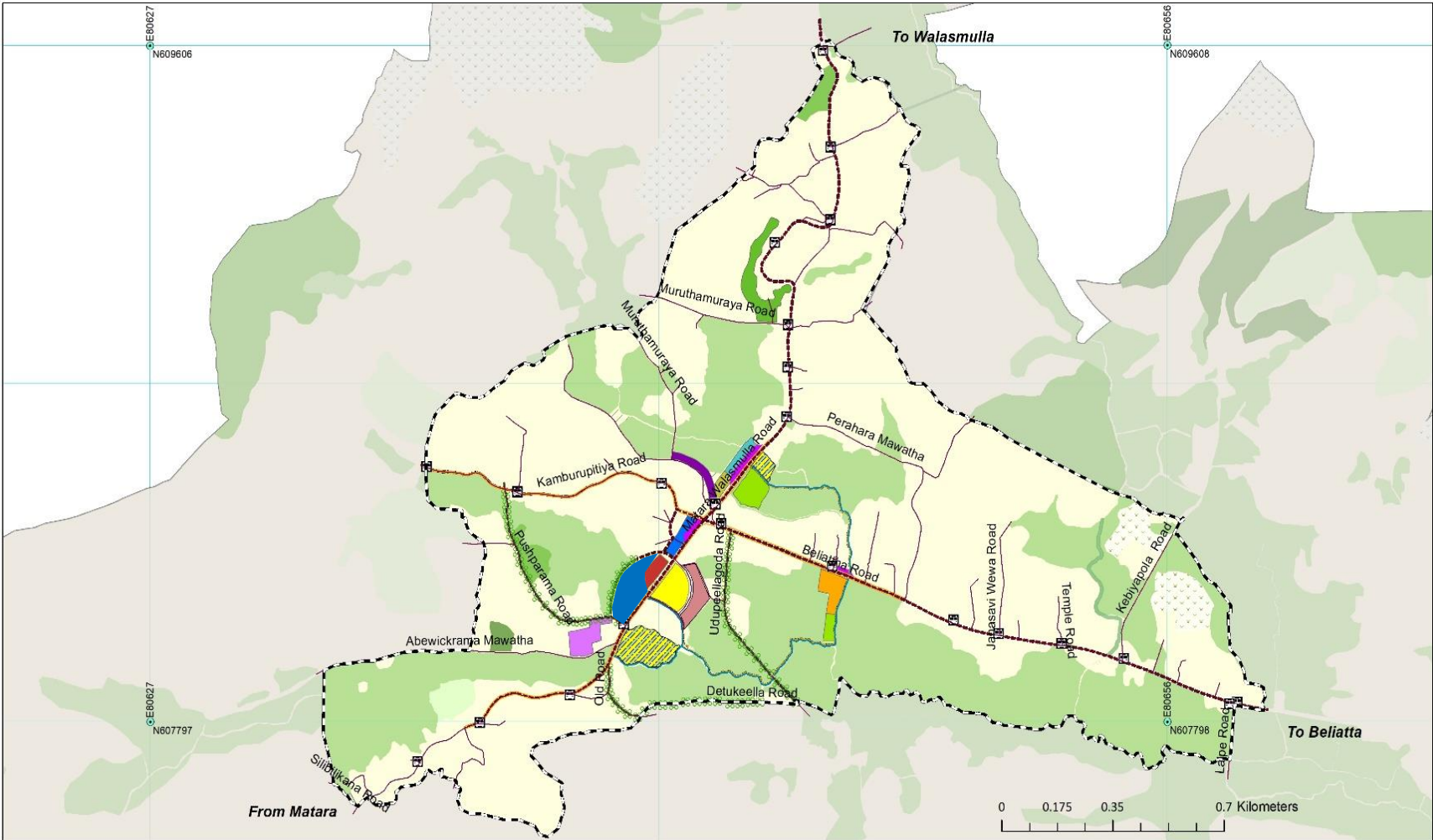
The economic development of the city is a major requirement expected from the development plan. The major weaknesses in the city include depreciation of buildings, loss of investment power of the local council, increase of inequality in income, and this is illustrated by strengths, weaknesses, opportunities and threat analysis. Furthermore, under the first objective of the development plan, 50% of existing buildings will be reduced to 10% by 2030. Under the second objective, by the year 2030, it is expected to attract annually 3500 tourists through the introduction of an agro based tourism initiative as a traditional way of promoting agriculture.

According to the 2020 census data, 59.6% of the working age population in Hakmana town, 24.6% of them, are children dependents. 15.8% is elderly population and having higher labor force is strength to the city. However, it is not economically viable to take 56% of those with income below 12,000. Therefore, the Agro tourism industry has been identified as an economic development strategy to provide generating opportunities for the elderly population and optimum utilization of the labor force. A paddy field in the vicinity of the location of the Buddha Jayanti Vidyalaya and the paddy field in front of the Sathi Pola has been identified for this purpose.


The main sector of the urban economy is agriculture. According to the statistics of 2020, coconut production in the Matara District from the total coconut production 9.8% is contributed from the Hakmana Divisional Secretariat Division. It is the second highest in the district and the paddy production is the next important place in the agricultural sector. The total paddy production in Matara District in the year 2020 is 56,529 metric tons, out of that 3787 metric tons like 6.7% was produced by the Hakmana agrarian development area (District Statistical Division, Matara – 2020). As a strategy of providing a market for these products, a place nearby the proposed marketplace has been identified for a wholesale market targeted at agro-based products.

Considering the above, several economic development strategies have been identified to develop Hakmana town economically. The main objective of these economic development strategies is to get people's attraction by creating a proper landscape and through these new economic strategies it is expected to achieve economic growth in urban areas as well. To achieve these goals, the following strategies have been identified.

Map 11: Proposed Development Projects: Hakmana Urban Development Area (2030)



Legend				
Agro based Tourism Center	Urban Forest	District Secretariat Office	Main Road	Vehicle parking
Town Hall	Bustand Redevelopment project	Play Ground	Walking Path	Bus Stop
Buddhajayanthi Vidyalaya	Vehicle Parking	Design Paddy	Pedestrian Path	Hakmana UC Boundary
Weekly Fair	Childrens Park & Urban Park	Commercial Complex	Green Path	


1:11,000
Map No. 11
 Prepared By – Matara District Office



Proposed Projects – Hakmana Development Area – 2030
Hakmana Development Plan 2021-2030
 Urban development Authority

Urban economic regeneration strategies

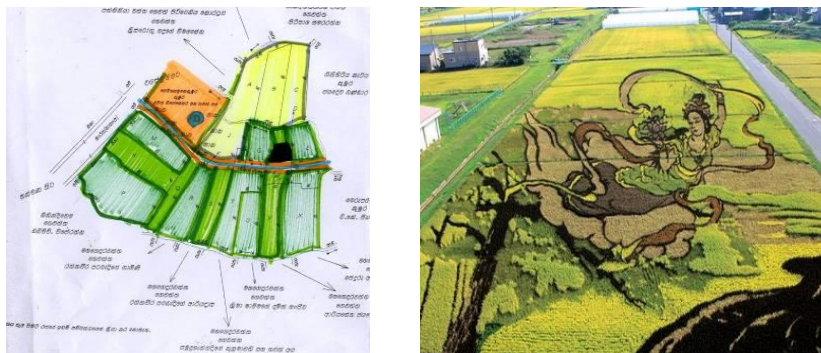
Increasing purchasing power of the people who lives in the area is an important factor for the economic development of the city. Growth of purchasing power is the main purpose of the development plan. Moreover, the urban economic level can also be developed by increasing the daily commuter to the city. The plan has identified several economic development strategies for this.

- Agro tourism centers and paddy cultivation
- Establishing urban forests.

The main strength of Hakmana is 37% of paddy cultivation. Although it has been the main strength of the urban economy, the agricultural economy shows the inadequacy of the agrarian economy and the second generation of agricultural sector is leaving from the sector. Alternatively, two identified paddy lands for discover and strengthen the urban economy, create employment opportunities and urban geography through colorful rice varieties. Apart from the Paddy cultivation (Design Paddy), it is also expected to popularize the agro-environmental tourism industry. Especially by targeting the school children, the inherited Kamath language will be educated and through that tourism will be promoted. Accordingly, two agro-tourism industry sites have been identified.

Proposed land to relocate the new Buddha Jayanti Vidyalaya and Development of a paddy field in the vicinity of the weekly fair in Hakmana - Walasmulla road as a tourist attraction location. The main objective is to create a beautiful landscape along Hakmana-Walasmulla road, in front of the weekly market, with the colorful patterns of paddy cultivation. It has identified as a key economic development strategy to increase number of tourist arrivals to the city.

Figure 21: Development of the land in front of Public Fair with tourist attraction



Source: Urban Development Authority – Matara District Office (2020)

Further, the Hakmana Market and the public fair are the main economic centers in Hakmana. These weekly fairs are held in every Saturday throughout the day, but public fairs are held in every week. It has about 125 stores. At the beginning the weekly fair and the public Market were the same place. However, at present the weekly fair has been established in another place and around 300-350 traders are engaged in trade. The public fair and the wholesale market have been identified to locate in the same location as a means of preventing public fair and its surrounding area underutilization strategy since public fair traders also come to the weekly fair.

In addition, two and a half acres of paddy land in Muruthurea area, which is located in close proximity to the important places of interest in the district, such as Vurukannala, Devundara, Weherahena and Kataragam, Udawalawe etc., has been identified as an urban park.

Further re-location of the Divisional Secretariat to the Beruwewela, Kotugodella, land which is having more space than usual, Rehabilitation of the post office and development of the old Pradeshiya Sabha building as a rest house and a land near the land of the depot office has been identified as a strategy of creating an economic revival through the formalization and design of an environmentally-friendly environment in the city.

6.7. Conservation Areas

6.7.1. Wetlands

Areas that are wet all year or at any time of the year are simply called "wetlands". Artificial or natural wetlands, lakes, reservoirs, waterways, aquifers and peat lands that are temporarily or permanently submerged by freshwater, brackish water or seawater flowing or still, including sea level less than 6 m above sea level, in accordance with the International Ramsar Convention are categorized as wetlands.

Wetlands in Hakmana Urban area can be classified as follows.

- i. Freshwater canals
- ii. Abandoned paddy fields (fallow fields/meadows)
- iii. Paddy lands

Thus, the wetland zoning goal of the Hakmana Urban Area is to utilize wetlands for sustainable social, economic and environmental uses and to consider their potential for water retention and other environmental benefits, thereby preventing unauthorized encroachments and improper use.

Considering the above factors, paddy fields, abandoned paddy fields and related areas in Deniya / Ovita should be considered as "Special paddy cultivation zone" considering the need for water retention. This description is shown in Map No. 12 and the Guidelines for the Zone are given in Part II Chapter 08.

6.7.2. Landscape Management Plan

The main objective of this plan is to conserve and intensify the existing natural landscape features of the area. This will be protected the existing city identity.

In addition, an environmental conservation base systematic plan is aims at the sustainable landscape development of various ecosystems and streetscape.

The landscaping of the Hakmana Urban Area to face global climate change in the future will be geared towards the following objectives.

- a. Increasing urban forest cover to mitigate disasters such as rising urban temperatures, increased of carbon footprint, increased air pollution, and increased flooding.
- b. To provide further encouragement to pedestrian and to provide separate sidewalk ways with shade and seating for pedestrian safety.
- c. Protection of sensitive ecosystems and introduce of Wise use sustainable use in eco-friendly recreation.
- d. To provide well-designed open spaces for the public with infrastructure facilities such as urban squares and public parks.
- e. Increase of Economic development in the city by adding various parks, walkways, landscape lighting and suitable billboards.

The scenic locations of Hakmana are the paddy fields, the natural drainage system and the high ground system. Development activities will not take place in those areas and strategies have been identified through the zoning plan to make the development work without hindering its visibility. In particular, the Green Conservation Zone of the

development plan has been planned to be in the same manner, and it has been identified through Zoning Guidelines to minimize the construction of disrupted areas.

6.7.3. Disaster risk management strategies

It is clear that the Hakmana Urban area is located outside the Disaster Risk Zone in accordance with the Map No. 06 prepared by the Disaster Management Center. Also, due to Hakmana is internally located from the coastal zone, the tsunami, the sea level rise, and the oceanic impacts are not influenced to the city and since paddy fields, tanks, reservoirs and wetlands are spreads throughout the area it is reduced the rain water problem and the flood disaster impact. However, the zoning plan has identified the outdoors as a means of protecting the groundwater level in order to meet global climate change and climate change.

6.7.4. Public outdoor Recreational strategies

Public outdoor recreation is very important for enhancing the quality of each person's physical and mental development. Therefore, the design of the public outdoor recreation space is incorporated into the development plans of the Urban Development Authority.

The current open public spaces of the Hakmana Urban Development Authority

Recreation is considered as two main components, as direct and indirect recreation. Considering the amount of space where people can actively participate in direct recreational activities,

- i. Playing
- ii. Swimming
- iii. Running
- iv. Walking
- v. Boating
- vi. Traditional fishing can be identified as examples.

There are several places in the Urban Development Authority area where fulfill above mentioned activities and the details of these locations are given in Table 16

Table 16: Locations of direct recreation facilities: Hakmana Urban Development Area

Serial No.	Type of garden	Name of the open space	Extent (Hectares)
1.	Existing Local Park (ELP 01)	Danny Abeywickrema Stadium	1.10
2.	Existing Pocket Park (EPP 01)	children's park (Near the new market)	0.17
		Total	1.27

The places of indirect recreation are as follows.

1. Number of libraries - 1
2. Conference Halls - 1 (Pradeshya Sabha Town Hall)

Proposed Public Outdoor Open Space Plan - 2030

According to the plans of the Urban Development Authority, at least 1.4 hectares should be allocated as public outdoor open spaces for the 1000 of population when preparing the development plan. The population of Hakmana Urban area in 2020 is 3144 and there is 1.27 hectares of public open spaces in the year 2020. Accordingly, the population of the city does not have enough public recreational facilities and the existing places also not have adequate facilities as well. According to the analysis of the development plan, by 2030 the predicted population is to be 3220. Therefore, by the year 2030 it has to allocate at least 4.5 hectares of open public spaces.

The Proposed Public Open Recreational Space plan for 2021-2030 for the urban development area of Hakmana is given in Table 17, Map No. 13 and Annex 04

Table 17: Proposed and existing Public Open Recreational Space: Hakmana Urban Development Area

Garden	Extent (Hectares)
Existing Public Open Recreational Space	1.27
Proposed Public Open Recreational Space	3.23
Total	4.50

Source: Field Survey - Urban Development Authority, Matara District Office – 2020

Strategies

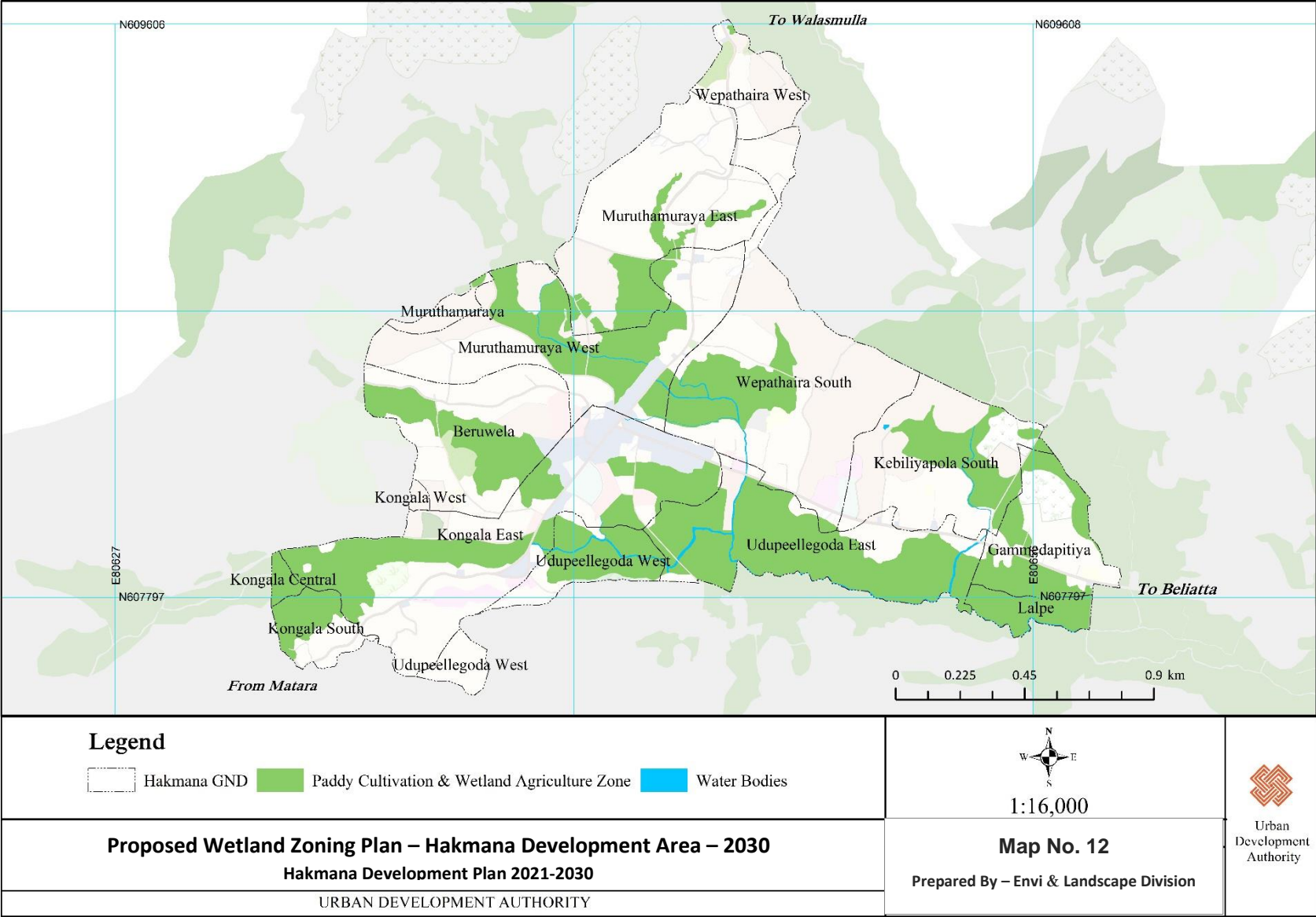
1. Strategies for the proposed public outdoor recreation service plan

- i. Utilize, classify and redevelop all existing playgrounds and empty lands as playable and public open lands as possible.
- ii. Use 10% of lands which are allocated within land subdivision, should enforce the common PORS regulations and it should directly use for entertainment purposes only.
- iii. Implementation of Linear Park Concepts
All canals, Oya and river banks should be developed as linear parks and it should be used by the people of the area for adequate recreation and facilities.
- iv. Allocate space for tree planting strips on roadsides.
Green paths should be developed on both sides of the road according to the Tree Planting Concepts for existing Roads and Proposed Reserves as well.

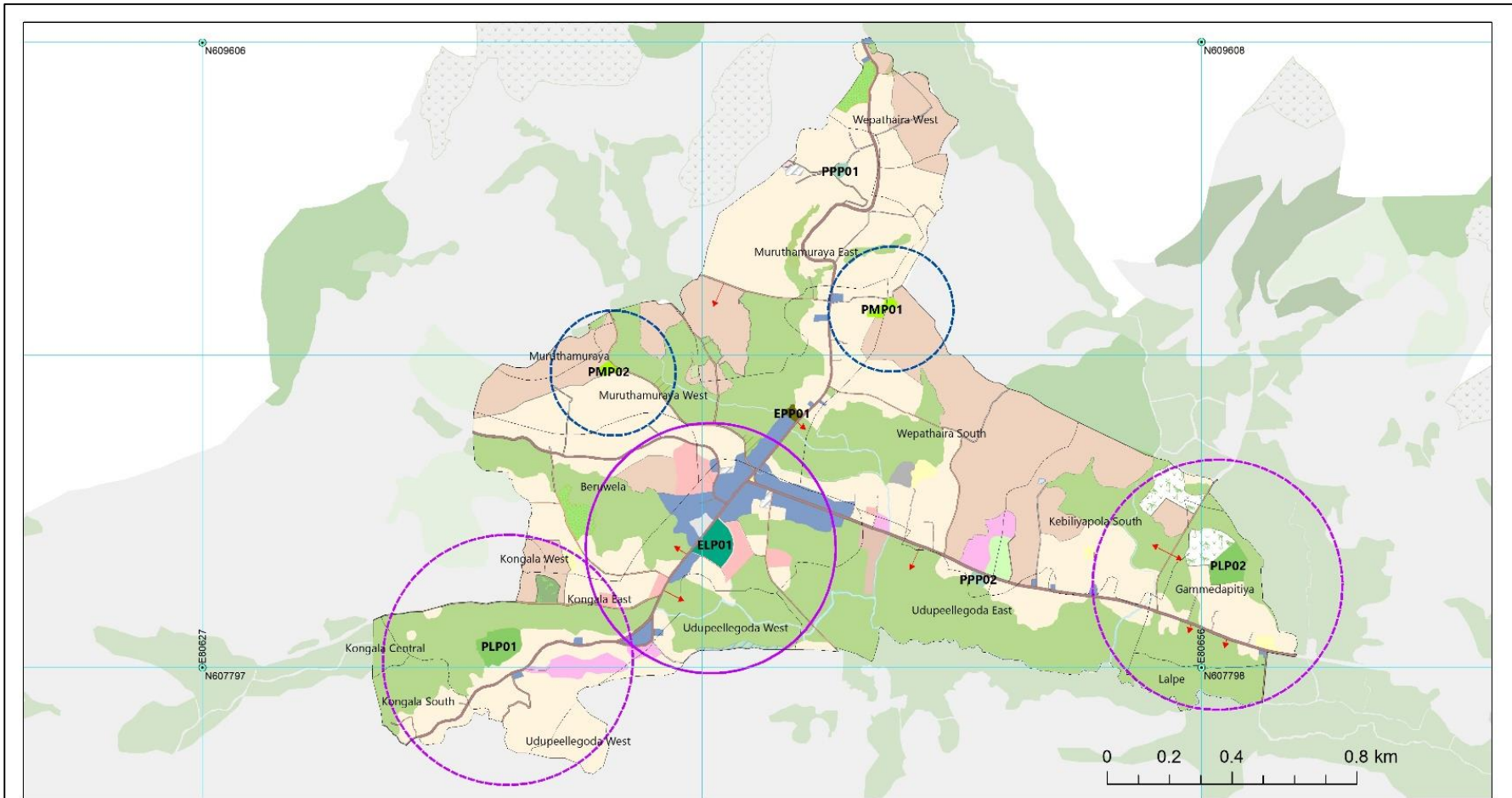
2. Temperature reduction Methodology by 2030



- i. All Government and Semi Government Buildings to be constructed and modified according to the green building certification process.
- ii. Construction of green roofs in all offices and houses with water sprinkles.
- iii. Awareness on the application of light colors to buildings.
- iv. Introducing green parking concept for all proposed parking spaces and redeveloping existing parking spaces as green spaces
- v. Application of interlocking for paving.

Map 12: Proposed Wetland Zoning Plan: Hakmana Urban Development Area (2030)



Map 13: Proposed PORS Plan: Hakmana Urban Development Area - 2030



<p>Legend</p> <ul style="list-style-type: none"> Hakmana GND Scenic View Points Existing Local Park Service Area Radius Mini Parks Service Area Radius Local Parks Service Area Radius Existing Pocket Park (EPP) Existing Local Park (ELP) Proposed Pocket Parks (PPP) Proposed Mini Parks (PMP) Proposed Local Parks (PLP) 	<div style="text-align: center;">  <p>1:11,500</p> </div>	<div style="text-align: center;">  <p>Environment & Landscape Division</p> </div>
<p>Proposed Public Outdoor Recreation Space Plan – Hakmana Development Area – 2030 Hakmana Development Plan 2021-2030 Urban development Authority</p>		<p>Map No. 13 Prepared By – Envi & Landscape Division</p>

6.7.5. Agricultural plan

The Hakmana Development Area is mainly an Agro-based area based on paddy cultivation. Out of the total land area of the center, 54.7% is green, and from that 37% is belongs to paddy lands, 10.5% in gardens and 7.2% in other crops. Among the agricultural land, main agricultural crops are paddy fields, and other than that coconut, cinnamon and other crops have contributed to agriculture as well.

Agricultural activities are carried out by tanks connected to irrigation, and in terms of paddy production in the agriculture sector, 6.7% of the total paddy production in the Matara district was from Hakmana agrarian development area, at the same time Coconut production is 9.8% according to the district rate.

Although 37% of paddy cultivation is the main strength of Hakmana town, since the agricultural economy is not profitable, the second generation is trying to push out from the agriculture.

Also, agriculture is the main economic base in Hakmana. There is also a social development which was connected with the agriculture sector. Especially there are several agricultural committees in the area. It has also contributed to the conservation of the physical environment of the area as well.

Strategies: -

Due to the economical, physical and social importance of the area, several agricultural development strategies have been prepared with the objective of promoting and preserving agriculture. Accordingly, Agri-tourism centers have been prepared. Hence, it is possible to develop Agri-tourism centers and paddy cultivation as a strategy of promoting the agriculture-environmental tourism with the objective of promoting agriculture.

To locate agri tourist centers and for spread design paddy cultivation, there are main three places have been selected. In front of the weekly fair on Hakmana - Walasmulla road, which is close to the main road and more populated, around the land of the new Buddha Jayanthi Vidyalaya on Beliatta Road, the paddy fields near the Matara bus stand and near the Kongagala Primary School was selected as locations.

Thus, the development of the area as a tourist attraction region, the main agricultural development strategy is the use of farmers for the more effective utilization of agricultural land in agro development. Additionally, the Agrarian Services Department has already agreed to use the Agro-based Tourism Industry as a strategy to popularize traditional cultivation with paddy. This will promote farmers' income by reducing the cost of production and increasing prices for products.

The zoning plan contained in the development plan is one of the key strategies of agricultural development in Hakmana. Accordingly, the zoning plan has named the Green Conservation Zone (GCZ) in the area with the existing paddy lands as a wetland and paddy field, and there is no soil filling allowed in this area, permission is granted to the agro based tourism industry only subject to conditions.

Further, development of reservoirs and canals in agricultural development is very important. Therefore, as a strategy of conserving all the streams reserve boundaries have been introduced for those reservoirs and canals.

As a major issue affecting agriculture in Hakmana, the plan identifies poor quality products for agricultural products. This situation has led to the capture of intermediaries in the absence of a previous stock market. As a strategy of preventing this situation, it has been identified to develop a small wholesale market, a public market and a weekly festive market in the development of the land that is not suitable for agricultural purposes.

6.8. Cultural and Heritage Management Strategies

Jayasumanarama Maha Viharaya can be identified as an important place in the ancient city of Hakmana.

Jayasumanarama Viharaya

Jayasumanarama Vihara can be seen as an ancient Buddhist temple in the Hakmana Urban area. 200 years ago, this temple was named as the "Mandikel Temple". At the beginning the "Jayasumanarama Maha Vihara" has been a major center of the Buddhist education centers in the Southern Province which was belongs to Ramannya Nikaya.

Strategies

- i. Preservation of archaeological sites according to archaeological, historical and archeological points.
- ii. Proper maintenance and management of conservation centers.
- iii. Implementation of local and foreign travel promotional programs to create awareness on the historical and cultural, archaeological value of these places and to make an economic contribution from them.

6.9. Implementation Strategies

Hakmana town development plan has been identified to implement several development projects with the objective of achieving objectives and strategies. The main objective of the city is to create a formal and enriched environment for urban development. The projects were weighted according to the vision, need and development benefits of these projects, and the project list identified according to this weighting is as follows.

1. Construction of New Divisional Secretariat Office
2. Agro-tourism promotional centers and design paddy cultivation.
3. Replacement of Buddha Jayanthi College
4. Construction of the Public Market
5. Redevelopment of Weekly Fair
6. Road Development
7. Bus stand and surrounding development project

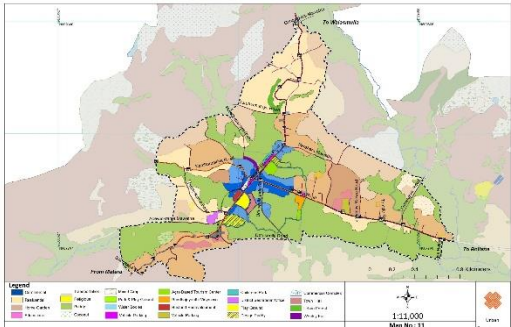
6.9.1. Strategic projects and other projects

Project Title	<i>Hakmana Urban development project</i>
Project	<i>Construction of new Divisional Secretariat - Hakmana</i>
Project Proposal	To provide an optimum and efficient service to the public who come to obtain services.

Project location

Location	Province	Southern Province	District	Matara
	Division	Hakmana	Local Government Institute	Hakmana Pradeshiya Sabha.
Boundaries	North	East	South	West
	Pushparama Mawatha	Residential	Abeywickrema Mawatha	Agrarian Services Office and Land
Access	Abeywickrema Mawatha Pradeshiya Sabha Road)			

Location Map		
---------------------	---	--

Adjoining land use	<p>The proposed land is named Kotugodella in the Beruwewela Grama Niladhari Division. Adjoining land uses are residential and governments institutes such as (Agrarian Service and Central Dispensary)</p>	
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Project Justification

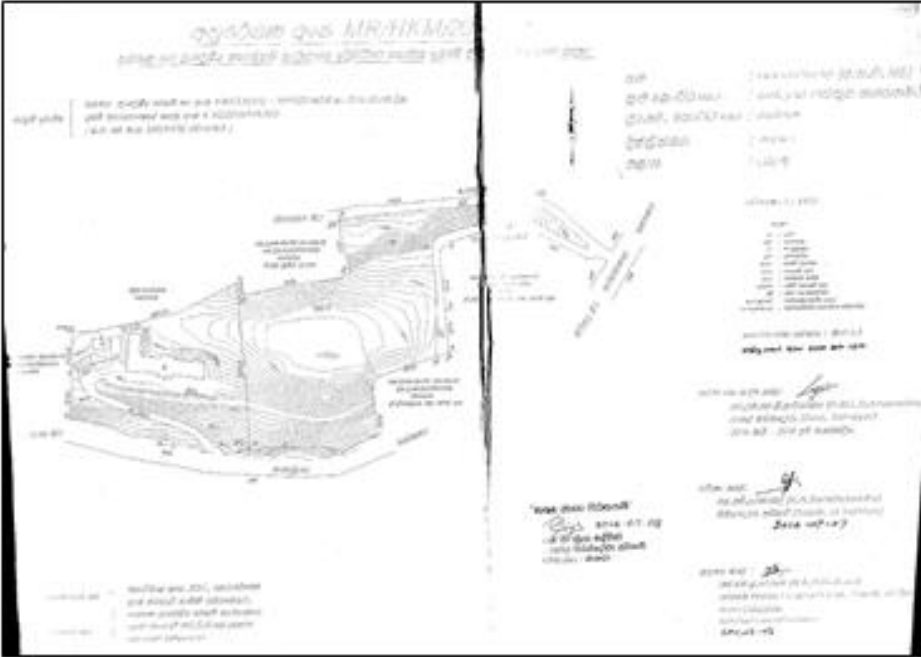

Type of project	New	√	improvement		project			Land Development Only
Project Category	Conservation	Commercial	Landscape and recreational	Heritage	Housing	Relocation		Infrastructure Development
						√		√
Project Aspect	Environment		Economic			Social		√
Project Objective	<p>Hakmana town is being developed as sub regional urban center in Matara District. Servicing the public between 7500 and 8000 to meet their daily needs. It has a sub-regional service route such as Matara, Kamburupitiya, Walasmulla, Kirinda and Beliatta with a second level road network with urban centers.</p> <p>Accordingly, the project aims to achieve the following objectives.</p> <ol style="list-style-type: none"> 1. Construction of Spacious and modified Divisional Secretariat. 2. Reduce the inconvenience to the public due to the congestion and the lack of coordination on the existing Divisional Secretariat building. 							
Rational of project	<p>Hakmana is situated on the Eastern border of the Matara District of the Southern Province</p> <p>Hakmana town is also connected with a radial road network adjacent to adjoining towns. Accordingly, there is a secondary line road with urban councils such as Matara, Kamburupitiya, Walasmulla, Beliatta and sub-urban councils. Daily migration to the city of Hakmana encompasses between 7,500 and 8,000 people for daily needs and other necessities.</p> <p>The proposed new building has been proposed because the existing Divisional Secretariat building is not in a suitable location.</p>							

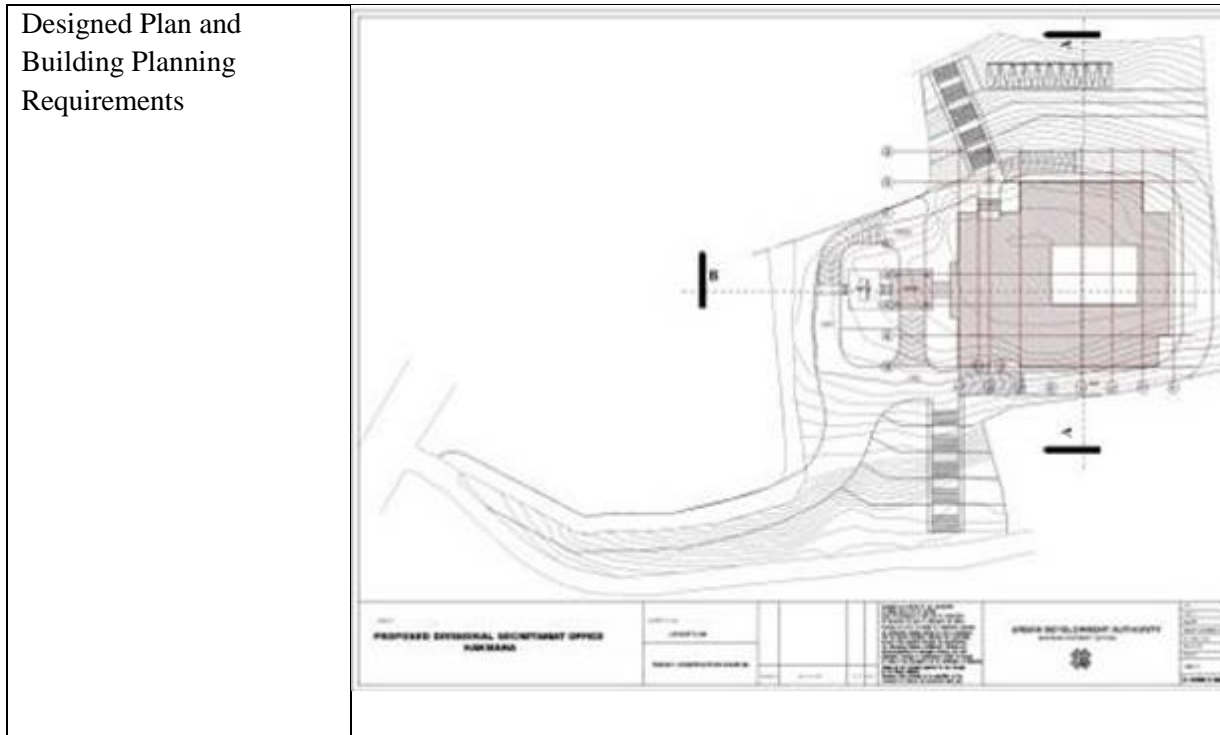
Project Description

Present Land Ownership	Private		State	√	Other	
Details of the Ownership	The proposed project has been taken over by the Divisional Secretary of Hakmana.					
Survey Plan Detail	Survey Plan No.	Name of the Surveyor	Date	Land Extent		
	Trace numbers MR/HKM/2014/169	Senior Superintendent of Surveys, Matara	2014.07.07	A 2.0	R 3.0	P.17.0

Project description

Project Period	Short term (1> year)		Mid Term (1-3 year)	√	Long term (3< year)		Total Estimated Cost	
Financing Method	Government Treasury							
Description of the Project								
Infrastructure Availability	Water National Water Supply & Drainage Board				Power Ceylon Electricity Board			
	Solid waste Management system	Yes		No		If No give suitable SWM proposal		
Zone	Low Density Zone			Zoning compatibility	Yes	√	No	

<p>Present status</p>	
<p>Present status</p> <p>The land has been developed.</p>	<p style="text-align: center;">Photographs</p> 



Project Budget

Activity	Expenditure (Rs millions)
Construction of Divisional Secretariat	67.0


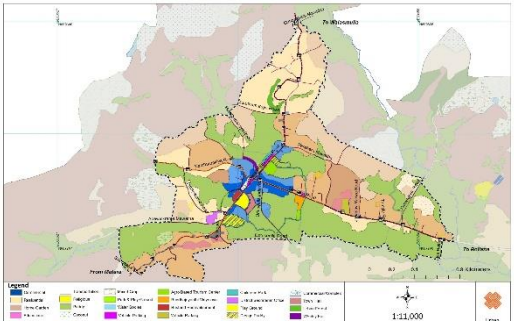
Approval agencies

Activity	Relevant authority	Responsible Persons
	Hakmana Divisional Secretariat	Divisional Secretary
	Building Department	Chief Engineer
	Urban Development Authority	Deputy Director (Planning)

Regulations and Guidelines	Regulations	Guidelines
	Planning and building regulations of the Urban Development Authority	Regulations of the low-density zone of the development plan

Project Title	<i>Hakmana Urban development project</i>
Project	<i>Construction of agricultural counseling and sales outlet based on design paddy cultivation.</i>
Project Proposal	Construction of an eco-friendly advisory and agricultural crop sales center that will bring beauty to the city.

Project location

Location	Province	Southern Province	District	Matara
	Division	Hakmana	Local Government Institute	Hakmana Pradeshiya Sabha.
Boundaries	North	East	South	West
	Irrigation canal	Paddy Field	The paddy field and the road	Hakmana - Walasmulla road
Access	Road Development Authority Road (Hakmana - Walasmulla Road)			
Location Map			<p>The paddy land in front of Hakmana Weekly fair has identified for this Project</p>	
Adjoining land use	<p>The paddy field which is located in front of the weekly fair has been identified as project area. This has been located in an environmentally sensitive area, where close proximity to Hakmana-Walasmulla road and Hakmana-Beliatta road</p>			


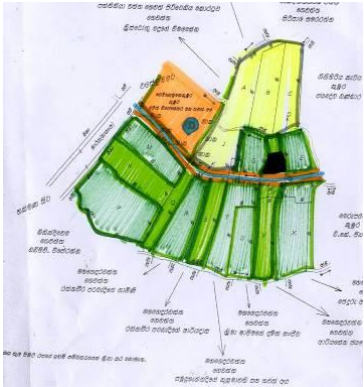

Project Justification


Type of project	New	√	improvement		project		Land Development Only	
Project Category	Conservation	Commercial		Landscape and recreational	Heritage	Housing	Relocation	Infrastructure Development
				√				
Project Aspect	Environment	√	Economic			Social		√
Project Objective	<ol style="list-style-type: none"> 1. To acknowledge farmers and the general public about traditional agricultural crops. 2. Organizing workshops. 3. Marketing of non-poisonous Agro-crops. 4. Establish attraction for the modern generation and cultivate agriculture. 5. Creation of income sources for the Pradeshiya Sabha. 6. Providing technical knowledge on modern and traditional paddy cultivation. 							
Rational of project	Cultivate design Paddy lands around Hakmana town so that they can beautify the city and Provide facilities for purchase of traditional non-poisonous food crops for city which people who travel through city. Also, to educate farmers and school children about traditional and modern paddy cultivation and introduction of old and modern technical strategies. Giving income sources to the Hakmana Pradeshiya Sabha through the sale of agricultural products.							

Project Description

Present Land Ownership	Private		State	√	Other	
Details of the Ownership	Acquired by Hakmana Divisional Secretariat					
Survey Plan Detail	Survey Plan No.	Name of the Surveyor		Date	Land Extent	
	2013/623	P. Samarasinghe		2013.03.16	A. 8.0	0 0

Project Description

Project Period	Short term (1 > year)		Mid Term (1-3 year)	√	Long term (3 < year)		Total Estimated Cost	
Financing Method	Hadhabima Authority							
Description of the Project	 							
Infrastructure Availability	Water National Water Supply & Drainage Board				Power Ceylon Electricity Board			
	Solid waste Management system	Yes	√	No			If No give suitable SWM proposal	
Zone	Low Density Zone			Zoning compatibility	Yes	√	No	
Present status	 <p>The proposed paddy field project located in opposite of the weekly fair in Hakmana - Walasmulla. At present, the preliminary work required to acquire the pradeshiya sabha has been done and surveyed. The extent of proposed land is 8 acres and paddy cultivation are being carried out from the Murutumurava Wewa through the paddy land. Also, it is equipped with pipe-lines and electricity to carry out a project.</p>							

<p>Present status</p> <p>At present the land is a paddy land.</p>	<p style="text-align: center;">Photographs</p> 
<p>Designed Plan and Building Planning Requirements</p>	<ol style="list-style-type: none"> 1. design paddy scheme plan 2. Plans of the Center for Agricultural Crops 3. Landscape Plan

Project Budget

Activity	Expenditure (Rs millions)
Construction of Agro Marketing Center	25.0
Design paddy and landscape	25.0
The subtotal	50.0

Approval Agencies

Activity	Relevant authority	Responsible Authority
<ol style="list-style-type: none"> 1. Landscape Plan 2. Sales center plan 	<p>Hakmana Divisional Secretariat</p> <p>Urban Development Authority</p>	<p>Hakmana Divisional Secretariat</p> <p>Urban Development Authority</p>
Regulations and Guidelines	Regulations	Guidelines
	<p>Planning and building regulations of the Urban Development Authority</p>	<ol style="list-style-type: none"> 1. Regulations of the Green Conservation Zone 2. Recommendation of the Department of Agrarian services 3. Recommendation of the Central Environmental Authority, 4. Recommendation of the Irrigation Department.

Project Title	<i>Hakmana Urban development project</i>
Project	<i>Reestablishment of the Buddha Jayanthi Vidyalaya and establish traditional Agriculturally based Educational Center</i>
Project Proposal	The construction of new buildings for Buddha Jayanthi Vidyalaya Preparation of deficiencies of it and construct center for conduct awareness Programs on Traditional Agriculture and training programs at School level.

Project location

Location	Province	Southern Province	District	Matara
	Division	Hakmana	Local Government Institute	Hakmana Pradeshiya Sabha.
Boundaries	North	East	South	West
	Hakmana - Beliatta road	Paddy Field	paddy field	Paddy Field

Access Road Development Authority Road (Hakmana - Beliatta Road)

Location Map



Adjoining land use

The existing Buddha Jayanthi Vidyalaya is located along the Hakmana Beliatta road and the paddy lands that are in the south are included in the project site. According to the land use pattern there is a road which is belonging to the Road Development Authority on the other side there are paddy fields as well.

Project Justification

Type of project	New	√	improvement		project		Land Development Only	
Project Category	Conser- vation	Commercial		Landscape and recreational	Heritage	Housi- ng	Relocati- on	Infrastructure Development
				√				
Project Aspect	Environment	√	Economic			Social		√
Project Objective	<p>It has a sub-regional service route such as Matara, Kamburupitiya, Walasmulla, Kirinda and Beliatta, this is connected with a second level road network with urban centers. The school children come to the school daily from these areas. Accordingly, the project aims to achieve the following objectives.</p> <ol style="list-style-type: none"> 1. Minimizing the problems and traffic in the school. 2. To create a peaceful environment with facilities for school children to have education. 3. Construction of new buildings, rest rooms and training centers with facilities. 4. Conduct residential training courses and workshops for school children in the area and outside of the region regarding traditional and traditional agriculture. 							
Rational of project	<p>Buddha Jayanthi Vidyalaya, one of the main schools in Hakmana. There is a need of Construct a modern school building to overcome deficiencies and hall facilities at the Buddha Jayanthi Vidyalaya. At the same time to create new lecture halls, restrooms and training centers with modern technical features in order to obtain traditional and modern agricultural knowledge. Further, there is a need of providing, residential training and courses and workshops for students coming from the area and outside.</p>							

Project Description

Project Period	Short term (1 > year)		Mid Term (1-3 year)	√	Long term (3 < year)		Total Estimated Cost	
Financing Method	Government Treasury							
Description of the Project								
Infrastructure Availability	Water - National Water Supply & Drainage Board				Power - Ceylon Electricity Board			
	Solid waste Management system	Yes	√	No			If No give suitable SWM proposal	
Zone	Medium Density Zone		Zoning compatibility	Yes	√	No		
Designed Plan and Building Planning Requirements	<ol style="list-style-type: none"> 1. Plan of the primary section of Buddha Jayanthi Vidyalaya 2. Landscape plan 3. Surveying Plan 							

Project Budget

Activity	Expenditure (Rs millions)
Construction of Buddha Jayanthi Vidyalaya • Hostels	400.0

Approval Agencies

Activity	Relevant authority	Responsible Authority
	Department of Education Department of Agriculture Urban Development Authority Hakmana Pradeshiya Sabha	Department of Education Department of Agriculture Urban Development Authority Hakmana Pradeshiya Sabha
Regulations and Guidelines	Regulations	Guidelines
	Planning and building regulations of the Urban Development Authority	Regulations of the Medium Density Zone under the development Recommendation of the Department of Agrarian Services, Recommendation of the Central Environmental Authority, Recommendation of the Irrigation Department, Recommendation of the Department of Education

Project Title	<i>Hakmana Urban development project</i>
Project	<i>Weekly Fair Development Project</i>
Project Proposal	Weekly Fair Development

Project location

Location	Province	Southern Province	District	Matara
	Division	Hakmana	Local Government Institute	Hakmana Pradeshiya Sabha.
Boundaries	North	East	South	West
	paddy field	Suggested alternative route	Walasmulla - Matara road	Hakmana - Muruthure Road
Access	Road Development Authority Road (Hakmana - Beliatta Road)			
Location Map				
Adjoining land use	<p>The access is obtained road from the Matara - Walasmulla main road the identified project location is located in adjoining to the Hakmana Murthamuraya road and the back yard of the public fair land. There are paddy lands from the North and East.</p>			

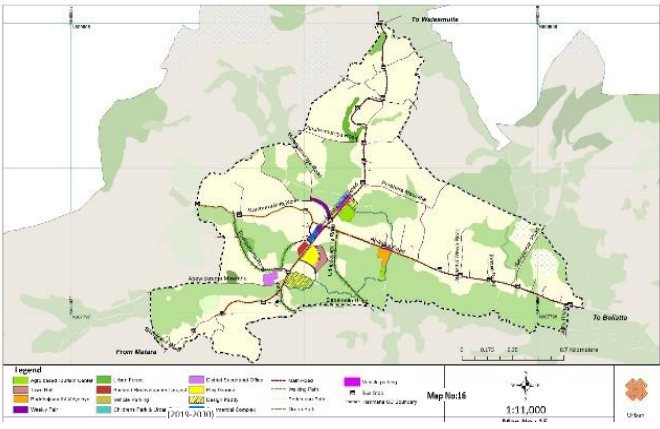
Project Justification


Type of project	New		improvement	√	project		Land Development Only
Project Category	Conservation	Commercial	Landscape and recreational	Heritage	Housing	Relocation	Infrastructure Development
		√				√	
Project Aspect	Environment		Economic	√	Social		√
Project Objective	<p>There is about 45% of the paddy and environmentally sensitive lands owns by Hakmana urban development area. Most of these paddy lands are spread on both sides of the main roads. Currently the land on the weekly fair has been used as a paddy field in the past. As a result, the natural water area of the area is obstructed. On the rainy day, it can be observed that the main road is flooded. Consequently, the main objective of this project is to build a proper weekly fair.</p> <p>In addition, the following benefits are expected from this project.</p> <ol style="list-style-type: none"> 1. Construction of an organized weekly fair in a more formal manner. 2. Removal of obstacles to natural drainage in the area. 3. Town beautification. 4. Make a proper vehicle park <p>The project is expected to be implemented by the city development plan formulated by the Urban Development Authority and is expected to provide the above benefits to the public and traders.</p>						
Rational of project	<p>Hakmana is situated on the Eastern border of the Matara District of the Southern Province. Hakmana town is also connected with a pristine road network to adjoining towns. Therefore, there is a secondary road network which is connected with sub service urban centers such as Matara, Kamburupitiya, Walasmulla, and Beliatta. Daily commuters to the city of Hakmana encompasses between 7,500 and 8,000 people for daily needs and other necessities.</p> <p>Hakmana weekly fair is administered by Hakmana Pradeshiya Sabha and Hakmana is located 200m away from the main hub. The Pradeshiya Sabha, the library, the town hall and the playground is located near the weekly fair.</p>						

Project Description

Present Land Ownership	Private	√	State	√	Other	
Details of the Ownership	The proposed project land has been taken over by the Divisional Secretary of Hakmana.					
Survey Plan Detail	Survey Plan No.	Name of the Surveyor		Date	Land Extent	
	Track No. MR / DSO / HKM / 2009/398	Senior Superintendent of Surveyor		2009.09.30	A 1.0	R 3.0 P 25.8

Project Description

Project Period	Short term (1 > year)		Mid Term (1-3 year)		Long term (3 < year)		Total Estimated Cost	
Financing Method	Government Treasury							
Description of the Project								
Infrastructure Availability	Water National Water Supply & Drainage Board				Power Ceylon Electricity Board			
	Solid waste Management system	Yes		No			If No give suitable SWM proposal	
Zone	Moderate Density Zone			Zoning compatibility	Yes	√	No	

<p>Existing Situation</p>	<p>The Sathipola was constructed in 2010 under the financial provision of the REEP project of the Hakmana Pradeshiya Sabha. The proposed project has been implemented with the acquisition of a previously paddy harvested area by the Pradeshiya Sabha. Accordingly, paddy fields have been flooded due to the filling of paddy lands. Presently, the pradeshiya sabha</p>	
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Project Budget

Activity	Expenditure (Rs millions)
Construction of Weekly Fair	260.0

Approval Agencies

Regulations and Guidelines	Regulations	Guidelines
	Planning and building regulations of the Urban Development Authority	Regulations of the Density Zone under the development plan Recommendation of the Agrarian Department, Recommendation of the Central Environmental Authority, Recommendation of the Irrigation Department

Regulations and Guidelines	Regulations	Guidelines
	Planning and building regulations of the Urban Development Authority	Regulations of the Density Zone under the development plan Recommendation of the Agrarian Department, Recommendation of the Central Environmental Authority, Recommendation of the Irrigation Department

Project Title	<i>Hakmana Urban development project</i>
Project	<i>Construction of Public Market</i>
Project Proposal	To Construct Public Market

Project Location

Location	Province	Southern Province	District	Matara
	Division	Hakmana	Local Government Institute	Hakmana Pradeshiya Sabha.
Boundaries	North	East	South	West
	Post Office	Paddy field	Pushparama Mawatha	Matara Walasmulla main road

Access Matara - Walasmulla main road



Adjoining land use

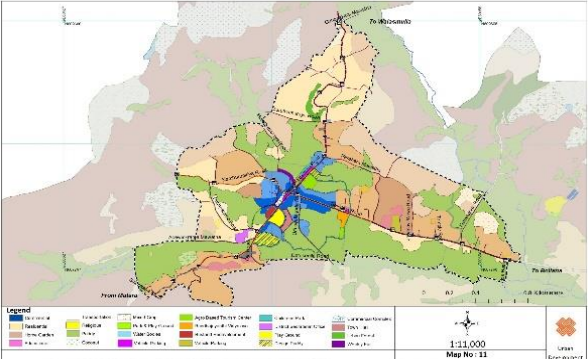
Access will be provided by Matara Walasmulla main road and proposed to use highland and paddy land close to bus stand.

Project Justification

Type of project	New	√	improvement		project		Land Development Only
Project Category	Conservation	Commercial	Landscape and recreational	Heritage	Housing	Relocation	Infrastructure Development
							√
Project Aspect	Environment		Economic	√	Social		√
Project Objective	<ol style="list-style-type: none"> 1. To provide services and facilities for town center users and commuters 2. Infrastructure Development 3. Allocate spaces for parking. 4. Town beautification 						
Rational of project	<p>Hakmana Town is situated in the eastern boundary of Matara District. Similarly, it is well connected with road system. Therefore, Hakmana has connected with Matara, Kamburupitiya, Walasmulla, Beliatta Suburban centers and B grade road system. The daily commuter count for Hakmana is around 7500- 8000.</p> <p>The existing Public Market is an old building and the spaces are not sufficient for present purpose. Informal building has cause disturbance for city beautification. Therefore, new public market building is need to construct considering the present necessity.</p>						

Project Description

Present Land Ownership	Private	√	State	√	Other	
Ownership Details	Private paddy land and about 1 acre of Highland owns to Hakmana Pradeshiya Sabha					
Project Period	Short term (1> year)		Mid Term (1-3 year)	√	Long term (3< year)	Total Estimated Cost 82 5.5 Mn
Financing Method	Treasury funds Urban Development Authority					

Description of the Project							
Infrastructure Availability	Water Water Supply and Drainage Board				Power Sri Lanka Electricity Board		
	Solid waste Management system	Yes	No			If No give suitable SWM proposal	
Zone	Intense Zone			Zoning compatibility	Yes	No	
Present Status	Paddy land and highland with 30 shops						

Approval Agencies

Activity	Relevant authority	Responsible Authority
	Urban Development Authority Hakmana Pradeshiya Sabha Lowland Development Cooperation	Urban Development Authority Hakmana Pradeshiya Sabha Lowland Development Cooperation

	Regulations	Guidelines
Regulations and Guidelines	Planning and building regulations of the Urban Development Authority	Regulations of the Intense Zone under the development plan Recommendations of Agrarian Service Department Recommendations of Central Environment Authority Recommendations of Irrigation Department Recommendations of Wetland Development Cooperation

Project Title	<i>Hakmana Urban development project</i>
Project	<i>Development of the bus stand and the surrounding area</i>
Project Proposal	To provide an efficient transport mode and relevant services.

Project Location

Location	Province	Southern Province	District	Matara
	Division	Hakmana	Local Government Institute	Hakmana Pradeshiya Sabha.
Boundaries	North	East	South	West
	Co-operative land	Paddy Field	Hakmana - Walasmulla main road	Private Lands
Access	Hakmana- Walasmulla road			

Location Map

Adjoining land use

For this project the selected land is selected which is currently owned by the bus stand and adjoining land belongs to the Pradeshiya Sabha. In addition, it is proposed to acquire a portion of private lands and paddy lands. The project is being implemented in the main commercial zone of the city, while it has minimized the expansion of government offices and

Project Justification


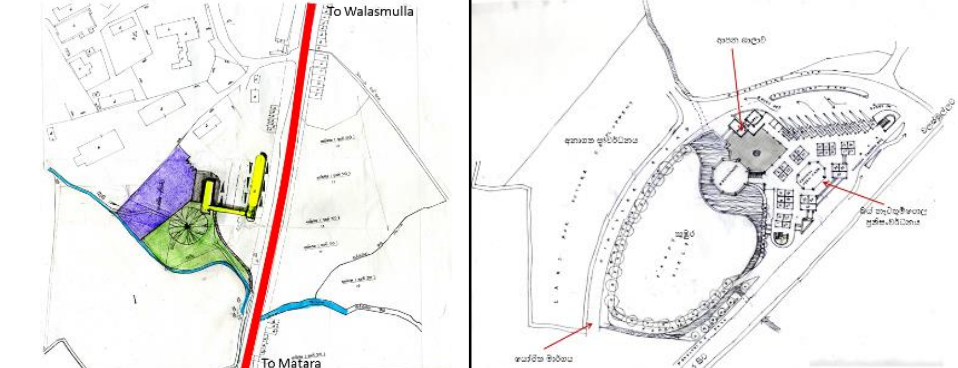
Type of project	New		improvement	√	project		Land Development Only		
Project Category	Conservation	Commercial		Landscape and recreational		Heritage	Housing	Relocation	Infrastructure Development
		√		√				√	√
Project Aspect	Environment			Economic		√	Social		√
Project Objective	<ol style="list-style-type: none"> 1. Construction of a modernized and spacious bus stand. 2. To minimize the inconvenience to the public due to the congestion and mismanagement in the commercial space available at the existing Bus Stand and Pradesh Sabha space 								
Rational of project	<ol style="list-style-type: none"> 1. Reconstruction of two new bus stops and a bus stand with a parking place since there is not enough space for the existing bus station. 2. Provide business places to those who lost business places due to the road development project. 								

Project Description

Present Land Ownership	Private	√	State	√	Other	
Details of the Ownership	It is proposed to acquire part of private land. The Pradeshiya Sabha has owned the existing bus stand.					
Survey Plan Detail	Survey Plan No.		Name of the Surveyor		Date	Land Extent

Project Description

Project Period	Short term (1 > year)		Mid Term (1-3 year)	√	Long term (3 < year)		Total Estimated Cost	
Financing Method	Treasury funds and pre-sale cash							

<p>Description of the Project</p>	 <p>Construction of Phase II of the Bus Stand, To accommodate the parking of the buses at the waiting list, Provide business places to those who lost business places due to the road development project</p>					
<p>Infrastructure Availability</p>	<p>Water National Water Supply & Drainage Board</p>			<p>Power Ceylon Electricity Board</p>		
	<p>Solid waste Management system</p>	<p>Yes √</p>	<p>No o</p>	<p>If No give suitable SWM proposal</p>		
<p>Zone</p>	<p>Medium Density Zone</p>		<p>Zoning compatibility</p>	<p>Yes √</p>	<p>No</p>	
<p>Existing Situation</p>	<p>There is a bus stand, two commercial venues and a sub office of the Mulatiyana Depot.</p>					
<p>Designed Plan and Building Planning Requirements</p>						

Approval Agencies

Activity	Relevant authority	Responsible Authority
	<p>Urban Development Authority Hakmana Pradeshiya Sabha Department of Building</p>	<p>Secretary (Hakmana Pradeshiya Sabha) Chief Engineer Deputy Director (Planning)</p>

	Regulations	Guidelines
<p>Regulations and Guidelines</p>	<p>Planning and building regulations of the Urban Development Authority</p>	<p>Regulations of the Density Zone under the development plan</p>

6.9.2. Institutional framework

Table 18: Hakmana Urban Development Area: Summary of proposed development projects

Serial No.	Name and description of the project	Location	Ownership	Plot Size	Income Source	Estimated cost Rs. (M)	Responsible Institutes	Project Period		
								Short Term	Mid Term	Long Term
1	Construction of a new Divisional Secretariat office	Adjoining land of the Agrarian Service Office at Abeywickrema Mawatha	State	A 02	Treasury Fund	300.0	Hakmana Divisional Secretariat, Urban Development Authority, Department of Building		✓	
2	Construction of a sales outlet for Agricultural Consultants and Agro Crops based on design paddy cultivation	A paddy field in front of the fair	Private	A 04	Hadhabima Authority	50.0	Agriculture Department, Hakmana Divisional Secretariat, Urban Development Authority, Irrigation Department		✓	
3	Construction of the Buddha Jayanthi Vidyalaya College and upgrading the traditional agro-technology center	The land which is located In front of the existing Buddha Jayanti Vidyalaya	State	A 03	Department of Education, Treasury	400	Department of Education, Department of Agriculture, Urban Development Authority.		✓	

Serial No.	Name and description of the project	Location	Ownership	Plot Size	Income Source	Estimated cost Rs. (M)	Responsible Institutes	Project Period		
								Short Term	Mid Term	Long Term
4	Weekly Fair Development Project	The back part of the existing site parallel to the Murutumura Road	Private	A. 01	Treasury Fund	160.0	Hakmana Pradeshiya Sabha Urban Development Authority.		✓	
5	Road Development Project	-	State	-	Treasury Fund	-	Road development Authority Hakmana Divisional Secretariat		✓	
6	Construction of Public Market	Existing paddy land and pradeshiya Sabha land adjacent to Bus Stand	State Private	A. 01 A 05	Treasury Funds UDA	825.5	Hakmana Divisional Secretariat, Hakmana Pradeshiya Sabha, Urban Development Authority, Lowland Development Cooperation		✓	
7	Bus station and the surrounding development project	Existing bus station land	State	A. 01 P.12.0	Pre-Sale and Treasury Fund	175.0	Hakmana Pradeshiya Sabha, Road Passenger Transport Authority, Road Development Authority, Urban Development Authority.		✓	

PART II

Land & Building Development Strategic plan

Chapter 07

Development Zones and Zoning Guidelines

7.1. Introduction

Hakmana Development Plan (2021-2030) is developed to achieve the vision of “Living in Green Valley” based on the expected development. This development plan has introduced goals and objectives to achieve the vision for the next 10 years. In addition, six strategic plans have been introduced for the implementation of these goals and objectives. The land and Building Development Strategic Plan is one of the said strategic plans.

Especially, beyond the traditional land use and traditional zoning plans, this plan will provide the opportunity for development based on the density, and it is intended to create the proposed urban form.

In this chapter, development zones and Zoning Guidelines have been described in detail. In here, development zones, zoning factor, permissible uses for development zones and common regulations affecting those development zones have been described.

It can be said that the preparation of this zoning plan and its boundary verification is a result of several spatial analysis related to the planning area. The planning concept of the Hakmana development plan (2021-2030), the development pressure analysis, the sensitivity analysis, livability analysis and potential space analysis, the distance from main cities and the expansion of infrastructure facilities have used to identify these zones.

7.2. Proposed Development Zones - 2030

Four major Zones have been identified under the vision of development plan prepared for Hakmana Urban Development area. The zoning plan prepared accordingly is shown in Table 19 and Map No. 14.

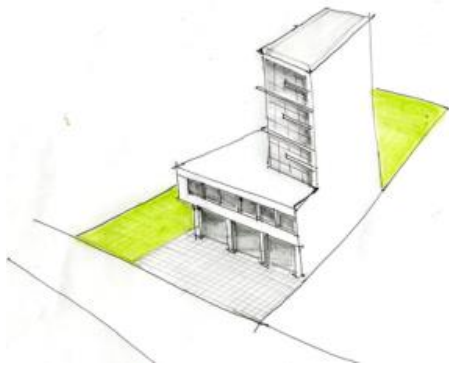
Table 19: Hakmana Urban Development area: Proposed Zoning plan - 2030

No	Use	Land Extent (Hectare)	% of total land in town
01	Intense Zone	19.42	6.34
02	Moderate Intense Zone	69.61	22.75
03	Low Intense Zone	107.85	35.25
04	Green Conservation Zone	109.85	35.66
Total		306.73	100.00

Source: Urban Development Authority, Matara District Office -2020

Figure 22 : Illustrations on zone uses

Intense Zone



Moderate Intense Zone



Low Intense Zone



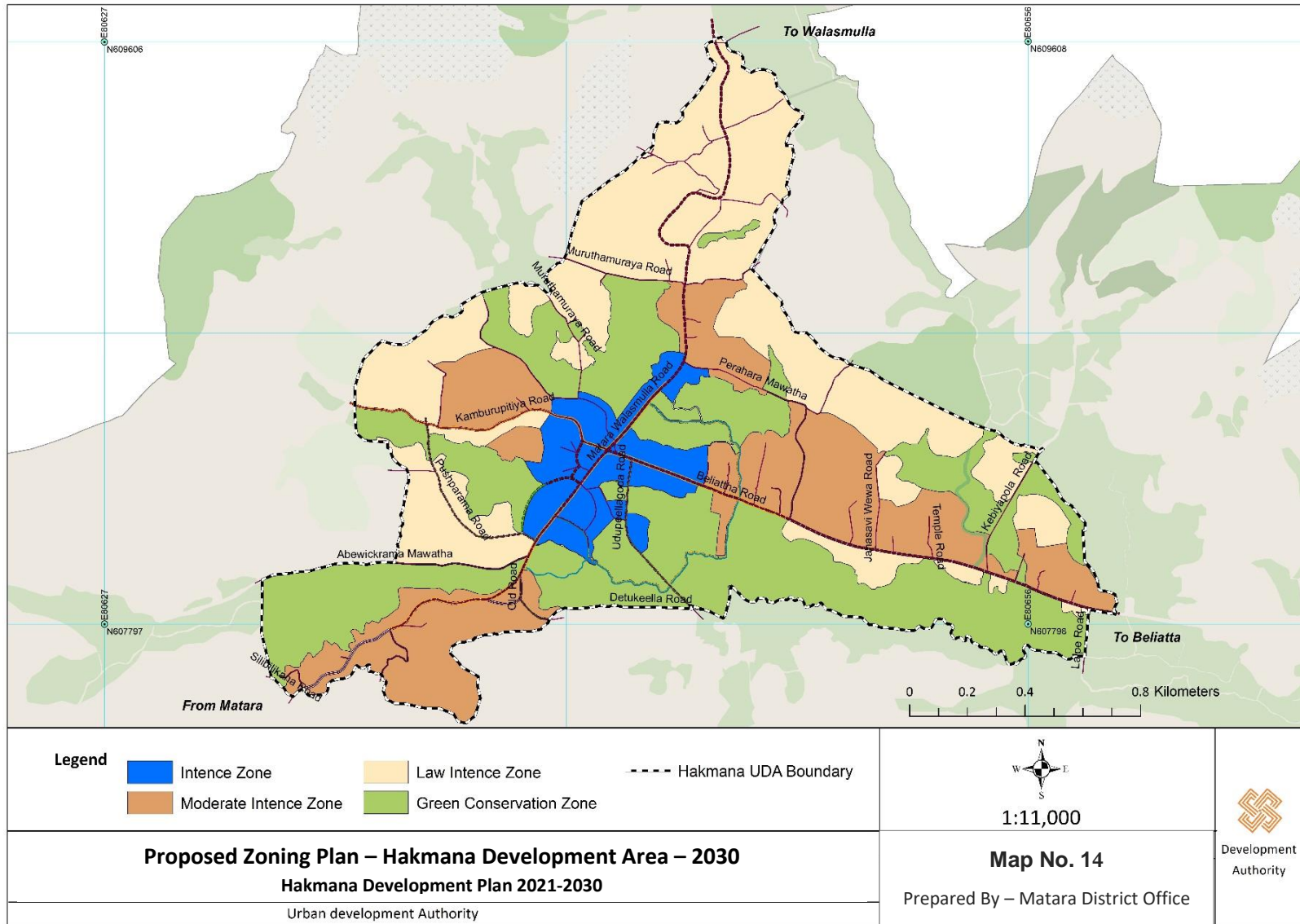
Green Conservation Zone



Source: Urban Development Authority, Matara District Office - 2020

7.2.1. Proposed Zoning Plan - 2030

Map 14: Proposed Zoning Plan: Hakmana Urban Development Area: - 2021- 2030



7.3. Zoning Factor

The zone factor is a new concept introduced in place of a practically implemented Floor Area Ratio, which was previously implemented in the planning and building regulations. This determines the size of the maximum development allowed in a given area. In particular, the property owner is given a reasonable opportunity to carry out his development. Hakmana Development Plan (2021-2030) is expected to be a density-based development for the area by the year 2030. Especially high-density developments will be expected in commercial zone, Moderate density residential zone and low-density residential zones will have moderate and low-density development respectively. It is hoped to establish the proposed urban form by 2030 accordingly. Consequently, the nature of development taking place in the lands at Hakmana PS area is directly affected. That is, the creation of the desired urban form is based on the maximum level of development determined under the zone factor.

Prior to determining the extent of the maximum development in a given area, identification of suitable areas for development should be done. The purpose of High-Density, moderate density, and low-density development zones will be determined through the observations of analysis done and determining the city activity patterns.

The zones have been determined based on the environmental sensitivity, the intensity of development and its direction, the distribution of the infrastructure facilities, the development in commercial activities, the geographical conditions and the density of the population. The Zones which have higher zone factor reflects the availability of concentrated infrastructure network, high commercial development and has a high population attraction within the zone. The zone factor is low if the area is an environmentally sensitive area or there is a lack of land for development or there is a shortage of infrastructure facilities, expected urban form is in the initial stage.

Accordingly, the Zone Factor has been provided for each zone under the development plan.

7.3.1. How the Zoning Factor determined

The zone factor is determined according to the goals and objectives of the development plan, the urban form which can be seen in the future, the environmental sensitivity which limit the future development, the total land available for residential, commercial and other uses which are calculated after considering potential and tolerance for development. The zone factor of a zone is the total area of land that can be used for residential, commercial, and other purposes divided by the amount of land currently available for development in the area.

Accordingly, the zone factor is calculated to allow the development of the expected densities in each of the development zones of the development plan. If a high development is expected in the zones, this value will change to more than 2.0. At the value of 0.5 to 1.0 it allows for low and/or average development and from 1.1 to 2.0 allows for moderate density development.

The proposed zoning Plan of the Hakmana Development Plan has introduced a zoning factor for each zone. According to these figures, the highest zoning factor of 1.75 is calculated with the aim of attracting high development in the high-density Commercial Zone. The main objective of establishing this zone is to provide commercial and service activities to residential areas other than the main city center and to provide commercial and service delivery to high standard commercial and service institutions in the center of the city.

In addition to these zones, in the Moderate Density Residential Zone, the zoning factor value is 0.75, The Objective of this zone is to allow Residential Development as the Main Activity while allowing controlled Development of Mixed Developments.

The Low-Density Residential Zone of 0.5, The main objective of setting up this zone is to permits uses that does not disturbance to residential buildings and its uses for make better living for general community as expected by the urban structure in 2030.

Other zone is Green Conservation Zone and the zone factor value is 0.01. The wetlands and paddy fields within this zone should be maintained in the similar manner and not permit for any development activity. However, approval for the agriculture-based

tourism promoting developments is considered on a temporary basis for tourism promotion purposes.

When looking at a cross-section of the city, it is expected that the future city concept will show a form that is gradually dipping from the high point in the main city center to the boundary of the planning area. Accordingly, Figure 20 shows how the zoning factor of the Hakmana Urban Development Plan was calculated.

The relationship between the zone factor and the permissible floor area ratio as determined in accordance with Form 'A' 'B' in Schedule 6 to Part IV of the Extraordinary Gazette Notification No. 2235/54 dated Thursday 08th July 2021, are given in Tables 20, 21, 22. All development activities related to the Hakmana area should be in accordance with it.

Table 20: Permissible Floor Area Ratio

Form A - Permissible Floor Area Ratio																								
Land extent (Sq.M)	Zone factor = 0.50 - 0.74				Zone factor = 0.75-0.99				Zone factor = 1.00-1.24				Zone factor = 1.25-1.49				Zone factor = 1.50-1.74				Zone factor = 1.75-1.99			
	Minimum Road Width				Minimum Road Width				Minimum Road Width				Minimum Road Width				Minimum Road Width				Minimum Road Width			
	7m	9m	12m	15m or above	7m	9m	12m	15m or above	7m	9m	12m	15m or above	7m	9m	12m	15m or above	7m	9m	12m	15m or above	7m	9m	12m	15m or above
150 less than 250	0.8	0.9	0.9	0.9	1.3	1.3	1.4	1.4	1.6	1.7	1.8	1.9	2.0	2.2	2.3	2.4	2.4	2.6	2.7	2.8	2.8	3.0	3.2	3.3
250 less than 375	0.9	1.0	1.2	1.3	1.3	1.6	1.8	2.0	1.8	2.2	2.4	2.7	2.2	2.7	3.0	3.3	2.6	3.2	3.6	4.0	3.0	3.4	4.3	4.7
375 less than 500	0.9	1.0	1.2	1.4	1.3	1.6	1.9	2.1	1.9	2.2	2.5	2.8	2.3	2.8	3.2	3.4	2.7	3.3	3.8	4.2	3.2	3.5	4.5	5.0
500 less than 750	1.0	1.1	1.3	1.5	1.4	1.7	2.0	2.2	2.0	2.3	2.7	3.0	2.4	3.0	3.4	3.5	2.8	3.4	4.0	4.5	3.4	3.6	4.7	5.5
750 less than 1000	1.0	1.2	1.4	1.7	1.5	1.8	2.2	2.5	2.1	2.4	2.9	3.3	2.6	3.0	3.6	4.0	3.1	3.6	4.3	5.0	3.5	3.8	5.1	6.0
1000 less than 1500	1.1	1.3	1.5	1.8	1.6	1.9	2.3	2.7	2.2	2.5	3.0	3.6	2.7	3.1	3.8	4.5	3.2	3.8	4.6	5.5	3.6	4.0	5.4	6.5
1500 less than 2000	1.1	1.4	1.7	2.0	1.7	2.1	2.5	3.0	2.3	2.7	3.4	4.0	2.9	3.4	4.2	5.0	3.4	4.0	5.0	6.0	3.7	4.2	5.8	7.0
2000 less than 2500	1.2	1.5	1.8	2.1	1.8	2.3	2.7	3.1	2.4	2.8	3.5	4.2	3.0	3.5	4.4	5.4	3.5	4.2	5.2	6.5	3.8	4.4	6.2	7.5
2500 less than 3000	1.2	1.6	2.0	2.4	1.9	2.4	3.0	3.6	2.5	3.2	4.0	4.7	3.1	3.8	4.7	5.8	3.6	4.4	5.5	7.0	3.9	4.6	6.5	8.0
3000 less than 3500	1.3	1.7	2.1	2.5	2.0	2.5	3.1	3.7	2.6	3.4	4.2	5.0	3.2	4.0	5.0	6.2	3.7	4.6	6.0	7.5	4.0	4.8	6.9	8.5
3500 less than 4000	1.4	1.8	2.2	2.6	2.2	2.6	3.3	3.9	2.8	3.6	4.3	5.3	3.3	4.3	5.5	6.6	3.8	4.8	6.3	7.7	4.0	5.0	7.3	9.0
More than 4000	1.5	1.9	2.3	2.8	2.5	2.8	3.5	4.0	3.0	3.8	4.5	5.5	3.5	4.5	6.0	7.0	4.0	5.0	6.5	8.0	4.0	5.2	7.5	9.5

UL - Unlimited

Floor area allocated for parking facilities are not calculated for FAR

Above Floor Area Ratio shall not be applicable for the zones where number of floors or FAR indicated under the Zoning Regulations

Above Permissible FAR may be restricted under the development plan based on the slope of the land

Clearance shall be taken from National Building Research Organization for the lands having slope more than 110

* FAR more than or equal to 10.0 shall be permitted only for the roads having minimum of 12m (from road center) Building Line, if not maximum FAR shall be limited to 9.0

Table 21: Number of Floors for 03m & 4.5m Wide Roads

Form B - Number of Floors for 3m & 4.5m wide Roads						
Minimum Road Width	Minimum Site Frontage	* Plot Coverage	Maximum Number of Floors			
			Zone Factor 0.5 - 0.74	Zone Factor 0.75 - 1.24	Zone Factor 1.25 - 3.49	Zone Factor 3.50 - 4.00
3m	6m	65%	1 (G)	2 (G+1)	3 (G+2)	3 (G+2)
4.5m	6m	65%	1 (G)	2 (G+1)	3 (G+2)	4 (G+3)
Number of floors are indicated including parking areas Number of units allowed for each road shall not be changed * Where no plot coverage specified under the Zoning Regulations						

Table 22: Setbacks

Form C - Setbacks & Open Spaces									
Building Height (m)	Minimum Site Frontage (m)	Plot Coverage*		Rear Space (m)		Side Space (m)		Light Well for NLV	
		Non Residential	Residential	When no NLV is taking this end	When NLV is taking this end	When no NLV is taking this end	When NLV is taking this end	Minimum width	Minimum Area
less than 7	6	80%**	65%	2.3m	2.3m	-	2.3m	2.3m	5 Sq.m
7 less than 15	6	65%	65%	3.0m	3.0m	-	3.0m	3.0m	9 Sq.m
15 less than 30	12	65%	65%	4.0m	4.0m	1.0m and 3.0m	4.0m	4.0m	16 Sq.m
30 less than 50	20	65%	65%	4.0m	5.0m	3.0m both side	5.0m	5.0m	25 Sq.m
50 less than 75	30	50%***	50%***	5.0m	6.0m	4.0m both side	6.0m	6.0m	36 Sq.m
75 and above	Above 40m	50%***	50%***	5.0m	6.0m	5.0m both side	6.0m	6.0m	****
NLV - Natural Light & Ventilation Building Height - Height between access road level to roof top or roof level (Including parking floors) * Where no Plot Coverage specified under the zoning regulations ** The entire development is for non-residential activities *** 65% plot coverage can be allowed only for the podium level not exceeding 20% of the tower height or 12 floors which ever is less **** Minimum area shall be increased by 1 Sq.m for every additional 3m height									

7.4. Common Guidelines for Planning Area

In addition to the special regulations introduced in Chapter 8 for each zone of the proposed zoning plan, this section describes the general regulations applicable to all those zones.

- 7.4.1. These guidelines apply to the entire area within the administrative limits of the Hakmana Pradeshiya Sabha area (Part of) which has been declared as an Urban Development Area in the Extraordinary Gazette Notification No. 1286/7 and 29.04.2003 under Section 3 of the Urban Development Authority Act No. 41 of 1978.
- 7.4.2. In addition to the provisions of this zoning plan, the Planning and Development regulations applicable to any development work is regulated by the Gazette Notification No 2235/54 dated 08th of July 2021. The said legalized Planning and Development regulation also apply to the Hakmana Pradeshiya Sabha (Part of) Planning area.
- 7.4.3. If the zoning plan specifies a particular place or property for a specific use, the location or property shall be used only for the purpose for which it has been designated.
- 7.4.4. If there is any development activity that is not covered by the development plan regulations, the Urban Development Authority takes decisions on it.
- 7.4.5. In any event, the Authority may, prohibit or restrict any development work or the use of a plot or impose a statutory obligation or introduce new regulations in order to achieve the purposes of the development plan.
- 7.4.6. If the land is located in between two different local government areas, it is considered to be belong to the area where the access road provides access to it. If the land is accessed from roads belonging to two different local government areas, the area belonging to the main road belongs to that land section and if both roads

are of the same width, the majority of these lands belong to the local government area should be considered.

- 7.4.7. No person shall use any place or building other than the use approved by development permit.
- 7.4.8. At the time that the Authority considers it appropriate, an area may be defined as a special development area.
- 7.4.9. Restriction or prohibition on the use of a block of land in special project areas designated by the Authority for the construction of any particular building in the area may be prescribed by the regulations envisaged by this plan, banned relaxation or other regulations for the performance of duties assigned to the area. Various types of religious places and permanently constructed religious signs, statues or similar constructions and any existing building can be modified on such approval.
- 7.4.10. Preservation of all archaeological sites and archaeological objects related to the archaeological, architectural and architectural heritage, and to make improvements or renovations and make new constructions in order to preserve the archaeological value. For this purpose, recommendation should be obtained from the Department of Archaeology or the relevant institution.
- 7.4.11. By the time this law applies to any lawfully enforced implementation of the law when the law is enforced, the use does not extend or prolong the extension of its buildings or machinery or adjoining parts of adjoining lands or any activity that leads to any project. Further, if you feel that the proposed site or building continues to be detrimental, it may be required to terminate such incompatible use.
- 7.4.12. If a place or property is not nominated for a specific use, it should not interfere with the use of the same in the authorized zone in accordance with the zoning plan.

- 7.4.13. If any property or building belongs to two zones, the area of that property or building get the main access must be considered as the zone of that property or building.
- 7.4.14. If any property belongs to two or more regions, it would be legitimate to include such areas in the most favorable zone for the purpose of development plan.
- 7.4.15. Boundaries shown in the zoning map are often based on existing roads and water ways, and in case of the boundaries of the development plan must be based on the X and Y coordinates specified on the Decimal Degree of Google Earth.
- 7.4.16. The permission of the Authority should be obtained before the display or construction of a permanent display of advertisements or exhibitions and display boards.
- 7.4.17. No alterations or repairs should be made in the reservation buildings without the approval of the Authority.
- 7.4.18. When constructing a building in a cemetery or developing such a building, the burial act should be addressed in the burial act.
- 7.4.19. Areas that are commonly used as public spaces, recreation areas and identified for public recreation activities are only permitted for such purposes.
- 7.4.20. In each region designated by the zoning plan, the maximum floor area that can be constructed in any construction work should be obtained from Table 20.
- 7.4.21. No changes, repairs, break-ins, distortions or damages could be done to any building without the approval of the Urban Development Authority.
- 7.4.22. The building line of any road/street / canals adjacent to any place or land plot should be as mentioned in Table 31, 32 and 33.

- 7.4.23. The building line for any public foot path or staircase should be as mentioned in chapter 09.
- 7.4.24. The final decision on the allocation of reservations or hurdle zones for the protection and maintenance of the ecological surroundings in a particular location is carried out by the Authority.
- 7.4.25. In addition to the separate uses in the specific zone, the authority will be allowed subject to conditions if the Authority is satisfied for other uses.
- 7.4.26. Special approvals for the issuance of hazardous sterilization or contaminating industries or businesses must be obtained from the Authority.
- 7.4.27. Approval should be obtained from the institutions recommended by the Authority for the filling, construction and use of low land, paddy lands and environmentally sensitive areas.
- 7.4.28. Regulations specified in this plan will be defeated by special project areas or government project designated by the Authority.
- 7.4.29. Permissions of authority must be obtained regarding the construction of boundary walls.
- 7.4.30. The Urban Development Authority will have the final decision regarding the issues with regard to the zoning boundaries.
- 7.4.31. In case of the construction of memorial tombs or restoration of the tombs, a development permit should be obtained.
- 7.4.32. The permission of the Urban Development Authority should be obtained when a land or territory is allocated for a cemetery.

- 7.4.33. When a plot of land or a building is allocated for a specific use, its use will not be allowed to change. However, if the following are completed with the approval of the Authority, on the recommendation of the Planning Committee, the local authority may consider the alteration of use.
- 7.4.33.1. Such use should not be obstructing the facilities available in the area.
 - 7.4.33.2. It should not cause problems with vehicle driving.
 - 7.4.33.3. Such use should not impair environmental compliance by creating health hazards through environmental pollution.
 - 7.4.33.4. Land size should be sufficient to provide an infrastructure.
 - 7.4.33.5. Provision should be made to ensure adequate safeguards to protect from fire and other hazards.
 - 7.4.33.6. Cutting trees, cutting branches or, possibly, destroying natural vegetation, should not change the terrain characteristics of the area.
 - 7.4.33.7. It should not make any difference to the buildings, hills, historical and archaeological monuments in the area.
- 7.4.34. The Zone Factor is based on the development density of the designated zones in the development plan. Moreover, the following factors are based for the calculation of the Zone Factor. (Zone Factor Calculation procedure is attached in Annexure ix)
- a. Environmental and cultural sensitivity
 - b. Quantity of Infrastructure in the Zone
 - c. Ability to develop the geographical factors, the population density, and similar issues based on the zone
- 7.4.35. Zone factor will not valid for protected areas and special reserves. Only regulations applicable to those zones will be valid.
- 7.4.36. Based on the special circumstances or future developments, the Authority has the full power to reduce or increase the zone factor.
- 7.4.37. The Urban Development Authority has the final decision on the problems arising in determining the "total floor area" approved for development activities.

- 7.4.38. If any use that is not specified in a particular region is desirable for that particular region, it is appropriate to discuss and make a decision on the Planning committee.
- 7.4.39. When constructing buildings in the boundaries of paddy lands, it is not permitted to construct blind walls or boundary walls in such directions, for such fences plant fences or transparent fences are permitted.
- 7.4.40. For the new buildings being constructed in all state and semi-government institutions the "Blue Green Sri Lanka" Green Standard should be obtained.
- 7.4.41. Construction of fences or boundary walls are not allowed in the reservation area to be maintained from the canal streams.
- 7.4.42. Though it is included in the land use plan before filling in the low land, paddy fields, water gathering places and wetlands prior approval should be obtained from Sri Lanka Land Reclamation and Development Corporation.
- 7.4.43. Fixing permanent name boards or advertisements should be pierced for a street or fixed in the building so as not to hinder their appearance. Prior approval on the placement of permanent name boards or advertisements accordance to the location should be obtained from the Urban Development Authority. These notice boards should be prepared in accordance with the following conditions and regulations.
- 7.4.44. When designing an advertising board, it is necessary to concern on the identity of the city and Archaeological conservation advertising boards in Hakmana should be prepared in Concurrent to the urban design.
- 7.4.45. Location of advertisement boards should be submitted for the approval of the Urban Development Authority and Hakmana Pradeshiya Sabha before installing them.
- 7.4.46. Advertising boards should not be disturbance to the Pedestrian Pavement.
- 7.4.47. Lighting in advertisement boards should not be disturbance to drivers
- 7.4.48. No permission is allowed for disturbing the view of paddy fields.

Chapter 08

Special Zoning Guidelines

The zoning plan of the Hakmana Development Plan has identified 04 development zones and the development guidelines applicable to each zone in as follows.

8.1. Intense Development Zone

The main objective of establishing this zone is to provide commercial and service activities within the proposed density zone in the city center in order to provide the required commercial and service facilities to the residential areas in and around the main city center and to the daily commuters.

8.1.1. Zoning Guidelines for Intense Development Zone

Table 23 : Zoning Guidelines for Intense Development Zone

Boundary (Coordinates)	Mentioned in Annexure 01
Zone Factor	1.75 (Annexure viii)
Floor Area Ratio	As per the in Table 20.
Permissible Height Limit	As per the in Table 21.
Permissible plot coverage	80%
Zoning Guidelines	<ul style="list-style-type: none"> • Minimum Land Extent 150 sq. m (06 perch) • For commercial buildings constructed from proposed common parking spaces up to 100m, the space should be paid by parking space, and the space must be reserved in the common car park. • Tanks, canals, paddy lands in this region should be maintained in such manner. When minimum land plot sizes of high lands are not available for government projects paddy lands could be utilize under the recommendations from relevant institutions. • All the ground floor of the buildings constructed on both sides of the main road should be used only for commercial and services uses. • Residential buildings within this zone can be converted to suitable another use with the permission of the authority in free of service charge.

Table 24 : Permissible Uses of Intense Development Zone

	Permissible Uses	Other
1.	All commercial services institutes	
2.	Super Markets ,Market Complex	
3.	Hotels ,Canteens ,Receptions	
4.	Quarters ,Housing Projects ,Apartments, Residential Buildings, Hostels and Guest Houses	
5.	Government Hospitals, Private Hospitals , Pharmacy Laboratory Services	
6.	Fuel stations	Minimum Land extent 40 perch
7.	Vehicle Service Centers	
8.	Government and Semi-Governments offices , Professional Offices	
9.	Banks, Insurance Company and Finance Institutions	
10.	Cinemas, conference halls, theatres, and open theatres	
11.	Vehicle parking spaces ,Vehicle yards, Play ground , Urban Parks	
12.	Bakery ,Printing shops ,Small Scale stores	
13.	Customer Care Centre	
14.	Beauty Centers, Laundry, Spa, Communication Centers, Physical Fitness Centers	
15.	Pharmacies	
16.	Tuition Classes	
17.	Grinding Mills	
18.	Agro-raw materials stores	
19.	Agricultural material sales shop	
20.	Bars (Alcohol sale outlets)	

Non –Permissible Uses	
1.	One storied Houses
2.	Pre-Schools, Primary Schools, Secondary Schools, International Schools
3.	Wood mills and Rice mills
4.	Agro training Centers
5.	Socio-Cultural Centers
6.	Concrete related manufacturing industries
7.	Rubber related manufacturing industries

Prepared by: Matara District Office, UDA- 2021, 2030

8.2. Moderate Intense Development Zone

The Objective of this zone is to allow Residential Development as the Main Activity while allowing controlled Development of Mixed Developments.

8.2.1. Zoning Guidelines for Moderate Intense Development Zone

Table 25 : Zoning Guidelines for Moderate Intense Development Zone

Boundary (Coordinates)	Annexure 01
Zone Factor	0.75 (Annexure viii)
Permissible Floor Area	As per in Table 20
Permissible height limit	As per in Table 21.
Permissible plot coverage	65%
Zoning Guidelines	<ul style="list-style-type: none"> • Minimum Land Extent 250 m² (10 Perch) • Parking spaces should be provided within the land or in a common parking area. • Tanks, canals, paddy lands in this region should be maintained in such manner. When minimum land plot sizes of high lands are not available for government projects paddy lands could be utilize under the recommendations from relevant institutions.

Table 26 : Permissible Uses of Moderate Intense Development Zone

	Permissible Uses	Other
1.	Residential Buildings, Hostels and Guest house	
2.	Hospitals ,Medical Counselling centers and Health Centers	
3.	Rest houses, Canteen, lodges, Holiday resorts and reception halls	
4.	Government and semi government Institutes, Professional Training Centers, Information Technology Institutes	
5.	Banks and Insurance institutions	
6.	Rice Mills, Wood Mills and Grinding Mills	
7.	Retail Shops	
8.	Agro-Training Centers, Agro product sales Centers, Cinnamon and rubber related manufacturing industries, and Concrete related manufacturing industries	
9.	Bars (Liquor Sales Shops)	
10.	Physical Fitness Centers, Spas	

11.	Beauty Centers, Laundry, Communication Centers	
12.	Pre Schools and day care Centers	
13.	Socio-Cultural Centers, Community Halls	
14.	Vehicle Repairing places and Motor-Cycle repairing places	
15.	Bicycle repairing Centre	
16.	Primary schools, Secondary schools and International schools	
17.	Play grounds and open spaces	
Non –Permissible Uses		
1.	Dangerous Trade activities	
2.	Corruptive activities	

Prepared by: Matara District Office, UDA- 2021, 2030

8.3. Low Intense Development Zone

The main objective of setting up this zone is to permits uses that does not disturbance to residential buildings and its uses for make better living for general community as expected by the urban structure in 2030.

8.3.1. Zoning Guidelines for Low Intense Development Zone

Table 27: Zoning Guidelines for Low Intense Development Zone

Boundary (coordinates)	Annexure 01
Zone Factor	0.5 (Annexure viii)
Permissible Floor Area	As per the Table 20
Permissible height limit	As per the Table 21
Permissible Plot Coverage	60%
Zoning Guidelines	<ul style="list-style-type: none"> • Minimum land extent 12.0 perch • Vehicle Parking spaces should be provided within the land. • Tanks, canals, paddy lands in this region should be maintained in such manner. The last floor of all the buildings should be designed with a roof .

Prepared by: Matara District Office, UDA- 2021, 2030

Table 28: Permissible Uses of Low Intense Development Zone

	Permissible Uses	Other
1.	All residential buildings, hostels and flats.	
2.	Agro technical training Centers	Maximum 50m ²
3.	Schools, Pre-schools, Community Centers and Service centers	
4.	Medical treatment Centers and Professional offices not more than 25m ² in same residential plot.	
5.	Commercial Buildings and Retail shops	Maximum 50 m ²
6.	Government Institute	Maximum 50 m ²
7.	Religious Institutes	
8.	Socio-Cultural Centers	
9.	Motor-Cycle, Bicycle and Three-wheeler repairing Centers	
10.	Playgrounds and open spaces	
11.	Canteen	
Non –Permissible Uses		
1.	Dangerous Trade activities	
2.	Corruptive activities	

8.4. Green Conservation Zone

The wetlands and paddy fields within this zone should be maintained in the similar manner and not permit for any development activity. However, approval for the agriculture-based tourism promoting developments is considered on a temporary basis for tourism promotion purposes.

8.4.1. Zoning Guidelines for Green Conservation Zone

Table 29: Zoning Guidelines for Green Conservation Zone

Boundary (Coordinates)	Annexure 01
Zone Factor	0.01 (Annexure viii)
Permitted Height limit	Building height limit within this zone is 07m .
Permissible plot coverage	1%
Zoning Guidelines	<ul style="list-style-type: none"> • Minimum land extent 40 perch • The wetlands and paddy fields within this zone should be maintained in the similar manner • 1 acre land is allowed for not more than 10 square meter construction with the approval of the Department of Agrarian Development for tourism purposes.

	<ul style="list-style-type: none"> • Clearance shall be obtained from the agencies of No. 01, 03, 04, 05 and 09 mentioned in annexure iii prior to development of any low lands where necessary clearance or approval of relevant agencies mentioned in annexure iii shall also be obtained when the ownership of wetland is delegated to them by an act. • The environmental clearance or Environmental Protection License (EPL) shall be obtained for any development which effects wetland environment from no.03, 05 agencies of the annexure iii and shall be renewed annually. • In general, there shall not be any construction within water bodies and waterways which disturbs the water retention and water flow. But exceptions may be made for focal features/buildings, piers, picnic shelters, cabanas on stilts, fishing decks, boardwalks, etc. in keeping with a project master plan or design guide plan approved by the UDA, not compromising drainage or flood detention capacity. Recommendation and Approval shall be obtained from relevant agencies of No. 01 & 02-22 of the annexure iii • The services of relevant qualified professionals shall be obtained by developers for planning, design and supervision, as necessary. • All construction in this zone should be built using planks, coconut palms, straw, timber, and clay. • In this region, the use of cabled electricity and cabled telephones not permitted, and it is possible to use alternatives • Electricity and telephone, posts or towers are not permitted within this region.
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	<ul style="list-style-type: none"> • In general, waste dumping shall not be permitted (Residential, Institutional, Commercial, Industrial, E-waste and Clinical waste) in to wetlands. • Release of waste water to wetlands is not allowed. Treated water with the approval of CEA shall only be permitted to release to the wetland areas. • Legal public footpaths and public bathing wells shall be preserved or replaced in suitable nearby locations.
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Table 30 : Permissible Uses of Green Conservation Zone

	Permissible Uses	Other
1.	Parks and Playgrounds	
2.	Exhibition stalls and Open theatre	
3.	Mobile Shops	
4.	Outdoor physical fitness places	
5.	Adventure play grounds ,parks	
6.	Fish farming	
7.	Natural paths	
8.	Water retention and water control areas	
Non –Permissible Uses		
1.	Permissible Uses in the above Zones	

Chapter 09

Proposed road width, Building Lines & Reservation

The land use plan included in the development plan has determined the building lines for all roads in the city to include the desired physical structure and to create an efficient traffic pattern. The proposed building line for all the roads is mentioned in Table 31.

9.1 Proposed Road widths

Table 31: Building lines for Proposed 'B' grade roads: Hakmana Urban Development Area

Road Name	Proposed road width (m)	Building Line	
		Meter	Feet
1. Hakmana –Matara Main Road	23.4	15.3	50
2. Hakmana-Middeniya Main Road	23.4	15.3	50
3. Hakmana- Beliatta Main Road	23.4	15.3	50
4. Hakmana Ellewela Main Road	12.0	15.3	50

Prepared by: Matara District Office, UDA

Table 32 : Building lines Pradeshiya Sabha Roads: Hakmana Urban Development Area

Road Name	Proposed Road Width(m)	Building Line	
		Meter	Feet
1. Hakmana-Muruthamuraya Road	9.0	6.1	20
2. Hakmana- Udupillegoda Lalpe Road	9.0	6.1	20
3. Amaradasa –Galappaththi Road	9.0	6.1	20
4. Kongala-Dekatukella Road	9.0	6.1	20
5. Pushparamaya Road	9.0	6.1	20
6. Kongala - Silibilikana Road	7.0	6.1	20
7. Kongala – Naapale Road	7.0	6.1	20
8. Muruthamuraya - Vijaya Mawatha	7.0	6.1	20
9. Digana- Muruthamuraya Road	7.0	6.1	20
10. Hakmana Pradeshiya Sabha Office Road	7.0	6.1	20
11. Sri Aththadassi Road	7.0	6.1	20
12. Wepathaira -Janasavi Wewa Road	7.0	6.1	20
13. Hakamana-Kuruwegoda Road	7.0	6.1	20
14. Jinadasa Pothmulla Road	7.0	6.1	20

15. Hakmana-Mahagedarawatta Road	7.0	6.1	20
16. Digana –Wepathaira Road	7.0	6.1	20
17. Kongala- Aparekka Gedara Road	7.0	6.1	20
18. Kongala Sharamadana Mawatha	7.0	6.1	20
19. Mullekumbura – Maligathenna Road	7.0	6.1	20

Prepared by: Matara District Office, UDA

- ❖ The building line for the roads belonging to local authority which are not mentioned above is 6m
- ❖ Roads which are maintained by the local authority and other public roads - The building line is 4.5m

Maintaining Building Lines on Private Roads

It is not necessary to maintain a building line for private roads. However, for private roads connecting to another road, should maintain a building line of 1.5 m from the existing road edge.

9.2. Building Lines for Canals

Following are the building lines for the internal canals belonging to the development area. Building lines are estimated from both sides from the boundaries of the canal for internal waterways, and all building approval must be made accordingly. Building boundaries have been calculated on both sides of canals for inland waterways, and building design approval for all construction should be accordingly

Table 33 : Building lines for internal water ways and paddy fields: Hakmana Urban Development Area

Water Way	Building Line (m)
1. Kongala Ara	4.5
2. Heen Ela	4.5
3. Canal from Denagama lake	4.5
4. Other Canals	3.0
5. All Paddy lands	3.0

Terms and Conditions for Canal Reservations

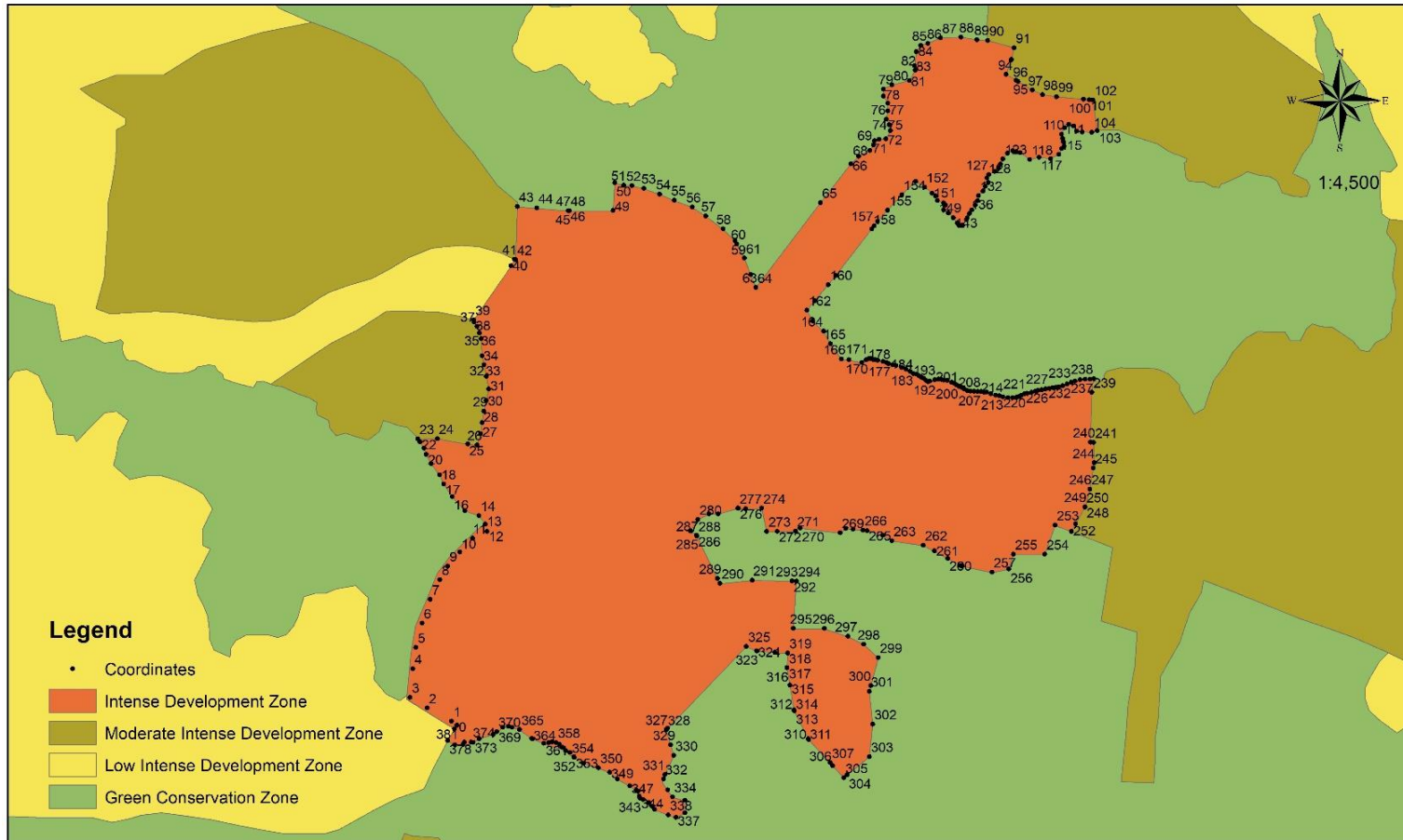
- I. No buildings or structures shall be constructed and/or reclaimed in the canal reserve area declared as a canal reserve without the written consent of the Irrigation Department.
- II. Although the canal reserve can be used as an access road only when there is no alternative route, the road should not be paved, concreted or otherwise paved. (Except special projects comes under UDA)
- III. In the case of a canal reserve, leasing of commercial property for any other purpose shall not be allowed by any person, association, institution or local authority.
- IV. Land should not be used for parking or garages in areas declared as canal reserves.
- V. In any case, boundary wall construction is not permitted within the reservations. However, the permitting of a boundary fence, in mesh will be considered.

PART III

Annexures

Annexure 01: Zoning Boundaries and Coordinates

Map 15 : Intense Development Zone - X, Y Coordinates



Intense Development Zone (Zoning Coordinates)

Source : UDA - Matara District Office

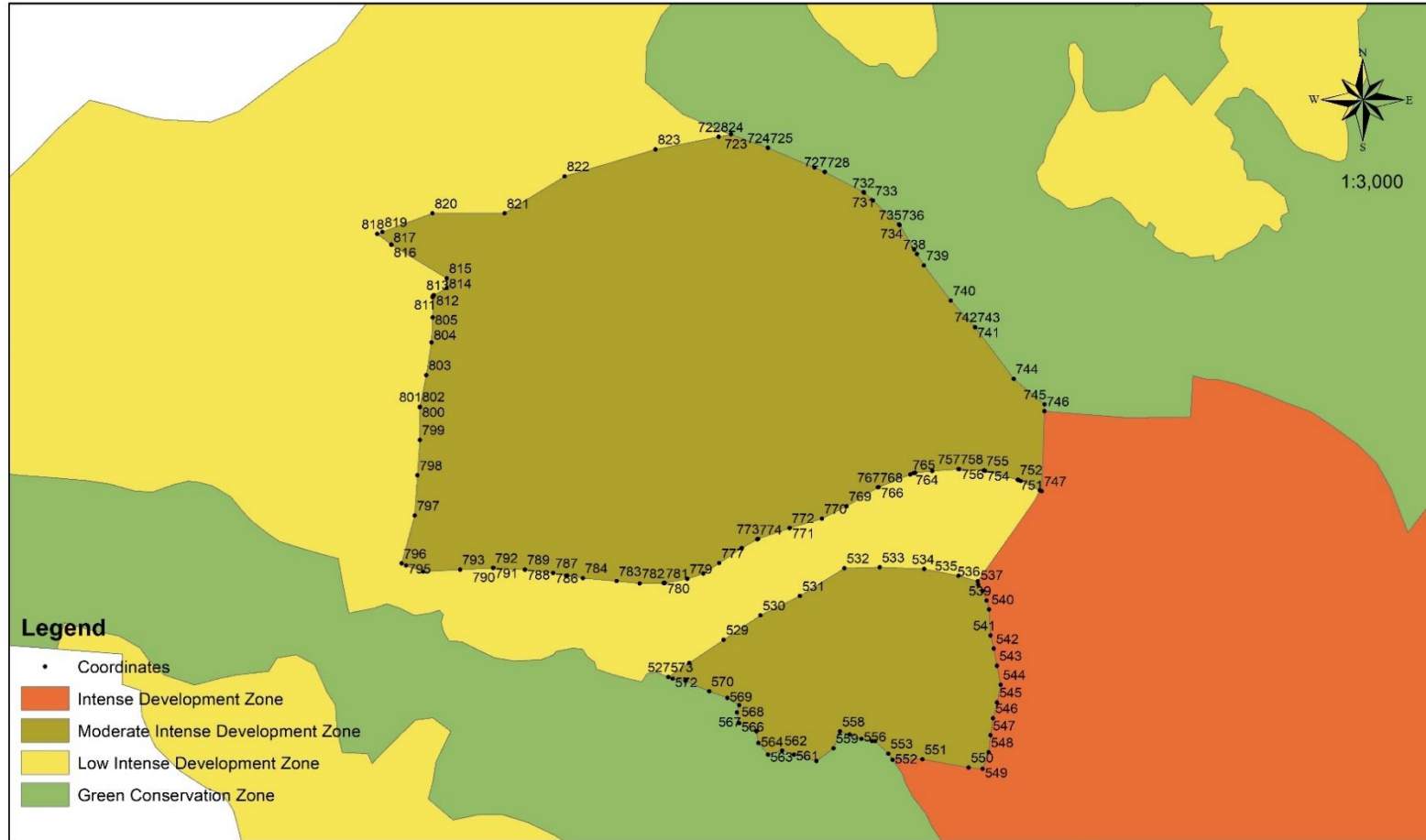
Hakmana Development Plan (2021-2030)

Se.	X	Y	47	80.64480	6.08354	95	80.64600	6.08283	143	80.64320	6.08183
0	80.64200	6.08521	48	80.64480	6.08354	96	80.64600	6.08283	144	80.64350	6.08183
1	80.64210	6.08520	49	80.64480	6.08353	97	80.64600	6.08279	145	80.64350	6.08182
2	80.64210	6.08519	50	80.64480	6.08352	98	80.64600	6.08261	146	80.64350	6.08182
3	80.64220	6.08517	51	80.64490	6.08351	99	80.64600	6.08261	147	80.64350	6.08142
4	80.64240	6.08512	52	80.64490	6.08350	100	80.64600	6.08246	148	80.64380	6.08142
5	80.64250	6.08507	53	80.64490	6.08348	101	80.64600	6.08246	149	80.64400	6.08135
6	80.64260	6.08501	54	80.64490	6.08348	102	80.64600	6.08245	150	80.64410	6.08129
7	80.64280	6.08493	55	80.64500	6.08346	103	80.64590	6.08231	151	80.64420	6.08117
8	80.64290	6.08482	56	80.64500	6.08345	104	80.64590	6.08225	152	80.64420	6.08093
9	80.64300	6.08472	57	80.64500	6.08344	105	80.64570	6.08230	153	80.64410	6.08088
10	80.64300	6.08469	58	80.64500	6.08344	106	80.64560	6.08205	154	80.64420	6.08061
11	80.64310	6.08457	59	80.64510	6.08344	107	80.64540	6.08205	155	80.64410	6.08033
12	80.64310	6.08443	60	80.64510	6.08344	108	80.64530	6.08193	156	80.64400	6.08017
13	80.64320	6.08432	61	80.64510	6.08343	109	80.64520	6.08190	157	80.64390	6.08015
14	80.64360	6.08413	62	80.64510	6.08343	110	80.64490	6.08195	158	80.64380	6.08025
15	80.64370	6.08404	63	80.64520	6.08342	111	80.64490	6.08196	159	80.64380	6.08028
16	80.64380	6.08395	64	80.64520	6.08341	112	80.64480	6.08202	160	80.64360	6.08048
17	80.64380	6.08384	65	80.64520	6.08340	113	80.64470	6.08208	161	80.64360	6.08048
18	80.64390	6.08371	66	80.64530	6.08339	114	80.64460	6.08213	162	80.64360	6.08048
19	80.64400	6.08371	67	80.64530	6.08339	115	80.64430	6.08217	163	80.64360	6.08048
20	80.64410	6.08369	68	80.64540	6.08339	116	80.64430	6.08221	164	80.64350	6.08072
21	80.64410	6.08369	69	80.64540	6.08339	117	80.64410	6.08225	165	80.64350	6.08072
22	80.64410	6.08371	70	80.64540	6.08340	118	80.64410	6.08226	166	80.64350	6.08073
23	80.64410	6.08372	71	80.64540	6.08341	119	80.64400	6.08227	167	80.64350	6.08094
24	80.64420	6.08372	72	80.64550	6.08342	120	80.64390	6.08227	168	80.64340	6.08108
25	80.64420	6.08371	73	80.64550	6.08342	121	80.64390	6.08223	169	80.64340	6.08109
26	80.64420	6.08371	74	80.64550	6.08343	122	80.64360	6.08228	170	80.64340	6.08109
27	80.64420	6.08370	75	80.64560	6.08344	123	80.64350	6.08225	171	80.64340	6.08121
28	80.64430	6.08369	76	80.64560	6.08345	124	80.64340	6.08225	172	80.64330	6.08122
29	80.64430	6.08368	77	80.64560	6.08345	125	80.64330	6.08225	173	80.64320	6.08123
30	80.64430	6.08368	78	80.64560	6.08346	126	80.64320	6.08244	174	80.64320	6.08123
31	80.64430	6.08367	79	80.64570	6.08347	127	80.64310	6.08244	175	80.64320	6.08123
32	80.64440	6.08366	80	80.64570	6.08347	128	80.64300	6.08244	176	80.64320	6.08123
33	80.64440	6.08364	81	80.64570	6.08347	129	80.64300	6.08244	177	80.64310	6.08127
34	80.64450	6.08363	82	80.64580	6.08348	130	80.64290	6.08240	178	80.64240	6.08057
35	80.64450	6.08361	83	80.64580	6.08349	131	80.64280	6.08240	179	80.64240	6.08056
36	80.64450	6.08359	84	80.64580	6.08350	132	80.64270	6.08235	180	80.64240	6.08056
37	80.64450	6.08359	85	80.64590	6.08352	133	80.64260	6.08225	181	80.64250	6.08043
38	80.64460	6.08357	86	80.64590	6.08353	134	80.64260	6.08225	182	80.64250	6.08034
39	80.64460	6.08357	87	80.64590	6.08354	135	80.64260	6.08225	183	80.64240	6.08018
40	80.64460	6.08356	88	80.64600	6.08354	136	80.64270	6.08221	184	80.64240	6.08014
41	80.64460	6.08355	89	80.64600	6.08354	137	80.64270	6.08221	185	80.64240	6.08004
42	80.64460	6.08353	90	80.64600	6.08355	138	80.64270	6.08221	186	80.64250	6.07998
43	80.64460	6.08352	91	80.64600	6.08343	139	80.64270	6.08221	187	80.64260	6.07996
44	80.64470	6.08353	92	80.64600	6.08301	140	80.64270	6.08221	188	80.64260	6.07985
45	80.64470	6.08354	93	80.64600	6.08300	141	80.64290	6.08185	189	80.64250	6.07981
46	80.64470	6.08354	94	80.64600	6.08283	142	80.64290	6.08180	190	80.64240	6.07983

191	80.64230	6.07988	239	80.64130	6.08146	287	80.64120	6.08501	335	80.64580	6.08560
192	80.64230	6.07991	240	80.64120	6.08151	288	80.64130	6.08500	336	80.64580	6.08557
193	80.64230	6.07994	241	80.64120	6.08164	289	80.64160	6.08498	337	80.64580	6.08553
194	80.64220	6.07996	242	80.64120	6.08171	290	80.64160	6.08498	338	80.64580	6.08551
195	80.64220	6.07997	243	80.64120	6.08176	291	80.64160	6.08498	339	80.64580	6.08546
196	80.64220	6.07999	244	80.64120	6.08183	292	80.64160	6.08498	340	80.64570	6.08542
197	80.64220	6.08003	245	80.64110	6.08187	293	80.64200	6.08498	341	80.64560	6.08544
198	80.64220	6.08004	246	80.64110	6.08187	294	80.64200	6.08521	342	80.64550	6.08542
199	80.64210	6.08008	247	80.64100	6.08188	295	80.64450	6.08523	343	80.64540	6.08547
200	80.64200	6.08014	248	80.64100	6.08189	296	80.64430	6.08559	344	80.64540	6.08548
201	80.64190	6.08019	249	80.64090	6.08185	297	80.64430	6.08566	345	80.64540	6.08549
202	80.64180	6.08023	250	80.64090	6.08187	298	80.64430	6.08571	346	80.64530	6.08547
203	80.64170	6.08027	251	80.64080	6.08188	299	80.64430	6.08576	347	80.64530	6.08542
204	80.64160	6.08032	252	80.64080	6.08194	300	80.64430	6.08583	348	80.64530	6.08538
205	80.64160	6.08033	253	80.64080	6.08203	301	80.64430	6.08590	349	80.64520	6.08534
206	80.64160	6.08036	254	80.64080	6.08209	302	80.64430	6.08596	350	80.64520	6.08532
207	80.64160	6.08038	255	80.64090	6.08215	303	80.64430	6.08602	351	80.64520	6.08529
208	80.64150	6.08041	256	80.64090	6.08222	304	80.64430	6.08605	352	80.64510	6.08526
209	80.64150	6.08043	257	80.64090	6.08231	305	80.64450	6.08609	353	80.64510	6.08522
210	80.64150	6.08045	258	80.64080	6.08238	306	80.64450	6.08618	354	80.64510	6.08519
211	80.64140	6.08045	259	80.64070	6.08242	307	80.64450	6.08621	355	80.64510	6.08515
212	80.64140	6.08045	260	80.64060	6.08254	308	80.64450	6.08633	356	80.64510	6.08511
213	80.64140	6.08044	261	80.64050	6.08265	309	80.64460	6.08639	357	80.64510	6.08506
214	80.64130	6.08048	262	80.64050	6.08273	310	80.64460	6.08641	358	80.64500	6.08503
215	80.64130	6.08048	263	80.64040	6.08282	311	80.64470	6.08645	359	80.64500	6.08499
216	80.64130	6.08048	264	80.64040	6.08290	312	80.64490	6.08646	360	80.64500	6.08496
217	80.64120	6.08056	265	80.64040	6.08295	313	80.64510	6.08644	361	80.64500	6.08492
218	80.64110	6.08058	266	80.64030	6.08301	314	80.64510	6.08643	362	80.64500	6.08491
219	80.64110	6.08059	267	80.64030	6.08303	315	80.64540	6.08637	363	80.64490	6.08486
220	80.64100	6.08058	268	80.64050	6.08304	316	80.64530	6.08627	364	80.64490	6.08486
221	80.64100	6.08054	269	80.64070	6.08299	317	80.64530	6.08627	365	80.64490	6.08486
222	80.64100	6.08054	270	80.64080	6.08298	318	80.64530	6.08614	366	80.64490	6.08488
223	80.64090	6.08052	271	80.64080	6.08308	319	80.64540	6.08609	367	80.64490	6.08492
224	80.64080	6.08048	272	80.64080	6.08317	320	80.64540	6.08608	368	80.64480	6.08496
225	80.64080	6.08045	273	80.64090	6.08327	321	80.64550	6.08601	369	80.64480	6.08496
226	80.64080	6.08045	274	80.64090	6.08336	322	80.64560	6.08597	370	80.64480	6.08499
227	80.64070	6.08045	275	80.64090	6.08346	323	80.64570	6.08595	371	80.64480	6.08503
228	80.64070	6.08043	276	80.64090	6.08357	324	80.64600	6.08593	372	80.64480	6.08505
229	80.64060	6.08043	277	80.64090	6.08366	325	80.64600	6.08593	373	80.64470	6.08507
230	80.64060	6.08047	278	80.64080	6.08374	326	80.64600	6.08592	374	80.64470	6.08511
231	80.64060	6.08056	279	80.64080	6.08389	327	80.64610	6.08566	375	80.64470	6.08513
232	80.64060	6.08060	280	80.64080	6.08394	328	80.64600	6.08565	376	80.64460	6.08518
233	80.64070	6.08073	281	80.64080	6.08399	329	80.64600	6.08565	377	80.64450	6.08523
234	80.64070	6.08073	282	80.64080	6.08403	330	80.64590	6.08566	378	80.64320	6.08432
235	80.64090	6.08094	283	80.64080	6.08405	331	80.64590	6.08570	379	80.64370	6.08505
236	80.64100	6.08111	284	80.64110	6.08451	332	80.64580	6.08572	380	80.64400	6.08538
237	80.64110	6.08121	285	80.64110	6.08456	333	80.64580	6.08569	381	80.64410	6.08544
238	80.64130	6.08146	286	80.64110	6.08456	334	80.64580	6.08563	382	80.64410	6.08549

383	80.64420	6.08554	395	80.64370	6.08421	407	80.64080	6.08045	419	80.64140	6.08045
384	80.64420	6.08558	396	80.64360	6.08413	408	80.64080	6.08045	420	80.64150	6.08045
385	80.64420	6.08559	397	80.64320	6.08432	409	80.64070	6.08043	421	80.64150	6.08043
386	80.64430	6.08559	398	80.63890	6.08828	410	80.64070	6.08043	422	80.64150	6.08041
387	80.64450	6.08523	399	80.63890	6.08829	411	80.64090	6.08052	423	80.64160	6.08038
388	80.64440	6.08512	400	80.63900	6.08829	412	80.64100	6.08054	424	80.64160	6.08036
389	80.64430	6.08498	401	80.63900	6.08829	413	80.64100	6.08054	425	80.64160	6.08033
390	80.64420	6.08489	402	80.63890	6.08827	414	80.64090	6.08052	426	80.64160	6.08032
391	80.64420	6.08485	403	80.63890	6.08828	415	80.64090	6.08052	427	80.64160	6.08035
392	80.64420	6.08483	404	80.64070	6.08043	416	80.64140	6.08044	428	80.64150	6.08039
393	80.64390	6.08443	405	80.64070	6.08044	417	80.64140	6.08044	429	80.64140	6.08042
394	80.64380	6.08435	406	80.64070	6.08045	418	80.64140	6.08045	430	80.64140	6.08044

Map 16: Moderate Intense Development Zone 01 - X, Y Coordinates

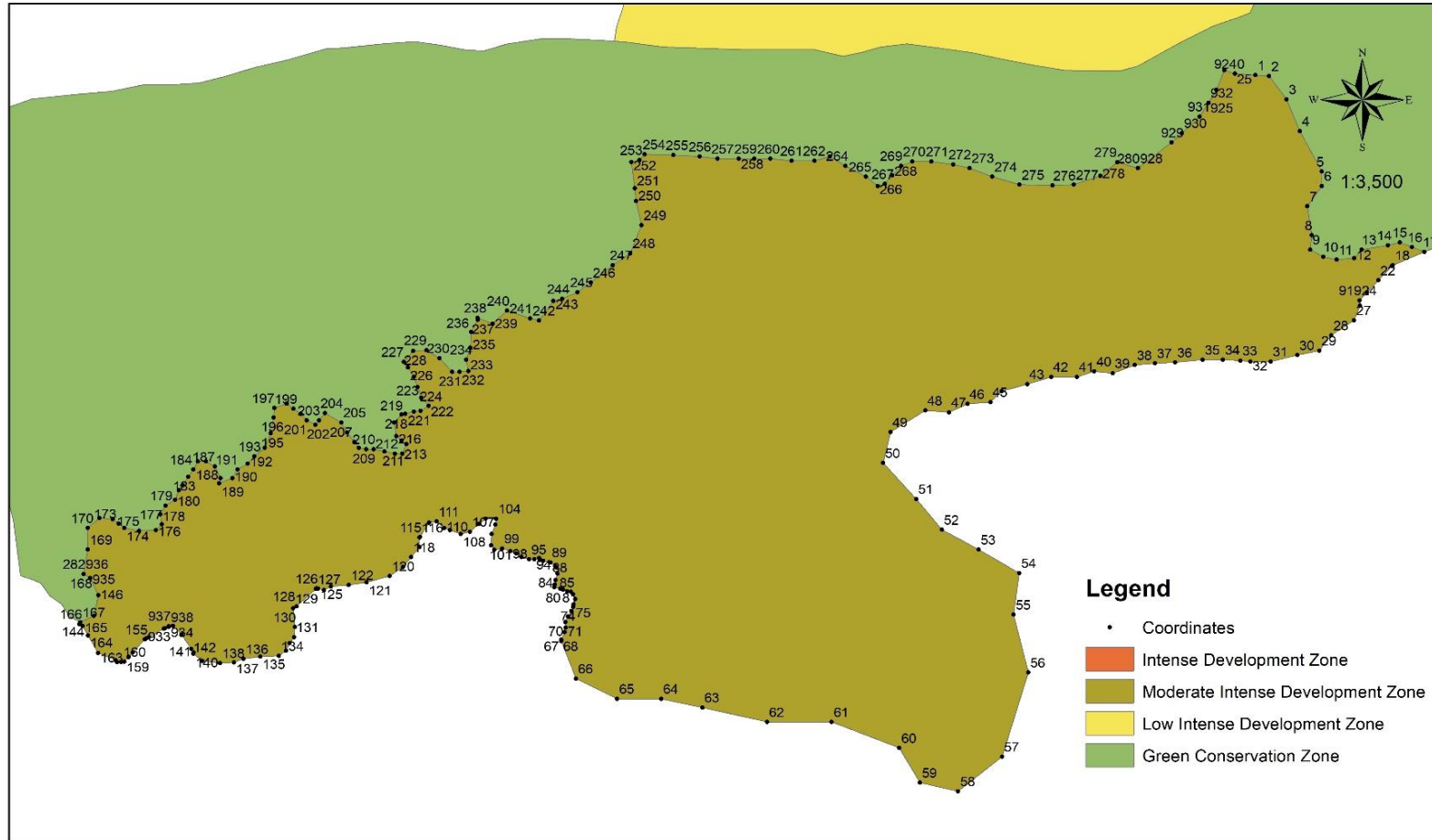


Moderate Intense Development Zone 1 (Zoning Coordinates)

Source : UDA - Matara District Office

Hakmana Development Plan (2021-2030)

Map 17 : Moderate Intense Development Zone 02 - X, Y Coordinates

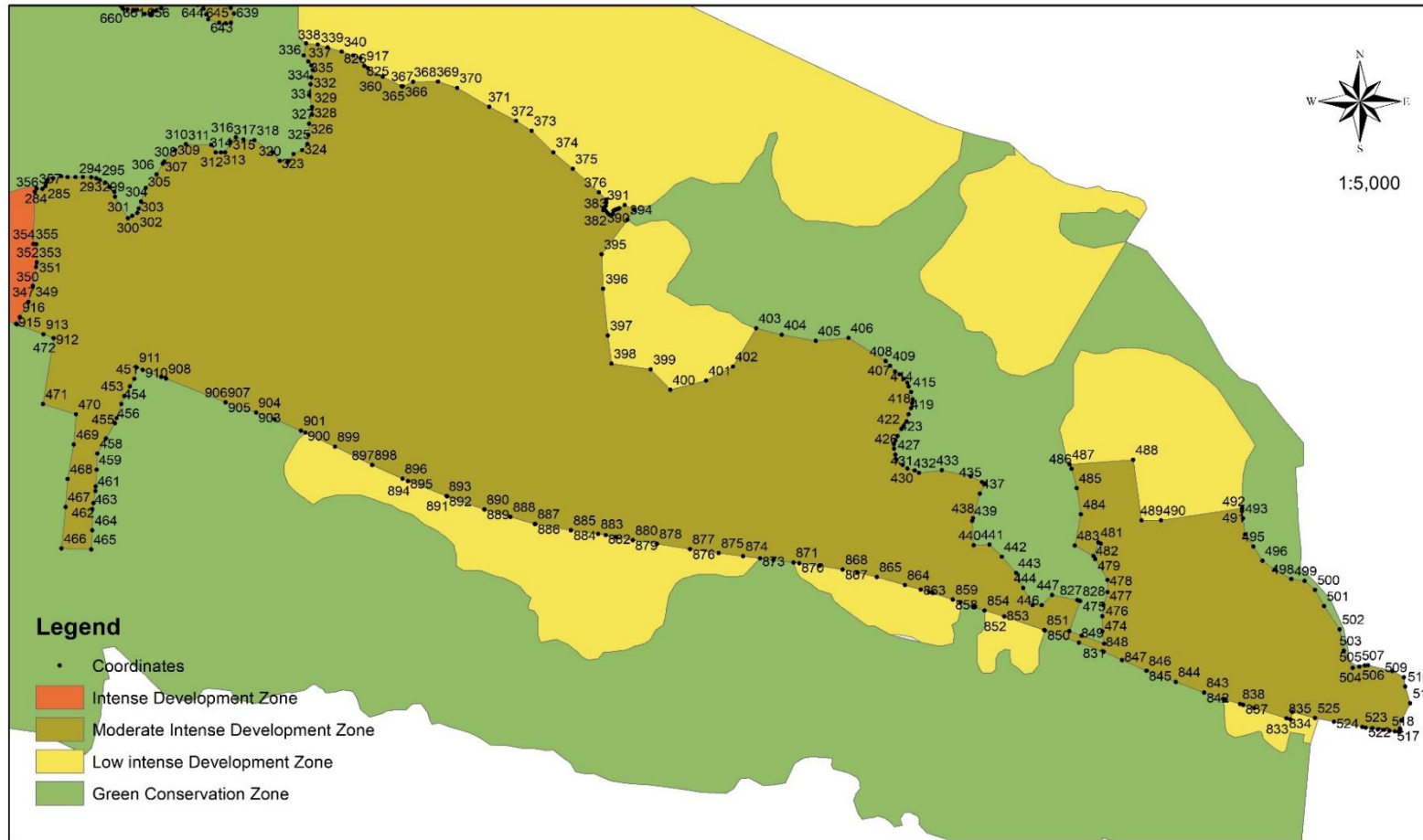


Moderate Intense Development Zone 2 (Zoning Coordinates)

Source : UDA - Matara District Office

Hakmana Development Plan (2021-2030)

Map 18: Moderate Intense Development Zone 03 - X, Y Coordinates

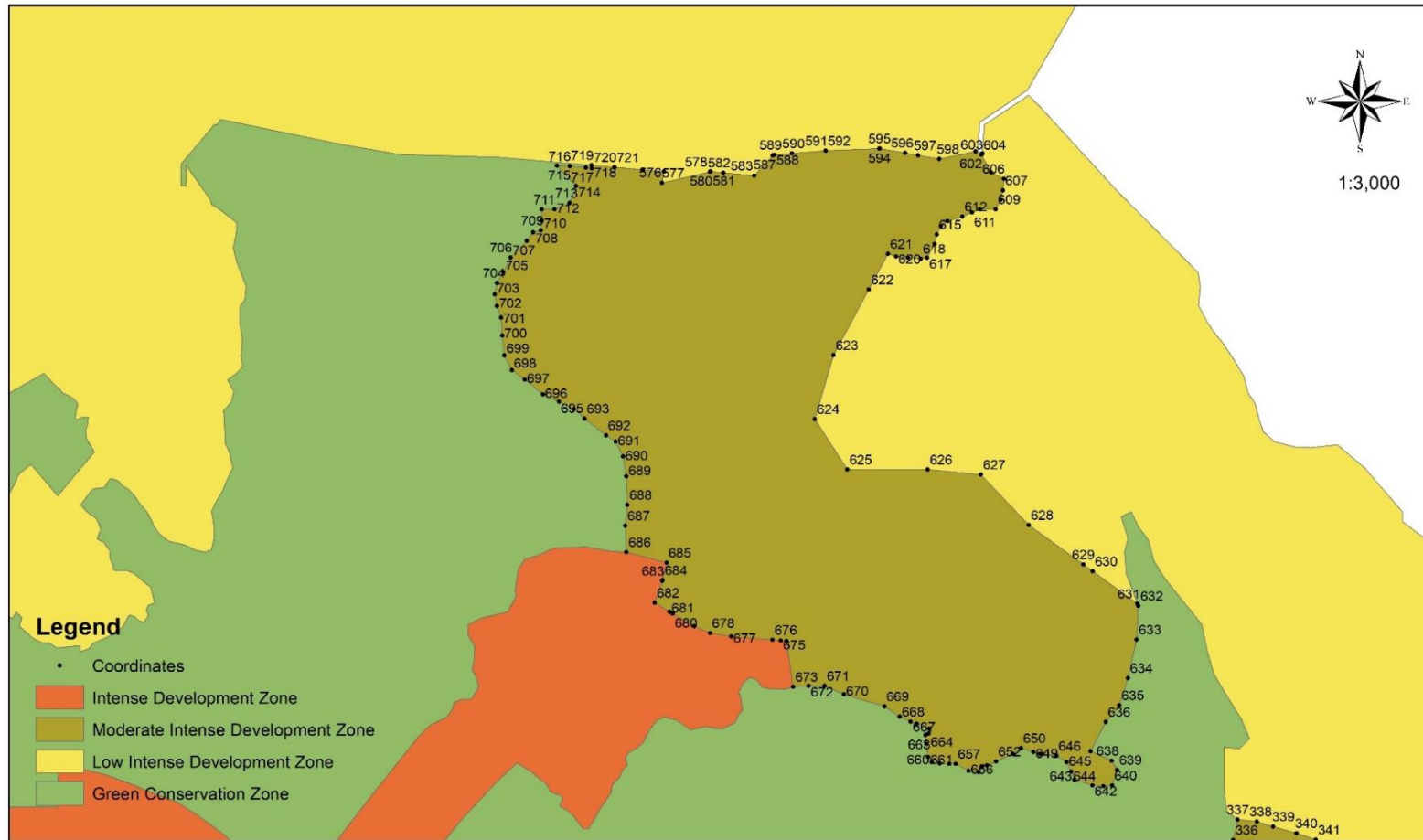


Moderate Intense Development Zone 3 (Zoning Coordinates)

Source : UDA - Matara District Office

Hakmana Development Plan (2021-2030)

Map 19 : Moderate Intense Development Zone 04 - X, Y Coordinates



Moderate Intense Development Zone 4 (Zoning Coordinates)

Source : UDA - Matara District Office

Hakmana Development Plan (2021-2030)

Se.	X	Y	47	80.63840	6.07741	95	80.63570	6.07644	143	80.63340	6.07594
0	80.64030	6.07966	48	80.63820	6.07743	96	80.63560	6.07645	144	80.63270	6.07602
1	80.64040	6.07965	49	80.63800	6.07728	97	80.63560	6.07648	145	80.63280	6.07606
2	80.64050	6.07964	50	80.63800	6.07708	98	80.63550	6.07649	146	80.63290	6.07620
3	80.64060	6.07949	51	80.63820	6.07684	99	80.63550	6.07651	147	80.63280	6.07632
4	80.64070	6.07928	52	80.63840	6.07664	100	80.63540	6.07650	148	80.63330	6.07599
5	80.64080	6.07901	53	80.63860	6.07650	101	80.63540	6.07653	149	80.63330	6.07598
6	80.64080	6.07891	54	80.63890	6.07635	102	80.63540	6.07661	150	80.63330	6.07598
7	80.64070	6.07878	55	80.63880	6.07607	103	80.63540	6.07667	151	80.63330	6.07598
8	80.64080	6.07859	56	80.63890	6.07569	104	80.63550	6.07671	152	80.63320	6.07592
9	80.64070	6.07849	57	80.63870	6.07513	105	80.63540	6.07671	153	80.63320	6.07591
10	80.64080	6.07844	58	80.63850	6.07490	106	80.63530	6.07667	154	80.63320	6.07591
11	80.64090	6.07842	59	80.63820	6.07496	107	80.63530	6.07662	155	80.63320	6.07591
12	80.64100	6.07843	60	80.63810	6.07519	108	80.63520	6.07661	156	80.63310	6.07582
13	80.64110	6.07849	61	80.63760	6.07536	109	80.63520	6.07663	157	80.63310	6.07579
14	80.64130	6.07852	62	80.63720	6.07536	110	80.63510	6.07664	158	80.63310	6.07579
15	80.64130	6.07854	63	80.63680	6.07546	111	80.63510	6.07669	159	80.63300	6.07576
16	80.64140	6.07851	64	80.63650	6.07552	112	80.63500	6.07668	160	80.63300	6.07576
17	80.64150	6.07848	65	80.63620	6.07552	113	80.63500	6.07668	161	80.63300	6.07576
18	80.64130	6.07839	66	80.63600	6.07565	114	80.63500	6.07659	162	80.63300	6.07577
19	80.64130	6.07839	67	80.63590	6.07590	115	80.63500	6.07658	163	80.63290	6.07582
20	80.64130	6.07839	68	80.63590	6.07591	116	80.63500	6.07658	164	80.63280	6.07593
21	80.64130	6.07838	69	80.63590	6.07596	117	80.63500	6.07652	165	80.63280	6.07600
22	80.64120	6.07829	70	80.63590	6.07599	118	80.63490	6.07645	166	80.63270	6.07601
23	80.64110	6.07821	71	80.63590	6.07602	119	80.63480	6.07639	167	80.63270	6.07602
24	80.64110	6.07816	72	80.63590	6.07606	120	80.63480	6.07633	168	80.63280	6.07634
25	80.64030	6.07966	73	80.63590	6.07610	121	80.63460	6.07629	169	80.63280	6.07650
26	80.64110	6.07812	74	80.63600	6.07612	122	80.63450	6.07627	170	80.63280	6.07665
27	80.64100	6.07802	75	80.63600	6.07614	123	80.63440	6.07626	171	80.63290	6.07671
28	80.64090	6.07792	76	80.63600	6.07618	124	80.63430	6.07623	172	80.63300	6.07670
29	80.64080	6.07782	77	80.63600	6.07621	125	80.63430	6.07624	173	80.63300	6.07667
30	80.64070	6.07779	78	80.63590	6.07622	126	80.63430	6.07625	174	80.63300	6.07665
31	80.64050	6.07775	79	80.63590	6.07623	127	80.63430	6.07624	175	80.63310	6.07663
32	80.64040	6.07775	80	80.63590	6.07624	128	80.63420	6.07613	176	80.63320	6.07663
33	80.64030	6.07776	81	80.63590	6.07625	129	80.63410	6.07611	177	80.63330	6.07667
34	80.64020	6.07776	82	80.63580	6.07625	130	80.63410	6.07599	178	80.63330	6.07674
35	80.64010	6.07776	83	80.63580	6.07627	131	80.63410	6.07592	179	80.63330	6.07679
36	80.63990	6.07774	84	80.63580	6.07630	132	80.63410	6.07588	180	80.63340	6.07683
37	80.63970	6.07774	85	80.63580	6.07634	133	80.63410	6.07583	181	80.63340	6.07689
38	80.63960	6.07773	86	80.63580	6.07638	134	80.63400	6.07580	182	80.63340	6.07693
39	80.63950	6.07767	87	80.63580	6.07639	135	80.63390	6.07579	183	80.63350	6.07699
40	80.63930	6.07768	88	80.63580	6.07642	136	80.63380	6.07578	184	80.63350	6.07703
41	80.63920	6.07765	89	80.63580	6.07642	137	80.63370	6.07576	185	80.63350	6.07709
42	80.63910	6.07765	90	80.63580	6.07643	138	80.63370	6.07575	186	80.63360	6.07709
43	80.63890	6.07760	91	80.63570	6.07643	139	80.63350	6.07577	187	80.63360	6.07705
44	80.63870	6.07755	92	80.63570	6.07644	140	80.63350	6.07581	188	80.63370	6.07698
45	80.63870	6.07748	93	80.63570	6.07645	141	80.63350	6.07582	189	80.63370	6.07694
46	80.63850	6.07747	94	80.63570	6.07644	142	80.63350	6.07585	190	80.63370	6.07698

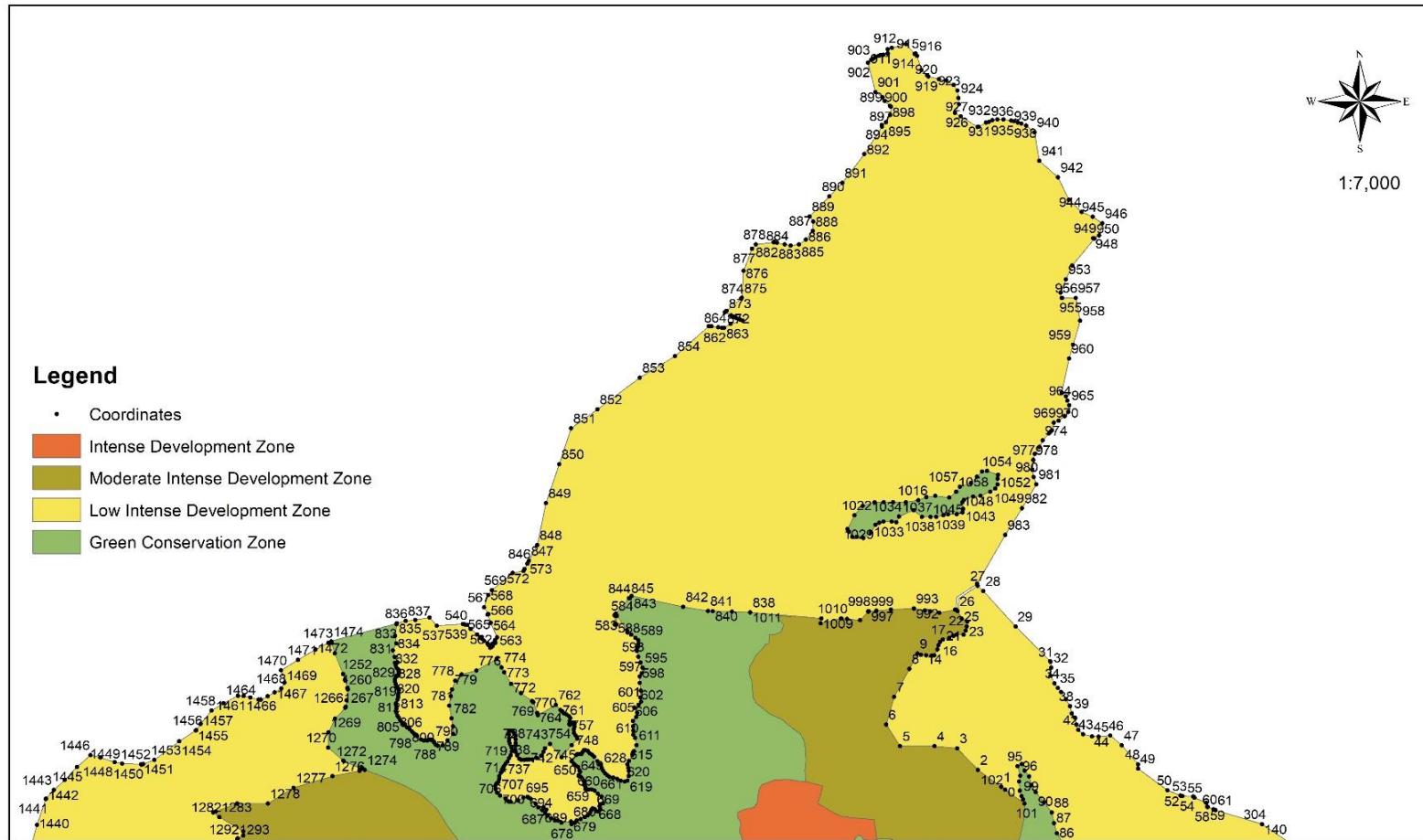
191	80.63380	6.07703	239	80.63540	6.07800	287	80.64620	6.08361	335	80.64860	6.08474
192	80.63380	6.07707	240	80.63550	6.07808	288	80.64620	6.08363	336	80.64850	6.08479
193	80.63390	6.07712	241	80.63570	6.07803	289	80.64630	6.08365	337	80.64860	6.08491
194	80.63390	6.07718	242	80.63570	6.07802	290	80.64630	6.08364	338	80.64870	6.08490
195	80.63400	6.07727	243	80.63580	6.07815	291	80.64640	6.08364	339	80.64880	6.08487
196	80.63400	6.07738	244	80.63590	6.07816	292	80.64650	6.08364	340	80.64890	6.08483
197	80.63400	6.07744	245	80.63600	6.07821	293	80.64660	6.08364	341	80.64900	6.08479
198	80.63410	6.07747	246	80.63610	6.07827	294	80.64660	6.08363	342	80.64910	6.08477
199	80.63410	6.07744	247	80.63620	6.07839	295	80.64660	6.08361	343	80.64910	6.08469
200	80.63420	6.07740	248	80.63630	6.07847	296	80.64670	6.08359	344	80.64590	6.08231
201	80.63420	6.07736	249	80.63640	6.07865	297	80.64670	6.08354	345	80.64600	6.08245
202	80.63430	6.07733	250	80.63640	6.07881	298	80.64680	6.08350	346	80.64600	6.08246
203	80.63430	6.07736	251	80.63640	6.07890	299	80.64680	6.08345	347	80.64600	6.08246
204	80.63430	6.07741	252	80.63630	6.07907	300	80.64690	6.08325	348	80.64600	6.08261
205	80.63440	6.07734	253	80.63640	6.07908	301	80.64690	6.08327	349	80.64600	6.08261
206	80.63450	6.07728	254	80.63640	6.07912	302	80.64700	6.08330	350	80.64600	6.08279
207	80.63450	6.07722	255	80.63660	6.07912	303	80.64700	6.08334	351	80.64600	6.08283
208	80.63460	6.07718	256	80.63680	6.07911	304	80.64700	6.08341	352	80.64600	6.08283
209	80.63460	6.07717	257	80.63690	6.07909	305	80.64710	6.08354	353	80.64600	6.08283
210	80.63470	6.07717	258	80.63700	6.07909	306	80.64720	6.08367	354	80.64600	6.08300
211	80.63470	6.07715	259	80.63710	6.07909	307	80.64720	6.08377	355	80.64600	6.08301
212	80.63480	6.07714	260	80.63720	6.07909	308	80.64720	6.08379	356	80.64600	6.08350
213	80.63480	6.07714	261	80.63740	6.07908	309	80.64730	6.08390	357	80.64600	6.08353
214	80.63490	6.07720	262	80.63750	6.07908	310	80.64740	6.08395	358	80.64910	6.08467
215	80.63480	6.07723	263	80.63760	6.07911	311	80.64770	6.08395	359	80.64930	6.08459
216	80.63480	6.07725	264	80.63770	6.07904	312	80.64770	6.08387	360	80.64930	6.08459
217	80.63480	6.07734	265	80.63790	6.07897	313	80.64780	6.08387	361	80.64940	6.08450
218	80.63480	6.07740	266	80.63790	6.07891	314	80.64780	6.08387	362	80.64950	6.08450
219	80.63490	6.07740	267	80.63800	6.07893	315	80.64790	6.08397	363	80.64950	6.08450
220	80.63490	6.07742	268	80.63800	6.07898	316	80.64790	6.08402	364	80.64950	6.08450
221	80.63500	6.07742	269	80.63810	6.07904	317	80.64800	6.08400	365	80.64950	6.08450
222	80.63500	6.07746	270	80.63820	6.07907	318	80.64810	6.08399	366	80.64950	6.08450
223	80.63500	6.07751	271	80.63830	6.07907	319	80.64820	6.08387	367	80.64950	6.08450
224	80.63490	6.07758	272	80.63840	6.07905	320	80.64830	6.08380	368	80.64960	6.08454
225	80.63490	6.07765	273	80.63850	6.07903	321	80.64840	6.08378	369	80.64980	6.08455
226	80.63490	6.07771	274	80.63870	6.07897	322	80.64840	6.08379	370	80.65000	6.08449
227	80.63480	6.07775	275	80.63890	6.07892	323	80.64840	6.08386	371	80.65030	6.08431
228	80.63490	6.07782	276	80.63910	6.07892	324	80.64850	6.08390	372	80.65050	6.08417
229	80.63500	6.07782	277	80.63920	6.07892	325	80.64860	6.08395	373	80.65070	6.08408
230	80.63510	6.07777	278	80.63940	6.07898	326	80.64860	6.08404	374	80.65090	6.08388
231	80.63520	6.07768	279	80.63950	6.07907	327	80.64860	6.08415	375	80.65100	6.08372
232	80.63520	6.07768	280	80.63960	6.07903	328	80.64860	6.08423	376	80.65130	6.08350
233	80.63530	6.07768	281	80.63330	6.07600	329	80.64860	6.08430	377	80.65140	6.08343
234	80.63530	6.07776	282	80.63280	6.07634	330	80.64860	6.08442	378	80.65140	6.08340
235	80.63530	6.07784	283	80.64600	6.08353	331	80.64860	6.08452	379	80.65140	6.08337
236	80.63530	6.07794	284	80.64610	6.08353	332	80.64860	6.08458	380	80.65130	6.08335
237	80.63530	6.07802	285	80.64610	6.08355	333	80.64860	6.08466	381	80.65130	6.08333
238	80.63530	6.07804	286	80.64610	6.08358	334	80.64860	6.08470	382	80.65140	6.08332

383	80.65140	6.08330	431	80.65420	6.08086	479	80.65590	6.08002	527	80.63910	6.08350
384	80.65140	6.08328	432	80.65430	6.08084	480	80.65600	6.08017	528	80.63920	6.08358
385	80.65140	6.08328	433	80.65450	6.08086	481	80.65590	6.08018	529	80.63940	6.08371
386	80.65140	6.08329	434	80.65470	6.08081	482	80.65590	6.08005	530	80.63960	6.08385
387	80.65140	6.08332	435	80.65490	6.08075	483	80.65570	6.08015	531	80.63980	6.08396
388	80.65140	6.08333	436	80.65490	6.08073	484	80.65580	6.08045	532	80.64000	6.08412
389	80.65150	6.08334	437	80.65480	6.08064	485	80.65570	6.08069	533	80.64020	6.08413
390	80.65150	6.08334	438	80.65480	6.08041	486	80.65570	6.08088	534	80.64050	6.08412
391	80.65150	6.08338	439	80.65480	6.08038	487	80.65570	6.08092	535	80.64070	6.08408
392	80.65160	6.08334	440	80.65480	6.08015	488	80.65630	6.08096	536	80.64080	6.08405
393	80.65160	6.08333	441	80.65490	6.08016	489	80.65630	6.08039	537	80.64080	6.08403
394	80.65160	6.08324	442	80.65500	6.08004	490	80.65650	6.08039	538	80.64080	6.08399
395	80.65130	6.08291	443	80.65520	6.07989	491	80.65730	6.08050	539	80.64080	6.08394
396	80.65130	6.08258	444	80.65520	6.07975	492	80.65730	6.08047	540	80.64080	6.08389
397	80.65140	6.08214	445	80.65530	6.07958	493	80.65730	6.08041	541	80.64080	6.08374
398	80.65140	6.08187	446	80.65540	6.07958	494	80.65730	6.08025	542	80.64090	6.08366
399	80.65180	6.08182	447	80.65550	6.07968	495	80.65740	6.08014	543	80.64090	6.08357
400	80.65200	6.08162	448	80.65570	6.07963	496	80.65750	6.08001	544	80.64090	6.08346
401	80.65230	6.08171	449	80.64620	6.08211	497	80.65760	6.07992	545	80.64090	6.08336
402	80.65250	6.08185	450	80.64700	6.08183	498	80.65770	6.07983	546	80.64090	6.08327
403	80.65270	6.08221	451	80.64700	6.08173	499	80.65790	6.07981	547	80.64080	6.08317
404	80.65300	6.08215	452	80.64690	6.08166	500	80.65800	6.07973	548	80.64080	6.08308
405	80.65330	6.08209	453	80.64690	6.08156	501	80.65800	6.07958	549	80.64080	6.08298
406	80.65360	6.08212	454	80.64680	6.08149	502	80.65820	6.07935	550	80.64070	6.08299
407	80.65400	6.08190	455	80.64680	6.08136	503	80.65820	6.07915	551	80.64050	6.08304
408	80.65400	6.08190	456	80.64680	6.08131	504	80.65830	6.07899	552	80.64030	6.08303
409	80.65400	6.08185	457	80.64670	6.08116	505	80.65840	6.07900	553	80.64030	6.08307
410	80.65400	6.08180	458	80.64660	6.08102	506	80.65840	6.07901	554	80.64020	6.08314
411	80.65410	6.08177	459	80.64660	6.08087	507	80.65840	6.07901	555	80.64020	6.08314
412	80.65410	6.08173	460	80.64660	6.08071	508	80.65870	6.07896	556	80.64010	6.08315
413	80.65420	6.08169	461	80.64660	6.08066	509	80.65880	6.07890	557	80.64010	6.08318
414	80.65420	6.08166	462	80.64660	6.08055	510	80.65880	6.07881	558	80.64000	6.08319
415	80.65420	6.08160	463	80.64660	6.08049	511	80.65880	6.07865	559	80.64000	6.08310
416	80.65420	6.08153	464	80.64660	6.08029	512	80.65880	6.07849	560	80.63990	6.08303
417	80.65420	6.08150	465	80.64660	6.08011	513	80.65870	6.07841	561	80.63980	6.08306
418	80.65420	6.08145	466	80.64630	6.08012	514	80.65880	6.07840	562	80.63970	6.08309
419	80.65420	6.08139	467	80.64630	6.08051	515	80.65870	6.07838	563	80.63960	6.08306
420	80.65420	6.08132	468	80.64630	6.08078	516	80.65870	6.07838	564	80.63960	6.08313
421	80.65410	6.08128	469	80.64640	6.08110	517	80.65870	6.07839	565	80.63950	6.08319
422	80.65410	6.08125	470	80.64640	6.08139	518	80.65860	6.07839	566	80.63950	6.08324
423	80.65410	6.08119	471	80.64610	6.08149	519	80.65860	6.07840	567	80.63940	6.08330
424	80.65410	6.08115	472	80.64620	6.08211	520	80.65850	6.07841	568	80.63950	6.08334
425	80.65400	6.08111	473	80.65600	6.07922	521	80.65850	6.07842	569	80.63940	6.08339
426	80.65400	6.08107	474	80.65600	6.07934	522	80.65840	6.07842	570	80.63930	6.08342
427	80.65400	6.08101	475	80.65600	6.07948	523	80.65840	6.07843	571	80.63920	6.08348
428	80.65410	6.08096	476	80.65600	6.07958	524	80.65810	6.07848	572	80.63910	6.08349
429	80.65410	6.08091	477	80.65600	6.07971	525	80.65800	6.07851	573	80.63910	6.08350
430	80.65420	6.08088	478	80.65600	6.07982	526	80.65600	6.07922	574	80.64510	6.08862

575	80.64520	6.08860	623	80.64630	6.08755	671	80.64630	6.08567	719	80.64500	6.08863
576	80.64540	6.08859	624	80.64620	6.08719	672	80.64620	6.08567	720	80.64510	6.08862
577	80.64530	6.08853	625	80.64640	6.08690	673	80.64610	6.08566	721	80.64510	6.08862
578	80.64560	6.08859	626	80.64680	6.08690	674	80.64600	6.08592	722	80.63930	6.08657
579	80.64560	6.08859	627	80.64710	6.08687	675	80.64600	6.08593	723	80.63940	6.08658
580	80.64560	6.08859	628	80.64740	6.08658	676	80.64600	6.08593	724	80.63960	6.08651
581	80.64560	6.08859	629	80.64770	6.08636	677	80.64570	6.08595	725	80.63960	6.08651
582	80.64570	6.08859	630	80.64780	6.08632	678	80.64560	6.08597	726	80.63990	6.08640
583	80.64590	6.08857	631	80.64800	6.08614	679	80.64550	6.08601	727	80.63990	6.08637
584	80.64600	6.08869	632	80.64800	6.08612	680	80.64540	6.08608	728	80.63990	6.08637
585	80.64600	6.08869	633	80.64800	6.08593	681	80.64540	6.08609	729	80.64010	6.08626
586	80.64600	6.08869	634	80.64790	6.08571	682	80.64530	6.08614	730	80.64010	6.08625
587	80.64600	6.08869	635	80.64790	6.08556	683	80.64530	6.08627	731	80.64010	6.08625
588	80.64600	6.08869	636	80.64780	6.08546	684	80.64530	6.08627	732	80.64010	6.08625
589	80.64600	6.08869	637	80.64770	6.08530	685	80.64540	6.08637	733	80.64020	6.08621
590	80.64610	6.08870	638	80.64790	6.08524	686	80.64510	6.08643	734	80.64030	6.08607
591	80.64630	6.08871	639	80.64790	6.08519	687	80.64510	6.08658	735	80.64030	6.08607
592	80.64630	6.08871	640	80.64790	6.08510	688	80.64510	6.08670	736	80.64030	6.08607
593	80.64660	6.08873	641	80.64780	6.08510	689	80.64510	6.08686	737	80.64040	6.08593
594	80.64660	6.08873	642	80.64780	6.08510	690	80.64510	6.08697	738	80.64040	6.08590
595	80.64660	6.08873	643	80.64770	6.08514	691	80.64510	6.08706	739	80.64050	6.08584
596	80.64670	6.08870	644	80.64760	6.08518	692	80.64500	6.08709	740	80.64060	6.08564
597	80.64680	6.08869	645	80.64760	6.08524	693	80.64490	6.08719	741	80.64080	6.08549
598	80.64690	6.08867	646	80.64760	6.08527	694	80.64490	6.08724	742	80.64080	6.08549
599	80.64710	6.08871	647	80.64750	6.08528	695	80.64480	6.08729	743	80.64080	6.08549
600	80.64710	6.08870	648	80.64750	6.08528	696	80.64470	6.08733	744	80.64100	6.08520
601	80.64710	6.08870	649	80.64740	6.08529	697	80.64460	6.08741	745	80.64120	6.08505
602	80.64710	6.08869	650	80.64740	6.08531	698	80.64450	6.08746	746	80.64120	6.08501
603	80.64710	6.08869	651	80.64730	6.08528	699	80.64450	6.08755	747	80.64110	6.08456
604	80.64710	6.08869	652	80.64720	6.08524	700	80.64450	6.08766	748	80.64110	6.08456
605	80.64720	6.08859	653	80.64720	6.08522	701	80.64440	6.08776	749	80.64100	6.08462
606	80.64730	6.08855	654	80.64710	6.08521	702	80.64440	6.08783	750	80.64100	6.08462
607	80.64720	6.08849	655	80.64710	6.08518	703	80.64440	6.08790	751	80.64100	6.08462
608	80.64720	6.08843	656	80.64710	6.08519	704	80.64440	6.08796	752	80.64100	6.08462
609	80.64720	6.08838	657	80.64700	6.08523	705	80.64450	6.08802	753	80.64080	6.08467
610	80.64710	6.08838	658	80.64690	6.08523	706	80.64450	6.08810	754	80.64080	6.08467
611	80.64710	6.08836	659	80.64690	6.08523	707	80.64460	6.08820	755	80.64080	6.08467
612	80.64700	6.08834	660	80.64690	6.08524	708	80.64460	6.08825	756	80.64070	6.08468
613	80.64690	6.08831	661	80.64680	6.08526	709	80.64470	6.08826	757	80.64070	6.08468
614	80.64690	6.08828	662	80.64680	6.08534	710	80.64470	6.08831	758	80.64070	6.08468
615	80.64690	6.08824	663	80.64680	6.08539	711	80.64470	6.08838	759	80.64050	6.08467
616	80.64690	6.08818	664	80.64680	6.08540	712	80.64470	6.08838	760	80.64040	6.08466
617	80.64680	6.08810	665	80.64680	6.08543	713	80.64480	6.08842	761	80.64040	6.08466
618	80.64680	6.08810	666	80.64680	6.08545	714	80.64490	6.08851	762	80.64040	6.08466
619	80.64670	6.08810	667	80.64670	6.08547	715	80.64480	6.08863	763	80.64040	6.08466
620	80.64670	6.08811	668	80.64670	6.08549	716	80.64480	6.08863	764	80.64040	6.08466
621	80.64660	6.08813	669	80.64660	6.08555	717	80.64490	6.08862	765	80.64040	6.08465
622	80.64650	6.08792	670	80.64640	6.08562	718	80.64500	6.08861	766	80.64020	6.08458

767	80.64020	6.08458	811	80.63770	6.08567	855	80.65480	6.07956	899	80.64880	6.08108
768	80.64020	6.08458	812	80.63770	6.08567	856	80.65480	6.07956	900	80.64860	6.08122
769	80.64000	6.08447	813	80.63770	6.08567	857	80.65470	6.07961	901	80.64850	6.08124
770	80.63990	6.08440	814	80.63780	6.08571	858	80.65460	6.07964	902	80.64830	6.08134
771	80.63970	6.08435	815	80.63780	6.08577	859	80.65460	6.07964	903	80.64810	6.08141
772	80.63970	6.08435	816	80.63750	6.08596	860	80.65440	6.07970	904	80.64810	6.08141
773	80.63960	6.08429	817	80.63750	6.08596	861	80.65440	6.07970	905	80.64780	6.08150
774	80.63950	6.08428	818	80.63740	6.08602	862	80.65440	6.07971	906	80.64780	6.08150
775	80.63950	6.08424	819	80.63750	6.08603	863	80.65430	6.07973	907	80.64780	6.08150
776	80.63950	6.08423	820	80.63770	6.08613	864	80.65410	6.07977	908	80.64730	6.08173
777	80.63930	6.08415	821	80.63810	6.08613	865	80.65390	6.07985	909	80.64720	6.08175
778	80.63930	6.08409	822	80.63850	6.08635	866	80.65370	6.07989	910	80.64700	6.08181
779	80.63920	6.08406	823	80.63900	6.08650	867	80.65360	6.07992	911	80.64700	6.08183
780	80.63900	6.08404	824	80.63930	6.08657	868	80.65360	6.07992	912	80.64620	6.08211
781	80.63900	6.08404	825	80.64910	6.08469	869	80.65330	6.07995	913	80.64610	6.08215
782	80.63890	6.08403	826	80.64910	6.08467	870	80.65320	6.07998	914	80.64590	6.08224
783	80.63880	6.08405	827	80.65570	6.07963	871	80.65310	6.07999	915	80.64590	6.08225
784	80.63860	6.08406	828	80.65580	6.07962	872	80.65290	6.08001	916	80.64590	6.08231
785	80.63850	6.08408	829	80.65570	6.07934	873	80.65280	6.08003	917	80.64910	6.08469
786	80.63840	6.08409	830	80.65580	6.07929	874	80.65260	6.08005	918	80.64030	6.07966
787	80.63840	6.08409	831	80.65600	6.07922	875	80.65240	6.08008	919	80.64110	6.07816
788	80.63830	6.08411	832	80.65770	6.07857	876	80.65210	6.08011	920	80.64110	6.07812
789	80.63830	6.08411	833	80.65770	6.07850	877	80.65210	6.08011	921	80.64010	6.07946
790	80.63810	6.08412	834	80.65770	6.07851	878	80.65180	6.08016	922	80.64010	6.07955
791	80.63810	6.08412	835	80.65770	6.07851	879	80.65160	6.08020	923	80.64020	6.07968
792	80.63810	6.08412	836	80.65740	6.07861	880	80.65160	6.08020	924	80.64030	6.07966
793	80.63790	6.08411	837	80.65730	6.07864	881	80.65140	6.08023	925	80.64010	6.07946
794	80.63770	6.08410	838	80.65730	6.07865	882	80.65140	6.08025	926	80.63340	6.07594
795	80.63760	6.08414	839	80.65710	6.07869	883	80.65130	6.08026	927	80.63330	6.07600
796	80.63760	6.08415	840	80.65710	6.07869	884	80.65100	6.08029	928	80.63960	6.07903
797	80.63760	6.08442	841	80.65710	6.07869	885	80.65100	6.08029	929	80.63980	6.07920
798	80.63760	6.08465	842	80.65690	6.07875	886	80.65070	6.08035	930	80.63990	6.07926
799	80.63770	6.08485	843	80.65690	6.07875	887	80.65070	6.08035	931	80.64000	6.07937
800	80.63770	6.08503	844	80.65670	6.07886	888	80.65050	6.08042	932	80.64010	6.07946
801	80.63770	6.08504	845	80.65640	6.07896	889	80.65020	6.08049	933	80.63330	6.07599
802	80.63770	6.08504	846	80.65640	6.07896	890	80.65020	6.08049	934	80.63330	6.07599
803	80.63770	6.08522	847	80.65620	6.07906	891	80.64990	6.08061	935	80.63280	6.07632
804	80.63770	6.08540	848	80.65600	6.07914	892	80.64990	6.08062	936	80.63280	6.07634
805	80.63770	6.08554	849	80.65580	6.07923	893	80.64990	6.08062	937	80.63330	6.07600
806	80.63770	6.08566	850	80.65540	6.07934	894	80.64950	6.08076	938	80.63330	6.07599
807	80.63770	6.08566	851	80.65540	6.07935	895	80.64950	6.08076	939	80.63580	6.07639
808	80.63770	6.08566	852	80.65510	6.07947	896	80.64950	6.08078	940	80.63580	6.07638
809	80.63770	6.08567	853	80.65510	6.07947	897	80.64920	6.08091	941	80.63580	6.07642
810	80.63770	6.08567	854	80.65490	6.07953	898	80.64920	6.08091			

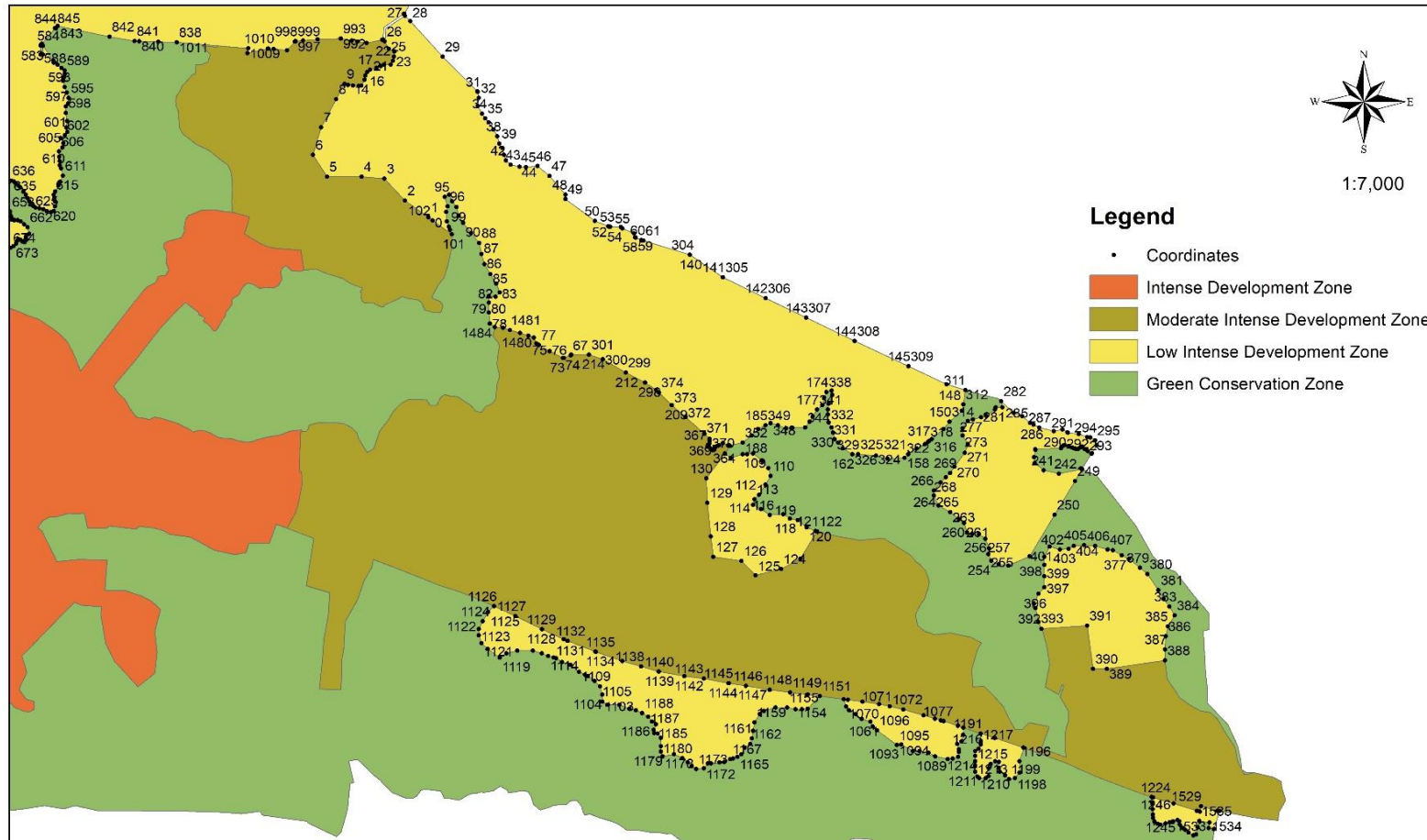
Map 20 : Low Intense Development Zone 1: X, Y Coordinates



Low Intense Development Zone 1 (Zoning Coordinates)
 Source : UDA - Matara District Office

Hakmana Development Plan (2021-2030)

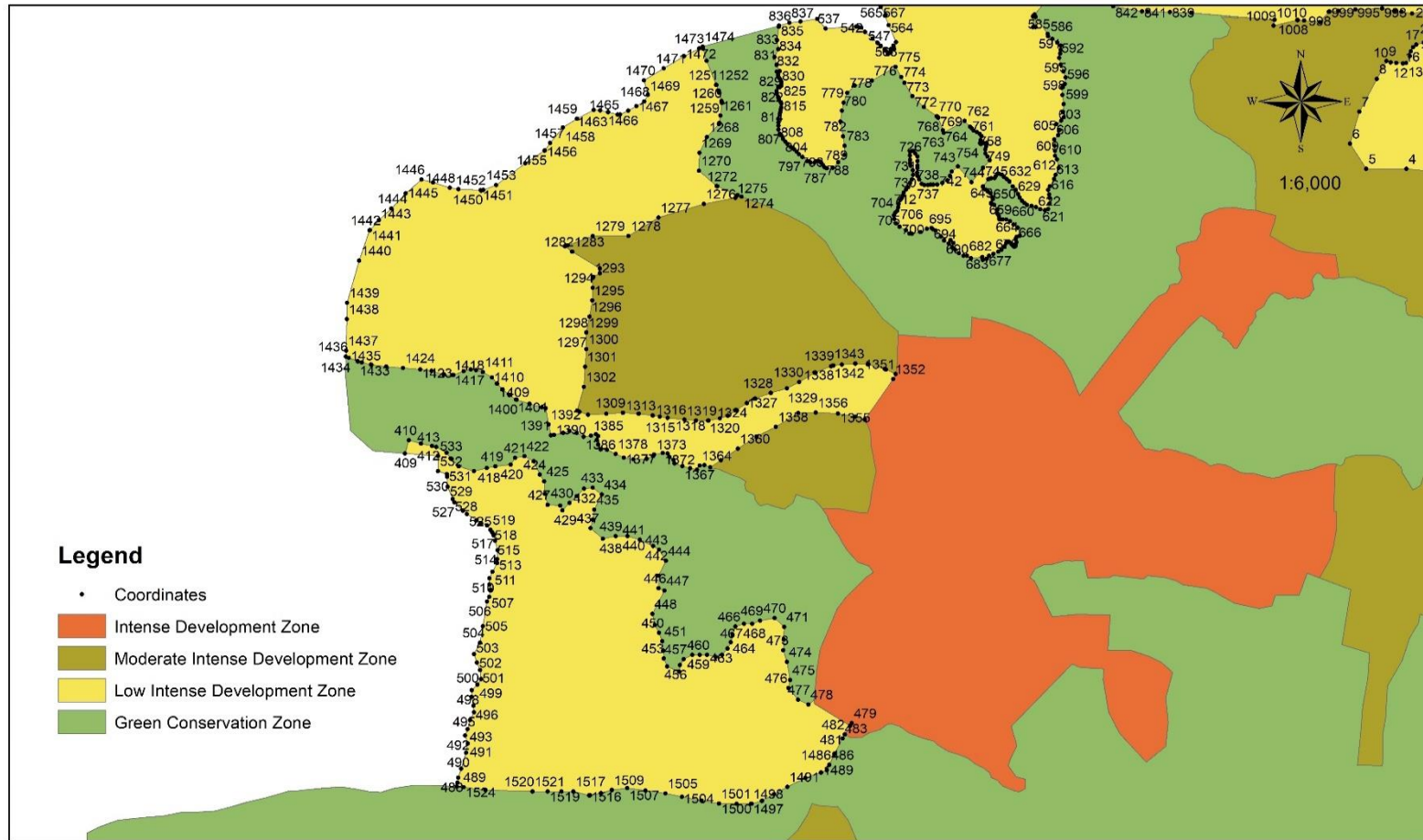
Map 21 : Low Intense Development Zone 2- X,Y Coordinates



Low Intense Development Zone 2 (Zoning Coordinates)
 Source : UDA - Matara District Office

Hakmana Development Plan (2021-2030)

Map 22 : Low Intense Development Zone 3 - X, Y Coordinates



Low Intense Development Zone 3 (Zoning Coordinates)

Source : UDA - Matara District Office

Hakmana Development Plan (2021-2030)

Se.	X	Y	43	80.64880	6.08706	87	80.64840	6.08588	131	80.65160	6.08324
0	80.64780	6.08632	44	80.64890	6.08703	88	80.64840	6.08602	132	80.64960	6.08454
1	80.64770	6.08636	45	80.64900	6.08702	89	80.64830	6.08615	133	80.64960	6.08454
2	80.64740	6.08658	46	80.64910	6.08704	90	80.64810	6.08629	134	80.64960	6.08454
3	80.64710	6.08687	47	80.64930	6.08691	91	80.64810	6.08638	135	80.64960	6.08454
4	80.64680	6.08690	48	80.64950	6.08666	92	80.64810	6.08650	136	80.64950	6.08450
5	80.64640	6.08690	49	80.64950	6.08660	93	80.64800	6.08657	137	80.64960	6.08454
6	80.64620	6.08719	50	80.64990	6.08632	94	80.64800	6.08666	138	80.64960	6.08454
7	80.64630	6.08755	51	80.65000	6.08624	95	80.64790	6.08663	139	80.65050	6.08605
8	80.64650	6.08792	52	80.65000	6.08624	96	80.64790	6.08651	140	80.65110	6.08587
9	80.64660	6.08813	53	80.65010	6.08624	97	80.64790	6.08643	141	80.65150	6.08557
10	80.64670	6.08811	54	80.65020	6.08623	98	80.64790	6.08631	142	80.65210	6.08529
11	80.64670	6.08810	55	80.65020	6.08621	99	80.64800	6.08624	143	80.65260	6.08503
12	80.64680	6.08810	56	80.65040	6.08615	100	80.64800	6.08619	144	80.65320	6.08473
13	80.64680	6.08810	57	80.65040	6.08610	101	80.64800	6.08614	145	80.65390	6.08439
14	80.64690	6.08818	58	80.65040	6.08609	102	80.64780	6.08632	146	80.65440	6.08415
15	80.64690	6.08824	59	80.65040	6.08609	103	80.65160	6.08324	147	80.65470	6.08408
16	80.64690	6.08828	60	80.65050	6.08606	104	80.65160	6.08318	148	80.65470	6.08389
17	80.64690	6.08831	61	80.65050	6.08605	105	80.65180	6.08323	149	80.65460	6.08380
18	80.64700	6.08834	62	80.64960	6.08454	106	80.65180	6.08323	150	80.65450	6.08366
19	80.64710	6.08836	63	80.64960	6.08454	107	80.65190	6.08324	151	80.65440	6.08356
20	80.64710	6.08838	64	80.64960	6.08454	108	80.65200	6.08314	152	80.65420	6.08343
21	80.64720	6.08838	65	80.64960	6.08454	109	80.65210	6.08305	153	80.65420	6.08340
22	80.64720	6.08843	66	80.64960	6.08454	110	80.65210	6.08294	154	80.65420	6.08339
23	80.64720	6.08849	67	80.64960	6.08454	111	80.65210	6.08283	155	80.65420	6.08336
24	80.64730	6.08855	68	80.64950	6.08450	112	80.65200	6.08269	156	80.65400	6.08330
25	80.64720	6.08859	69	80.64950	6.08450	113	80.65190	6.08263	157	80.65390	6.08323
26	80.64710	6.08869	70	80.64950	6.08450	114	80.65190	6.08256	158	80.65390	6.08318
27	80.64740	6.08903	71	80.64950	6.08450	115	80.65200	6.08250	159	80.65370	6.08317
28	80.64750	6.08896	72	80.64950	6.08450	116	80.65210	6.08242	160	80.65350	6.08321
29	80.64790	6.08849	73	80.64950	6.08450	117	80.65230	6.08243	161	80.65330	6.08323
30	80.64830	6.08803	74	80.64940	6.08450	118	80.65240	6.08238	162	80.65320	6.08323
31	80.64830	6.08802	75	80.64930	6.08459	119	80.65250	6.08236	163	80.65310	6.08330
32	80.64840	6.08794	76	80.64930	6.08459	120	80.65260	6.08226	164	80.65300	6.08338
33	80.64830	6.08783	77	80.64910	6.08467	121	80.65270	6.08221	165	80.65300	6.08343
34	80.64840	6.08773	78	80.64850	6.08496	122	80.65270	6.08221	166	80.65300	6.08351
35	80.64840	6.08767	79	80.64850	6.08510	123	80.65250	6.08185	167	80.65290	6.08358
36	80.64850	6.08762	80	80.64850	6.08523	124	80.65230	6.08171	168	80.65290	6.08365
37	80.64850	6.08752	81	80.64850	6.08532	125	80.65200	6.08162	169	80.65290	6.08375
38	80.64860	6.08743	82	80.64860	6.08531	126	80.65180	6.08182	170	80.65290	6.08382
39	80.64860	6.08734	83	80.64860	6.08537	127	80.65140	6.08187	171	80.65290	6.08390
40	80.64870	6.08728	84	80.64860	6.08548	128	80.65140	6.08214	172	80.65300	6.08401
41	80.64870	6.08719	85	80.64850	6.08561	129	80.65130	6.08258	173	80.65290	6.08407
42	80.64870	6.08712	86	80.64840	6.08574	130	80.65130	6.08291	174	80.65290	6.08405

175	80.65280	6.08397	219	80.65630	6.08324	263	80.65450	6.08246	307	80.65260	6.08503
176	80.65280	6.08388	220	80.65630	6.08323	264	80.65430	6.08255	308	80.65320	6.08473
177	80.65270	6.08382	221	80.65630	6.08324	265	80.65430	6.08268	309	80.65390	6.08439
178	80.65270	6.08372	222	80.65630	6.08324	266	80.65430	6.08275	310	80.65440	6.08415
179	80.65270	6.08366	223	80.65630	6.08327	267	80.65440	6.08285	311	80.65470	6.08408
180	80.65260	6.08358	224	80.65630	6.08329	268	80.65440	6.08292	312	80.65470	6.08389
181	80.65240	6.08358	225	80.65620	6.08330	269	80.65450	6.08298	313	80.65460	6.08380
182	80.65240	6.08357	226	80.65620	6.08333	270	80.65450	6.08307	314	80.65450	6.08366
183	80.65220	6.08361	227	80.65620	6.08332	271	80.65470	6.08325	315	80.65440	6.08356
184	80.65210	6.08364	228	80.65610	6.08330	272	80.65470	6.08336	316	80.65420	6.08343
185	80.65210	6.08361	229	80.65610	6.08330	273	80.65460	6.08348	317	80.65420	6.08340
186	80.65200	6.08356	230	80.65610	6.08330	274	80.65460	6.08357	318	80.65420	6.08339
187	80.65190	6.08348	231	80.65610	6.08332	275	80.65470	6.08367	319	80.65420	6.08336
188	80.65180	6.08338	232	80.65600	6.08334	276	80.65480	6.08369	320	80.65400	6.08330
189	80.65160	6.08334	233	80.65600	6.08335	277	80.65490	6.08372	321	80.65390	6.08323
190	80.65160	6.08334	234	80.65600	6.08335	278	80.65500	6.08373	322	80.65390	6.08318
191	80.65160	6.08334	235	80.65590	6.08332	279	80.65510	6.08382	323	80.65370	6.08317
192	80.65150	6.08338	236	80.65590	6.08331	280	80.65510	6.08385	324	80.65350	6.08321
193	80.65150	6.08334	237	80.65560	6.08330	281	80.65520	6.08385	325	80.65330	6.08323
194	80.65150	6.08334	238	80.65560	6.08329	282	80.65510	6.08393	326	80.65320	6.08323
195	80.65140	6.08333	239	80.65560	6.08319	283	80.65530	6.08377	327	80.65310	6.08330
196	80.65140	6.08332	240	80.65560	6.08311	284	80.65540	6.08373	328	80.65300	6.08338
197	80.65140	6.08329	241	80.65570	6.08302	285	80.65550	6.08364	329	80.65300	6.08343
198	80.65140	6.08328	242	80.65590	6.08297	286	80.65560	6.08362	330	80.65300	6.08351
199	80.65140	6.08328	243	80.65620	6.08303	287	80.65560	6.08358	331	80.65290	6.08358
200	80.65140	6.08330	244	80.65620	6.08303	288	80.65580	6.08354	332	80.65290	6.08365
201	80.65140	6.08332	245	80.65620	6.08303	289	80.65590	6.08356	333	80.65290	6.08375
202	80.65130	6.08333	246	80.65620	6.08303	290	80.65600	6.08352	334	80.65290	6.08382
203	80.65130	6.08335	247	80.65620	6.08303	291	80.65600	6.08351	335	80.65290	6.08390
204	80.65140	6.08337	248	80.65620	6.08303	292	80.65620	6.08350	336	80.65300	6.08401
205	80.65140	6.08340	249	80.65610	6.08287	293	80.65630	6.08346	337	80.65290	6.08407
206	80.65140	6.08343	250	80.65580	6.08243	294	80.65630	6.08345	338	80.65290	6.08405
207	80.65130	6.08350	251	80.65550	6.08188	295	80.65640	6.08341	339	80.65280	6.08397
208	80.65100	6.08372	252	80.65520	6.08175	296	80.65070	6.08404	340	80.65280	6.08388
209	80.65090	6.08388	253	80.65510	6.08177	297	80.65070	6.08408	341	80.65270	6.08382
210	80.65070	6.08408	254	80.65500	6.08182	298	80.65050	6.08417	342	80.65270	6.08372
211	80.65050	6.08417	255	80.65500	6.08191	299	80.65030	6.08431	343	80.65270	6.08366
212	80.65030	6.08431	256	80.65500	6.08198	300	80.65000	6.08449	344	80.65260	6.08358
213	80.65000	6.08449	257	80.65490	6.08211	301	80.64980	6.08455	345	80.65240	6.08358
214	80.64980	6.08455	258	80.65490	6.08217	302	80.64960	6.08454	346	80.65240	6.08357
215	80.64960	6.08454	259	80.65480	6.08217	303	80.65050	6.08605	347	80.65220	6.08361
216	80.65640	6.08341	260	80.65470	6.08219	304	80.65110	6.08587	348	80.65210	6.08364
217	80.65640	6.08334	261	80.65470	6.08232	305	80.65150	6.08557	349	80.65210	6.08361
218	80.65630	6.08324	262	80.65460	6.08237	306	80.65210	6.08529	350	80.65200	6.08356

351	80.65190	6.08348	395	80.65560	6.08125	439	80.63800	6.08272	483	80.64040	6.08109
352	80.65180	6.08338	396	80.65560	6.08138	440	80.63810	6.08272	484	80.64050	6.08108
353	80.65160	6.08334	397	80.65570	6.08147	441	80.63830	6.08268	485	80.64060	6.08107
354	80.65160	6.08334	398	80.65570	6.08161	442	80.63840	6.08261	486	80.64080	6.08109
355	80.65160	6.08334	399	80.65570	6.08177	443	80.63850	6.08257	487	80.64100	6.08111
356	80.65150	6.08338	400	80.65570	6.08187	444	80.63860	6.08244	488	80.64090	6.08094
357	80.65150	6.08334	401	80.65580	6.08201	445	80.63850	6.08227	489	80.64070	6.08073
358	80.65150	6.08334	402	80.65590	6.08197	446	80.63850	6.08213	490	80.64070	6.08073
359	80.65140	6.08333	403	80.65600	6.08198	447	80.63850	6.08210	491	80.64060	6.08060
360	80.65140	6.08332	404	80.65610	6.08202	448	80.63840	6.08183	492	80.64060	6.08056
361	80.65140	6.08329	405	80.65620	6.08202	449	80.63840	6.08171	493	80.64060	6.08047
362	80.65140	6.08328	406	80.65640	6.08202	450	80.63850	6.08162	494	80.64060	6.08046
363	80.65140	6.08328	407	80.65650	6.08197	451	80.63850	6.08152	495	80.64050	6.08042
364	80.65140	6.08330	408	80.63600	6.08363	452	80.63850	6.08142	496	80.64040	6.08025
365	80.65140	6.08332	409	80.63560	6.08366	453	80.63850	6.08133	497	80.64040	6.08024
366	80.65130	6.08333	410	80.63570	6.08381	454	80.63860	6.08124	498	80.64040	6.08012
367	80.65130	6.08335	411	80.63580	6.08377	455	80.63870	6.08118	499	80.63620	6.07991
368	80.65140	6.08337	412	80.63590	6.08374	456	80.63870	6.08126	500	80.63620	6.07997
369	80.65140	6.08340	413	80.63600	6.08373	457	80.63880	6.08132	501	80.63630	6.08007
370	80.65140	6.08343	414	80.63610	6.08367	458	80.63880	6.08137	502	80.63630	6.08026
371	80.65130	6.08350	415	80.63620	6.08360	459	80.63890	6.08137	503	80.63630	6.08036
372	80.65100	6.08372	416	80.63620	6.08352	460	80.63900	6.08137	504	80.63630	6.08045
373	80.65090	6.08388	417	80.63640	6.08346	461	80.63910	6.08135	505	80.63630	6.08052
374	80.65070	6.08404	418	80.63660	6.08350	462	80.63920	6.08137	506	80.63640	6.08063
375	80.65650	6.08197	419	80.63670	6.08352	463	80.63920	6.08144	507	80.63640	6.08072
376	80.65660	6.08196	420	80.63680	6.08353	464	80.63930	6.08151	508	80.63640	6.08079
377	80.65670	6.08189	421	80.63690	6.08361	465	80.63930	6.08160	509	80.63640	6.08089
378	80.65680	6.08184	422	80.63700	6.08363	466	80.63930	6.08169	510	80.63640	6.08097
379	80.65700	6.08173	423	80.63710	6.08357	467	80.63940	6.08172	511	80.63650	6.08103
380	80.65700	6.08164	424	80.63710	6.08342	468	80.63950	6.08172	512	80.63650	6.08109
381	80.65720	6.08143	425	80.63720	6.08334	469	80.63960	6.08176	513	80.63650	6.08120
382	80.65730	6.08132	426	80.63720	6.08320	470	80.63980	6.08179	514	80.63640	6.08128
383	80.65730	6.08121	427	80.63720	6.08308	471	80.63990	6.08169	515	80.63640	6.08138
384	80.65740	6.08110	428	80.63740	6.08307	472	80.63990	6.08154	516	80.63650	6.08151
385	80.65730	6.08095	429	80.63740	6.08301	473	80.63990	6.08142	517	80.63650	6.08169
386	80.65730	6.08082	430	80.63750	6.08310	474	80.63990	6.08129	518	80.63660	6.08198
387	80.65730	6.08065	431	80.63760	6.08318	475	80.63990	6.08108	519	80.63660	6.08203
388	80.65730	6.08050	432	80.63760	6.08326	476	80.63990	6.08099	520	80.63660	6.08211
389	80.65650	6.08039	433	80.63770	6.08327	477	80.64000	6.08086	521	80.63660	6.08217
390	80.65630	6.08039	434	80.63780	6.08319	478	80.64020	6.08081	522	80.63660	6.08224
391	80.65630	6.08096	435	80.63780	6.08302	479	80.64030	6.08090	523	80.63660	6.08231
392	80.65570	6.08092	436	80.63770	6.08291	480	80.64030	6.08103	524	80.63670	6.08241
393	80.65560	6.08101	437	80.63770	6.08281	481	80.64030	6.08111	525	80.63670	6.08246
394	80.65560	6.08119	438	80.63790	6.08269	482	80.64040	6.08111	526	80.63670	6.08256

527	80.63670	6.08267	571	80.64110	6.08826	615	80.64290	6.08741	659	80.64220	6.08658
528	80.63660	6.08273	572	80.64110	6.08827	616	80.64300	6.08734	660	80.64220	6.08656
529	80.63660	6.08275	573	80.64110	6.08830	617	80.64290	6.08728	661	80.64220	6.08651
530	80.63660	6.08276	574	80.64110	6.08830	618	80.64290	6.08723	662	80.64220	6.08650
531	80.63660	6.08279	575	80.64110	6.08834	619	80.64290	6.08716	663	80.64220	6.08649
532	80.63660	6.08284	576	80.64100	6.08853	620	80.64290	6.08710	664	80.64230	6.08644
533	80.63650	6.08286	577	80.64100	6.08864	621	80.64290	6.08705	665	80.64230	6.08643
534	80.63650	6.08287	578	80.64100	6.08865	622	80.64290	6.08701	666	80.64230	6.08639
535	80.63650	6.08287	579	80.64100	6.08874	623	80.64290	6.08691	667	80.64230	6.08636
536	80.63640	6.08290	580	80.64100	6.08890	624	80.64290	6.08683	668	80.64230	6.08633
537	80.63630	6.08297	581	80.64110	6.08897	625	80.64290	6.08678	669	80.64230	6.08632
538	80.63630	6.08301	582	80.64130	6.08920	626	80.64280	6.08670	670	80.64230	6.08632
539	80.63620	6.08310	583	80.64150	6.08922	627	80.64280	6.08666	671	80.64240	6.08632
540	80.63620	6.08314	584	80.64150	6.08925	628	80.64280	6.08661	672	80.64240	6.08631
541	80.63610	6.08328	585	80.64150	6.08932	629	80.64280	6.08657	673	80.64240	6.08627
542	80.63610	6.08340	586	80.64280	6.08886	630	80.64280	6.08650	674	80.64250	6.08623
543	80.63610	6.08343	587	80.64270	6.08866	631	80.64280	6.08644	675	80.64250	6.08614
544	80.63600	6.08346	588	80.64270	6.08864	632	80.64280	6.08643	676	80.64250	6.08613
545	80.63600	6.08363	589	80.64270	6.08864	633	80.64270	6.08644	677	80.64250	6.08610
546	80.63990	6.08856	590	80.64270	6.08864	634	80.64270	6.08646	678	80.64250	6.08606
547	80.64010	6.08857	591	80.64270	6.08863	635	80.64260	6.08648	679	80.64240	6.08603
548	80.64020	6.08861	592	80.64270	6.08863	636	80.64260	6.08649	680	80.64240	6.08604
549	80.64030	6.08850	593	80.64270	6.08851	637	80.64260	6.08651	681	80.64240	6.08606
550	80.64070	6.08852	594	80.64270	6.08851	638	80.64250	6.08654	682	80.64240	6.08607
551	80.64070	6.08851	595	80.64270	6.08863	639	80.64250	6.08657	683	80.64240	6.08606
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555	80.64090	6.08838	599	80.64290	6.08838	643	80.64240	6.08676	687	80.64220	6.08593
556	80.64090	6.08838	600	80.64290	6.08834	644	80.64240	6.08678	688	80.64220	6.08591
557	80.64090	6.08833	601	80.64300	6.08830	645	80.64230	6.08681	689	80.64210	6.08588
558	80.64090	6.08833	602	80.64300	6.08825	646	80.64230	6.08683	690	80.64210	6.08586
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565	80.64110	6.08822	609	80.64300	6.08783	653	80.64220	6.08678	697	80.64180	6.08598
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567	80.64110	6.08823	611	80.64300	6.08764	655	80.64210	6.08670	699	80.64180	6.08605
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703	80.64160	6.08613	747	80.64150	6.08672	791	80.64050	6.08765	835	80.63980	6.08784
704	80.64160	6.08620	748	80.64150	6.08672	792	80.64050	6.08756	836	80.63980	6.08787
705	80.64150	6.08621	749	80.64150	6.08672	793	80.64050	6.08744	837	80.63980	6.08789
706	80.64150	6.08623	750	80.64160	6.08672	794	80.64050	6.08727	838	80.63980	6.08792
707	80.64150	6.08622	751	80.64160	6.08674	795	80.64050	6.08716	839	80.63980	6.08794
708	80.64140	6.08618	752	80.64170	6.08677	796	80.64050	6.08706	840	80.63980	6.08797
709	80.64130	6.08616	753	80.64170	6.08682	797	80.64050	6.08698	841	80.63980	6.08800
710	80.64130	6.08616	754	80.64170	6.08687	798	80.64040	6.08691	842	80.63980	6.08801
711	80.64120	6.08620	755	80.64180	6.08693	799	80.64040	6.08691	843	80.63980	6.08808
712	80.64120	6.08624	756	80.64200	6.08675	800	80.64030	6.08692	844	80.63980	6.08817
713	80.64110	6.08628	757	80.64210	6.08691	801	80.64030	6.08694	845	80.63980	6.08826
714	80.64110	6.08633	758	80.64220	6.08700	802	80.64030	6.08697	846	80.63980	6.08836
715	80.64110	6.08637	759	80.64220	6.08704	803	80.64030	6.08698	847	80.63980	6.08851
716	80.64110	6.08640	760	80.64210	6.08707	804	80.64030	6.08699	848	80.63980	6.08853
717	80.64110	6.08642	761	80.64210	6.08712	805	80.64020	6.08699	849	80.63990	6.08856
718	80.64120	6.08646	762	80.64210	6.08716	806	80.64020	6.08697	850	80.64440	6.08868
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720	80.64120	6.08654	764	80.64210	6.08720	808	80.64010	6.08699	852	80.64390	6.08869
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722	80.64120	6.08660	766	80.64210	6.08719	810	80.64000	6.08706	854	80.64360	6.08875
723	80.64120	6.08663	767	80.64210	6.08723	811	80.64000	6.08709	855	80.64290	6.08889
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725	80.64130	6.08669	769	80.64210	6.08730	813	80.64000	6.08715	857	80.64280	6.08886
726	80.64130	6.08674	770	80.64200	6.08732	814	80.63990	6.08718	858	80.64150	6.08932
727	80.64130	6.08678	771	80.64200	6.08734	815	80.63990	6.08721	859	80.64150	6.08936
728	80.64130	6.08683	772	80.64200	6.08736	816	80.63990	6.08724	860	80.64160	6.08957
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730	80.64130	6.08694	774	80.64190	6.08745	818	80.63980	6.08730	862	80.64190	6.09064
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732	80.64130	6.08700	776	80.64160	6.08734	820	80.63980	6.08739	864	80.64240	6.09137
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734	80.64130	6.08709	778	80.64160	6.08748	822	80.63980	6.08747	866	80.64340	6.09208
735	80.64130	6.08710	779	80.64160	6.08749	823	80.63980	6.08752	867	80.64390	6.09248
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737	80.64130	6.08707	781	80.64160	6.08749	825	80.63980	6.08757	869	80.64400	6.09246
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739	80.64140	6.08699	783	80.64140	6.08760	827	80.63980	6.08764	871	80.64410	6.09245
740	80.64140	6.08694	784	80.64130	6.08773	828	80.63980	6.08766	872	80.64410	6.09245
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744	80.64140	6.08678	788	80.64090	6.08790	832	80.63980	6.08778	876	80.64410	6.09245
745	80.64140	6.08673	789	80.64070	6.08785	833	80.63980	6.08783	877	80.64420	6.09250
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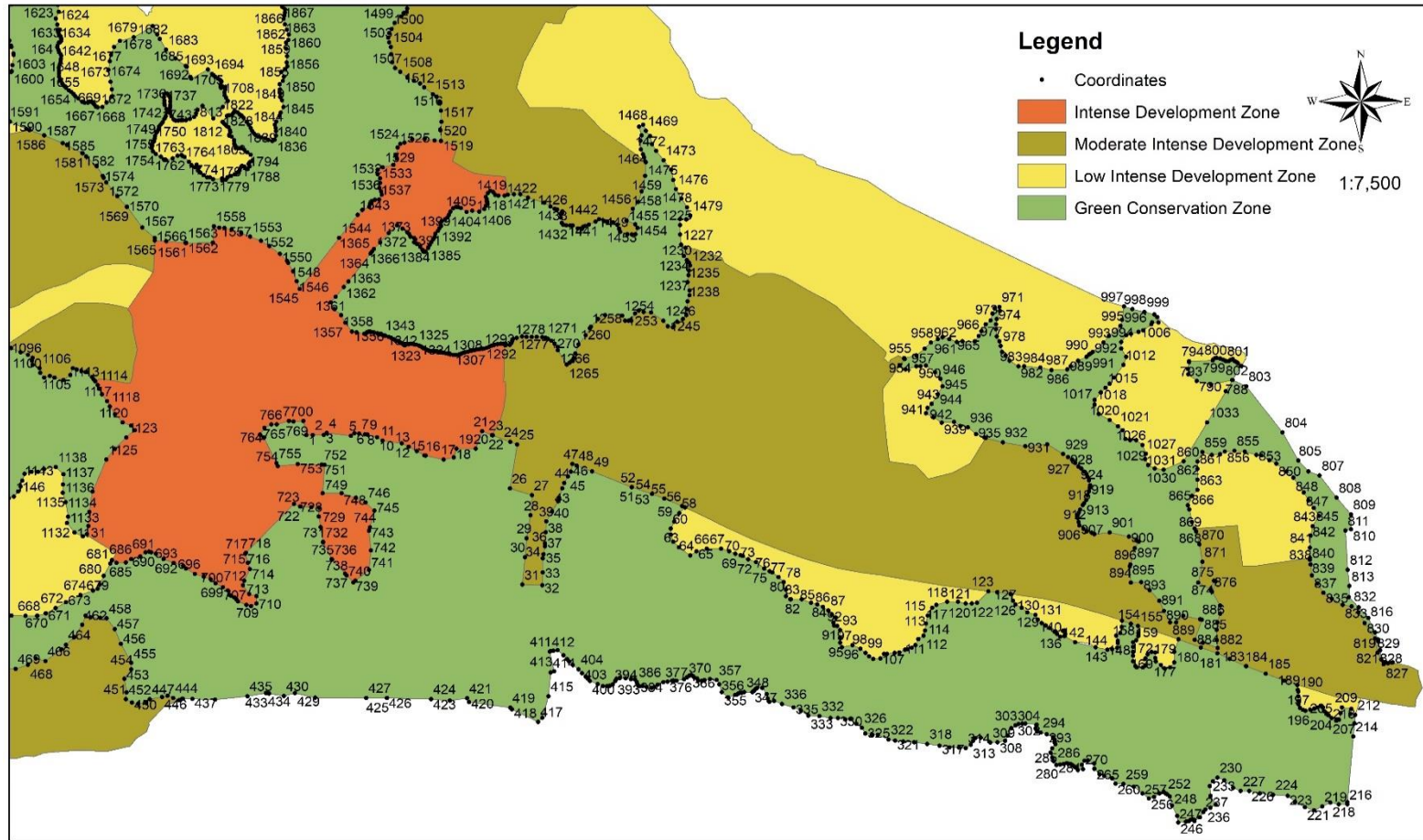
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880	80.64420	6.09258	924	80.64630	6.09617	968	80.64850	6.09285	1012	80.64600	6.08869
881	80.64420	6.09259	925	80.64650	6.09622	969	80.64870	6.09285	1013	80.64600	6.08869
882	80.64420	6.09260	926	80.64660	6.09609	970	80.64870	6.09255	1014	80.64600	6.08869
883	80.64420	6.09262	927	80.64660	6.09609	971	80.64860	6.09223	1015	80.64590	6.08857
884	80.64410	6.09266	928	80.64660	6.09606	972	80.64860	6.09204	1016	80.64570	6.08859
885	80.64410	6.09268	929	80.64670	6.09587	973	80.64850	6.09159	1017	80.64560	6.08859
886	80.64430	6.09284	930	80.64670	6.09580	974	80.64850	6.09159	1018	80.64560	6.08859
887	80.64430	6.09285	931	80.64670	6.09579	975	80.64850	6.09154	1019	80.64560	6.08859
888	80.64430	6.09321	932	80.64690	6.09575	976	80.64860	6.09148	1020	80.64560	6.08859
889	80.64440	6.09350	933	80.64700	6.09574	977	80.64860	6.09142	1021	80.64530	6.08853
890	80.64450	6.09356	934	80.64710	6.09567	978	80.64860	6.09133	1022	80.64540	6.08859
891	80.64470	6.09359	935	80.64710	6.09560	979	80.64850	6.09128	1023	80.64440	6.08868
892	80.64470	6.09358	936	80.64710	6.09550	980	80.64840	6.09122	1024	80.64710	6.09028
893	80.64470	6.09359	937	80.64710	6.09542	981	80.64840	6.09119	1025	80.64700	6.09020
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895	80.64490	6.09356	939	80.64720	6.09526	983	80.64840	6.09109	1027	80.64670	6.09020
896	80.64500	6.09354	940	80.64740	6.09512	984	80.64830	6.09107	1028	80.64660	6.09016
897	80.64510	6.09356	941	80.64740	6.09512	985	80.64830	6.09105	1029	80.64650	6.09014
898	80.64510	6.09362	942	80.64750	6.09518	986	80.64820	6.09096	1030	80.64630	6.09014
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901	80.64520	6.09393	945	80.64760	6.09522	989	80.64810	6.09070	1033	80.64590	6.09009
902	80.64550	6.09420	946	80.64770	6.09522	990	80.64810	6.09070	1034	80.64580	6.08996
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907	80.64620	6.09518	951	80.64800	6.09514	995	80.64780	6.08970	1039	80.64590	6.08966
908	80.64620	6.09528	952	80.64810	6.09505	996	80.64740	6.08906	1040	80.64600	6.08974
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910	80.64620	6.09540	954	80.64840	6.09445	998	80.64710	6.08871	1042	80.64610	6.08986
911	80.64620	6.09546	955	80.64860	6.09415	999	80.64710	6.08871	1043	80.64620	6.08988
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1097	80.65460	6.07929	1141	80.64920	6.08091	1185	80.65120	6.07906	1229	80.65490	6.07939
1098	80.65460	6.07922	1142	80.64950	6.08078	1186	80.65110	6.07910	1230	80.65710	6.07846

1231	80.65710	6.07853	1275	80.63920	6.08742	1319	80.63810	6.08412	1363	80.64110	6.08456
1232	80.65710	6.07860	1276	80.63920	6.08742	1320	80.63810	6.08412	1364	80.64110	6.08451
1233	80.65710	6.07863	1277	80.63920	6.08741	1321	80.63810	6.08412	1365	80.64080	6.08405
1234	80.65710	6.07869	1278	80.63910	6.08741	1322	80.63830	6.08411	1366	80.64070	6.08408
1235	80.65710	6.07869	1279	80.63910	6.08741	1323	80.63830	6.08411	1367	80.64050	6.08412
1236	80.65710	6.07869	1280	80.63900	6.08726	1324	80.63840	6.08409	1368	80.64020	6.08413
1237	80.65740	6.07861	1281	80.63890	6.08708	1325	80.63840	6.08409	1369	80.64000	6.08412
1238	80.65770	6.07851	1282	80.63890	6.08688	1326	80.63850	6.08408	1370	80.63980	6.08396
1239	80.65770	6.07851	1283	80.63910	6.08670	1327	80.63860	6.08406	1371	80.63960	6.08385
1240	80.65770	6.07850	1284	80.63910	6.08670	1328	80.63880	6.08405	1372	80.63940	6.08371
1241	80.65770	6.07838	1285	80.63940	6.08660	1329	80.63890	6.08403	1373	80.63920	6.08358
1242	80.65770	6.07829	1286	80.63940	6.08658	1330	80.63900	6.08404	1374	80.63910	6.08350
1243	80.65770	6.07820	1287	80.63930	6.08657	1331	80.63900	6.08404	1375	80.63900	6.08353
1244	80.65760	6.07819	1288	80.63900	6.08650	1332	80.63920	6.08406	1376	80.63890	6.08352
1245	80.65760	6.07823	1289	80.63850	6.08635	1333	80.63930	6.08409	1377	80.63890	6.08348
1246	80.65750	6.07826	1290	80.63810	6.08613	1334	80.63930	6.08415	1378	80.63880	6.08349
1247	80.65750	6.07828	1291	80.63770	6.08613	1335	80.63950	6.08423	1379	80.63870	6.08352
1248	80.65750	6.07832	1292	80.63750	6.08603	1336	80.63950	6.08424	1380	80.63860	6.08355
1249	80.65750	6.07837	1293	80.63740	6.08602	1337	80.63950	6.08428	1381	80.63860	6.08359
1250	80.65740	6.07839	1294	80.63750	6.08596	1338	80.63960	6.08429	1382	80.63860	6.08362
1251	80.65740	6.07837	1295	80.63750	6.08596	1339	80.63970	6.08435	1383	80.63860	6.08366
1252	80.65730	6.07836	1296	80.63780	6.08577	1340	80.63970	6.08435	1384	80.63850	6.08367
1253	80.65730	6.07834	1297	80.63780	6.08571	1341	80.63990	6.08440	1385	80.63840	6.08365
1254	80.65720	6.07833	1298	80.63770	6.08567	1342	80.64000	6.08447	1386	80.63840	6.08363
1255	80.65720	6.07834	1299	80.63770	6.08567	1343	80.64020	6.08458	1387	80.63830	6.08360
1256	80.65710	6.07837	1300	80.63770	6.08567	1344	80.64020	6.08458	1388	80.63820	6.08359
1257	80.65710	6.07842	1301	80.63770	6.08567	1345	80.64020	6.08458	1389	80.63810	6.08361
1258	80.65710	6.07846	1302	80.63770	6.08567	1346	80.64040	6.08465	1390	80.63800	6.08365
1259	80.63900	6.08829	1303	80.63770	6.08566	1347	80.64040	6.08466	1391	80.63790	6.08370
1260	80.63900	6.08827	1304	80.63770	6.08566	1348	80.64040	6.08466	1392	80.63780	6.08371
1261	80.63900	6.08813	1305	80.63770	6.08566	1349	80.64040	6.08466	1393	80.63780	6.08376
1262	80.63910	6.08786	1306	80.63770	6.08554	1350	80.64040	6.08466	1394	80.63780	6.08382
1263	80.63910	6.08785	1307	80.63770	6.08540	1351	80.64040	6.08466	1395	80.63780	6.08386
1264	80.63910	6.08785	1308	80.63770	6.08522	1352	80.64050	6.08467	1396	80.63780	6.08388
1265	80.63910	6.08778	1309	80.63770	6.08504	1353	80.64070	6.08468	1397	80.63770	6.08386
1266	80.63910	6.08778	1310	80.63770	6.08504	1354	80.64070	6.08468	1398	80.63760	6.08385
1267	80.63920	6.08776	1311	80.63770	6.08503	1355	80.64070	6.08468	1399	80.63760	6.08389
1268	80.63920	6.08767	1312	80.63770	6.08485	1356	80.64080	6.08467	1400	80.63750	6.08392
1269	80.63920	6.08766	1313	80.63760	6.08465	1357	80.64080	6.08467	1401	80.63740	6.08389
1270	80.63920	6.08766	1314	80.63760	6.08442	1358	80.64080	6.08467	1402	80.63730	6.08387
1271	80.63920	6.08765	1315	80.63760	6.08415	1359	80.64100	6.08462	1403	80.63730	6.08387
1272	80.63920	6.08765	1316	80.63760	6.08414	1360	80.64100	6.08462	1404	80.63720	6.08399
1273	80.63920	6.08751	1317	80.63770	6.08410	1361	80.64100	6.08462	1405	80.63720	6.08418
1274	80.63920	6.08742	1318	80.63790	6.08411	1362	80.64100	6.08462	1406	80.63720	6.08419

1407	80.63720	6.08419	1443	80.63510	6.08471	1479	80.63820	6.08761	1515	80.63900	6.07971
1408	80.63700	6.08422	1444	80.63510	6.08471	1480	80.63830	6.08766	1516	80.63870	6.07975
1409	80.63700	6.08422	1445	80.63510	6.08471	1481	80.63840	6.08774	1517	80.63850	6.07979
1410	80.63690	6.08427	1446	80.63500	6.08475	1482	80.63830	6.08790	1518	80.63830	6.07983
1411	80.63690	6.08427	1447	80.63500	6.08475	1483	80.63850	6.08804	1519	80.63810	6.07985
1412	80.63690	6.08427	1448	80.63500	6.08476	1484	80.63880	6.08818	1520	80.63800	6.07983
1413	80.63690	6.08427	1449	80.63500	6.08483	1485	80.63890	6.08827	1521	80.63800	6.07983
1414	80.63680	6.08432	1450	80.63500	6.08519	1486	80.63900	6.08829	1522	80.63780	6.07980
1415	80.63680	6.08433	1451	80.63500	6.08537	1487	80.64850	6.08496	1523	80.63780	6.07980
1416	80.63670	6.08439	1452	80.63510	6.08585	1488	80.64910	6.08467	1524	80.63770	6.07977
1417	80.63670	6.08439	1453	80.63520	6.08620	1489	80.64910	6.08469	1525	80.63770	6.07977
1418	80.63670	6.08439	1454	80.63520	6.08620	1490	80.64910	6.08477	1526	80.63770	6.07977
1419	80.63670	6.08445	1455	80.63530	6.08631	1491	80.64900	6.08479	1527	80.63770	6.07977
1420	80.63670	6.08445	1456	80.63550	6.08645	1492	80.64890	6.08483	1528	80.63770	6.07977
1421	80.63670	6.08446	1457	80.63570	6.08662	1493	80.64880	6.08487	1529	80.63750	6.07981
1422	80.63660	6.08453	1458	80.63580	6.08678	1494	80.64870	6.08490	1530	80.63740	6.07981
1423	80.63650	6.08459	1459	80.63600	6.08674	1495	80.64860	6.08491	1531	80.63720	6.07981
1424	80.63640	6.08461	1460	80.63610	6.08668	1496	80.64850	6.08496	1532	80.63710	6.07981
1425	80.63640	6.08462	1461	80.63620	6.08667	1497	80.63620	6.07991	1533	80.63710	6.07981
1426	80.63630	6.08460	1462	80.63650	6.08666	1498	80.64040	6.08012	1534	80.63650	6.07983
1427	80.63620	6.08455	1463	80.63650	6.08665	1499	80.64040	6.08006	1535	80.63650	6.07983
1428	80.63620	6.08455	1464	80.63650	6.08666	1500	80.64030	6.08003	1536	80.63630	6.07986
1429	80.63620	6.08455	1465	80.63670	6.08671	1501	80.64030	6.08003	1537	80.63620	6.07987
1430	80.63620	6.08455	1466	80.63700	6.08696	1502	80.64010	6.07997	1538	80.63620	6.07991
1431	80.63610	6.08456	1467	80.63720	6.08711	1503	80.63990	6.07987	1539	80.65770	6.07838
1432	80.63610	6.08456	1468	80.63720	6.08711	1504	80.63980	6.07979	1540	80.65770	6.07850
1433	80.63610	6.08456	1469	80.63730	6.08719	1505	80.63960	6.07971	1541	80.65770	6.07857
1434	80.63590	6.08460	1470	80.63740	6.08737	1506	80.63960	6.07971	1542	80.65800	6.07851
1435	80.63580	6.08462	1471	80.63760	6.08747	1507	80.63960	6.07971	1543	80.65800	6.07851
1436	80.63560	6.08463	1472	80.63770	6.08757	1508	80.63950	6.07968	1544	80.65790	6.07827
1437	80.63540	6.08465	1473	80.63780	6.08756	1509	80.63950	6.07968	1545	80.65780	6.07829
1438	80.63540	6.08465	1474	80.63790	6.08754	1510	80.63950	6.07967	1546	80.65790	6.07836
1439	80.63530	6.08467	1475	80.63790	6.08754	1511	80.63940	6.07967	1547	80.65770	6.07838
1440	80.63530	6.08467	1476	80.63800	6.08752	1512	80.63920	6.07968			
1441	80.63530	6.08467	1477	80.63800	6.08752	1513	80.63920	6.07968			
1442	80.63520	6.08470	1478	80.63810	6.08756	1514	80.63900	6.07971			

Map 23 : Green Conservation Zone 1- X, Y Coordinates

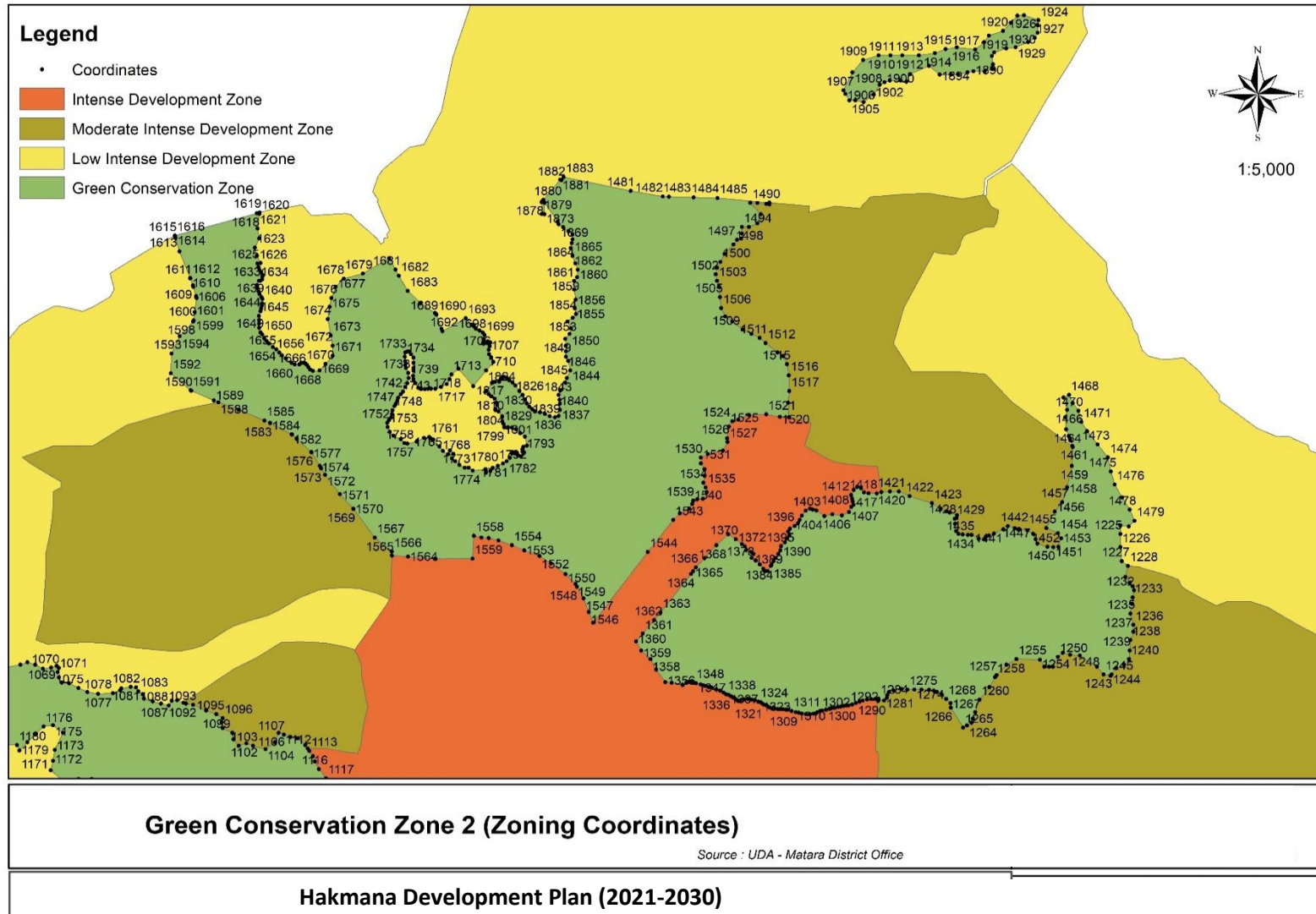


Green Conservation Zone 1 (Zoning Coordinates)

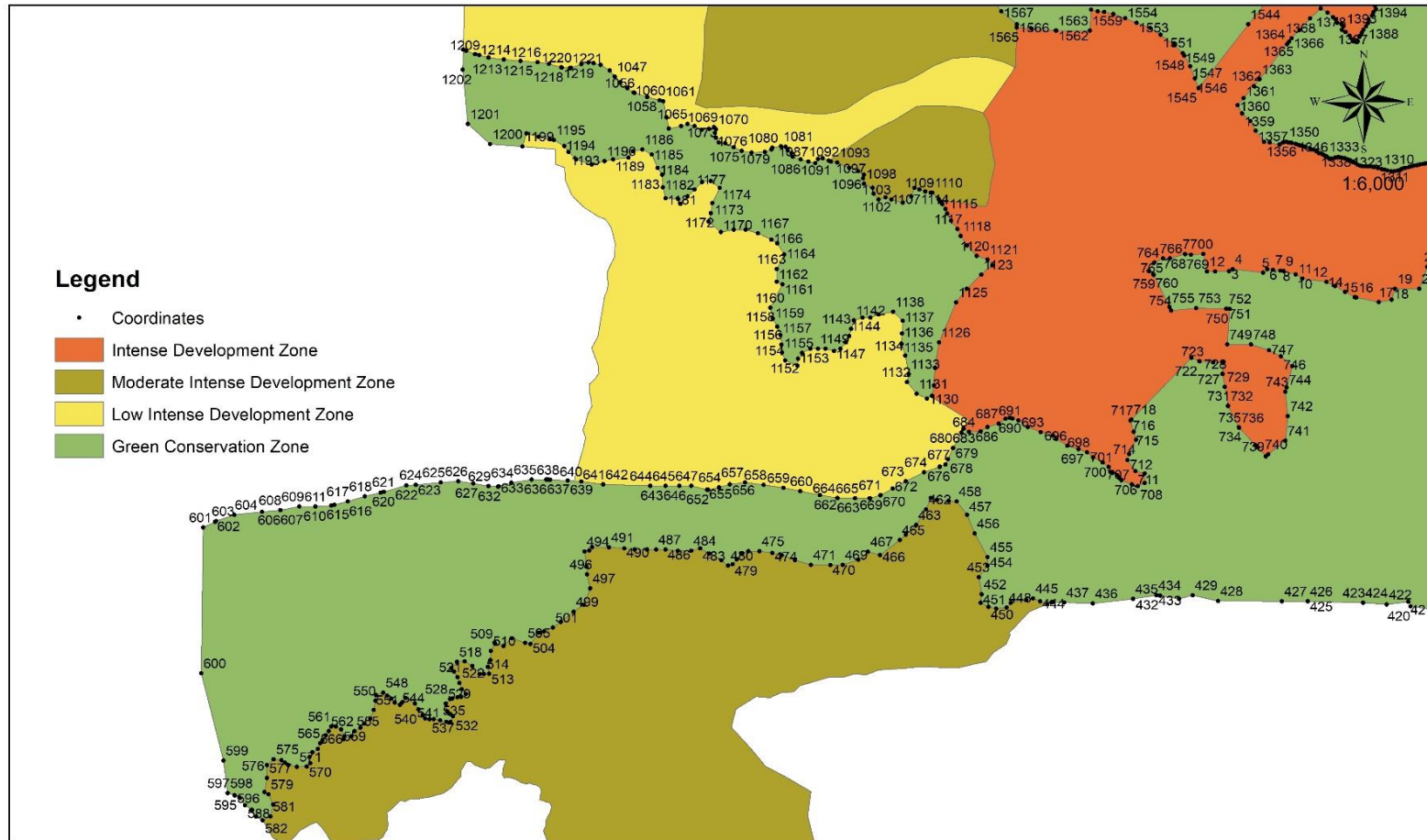
Source : UDA - Matara District Office

Hakmana Development Plan (2021-2030)

Map 24 : Green Conservation Zone 2 - X, Y Coordinates



Map 25 : Green Conservation Zone 3 - X, Y Coordinates



Green Conservation Zone 3 (Zoning Coordinates)

Source : UDA - Matara District Office

Hakmana Development Plan (2021-2030)

Se.	X	Y	42	80.6468	6.0814	85	80.6504	6.0798	128	80.6533	6.0798
0	80.6432	6.0824	43	80.6468	6.0815	86	80.6505	6.0798	129	80.6533	6.0797
1	80.6433	6.0822	44	80.6469	6.0816	87	80.6506	6.0798	130	80.6534	6.0797
2	80.6434	6.0822	45	80.6469	6.0817	88	80.6506	6.0797	131	80.6535	6.0796
3	80.6435	6.0822	46	80.6470	6.0817	89	80.6507	6.0797	132	80.6535	6.0796
4	80.6436	6.0823	47	80.6470	6.0818	90	80.6506	6.0796	133	80.6536	6.0795
5	80.6439	6.0822	48	80.6470	6.0818	91	80.6506	6.0795	134	80.6536	6.0795
6	80.6439	6.0823	49	80.6473	6.0817	92	80.6507	6.0795	135	80.6537	6.0795
7	80.6440	6.0823	50	80.6478	6.0815	93	80.6507	6.0795	136	80.6538	6.0794
8	80.6441	6.0823	51	80.6478	6.0815	94	80.6507	6.0794	137	80.6538	6.0795
9	80.6441	6.0823	52	80.6478	6.0815	95	80.6507	6.0793	138	80.6539	6.0795
10	80.6443	6.0822	53	80.6481	6.0814	96	80.6507	6.0792	139	80.6539	6.0794
11	80.6443	6.0822	54	80.6481	6.0814	97	80.6509	6.0793	140	80.6538	6.0794
12	80.6446	6.0821	55	80.6483	6.0813	98	80.6510	6.0792	141	80.6538	6.0794
13	80.6447	6.0821	56	80.6485	6.0812	99	80.6511	6.0792	142	80.6540	6.0793
14	80.6448	6.0820	57	80.6486	6.0812	100	80.6511	6.0791	143	80.6543	6.0792
15	80.6449	6.0820	58	80.6485	6.0811	101	80.6512	6.0791	144	80.6545	6.0792
16	80.6449	6.0820	59	80.6484	6.0810	102	80.6513	6.0791	145	80.6545	6.0792
17	80.6452	6.0819	60	80.6484	6.0809	103	80.6513	6.0791	146	80.6546	6.0792
18	80.6453	6.0819	61	80.6484	6.0808	104	80.6514	6.0791	147	80.6546	6.0793
19	80.6454	6.0821	62	80.6484	6.0807	105	80.6515	6.0792	148	80.6546	6.0793
20	80.6456	6.0821	63	80.6485	6.0807	106	80.6515	6.0792	149	80.6546	6.0794
21	80.6457	6.0823	64	80.6486	6.0805	107	80.6516	6.0792	150	80.6546	6.0794
22	80.6459	6.0822	65	80.6487	6.0806	108	80.6517	6.0792	151	80.6547	6.0795
23	80.6459	6.0822	66	80.6489	6.0806	109	80.6517	6.0792	152	80.6547	6.0796
24	80.6461	6.0822	67	80.6491	6.0806	110	80.6518	6.0793	153	80.6548	6.0796
25	80.6462	6.0821	68	80.6492	6.0806	111	80.6518	6.0793	154	80.6548	6.0796
26	80.6461	6.0815	69	80.6493	6.0806	112	80.6519	6.0794	155	80.6549	6.0795
27	80.6464	6.0814	70	80.6493	6.0805	113	80.6519	6.0795	156	80.6549	6.0794
28	80.6464	6.0811	71	80.6494	6.0805	114	80.6519	6.0796	157	80.6549	6.0794
29	80.6463	6.0808	72	80.6494	6.0805	115	80.6519	6.0797	158	80.6549	6.0793
30	80.6463	6.0805	73	80.6495	6.0804	116	80.6520	6.0798	159	80.6548	6.0793
31	80.6463	6.0801	74	80.6497	6.0803	117	80.6521	6.0798	160	80.6548	6.0792
32	80.6466	6.0801	75	80.6497	6.0803	118	80.6522	6.0799	161	80.6548	6.0792
33	80.6466	6.0803	76	80.6498	6.0803	119	80.6524	6.0799	162	80.6548	6.0791
34	80.6466	6.0805	77	80.6499	6.0802	120	80.6525	6.0799	163	80.6548	6.0790
35	80.6466	6.0805	78	80.6499	6.0802	121	80.6526	6.0799	164	80.6548	6.0790
36	80.6466	6.0807	79	80.6500	6.0800	122	80.6526	6.0799	165	80.6549	6.0789
37	80.6466	6.0807	80	80.6500	6.0800	123	80.6528	6.0800	166	80.6549	6.0789
38	80.6466	6.0809	81	80.6500	6.0799	124	80.6529	6.0800	167	80.6550	6.0790
39	80.6466	6.0810	82	80.6500	6.0799	125	80.6531	6.0800	168	80.6550	6.0791
40	80.6467	6.0812	83	80.6502	6.0799	126	80.6531	6.0799	169	80.6550	6.0791
41	80.6468	6.0813	84	80.6503	6.0799	127	80.6532	6.0798	170	80.6551	6.0792

171	80.6551	6.0792	214	80.6579	6.0780	257	80.6549	6.0772	300	80.6533	6.0781
172	80.6551	6.0791	215	80.6578	6.0770	258	80.6548	6.0772	301	80.6532	6.0781
173	80.6551	6.0790	216	80.6578	6.0770	259	80.6547	6.0773	302	80.6532	6.0781
174	80.6552	6.0790	217	80.6577	6.0770	260	80.6546	6.0773	303	80.6532	6.0781
175	80.6552	6.0789	218	80.6576	6.0770	261	80.6545	6.0774	304	80.6532	6.0781
176	80.6553	6.0789	219	80.6574	6.0770	262	80.6544	6.0774	305	80.6531	6.0781
177	80.6554	6.0790	220	80.6573	6.0769	263	80.6543	6.0774	306	80.6531	6.0780
178	80.6554	6.0792	221	80.6572	6.0770	264	80.6543	6.0775	307	80.6530	6.0779
179	80.6554	6.0793	222	80.6571	6.0770	265	80.6543	6.0775	308	80.6529	6.0779
180	80.6558	6.0792	223	80.6570	6.0771	266	80.6543	6.0776	309	80.6528	6.0779
181	80.6560	6.0791	224	80.6568	6.0771	267	80.6542	6.0776	310	80.6527	6.0779
182	80.6562	6.0791	225	80.6566	6.0772	268	80.6541	6.0776	311	80.6526	6.0779
183	80.6564	6.0790	226	80.6564	6.0772	269	80.6541	6.0776	312	80.6526	6.0779
184	80.6564	6.0790	227	80.6563	6.0772	270	80.6541	6.0775	313	80.6525	6.0778
185	80.6567	6.0789	228	80.6562	6.0772	271	80.6540	6.0775	314	80.6525	6.0778
186	80.6569	6.0788	229	80.6561	6.0773	272	80.6540	6.0775	315	80.6524	6.0778
187	80.6569	6.0788	230	80.6560	6.0774	273	80.6540	6.0775	316	80.6522	6.0778
188	80.6571	6.0787	231	80.6559	6.0773	274	80.6540	6.0775	317	80.6521	6.0778
189	80.6571	6.0786	232	80.6559	6.0773	275	80.6540	6.0776	318	80.6519	6.0779
190	80.6571	6.0786	233	80.6559	6.0771	276	80.6539	6.0776	319	80.6518	6.0779
191	80.6571	6.0785	234	80.6560	6.0770	277	80.6539	6.0776	320	80.6516	6.0779
192	80.6571	6.0785	235	80.6559	6.0770	278	80.6539	6.0776	321	80.6515	6.0779
193	80.6571	6.0784	236	80.6558	6.0769	279	80.6538	6.0776	322	80.6514	6.0779
194	80.6571	6.0784	237	80.6558	6.0769	280	80.6538	6.0776	323	80.6512	6.0780
195	80.6572	6.0783	238	80.6557	6.0768	281	80.6537	6.0776	324	80.6512	6.0780
196	80.6572	6.0783	239	80.6557	6.0768	282	80.6537	6.0776	325	80.6511	6.0780
197	80.6573	6.0783	240	80.6557	6.0768	283	80.6537	6.0777	326	80.6510	6.0781
198	80.6573	6.0784	241	80.6556	6.0768	284	80.6537	6.0777	327	80.6509	6.0781
199	80.6574	6.0784	242	80.6556	6.0768	285	80.6537	6.0778	328	80.6509	6.0782
200	80.6574	6.0784	243	80.6556	6.0768	286	80.6537	6.0779	329	80.6508	6.0782
201	80.6575	6.0784	244	80.6556	6.0768	287	80.6537	6.0779	330	80.6507	6.0782
202	80.6575	6.0783	245	80.6555	6.0767	288	80.6537	6.0779	331	80.6506	6.0782
203	80.6575	6.0783	246	80.6554	6.0767	289	80.6537	6.0779	332	80.6504	6.0783
204	80.6575	6.0783	247	80.6554	6.0768	290	80.6537	6.0779	333	80.6503	6.0783
205	80.6576	6.0782	248	80.6554	6.0770	291	80.6537	6.0779	334	80.6502	6.0783
206	80.6576	6.0782	249	80.6553	6.0771	292	80.6537	6.0780	335	80.6501	6.0784
207	80.6577	6.0782	250	80.6553	6.0771	293	80.6536	6.0780	336	80.6499	6.0784
208	80.6577	6.0783	251	80.6553	6.0772	294	80.6535	6.0780	337	80.6498	6.0785
209	80.6577	6.0784	252	80.6553	6.0772	295	80.6535	6.0780	338	80.6497	6.0785
210	80.6579	6.0784	253	80.6552	6.0772	296	80.6535	6.0781	339	80.6497	6.0785
211	80.6578	6.0783	254	80.6552	6.0772	297	80.6535	6.0781	340	80.6497	6.0786
212	80.6579	6.0783	255	80.6551	6.0771	298	80.6535	6.0781	341	80.6496	6.0786
213	80.6579	6.0781	256	80.6550	6.0771	299	80.6533	6.0781	342	80.6496	6.0786

343	80.6495	6.0786	386	80.6479	6.0787	429	80.6431	6.0786	472	80.6387	6.0790
344	80.6495	6.0786	387	80.6479	6.0788	430	80.6430	6.0785	473	80.6385	6.0790
345	80.6495	6.0786	388	80.6478	6.0788	431	80.6427	6.0786	474	80.6384	6.0791
346	80.6495	6.0786	389	80.6477	6.0788	432	80.6427	6.0786	475	80.6383	6.0791
347	80.6495	6.0786	390	80.6476	6.0788	433	80.6427	6.0786	476	80.6382	6.0791
348	80.6494	6.0786	391	80.6476	6.0788	434	80.6427	6.0786	477	80.6381	6.0790
349	80.6493	6.0786	392	80.6476	6.0788	435	80.6424	6.0785	478	80.6380	6.0790
350	80.6493	6.0786	393	80.6476	6.0787	436	80.6420	6.0785	479	80.6380	6.0789
351	80.6493	6.0786	394	80.6475	6.0787	437	80.6417	6.0785	480	80.6379	6.0789
352	80.6493	6.0786	395	80.6475	6.0787	438	80.6415	6.0785	481	80.6379	6.0790
353	80.6493	6.0786	396	80.6475	6.0787	439	80.6415	6.0785	482	80.6377	6.0790
354	80.6492	6.0785	397	80.6475	6.0787	440	80.6415	6.0785	483	80.6376	6.0791
355	80.6491	6.0786	398	80.6474	6.0787	441	80.6415	6.0785	484	80.6375	6.0791
356	80.6490	6.0787	399	80.6473	6.0787	442	80.6415	6.0785	485	80.6374	6.0791
357	80.6490	6.0788	400	80.6472	6.0787	443	80.6415	6.0785	486	80.6372	6.0791
358	80.6489	6.0788	401	80.6472	6.0788	444	80.6414	6.0785	487	80.6371	6.0791
359	80.6488	6.0788	402	80.6472	6.0788	445	80.6413	6.0785	488	80.6370	6.0791
360	80.6488	6.0788	403	80.6471	6.0789	446	80.6413	6.0785	489	80.6369	6.0791
361	80.6487	6.0788	404	80.6471	6.0789	447	80.6411	6.0785	490	80.6368	6.0791
362	80.6487	6.0788	405	80.6470	6.0790	448	80.6410	6.0784	491	80.6366	6.0791
363	80.6487	6.0788	406	80.6469	6.0790	449	80.6409	6.0784	492	80.6364	6.0791
364	80.6487	6.0788	407	80.6469	6.0791	450	80.6408	6.0784	493	80.6364	6.0791
365	80.6486	6.0788	408	80.6469	6.0791	451	80.6407	6.0785	494	80.6363	6.0791
366	80.6486	6.0788	409	80.6468	6.0792	452	80.6408	6.0786	495	80.6364	6.0789
367	80.6486	6.0788	410	80.6467	6.0792	453	80.6407	6.0788	496	80.6364	6.0788
368	80.6486	6.0788	411	80.6467	6.0792	454	80.6408	6.0789	497	80.6364	6.0787
369	80.6486	6.0788	412	80.6467	6.0792	455	80.6408	6.0790	498	80.6363	6.0785
370	80.6486	6.0788	413	80.6467	6.0789	456	80.6407	6.0793	499	80.6362	6.0784
371	80.6485	6.0788	414	80.6467	6.0789	457	80.6406	6.0795	500	80.6361	6.0783
372	80.6484	6.0788	415	80.6466	6.0785	458	80.6405	6.0796	501	80.6360	6.0782
373	80.6484	6.0788	416	80.6466	6.0782	459	80.6404	6.0796	502	80.6359	6.0782
374	80.6484	6.0788	417	80.6465	6.0782	460	80.6403	6.0797	503	80.6358	6.0781
375	80.6484	6.0788	418	80.6461	6.0783	461	80.6402	6.0797	504	80.6357	6.0780
376	80.6483	6.0787	419	80.6461	6.0784	462	80.6401	6.0795	505	80.6357	6.0780
377	80.6483	6.0787	420	80.6455	6.0785	463	80.6400	6.0794	506	80.6355	6.0781
378	80.6482	6.0787	421	80.6455	6.0785	464	80.6399	6.0793	507	80.6354	6.0780
379	80.6481	6.0787	422	80.6453	6.0785	465	80.6398	6.0792	508	80.6353	6.0780
380	80.6481	6.0787	423	80.6450	6.0785	466	80.6396	6.0790	509	80.6353	6.0780
381	80.6480	6.0787	424	80.6450	6.0785	467	80.6395	6.0791	510	80.6353	6.0779
382	80.6480	6.0787	425	80.6444	6.0785	468	80.6394	6.0790	511	80.6353	6.0778
383	80.6479	6.0787	426	80.6444	6.0785	469	80.6392	6.0789	512	80.6353	6.0778
384	80.6479	6.0787	427	80.6441	6.0785	470	80.6391	6.0789	513	80.6353	6.0777
385	80.6479	6.0787	428	80.6434	6.0785	471	80.6389	6.0789	514	80.6352	6.0777

515	80.6352	6.0777	558	80.6337	6.0770	601	80.6321	6.0793	644	80.6371	6.0798
516	80.6351	6.0778	559	80.6336	6.0771	602	80.6322	6.0794	645	80.6372	6.0798
517	80.6350	6.0778	560	80.6336	6.0771	603	80.6322	6.0794	646	80.6374	6.0798
518	80.6349	6.0778	561	80.6335	6.0771	604	80.6324	6.0795	647	80.6375	6.0798
519	80.6349	6.0777	562	80.6335	6.0770	605	80.6327	6.0795	648	80.6377	6.0798
520	80.6349	6.0777	563	80.6334	6.0770	606	80.6329	6.0795	649	80.6377	6.0798
521	80.6349	6.0776	564	80.6334	6.0769	607	80.6329	6.0795	650	80.6377	6.0798
522	80.6349	6.0776	565	80.6334	6.0769	608	80.6329	6.0795	651	80.6377	6.0798
523	80.6350	6.0775	566	80.6334	6.0768	609	80.6332	6.0796	652	80.6377	6.0798
524	80.6350	6.0775	567	80.6333	6.0768	610	80.6333	6.0796	653	80.6378	6.0798
525	80.6350	6.0774	568	80.6333	6.0767	611	80.6333	6.0796	654	80.6378	6.0798
526	80.6349	6.0774	569	80.6333	6.0767	612	80.6335	6.0796	655	80.6380	6.0798
527	80.6349	6.0774	570	80.6332	6.0766	613	80.6335	6.0796	656	80.6380	6.0798
528	80.6348	6.0774	571	80.6331	6.0766	614	80.6335	6.0796	657	80.6381	6.0799
529	80.6348	6.0773	572	80.6330	6.0766	615	80.6335	6.0796	658	80.6383	6.0798
530	80.6348	6.0773	573	80.6330	6.0767	616	80.6337	6.0796	659	80.6386	6.0798
531	80.6348	6.0772	574	80.6330	6.0767	617	80.6337	6.0796	660	80.6387	6.0798
532	80.6349	6.0772	575	80.6329	6.0767	618	80.6339	6.0797	661	80.6390	6.0797
533	80.6348	6.0771	576	80.6328	6.0766	619	80.6341	6.0797	662	80.6390	6.0797
534	80.6348	6.0771	577	80.6328	6.0765	620	80.6341	6.0797	663	80.6391	6.0797
535	80.6347	6.0772	578	80.6328	6.0763	621	80.6341	6.0797	664	80.6392	6.0797
536	80.6347	6.0772	579	80.6328	6.0763	622	80.6343	6.0798	665	80.6393	6.0797
537	80.6346	6.0772	580	80.6329	6.0762	623	80.6345	6.0798	666	80.6395	6.0797
538	80.6346	6.0772	581	80.6328	6.0761	624	80.6345	6.0798	667	80.6395	6.0797
539	80.6345	6.0772	582	80.6327	6.0760	625	80.6347	6.0799	668	80.6395	6.0797
540	80.6345	6.0773	583	80.6327	6.0761	626	80.6349	6.0799	669	80.6396	6.0797
541	80.6344	6.0773	584	80.6326	6.0761	627	80.6351	6.0798	670	80.6396	6.0797
542	80.6343	6.0774	585	80.6326	6.0761	628	80.6353	6.0798	671	80.6396	6.0797
543	80.6343	6.0774	586	80.6326	6.0761	629	80.6353	6.0798	672	80.6398	6.0798
544	80.6343	6.0773	587	80.6326	6.0761	630	80.6354	6.0798	673	80.6399	6.0799
545	80.6342	6.0774	588	80.6326	6.0762	631	80.6354	6.0798	674	80.6401	6.0800
546	80.6342	6.0774	589	80.6325	6.0763	632	80.6354	6.0798	675	80.6403	6.0800
547	80.6341	6.0774	590	80.6325	6.0763	633	80.6354	6.0798	676	80.6403	6.0800
548	80.6341	6.0775	591	80.6325	6.0763	634	80.6355	6.0799	677	80.6404	6.0801
549	80.6340	6.0774	592	80.6325	6.0763	635	80.6357	6.0799	678	80.6404	6.0801
550	80.6340	6.0774	593	80.6325	6.0763	636	80.6359	6.0799	679	80.6404	6.0802
551	80.6340	6.0773	594	80.6324	6.0763	637	80.6359	6.0799	680	80.6404	6.0802
552	80.6339	6.0772	595	80.6324	6.0763	638	80.6360	6.0799	681	80.6405	6.0804
553	80.6339	6.0771	596	80.6324	6.0763	639	80.6361	6.0799	682	80.6406	6.0805
554	80.6338	6.0771	597	80.6324	6.0763	640	80.6363	6.0799	683	80.6406	6.0805
555	80.6338	6.0770	598	80.6324	6.0763	641	80.6365	6.0798	684	80.6406	6.0804
556	80.6337	6.0770	599	80.6323	6.0767	642	80.6365	6.0798	685	80.6407	6.0804
557	80.6337	6.0769	600	80.6321	6.0777	643	80.6371	6.0798	686	80.6408	6.0805

687	80.6409	6.0805	730	80.6435	6.0807	773	80.6562	6.0830	816	80.6581	6.0796
688	80.6410	6.0806	731	80.6435	6.0807	774	80.6562	6.0830	817	80.6582	6.0794
689	80.6411	6.0806	732	80.6435	6.0807	775	80.6561	6.0833	818	80.6582	6.0793
690	80.6411	6.0806	733	80.6436	6.0805	776	80.6561	6.0833	819	80.6582	6.0793
691	80.6412	6.0806	734	80.6436	6.0805	777	80.6561	6.0833	820	80.6583	6.0792
692	80.6413	6.0805	735	80.6436	6.0805	778	80.6562	6.0833	821	80.6583	6.0791
693	80.6414	6.0804	736	80.6436	6.0805	779	80.6562	6.0833	822	80.6583	6.0790
694	80.6416	6.0804	737	80.6438	6.0803	780	80.6562	6.0833	823	80.6583	6.0790
695	80.6416	6.0803	738	80.6438	6.0803	781	80.6563	6.0833	824	80.6584	6.0790
696	80.6417	6.0803	739	80.6439	6.0801	782	80.6563	6.0833	825	80.6584	6.0790
697	80.6418	6.0802	740	80.6440	6.0802	783	80.6563	6.0832	826	80.6584	6.0790
698	80.6419	6.0802	741	80.6441	6.0803	784	80.6563	6.0832	827	80.6583	6.0790
699	80.6420	6.0801	742	80.6442	6.0806	785	80.6563	6.0832	828	80.6582	6.0792
700	80.6421	6.0801	743	80.6441	6.0809	786	80.6562	6.0830	829	80.6582	6.0794
701	80.6422	6.0800	744	80.6442	6.0809	787	80.6562	6.0830	830	80.6580	6.0796
702	80.6422	6.0800	745	80.6442	6.0812	788	80.6562	6.0830	831	80.6580	6.0797
703	80.6422	6.0800	746	80.6441	6.0813	789	80.6559	6.0830	832	80.6579	6.0798
704	80.6423	6.0799	747	80.6440	6.0814	790	80.6557	6.0830	833	80.6577	6.0798
705	80.6423	6.0799	748	80.6438	6.0814	791	80.6556	6.0831	834	80.6576	6.0799
706	80.6423	6.0799	749	80.6435	6.0814	792	80.6556	6.0832	835	80.6575	6.0800
707	80.6424	6.0798	750	80.6435	6.0818	793	80.6556	6.0833	836	80.6574	6.0801
708	80.6425	6.0798	751	80.6435	6.0818	794	80.6556	6.0833	837	80.6573	6.0803
709	80.6426	6.0799	752	80.6435	6.0818	795	80.6559	6.0833	838	80.6573	6.0804
710	80.6426	6.0800	753	80.6431	6.0818	796	80.6559	6.0833	839	80.6573	6.0805
711	80.6425	6.0800	754	80.6429	6.0818	797	80.6560	6.0833	840	80.6573	6.0805
712	80.6424	6.0801	755	80.6429	6.0818	798	80.6560	6.0833	841	80.6573	6.0806
713	80.6424	6.0802	756	80.6427	6.0822	799	80.6560	6.0833	842	80.6573	6.0808
714	80.6425	6.0803	757	80.6427	6.0822	800	80.6561	6.0833	843	80.6573	6.0810
715	80.6425	6.0804	758	80.6427	6.0822	801	80.6561	6.0833	844	80.6574	6.0811
716	80.6424	6.0806	759	80.6427	6.0822	802	80.6562	6.0830	845	80.6573	6.0812
717	80.6424	6.0806	760	80.6427	6.0822	803	80.6564	6.0829	846	80.6573	6.0813
718	80.6424	6.0806	761	80.6426	6.0822	804	80.6569	6.0823	847	80.6572	6.0814
719	80.6431	6.0813	762	80.6426	6.0823	805	80.6571	6.0819	848	80.6570	6.0816
720	80.6432	6.0812	763	80.6426	6.0823	806	80.6573	6.0817	849	80.6570	6.0817
721	80.6432	6.0812	764	80.6427	6.0823	807	80.6574	6.0817	850	80.6568	6.0818
722	80.6432	6.0812	765	80.6428	6.0824	808	80.6576	6.0814	851	80.6567	6.0819
723	80.6432	6.0812	766	80.6429	6.0824	809	80.6579	6.0811	852	80.6566	6.0820
724	80.6433	6.0812	767	80.6430	6.0824	810	80.6579	6.0809	853	80.6565	6.0820
725	80.6434	6.0812	768	80.6430	6.0824	811	80.6578	6.0809	854	80.6564	6.0820
726	80.6434	6.0811	769	80.6431	6.0824	812	80.6578	6.0803	855	80.6562	6.0820
727	80.6434	6.0811	770	80.6432	6.0824	813	80.6578	6.0801	856	80.6561	6.0820
728	80.6434	6.0811	771	80.6562	6.0830	814	80.6578	6.0799	857	80.6560	6.0820
729	80.6435	6.0809	772	80.6562	6.0830	815	80.6580	6.0798	858	80.6559	6.0820

859	80.6558	6.0820	902	80.6543	6.0808	945	80.6521	6.0829	988	80.6540	6.0833
860	80.6557	6.0819	903	80.6542	6.0809	946	80.6521	6.0830	989	80.6542	6.0834
861	80.6557	6.0818	904	80.6542	6.0809	947	80.6520	6.0831	990	80.6542	6.0834
862	80.6557	6.0816	905	80.6541	6.0809	948	80.6519	6.0832	991	80.6542	6.0834
863	80.6557	6.0815	906	80.6541	6.0810	949	80.6518	6.0832	992	80.6542	6.0834
864	80.6556	6.0814	907	80.6540	6.0810	950	80.6518	6.0832	993	80.6544	6.0836
865	80.6556	6.0812	908	80.6540	6.0811	951	80.6516	6.0832	994	80.6545	6.0837
866	80.6556	6.0812	909	80.6540	6.0811	952	80.6516	6.0832	995	80.6546	6.0838
867	80.6556	6.0810	910	80.6541	6.0811	953	80.6516	6.0833	996	80.6547	6.0839
868	80.6557	6.0809	911	80.6541	6.0812	954	80.6516	6.0833	997	80.6547	6.0841
869	80.6557	6.0809	912	80.6541	6.0813	955	80.6516	6.0833	998	80.6548	6.0840
870	80.6557	6.0807	913	80.6541	6.0813	956	80.6518	6.0834	999	80.6550	6.0840
871	80.6558	6.0804	914	80.6542	6.0813	957	80.6519	6.0835	1000	80.6551	6.0840
872	80.6557	6.0801	915	80.6542	6.0814	958	80.6520	6.0836	1001	80.6551	6.0839
873	80.6559	6.0801	916	80.6542	6.0814	959	80.6521	6.0836	1002	80.6552	6.0839
874	80.6559	6.0802	917	80.6542	6.0815	960	80.6521	6.0836	1003	80.6551	6.0839
875	80.6560	6.0802	918	80.6542	6.0815	961	80.6522	6.0836	1004	80.6551	6.0838
876	80.6559	6.0800	919	80.6542	6.0816	962	80.6523	6.0836	1005	80.6549	6.0837
877	80.6560	6.0798	920	80.6542	6.0817	963	80.6524	6.0836	1006	80.6549	6.0837
878	80.6560	6.0797	921	80.6542	6.0817	964	80.6526	6.0836	1007	80.6548	6.0837
879	80.6560	6.0796	922	80.6541	6.0817	965	80.6527	6.0837	1008	80.6547	6.0837
880	80.6560	6.0795	923	80.6541	6.0818	966	80.6527	6.0837	1009	80.6546	6.0836
881	80.6560	6.0793	924	80.6540	6.0818	967	80.6528	6.0838	1010	80.6546	6.0835
882	80.6560	6.0792	925	80.6540	6.0819	968	80.6528	6.0839	1011	80.6547	6.0834
883	80.6558	6.0793	926	80.6540	6.0819	969	80.6528	6.0840	1012	80.6547	6.0832
884	80.6557	6.0793	927	80.6540	6.0819	970	80.6529	6.0841	1013	80.6545	6.0831
885	80.6558	6.0796	928	80.6539	6.0819	971	80.6529	6.0841	1014	80.6545	6.0830
886	80.6557	6.0796	929	80.6538	6.0820	972	80.6530	6.0840	1015	80.6544	6.0829
887	80.6555	6.0797	930	80.6536	6.0821	973	80.6529	6.0839	1016	80.6544	6.0829
888	80.6554	6.0796	931	80.6533	6.0821	974	80.6529	6.0838	1017	80.6543	6.0827
889	80.6553	6.0796	932	80.6530	6.0821	975	80.6529	6.0838	1018	80.6543	6.0827
890	80.6552	6.0797	933	80.6528	6.0822	976	80.6529	6.0836	1019	80.6543	6.0825
891	80.6552	6.0799	934	80.6527	6.0822	977	80.6529	6.0836	1020	80.6545	6.0825
892	80.6550	6.0800	935	80.6526	6.0823	978	80.6530	6.0835	1021	80.6546	6.0824
893	80.6549	6.0802	936	80.6525	6.0824	979	80.6530	6.0834	1022	80.6547	6.0823
894	80.6548	6.0802	937	80.6524	6.0824	980	80.6530	6.0834	1023	80.6547	6.0822
895	80.6548	6.0804	938	80.6523	6.0824	981	80.6531	6.0833	1024	80.6548	6.0822
896	80.6548	6.0804	939	80.6521	6.0824	982	80.6532	6.0832	1025	80.6549	6.0822
897	80.6548	6.0806	940	80.6520	6.0825	983	80.6533	6.0832	1026	80.6549	6.0821
898	80.6549	6.0807	941	80.6519	6.0826	984	80.6535	6.0832	1027	80.6550	6.0820
899	80.6549	6.0807	942	80.6519	6.0826	985	80.6537	6.0832	1028	80.6550	6.0819
900	80.6547	6.0808	943	80.6520	6.0827	986	80.6539	6.0832	1029	80.6550	6.0818
901	80.6545	6.0809	944	80.6521	6.0828	987	80.6539	6.0832	1030	80.6551	6.0818

1031	80.6552	6.0818	1074	80.6379	6.0837	1117	80.6405	6.0827	1160	80.6384	6.0818
1032	80.6555	6.0819	1075	80.6380	6.0837	1118	80.6405	6.0827	1161	80.6385	6.0821
1033	80.6558	6.0824	1076	80.6381	6.0836	1119	80.6406	6.0825	1162	80.6385	6.0821
1034	80.6561	6.0829	1077	80.6382	6.0836	1120	80.6407	6.0824	1163	80.6385	6.0823
1035	80.6562	6.0830	1078	80.6383	6.0836	1121	80.6408	6.0824	1164	80.6386	6.0824
1036	80.6362	6.0846	1079	80.6384	6.0836	1122	80.6409	6.0823	1165	80.6385	6.0826
1037	80.6362	6.0846	1080	80.6384	6.0836	1123	80.6408	6.0822	1166	80.6384	6.0826
1038	80.6362	6.0846	1081	80.6385	6.0837	1124	80.6406	6.0820	1167	80.6383	6.0827
1039	80.6362	6.0846	1082	80.6386	6.0837	1125	80.6405	6.0819	1168	80.6381	6.0827
1040	80.6363	6.0846	1083	80.6386	6.0836	1126	80.6403	6.0814	1169	80.6380	6.0827
1041	80.6364	6.0846	1084	80.6386	6.0836	1127	80.6402	6.0812	1170	80.6379	6.0827
1042	80.6364	6.0846	1085	80.6387	6.0835	1128	80.6402	6.0810	1171	80.6377	6.0828
1043	80.6365	6.0846	1086	80.6387	6.0835	1129	80.6402	6.0808	1172	80.6377	6.0829
1044	80.6366	6.0845	1087	80.6388	6.0835	1130	80.6401	6.0808	1173	80.6378	6.0830
1045	80.6367	6.0845	1088	80.6389	6.0835	1131	80.6400	6.0809	1174	80.6378	6.0832
1046	80.6367	6.0845	1089	80.6389	6.0835	1132	80.6399	6.0810	1175	80.6377	6.0833
1047	80.6367	6.0845	1090	80.6390	6.0835	1133	80.6399	6.0811	1176	80.6376	6.0833
1048	80.6367	6.0844	1091	80.6391	6.0835	1134	80.6399	6.0813	1177	80.6376	6.0832
1049	80.6367	6.0844	1092	80.6391	6.0835	1135	80.6399	6.0814	1178	80.6375	6.0831
1050	80.6367	6.0844	1093	80.6391	6.0835	1136	80.6399	6.0815	1179	80.6374	6.0830
1051	80.6368	6.0843	1094	80.6393	6.0834	1137	80.6399	6.0817	1180	80.6374	6.0831
1052	80.6368	6.0843	1095	80.6394	6.0834	1138	80.6398	6.0818	1181	80.6372	6.0831
1053	80.6369	6.0843	1096	80.6394	6.0833	1139	80.6396	6.0818	1182	80.6372	6.0832
1054	80.6369	6.0843	1097	80.6394	6.0833	1140	80.6395	6.0817	1183	80.6372	6.0833
1055	80.6369	6.0843	1098	80.6394	6.0832	1141	80.6394	6.0817	1184	80.6371	6.0834
1056	80.6369	6.0843	1099	80.6395	6.0832	1142	80.6393	6.0817	1185	80.6371	6.0836
1057	80.6370	6.0842	1100	80.6396	6.0831	1143	80.6393	6.0816	1186	80.6370	6.0836
1058	80.6370	6.0842	1101	80.6396	6.0831	1144	80.6393	6.0815	1187	80.6369	6.0836
1059	80.6372	6.0842	1102	80.6397	6.0831	1145	80.6392	6.0814	1188	80.6368	6.0835
1060	80.6372	6.0842	1103	80.6398	6.0831	1146	80.6392	6.0814	1189	80.6367	6.0835
1061	80.6372	6.0842	1104	80.6399	6.0830	1147	80.6391	6.0813	1190	80.6366	6.0835
1062	80.6372	6.0840	1105	80.6400	6.0831	1148	80.6390	6.0814	1191	80.6364	6.0835
1063	80.6373	6.0839	1106	80.6400	6.0832	1149	80.6389	6.0814	1192	80.6362	6.0835
1064	80.6374	6.0839	1107	80.6401	6.0832	1150	80.6389	6.0814	1193	80.6362	6.0836
1065	80.6375	6.0839	1108	80.6401	6.0832	1151	80.6388	6.0813	1194	80.6361	6.0837
1066	80.6376	6.0839	1109	80.6402	6.0831	1152	80.6387	6.0813	1195	80.6360	6.0837
1067	80.6376	6.0839	1110	80.6402	6.0831	1153	80.6387	6.0812	1196	80.6359	6.0837
1068	80.6377	6.0839	1111	80.6403	6.0831	1154	80.6386	6.0812	1197	80.6358	6.0838
1069	80.6378	6.0839	1112	80.6403	6.0830	1155	80.6385	6.0813	1198	80.6357	6.0838
1070	80.6378	6.0839	1113	80.6403	6.0830	1156	80.6385	6.0814	1199	80.6356	6.0837
1071	80.6378	6.0838	1114	80.6404	6.0830	1157	80.6385	6.0815	1200	80.6353	6.0837
1072	80.6378	6.0838	1115	80.6404	6.0829	1158	80.6385	6.0816	1201	80.6350	6.0839
1073	80.6378	6.0837	1116	80.6404	6.0828	1159	80.6384	6.0817	1202	80.6350	6.0845

1203	80.6350	6.0848	1246	80.6483	6.0839	1289	80.6459	6.0835	1332	80.6446	6.0835
1204	80.6350	6.0847	1247	80.6481	6.0840	1290	80.6458	6.0835	1333	80.6446	6.0835
1205	80.6350	6.0847	1248	80.6480	6.0840	1291	80.6458	6.0835	1334	80.6446	6.0836
1206	80.6351	6.0847	1249	80.6479	6.0840	1292	80.6457	6.0835	1335	80.6446	6.0836
1207	80.6351	6.0847	1250	80.6479	6.0840	1293	80.6457	6.0835	1336	80.6446	6.0836
1208	80.6351	6.0847	1251	80.6478	6.0839	1294	80.6457	6.0835	1337	80.6445	6.0836
1209	80.6352	6.0847	1252	80.6478	6.0839	1295	80.6457	6.0835	1338	80.6445	6.0836
1210	80.6353	6.0847	1253	80.6477	6.0839	1296	80.6456	6.0835	1339	80.6445	6.0836
1211	80.6353	6.0847	1254	80.6477	6.0839	1297	80.6456	6.0835	1340	80.6445	6.0836
1212	80.6353	6.0847	1255	80.6474	6.0840	1298	80.6456	6.0834	1341	80.6444	6.0836
1213	80.6354	6.0846	1256	80.6473	6.0839	1299	80.6456	6.0834	1342	80.6444	6.0837
1214	80.6354	6.0846	1257	80.6472	6.0838	1300	80.6455	6.0834	1343	80.6443	6.0837
1215	80.6356	6.0846	1258	80.6472	6.0838	1301	80.6455	6.0834	1344	80.6443	6.0837
1216	80.6358	6.0846	1259	80.6472	6.0837	1302	80.6455	6.0834	1345	80.6443	6.0837
1217	80.6359	6.0846	1260	80.6471	6.0835	1303	80.6454	6.0834	1346	80.6443	6.0837
1218	80.6361	6.0846	1261	80.6470	6.0834	1304	80.6454	6.0834	1347	80.6442	6.0837
1219	80.6361	6.0846	1262	80.6470	6.0833	1305	80.6454	6.0834	1348	80.6442	6.0837
1220	80.6361	6.0846	1263	80.6470	6.0833	1306	80.6454	6.0834	1349	80.6442	6.0837
1221	80.6362	6.0846	1264	80.6469	6.0833	1307	80.6453	6.0834	1350	80.6442	6.0837
1222	80.6486	6.0854	1265	80.6469	6.0832	1308	80.6453	6.0834	1351	80.6441	6.0837
1223	80.6486	6.0853	1266	80.6468	6.0835	1309	80.6452	6.0834	1352	80.6441	6.0837
1224	80.6485	6.0853	1267	80.6468	6.0835	1310	80.6452	6.0834	1353	80.6441	6.0837
1225	80.6485	6.0852	1268	80.6467	6.0835	1311	80.6452	6.0834	1354	80.6441	6.0837
1226	80.6485	6.0851	1269	80.6467	6.0836	1312	80.6451	6.0834	1355	80.6440	6.0837
1227	80.6485	6.0850	1270	80.6466	6.0836	1313	80.6451	6.0834	1356	80.6439	6.0837
1228	80.6486	6.0849	1271	80.6466	6.0836	1314	80.6451	6.0834	1357	80.6438	6.0838
1229	80.6485	6.0848	1272	80.6466	6.0836	1315	80.6451	6.0834	1358	80.6438	6.0840
1230	80.6486	6.0847	1273	80.6465	6.0836	1316	80.6450	6.0834	1359	80.6437	6.0840
1231	80.6486	6.0847	1274	80.6464	6.0836	1317	80.6450	6.0834	1360	80.6436	6.0841
1232	80.6486	6.0847	1275	80.6463	6.0836	1318	80.6450	6.0834	1361	80.6437	6.0842
1233	80.6486	6.0846	1276	80.6463	6.0836	1319	80.6449	6.0835	1362	80.6438	6.0844
1234	80.6486	6.0845	1277	80.6462	6.0836	1320	80.6449	6.0835	1363	80.6439	6.0844
1235	80.6486	6.0844	1278	80.6462	6.0836	1321	80.6449	6.0835	1364	80.6442	6.0848
1236	80.6486	6.0843	1279	80.6461	6.0836	1322	80.6449	6.0835	1365	80.6442	6.0849
1237	80.6486	6.0842	1280	80.6461	6.0836	1323	80.6449	6.0835	1366	80.6442	6.0849
1238	80.6486	6.0841	1281	80.6461	6.0835	1324	80.6448	6.0835	1367	80.6443	6.0850
1239	80.6486	6.0840	1282	80.6461	6.0835	1325	80.6448	6.0835	1368	80.6444	6.0851
1240	80.6486	6.0840	1283	80.6460	6.0835	1326	80.6448	6.0835	1369	80.6445	6.0852
1241	80.6485	6.0839	1284	80.6460	6.0835	1327	80.6448	6.0835	1370	80.6446	6.0852
1242	80.6484	6.0839	1285	80.6460	6.0835	1328	80.6447	6.0835	1371	80.6447	6.0851
1243	80.6484	6.0838	1286	80.6460	6.0835	1329	80.6447	6.0835	1372	80.6447	6.0851
1244	80.6484	6.0838	1287	80.6459	6.0835	1330	80.6447	6.0835	1373	80.6447	6.0851
1245	80.6483	6.0838	1288	80.6459	6.0835	1331	80.6446	6.0835	1374	80.6448	6.0850

1375	80.6448	6.0850	1418	80.6460	6.0856	1461	80.6480	6.0861	1504	80.6444	6.0878
1376	80.6448	6.0850	1419	80.6461	6.0857	1462	80.6480	6.0862	1505	80.6445	6.0877
1377	80.6448	6.0850	1420	80.6462	6.0857	1463	80.6480	6.0862	1506	80.6445	6.0875
1378	80.6448	6.0850	1421	80.6463	6.0857	1464	80.6479	6.0863	1507	80.6445	6.0875
1379	80.6449	6.0849	1422	80.6464	6.0856	1465	80.6479	6.0864	1508	80.6446	6.0874
1380	80.6449	6.0849	1423	80.6466	6.0856	1466	80.6479	6.0865	1509	80.6447	6.0873
1381	80.6449	6.0849	1424	80.6467	6.0855	1467	80.6479	6.0866	1510	80.6448	6.0873
1382	80.6449	6.0849	1425	80.6467	6.0855	1468	80.6480	6.0867	1511	80.6449	6.0872
1383	80.6449	6.0849	1426	80.6468	6.0855	1469	80.6480	6.0866	1512	80.6449	6.0872
1384	80.6450	6.0849	1427	80.6468	6.0854	1470	80.6481	6.0865	1513	80.6450	6.0871
1385	80.6450	6.0849	1428	80.6468	6.0854	1471	80.6481	6.0864	1514	80.6451	6.0871
1386	80.6450	6.0850	1429	80.6468	6.0854	1472	80.6481	6.0863	1515	80.6451	6.0870
1387	80.6450	6.0850	1430	80.6468	6.0853	1473	80.6483	6.0862	1516	80.6451	6.0869
1388	80.6450	6.0850	1431	80.6468	6.0853	1474	80.6484	6.0860	1517	80.6452	6.0867
1389	80.6451	6.0851	1432	80.6469	6.0852	1475	80.6484	6.0859	1518	80.6451	6.0866
1390	80.6451	6.0851	1433	80.6469	6.0852	1476	80.6484	6.0857	1519	80.6451	6.0864
1391	80.6451	6.0851	1434	80.6470	6.0852	1477	80.6485	6.0856	1520	80.6451	6.0864
1392	80.6451	6.0852	1435	80.6470	6.0852	1478	80.6486	6.0855	1521	80.6449	6.0865
1393	80.6452	6.0852	1436	80.6471	6.0852	1479	80.6486	6.0854	1522	80.6447	6.0865
1394	80.6451	6.0853	1437	80.6471	6.0852	1480	80.6429	6.0889	1523	80.6446	6.0864
1395	80.6452	6.0853	1438	80.6471	6.0852	1481	80.6436	6.0887	1524	80.6446	6.0864
1396	80.6452	6.0853	1439	80.6472	6.0852	1482	80.6439	6.0887	1525	80.6445	6.0863
1397	80.6452	6.0853	1440	80.6472	6.0852	1483	80.6439	6.0887	1526	80.6445	6.0862
1398	80.6453	6.0854	1441	80.6473	6.0853	1484	80.6442	6.0887	1527	80.6445	6.0862
1399	80.6453	6.0854	1442	80.6474	6.0853	1485	80.6444	6.0887	1528	80.6445	6.0861
1400	80.6453	6.0855	1443	80.6474	6.0853	1486	80.6450	6.0886	1529	80.6443	6.0861
1401	80.6454	6.0855	1444	80.6475	6.0853	1487	80.6450	6.0886	1530	80.6443	6.0860
1402	80.6454	6.0855	1445	80.6475	6.0853	1488	80.6449	6.0886	1531	80.6443	6.0860
1403	80.6454	6.0855	1446	80.6475	6.0853	1489	80.6448	6.0886	1532	80.6443	6.0859
1404	80.6455	6.0854	1447	80.6476	6.0852	1490	80.6448	6.0886	1533	80.6443	6.0858
1405	80.6456	6.0854	1448	80.6476	6.0852	1491	80.6449	6.0885	1534	80.6443	6.0858
1406	80.6457	6.0854	1449	80.6476	6.0851	1492	80.6448	6.0884	1535	80.6443	6.0857
1407	80.6458	6.0855	1450	80.6477	6.0851	1493	80.6447	6.0884	1536	80.6443	6.0857
1408	80.6458	6.0855	1451	80.6478	6.0851	1494	80.6447	6.0884	1537	80.6443	6.0856
1409	80.6458	6.0855	1452	80.6479	6.0851	1495	80.6447	6.0883	1538	80.6442	6.0856
1410	80.6458	6.0856	1453	80.6479	6.0852	1496	80.6447	6.0883	1539	80.6442	6.0856
1411	80.6458	6.0856	1454	80.6479	6.0852	1497	80.6446	6.0882	1540	80.6442	6.0855
1412	80.6458	6.0856	1455	80.6477	6.0853	1498	80.6446	6.0882	1541	80.6441	6.0855
1413	80.6458	6.0857	1456	80.6478	6.0855	1499	80.6445	6.0881	1542	80.6440	6.0854
1414	80.6458	6.0857	1457	80.6479	6.0856	1500	80.6445	6.0880	1543	80.6440	6.0854
1415	80.6459	6.0857	1458	80.6479	6.0857	1501	80.6444	6.0880	1544	80.6437	6.0850
1416	80.6459	6.0857	1459	80.6480	6.0859	1502	80.6444	6.0879	1545	80.6432	6.0843
1417	80.6459	6.0857	1460	80.6480	6.0861	1503	80.6444	6.0878	1546	80.6431	6.0844

1547	80.6431	6.0846	1590	80.6391	6.0867	1633	80.6398	6.0878	1676	80.6405	6.0877
1548	80.6430	6.0847	1591	80.6391	6.0867	1634	80.6398	6.0878	1677	80.6406	6.0878
1549	80.6430	6.0847	1592	80.6389	6.0869	1635	80.6398	6.0878	1678	80.6407	6.0878
1550	80.6429	6.0848	1593	80.6389	6.0871	1636	80.6398	6.0878	1679	80.6409	6.0879
1551	80.6428	6.0849	1594	80.6390	6.0873	1637	80.6398	6.0877	1680	80.6411	6.0881
1552	80.6426	6.0850	1595	80.6391	6.0874	1638	80.6398	6.0877	1681	80.6412	6.0879
1553	80.6425	6.0851	1596	80.6391	6.0874	1639	80.6398	6.0877	1682	80.6412	6.0879
1554	80.6424	6.0851	1597	80.6392	6.0874	1640	80.6398	6.0876	1683	80.6413	6.0877
1555	80.6422	6.0852	1598	80.6392	6.0874	1641	80.6398	6.0876	1684	80.6414	6.0876
1556	80.6421	6.0852	1599	80.6392	6.0874	1642	80.6398	6.0876	1685	80.6416	6.0875
1557	80.6421	6.0852	1600	80.6392	6.0874	1643	80.6398	6.0875	1686	80.6416	6.0875
1558	80.6420	6.0852	1601	80.6392	6.0875	1644	80.6398	6.0875	1687	80.6416	6.0875
1559	80.6420	6.0850	1602	80.6392	6.0876	1645	80.6398	6.0875	1688	80.6416	6.0875
1560	80.6416	6.0850	1603	80.6392	6.0877	1646	80.6398	6.0874	1689	80.6416	6.0875
1561	80.6416	6.0850	1604	80.6392	6.0877	1647	80.6398	6.0874	1690	80.6416	6.0875
1562	80.6416	6.0850	1605	80.6392	6.0877	1648	80.6398	6.0873	1691	80.6416	6.0873
1563	80.6416	6.0850	1606	80.6392	6.0877	1649	80.6398	6.0873	1692	80.6417	6.0873
1564	80.6413	6.0850	1607	80.6391	6.0878	1650	80.6398	6.0873	1693	80.6419	6.0874
1565	80.6411	6.0850	1608	80.6391	6.0878	1651	80.6399	6.0872	1694	80.6420	6.0874
1566	80.6412	6.0851	1609	80.6391	6.0878	1652	80.6399	6.0872	1695	80.6420	6.0874
1567	80.6410	6.0852	1610	80.6391	6.0879	1653	80.6399	6.0872	1696	80.6420	6.0873
1568	80.6408	6.0855	1611	80.6391	6.0879	1654	80.6400	6.0871	1697	80.6420	6.0873
1569	80.6408	6.0855	1612	80.6391	6.0879	1655	80.6400	6.0871	1698	80.6421	6.0873
1570	80.6408	6.0855	1613	80.6390	6.0881	1656	80.6400	6.0871	1699	80.6421	6.0873
1571	80.6406	6.0856	1614	80.6390	6.0883	1657	80.6400	6.0871	1700	80.6421	6.0872
1572	80.6405	6.0858	1615	80.6390	6.0883	1658	80.6401	6.0870	1701	80.6421	6.0872
1573	80.6404	6.0859	1616	80.6390	6.0883	1659	80.6401	6.0870	1702	80.6421	6.0872
1574	80.6404	6.0859	1617	80.6398	6.0885	1660	80.6402	6.0870	1703	80.6421	6.0872
1575	80.6403	6.0861	1618	80.6398	6.0885	1661	80.6402	6.0870	1704	80.6421	6.0872
1576	80.6403	6.0861	1619	80.6398	6.0885	1662	80.6402	6.0870	1705	80.6421	6.0872
1577	80.6403	6.0861	1620	80.6398	6.0885	1663	80.6403	6.0870	1706	80.6421	6.0871
1578	80.6402	6.0862	1621	80.6398	6.0884	1664	80.6403	6.0870	1707	80.6421	6.0871
1579	80.6401	6.0863	1622	80.6398	6.0883	1665	80.6403	6.0870	1708	80.6421	6.0870
1580	80.6401	6.0863	1623	80.6398	6.0882	1666	80.6403	6.0869	1709	80.6422	6.0870
1581	80.6401	6.0863	1624	80.6398	6.0881	1667	80.6403	6.0869	1710	80.6421	6.0869
1582	80.6401	6.0863	1625	80.6398	6.0880	1668	80.6404	6.0869	1711	80.6420	6.0867
1583	80.6399	6.0864	1626	80.6398	6.0880	1669	80.6404	6.0869	1712	80.6418	6.0869
1584	80.6399	6.0864	1627	80.6398	6.0880	1670	80.6405	6.0870	1713	80.6417	6.0869
1585	80.6399	6.0864	1628	80.6398	6.0879	1671	80.6406	6.0871	1714	80.6417	6.0868
1586	80.6396	6.0865	1629	80.6398	6.0879	1672	80.6406	6.0872	1715	80.6417	6.0868
1587	80.6396	6.0865	1630	80.6398	6.0879	1673	80.6405	6.0873	1716	80.6416	6.0867
1588	80.6394	6.0866	1631	80.6398	6.0879	1674	80.6405	6.0874	1717	80.6416	6.0867
1589	80.6394	6.0866	1632	80.6398	6.0878	1675	80.6405	6.0876	1718	80.6415	6.0867

1719	80.6415	6.0867	1762	80.6415	6.0862	1805	80.6422	6.0865	1848	80.6429	6.0872
1720	80.6415	6.0867	1763	80.6416	6.0862	1806	80.6422	6.0865	1849	80.6429	6.0872
1721	80.6414	6.0867	1764	80.6416	6.0861	1807	80.6422	6.0866	1850	80.6429	6.0873
1722	80.6414	6.0867	1765	80.6417	6.0861	1808	80.6422	6.0866	1851	80.6430	6.0873
1723	80.6414	6.0868	1766	80.6417	6.0861	1809	80.6422	6.0866	1852	80.6429	6.0874
1724	80.6414	6.0868	1767	80.6417	6.0861	1810	80.6422	6.0866	1853	80.6430	6.0874
1725	80.6414	6.0869	1768	80.6418	6.0861	1811	80.6421	6.0867	1854	80.6430	6.0875
1726	80.6414	6.0869	1769	80.6418	6.0860	1812	80.6421	6.0867	1855	80.6430	6.0875
1727	80.6414	6.0869	1770	80.6418	6.0860	1813	80.6421	6.0867	1856	80.6430	6.0876
1728	80.6414	6.0870	1771	80.6418	6.0859	1814	80.6422	6.0868	1857	80.6430	6.0877
1729	80.6414	6.0870	1772	80.6419	6.0859	1815	80.6422	6.0868	1858	80.6430	6.0878
1730	80.6413	6.0871	1773	80.6419	6.0859	1816	80.6422	6.0868	1859	80.6430	6.0879
1731	80.6413	6.0871	1774	80.6420	6.0859	1817	80.6422	6.0868	1860	80.6430	6.0879
1732	80.6413	6.0871	1775	80.6421	6.0859	1818	80.6422	6.0868	1861	80.6430	6.0880
1733	80.6413	6.0871	1776	80.6421	6.0859	1819	80.6423	6.0868	1862	80.6430	6.0881
1734	80.6413	6.0871	1777	80.6421	6.0859	1820	80.6423	6.0868	1863	80.6429	6.0882
1735	80.6413	6.0870	1778	80.6421	6.0859	1821	80.6423	6.0868	1864	80.6430	6.0882
1736	80.6413	6.0870	1779	80.6422	6.0859	1822	80.6423	6.0868	1865	80.6430	6.0883
1737	80.6413	6.0869	1780	80.6422	6.0859	1823	80.6424	6.0868	1866	80.6430	6.0883
1738	80.6413	6.0869	1781	80.6423	6.0860	1824	80.6424	6.0868	1867	80.6429	6.0883
1739	80.6413	6.0868	1782	80.6423	6.0860	1825	80.6424	6.0867	1868	80.6429	6.0884
1740	80.6413	6.0868	1783	80.6423	6.0860	1826	80.6425	6.0867	1869	80.6428	6.0884
1741	80.6413	6.0867	1784	80.6424	6.0861	1827	80.6425	6.0866	1870	80.6428	6.0884
1742	80.6413	6.0867	1785	80.6424	6.0861	1828	80.6425	6.0866	1871	80.6427	6.0886
1743	80.6412	6.0867	1786	80.6424	6.0861	1829	80.6425	6.0865	1872	80.6427	6.0886
1744	80.6412	6.0866	1787	80.6424	6.0860	1830	80.6426	6.0865	1873	80.6427	6.0885
1745	80.6412	6.0866	1788	80.6424	6.0860	1831	80.6426	6.0865	1874	80.6427	6.0885
1746	80.6412	6.0866	1789	80.6425	6.0861	1832	80.6426	6.0865	1875	80.6427	6.0886
1747	80.6412	6.0865	1790	80.6425	6.0861	1833	80.6427	6.0865	1876	80.6427	6.0886
1748	80.6412	6.0865	1791	80.6425	6.0861	1834	80.6427	6.0864	1877	80.6427	6.0886
1749	80.6412	6.0865	1792	80.6425	6.0861	1835	80.6428	6.0864	1878	80.6427	6.0886
1750	80.6411	6.0864	1793	80.6425	6.0862	1836	80.6428	6.0864	1879	80.6427	6.0886
1751	80.6411	6.0864	1794	80.6424	6.0863	1837	80.6428	6.0865	1880	80.6427	6.0887
1752	80.6411	6.0864	1795	80.6424	6.0863	1838	80.6428	6.0866	1881	80.6428	6.0889
1753	80.6411	6.0863	1796	80.6424	6.0863	1839	80.6428	6.0866	1882	80.6429	6.0889
1754	80.6411	6.0863	1797	80.6423	6.0863	1840	80.6428	6.0867	1883	80.6429	6.0889
1755	80.6412	6.0862	1798	80.6423	6.0863	1841	80.6428	6.0867	1884	80.6473	6.0902
1756	80.6412	6.0862	1799	80.6423	6.0863	1842	80.6429	6.0868	1885	80.6472	6.0902
1757	80.6413	6.0862	1800	80.6423	6.0864	1843	80.6429	6.0868	1886	80.6472	6.0901
1758	80.6413	6.0862	1801	80.6423	6.0864	1844	80.6429	6.0869	1887	80.6472	6.0900
1759	80.6414	6.0862	1802	80.6423	6.0864	1845	80.6429	6.0870	1888	80.6472	6.0900
1760	80.6415	6.0862	1803	80.6423	6.0864	1846	80.6429	6.0871	1889	80.6471	6.0900
1761	80.6415	6.0862	1804	80.6422	6.0865	1847	80.6429	6.0871	1890	80.6470	6.0900

1891	80.6469	6.0900	1901	80.6461	6.0898	1911	80.6462	6.0901	1921	80.6474	6.0905
1892	80.6468	6.0899	1902	80.6460	6.0897	1912	80.6463	6.0901	1922	80.6474	6.0905
1893	80.6468	6.0899	1903	80.6459	6.0897	1913	80.6465	6.0901	1923	80.6475	6.0906
1894	80.6467	6.0899	1904	80.6458	6.0897	1914	80.6466	6.0902	1924	80.6477	6.0905
1895	80.6466	6.0900	1905	80.6458	6.0897	1915	80.6467	6.0902	1925	80.6477	6.0904
1896	80.6464	6.0899	1906	80.6457	6.0897	1916	80.6468	6.0902	1926	80.6477	6.0904
1897	80.6463	6.0899	1907	80.6457	6.0898	1917	80.6470	6.0902	1927	80.6476	6.0903
1898	80.6463	6.0899	1908	80.6458	6.0900	1918	80.6471	6.0903	1928	80.6476	6.0903
1899	80.6462	6.0899	1909	80.6459	6.0901	1919	80.6472	6.0903	1929	80.6474	6.0902
1900	80.6461	6.0899	1910	80.6460	6.0901	1920	80.6473	6.0904	1930	80.6473	6.0902

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Other Annexures

Annexure i - Main Consulting Institutes

Main Consulting Institutes -Pradeshya Sabha -Hakmana Attendance at Stakeholder Meeting held on 2017.12.17

Stakeholders	Designation
Divisional Secretariat Office Hakmana	Divisional Secretariat
Pradeshya Sabha- Hakmana	Secretary, Technical Officer,
Pradeshya Sabha- Hakmana	Development Officer
Archeological Office -Galle	Deputy Director
Sri Lanka Passenger and Transport Board-Hakmana	Depot Commissioner
M/Kongala Maha Vidyalaya -Hakmana	Principal
M/Methodist College -Hakmana	Principal
Zonal Education Office - Hakmana	Deputy Director
University of Ruhuna -Matara	Student – Department of Geography
Passenger and Development Authority	Deputy Director
Central Environment Authority -Matara	Divisional Environment Officer
Irrigation Department - Matara	Deputy Director
Coconut Cultivation Board- Matara	Officer
Electricity Board- Matara	Electrician Commissioner
Multi-Purpose Cooperative Society - Hakmana	Chairman
Agrarian Service Department - Hakmana	Agrarian Development Officer
National Housing Development Authority - Matara	Assistant Engineer
Maternity of Health - Hakmana	Public Health Inspector
National Water Supply and Drainage Board - Matara	Officer In charge
Road Development Authority -Matara	Chief Engineer
Export Irrigation Department - Matara	Export Irrigation Distribution Officer
National Building and Research Organization	Geologist
Post Office -Hakmana	Post Master
Urban Development Authority - Galle	Director (Southern Province)
Urban Development Authority -Matara	Deputy Director (Planning)
Farmer Association -Hakmana	Chairman
Grama Niladhari Hakmana	
Vidtha Center -Hakmana	Coordinator
Planning Team	Urban Development Authority

Annexure ii - Project Priority List

Project Priority List

Project Prioritization based on Concept of the Development Plan

	Road Development	Weekly Fair Development	Public Weekly Fair	Bus stand and Surrounding area Development	Replacing of Bus Depot	Construction of the Rest House	Agro Tourism Promotion Center and Design Paddy Cultivation	Development of Swimming pool and Sport	Construction of Proposed Buddha	Post Office Redevelopment Project	Construction of New Divisional Secretariat Office	Total
Road Development	0	1	1	1	1	1	1	1	0	1	1	9
Weekly Fair Development	0	0	0	1	1	1	0	1	0	1	1	6
Public Weekly Fair Redevelopment Project	0	1	0	1	1	1	0	1	0	1	1	7
Bus stand and Surrounding area Development	1	1	0	0	0	1	0	1	0	1	1	6
Replacing of Bus Depot	1	1	0	1	0	1	0	1	0	1	1	7
Construction of the Rest House	1	0	0	1	0	0	0	1	0	1	1	5
Agro Tourism Promotion Center and Design Paddy Cultivation	1	1	1	1	1	1	0	1	1	1	1	10
Development of Swimming pool and Sport Facilities	1	0	0	0	0	0	0	0	0	1	0	2
Construction of Proposed Buddha Jayanthi Vidyalaya	1	1	1	1	1	1	0	1	0	1	1	9
Post Office Redevelopment Project	0	0	0	0	0	0	0	0	0	0	0	0
Construction of New Divisional Secretariat Office	0	0	0	1	1	0	0	0	0	1	0	3

Categorization on Importance

	Road Development	Weekly Fair Development	Public Weekly Fair Redevelopment Project	Bus stand and Surrounding area Development	Replacing of Bus Depot	Construction of the Rest House	Agro Tourism Promotion Center and Design Paddy Cultivation	Development of Swimming pool and Sport Facilities	Construction of Proposed Buddha Jayanthi Vidyalaya	Post Office Redevelopment Project	Construction of New Divisional Secretariat Office	Total
Road Development	0	1	1	1	1	1	1	1	1	1	1	10
Weekly Fair Development	1	0	0	1	1	1	1	1	1	1	1	9
Public Weekly Fair Redevelopment Project	0	1	0	0	1	1	1	1	0	1	0	6
Bus stand and Surrounding area Development	0	1	1	0	1	1	1	1	1	1	1	9
Replacing of Bus Depot	0	0	0	0	0	1	0	1	0	1	0	3
Construction of the Rest House	0	0	0	0	1	0	1	0	0	0	0	2
Agro Tourism Promotion Center and Design Paddy Cultivation	0	1	0	0	1	1	0	1	1	1	1	7
Development of Swimming pool and Sport Facilities	0	0	0	0	1	1	0	0	0	0	1	3
Construction of Proposed Buddha Jayanthi Vidyalaya	0	1	0	0	1	1	1	1	0	1	1	7
Post Office Redevelopment Project	0	0	0	0	1	1	1	1	0	0	0	4
Construction of New Divisional Secretariat Office	0	0	0	0	1	1	1	1	1	1	0	6

	Road Development	Weekly Fair Development	Public Weekly Fair Redevelopment Project	Bus stand and Surrounding area Development	Replacing of Bus Depot	Construction of the Rest House	Agro Tourism Promotion Center and Design Paddy Cultivation	Development of Swimming pool and Sport Facilities	Construction of Proposed Buddha Jayanthi Vidyalaya	Post Office Redevelopment Project	Construction of New Divisional Secretariat Office	Total
Road Development	0	0	0	0	1	0	0	1	0	1	1	4
Weekly Fair Development	0	0	1	1	1	1	1	1	0	1	1	8
Public Weekly Fair Redevelopment Project	1	0	0	1	1	1	0	1	1	1	1	8
Bus stand and Surrounding area Development	1	0	0	0	1	1	1	1	0	1	1	7
Replacing of Bus Depot	0	0	0	0	0	1	1	1	0	1	1	5
Construction of the Rest House	0	0	0	0	1	0	0	1	0	1	1	4
Agro Tourism Promotion Center and Design Paddy Cultivation	1	1	1	1	1	1	0	1	1	1	1	10
Development of Swimming pool and Sport Facilities	0	0	0	0	0	0	0	0	0	1	0	1
Construction of Proposed Buddha Jayanthi Vidyalaya	1	1	1	1	1	1	0	1	0	1	1	9
Post Office Redevelopment Project	0	0	0	0	0	0	0	0	0	0	0	0
Construction of New Divisional Secretariat Office	0	0	0	0	1	1	0	0	1	1	0	4

Annexure iii – Responsible Organizations

1. Sri Lanka Land Development Cooperation
2. Department of Irrigation
3. Central Environmental Authority
4. Urban Development Authority
5. Hakmana Pradeshiya Sabha
6. Department of Forest Conservation
7. Department of Wildlife Conservation
8. National Building Research Organization
9. Department of Agrarian Development
10. Department of Archaeology
11. National Aquatic Resources Research and Development Agency
12. Geological Survey and Mines Bureau
13. Sothern Provincial Council
14. National Water Supply & Drainage Board
15. National Aquaculture Development Authority
16. Ceylon Electricity Board of Sri Lanka
17. Building Department of Sri Lanka
18. Road Development Authority
19. Department of Fisheries and Aquatic Resources
20. Sri Lanka Navy
21. Matara District Secretariat
22. Hakmana Divisional Secretariat

Annexure iv - Proposed Outdoor Recreational Areas

Proposed Outdoor Recreational Plan Hakmana

No	Park Type	Present Use	Extent (Hec)	Proposed Use	Extent (Hec)	GND
01.	Proposed Local Park					
	PLP 01	Mixed Agriculture	1.27	Local Park	1.27	Kongala East
	PLP 02	Coconut Cultivation	2.47	Local Park	1.13	Gammeapitiya
02.	Proposed Mini Park					
	PMP 01	Waste Land	0.32	Mini Park	0.32	Muruthamuraya West Wepathaera Souh
	PMP 02	Homegarden	6.30	Mini Park	0.20	Muruthamuraya West
03.	Proposed Pocket Park					
	PPP 01	Waste Land	0.16	Pocket Park	0.16	Muruthamuraya East
	PPP 02	Waste Land	0.15	Pocket Park	0.15	Wepathaera Souh
Total : 3.23 Hec						

Annexure v - Permissible Uses of Development Zones

	Use	Intense Development Zone	Moderate Intense Development Zone	Low Intense Development Zone	Green Conservation Zone
Residential	Homes for Residence				
	Flats				
	Condominiums				
	Hostels				
	Housing Complex				
	Apartments				
Health	Government Hospitals				
	Private Hospitals				
	Medical Consulting Service Centers			Maximum Construction 25 m ²	
	Medical Centers				
	Laboratory Services				
	Pharmacies				
	Ayurveda Medical Centers				
	Spa Centers				
Educational	Government and Semi Government Schools				
	Primary Schools				
	International Schools				
	Government and Private Universities				
	Technical Colleges				
	Vocational Training Centers				
	Agriculture Training Centers				
	Preschools				
	Institutes with Tertiary Educational Courses				
	Private tuition classes				
Institutes	Government / Semi government offices			Maximum Construction 25 m ²	
	Information Technology Institutes				
	Government office complexes				
	Professional Offices			Maximum Construction 25 m ²	
	Banks, financial and insurance companies				

Social Service	ATM Centers				
	Indoor Sports Centers				
	Outdoor Theater				
	Community centers / cultural centers				
	Library				
	Day Care Centers				
	Adult Homes				
	Hair and Beauty Saloons				
	Cinemas				
	Spa Centers				
	Laundry				
	Communication centers				
	Fitness centers				
	Religious Places				
	Retail outlets				
Commercial	Wholesale stores				
	Sector Sales / Multi Sector Sales				
	Fish stalls				
	Grinding mill				
	Meat stalls (only processed meat)				
	Building Materials Sales Outlets				
	i. Sand, stone, cement, wire, pipe				
	ii. Other building materials				
	Supermarkets				
	Showrooms				
	Printing Press				
	Agro raw materials stalls				
	Customer Service Centers				
	Wholesale business activities				
	Liquor Store				
	Warehouse / Warehouse Construction Maximum 300 m2				
	Bakery				
	Fuel Station				
	Gas & Electric Power (filling stations for vehicles)				
	Auto Parts Sales				
i.Body Parts					

	ii. Other Extra Parts				
	Furniture Shops				
Tourism Activities	Tourist hotels				
	Canteens				
	Resorts				
	Guest Houses				
	Reception Halls				
	Urban hotels				
	Lodge / guest house				
	Vehicle Repair Point (Garage)				
Vehicles	Bicycle and motorcycle repair stations				
	Three-Wheeler Repair Stations				
	Vehicle Service Centers (Service Centers)				
	Vehicle wash places				
	Public parking Spaces				
Industry	Handicrafts Products / Home Industries (Non-Environmental Hazards)				
	Rice mill / Wood mill				
	Cinnamon Rubber Based Products				
	Concrete related Industries				
	Building Materials (Brick Finishing)				
Leisure and recreation	Children's parks				
	Parks				
	Open Spaces				
	Exhibition Stalls				
	Open Theaters				
	Adventurous wetland gardens				
	Natural streets				
	Water retention and water control areas				
	Playgrounds				
	Landscape areas				

Annexure vi - Corruptive and Dangerous trade activities

Production and filtering of following materials.

- Mud Arecanut
- Blood of animals and unused parts of animals
- Fiber based industries
- Soda
- Leather
- Gouda
- Lime
- Graphite
- Textile, fiber dyeing and tanning

1. Tanning

2. Store the following items other than retail

- Animal Bones
- Coal
- Hay
- Fiber
- Raw leather

3. The following unsafe industries

- Quarries, crust, gravel and sand

Annexure vii - Zone Factor calculation procedure

1. Estimating the extent of land use change and how much it has developed
2. To calculate how the land use activities will be changed in the future in order to achieve the proposed goals and objectives of the development plan, using strategic assumptions and criteria.
 - How existing Land Use Patterns Transforms
 - Identify areas where environmental sensitivity should be protected.
 - How commercial, tourism, corporate and industrial land use growth will change in the future
 - Changes in future land use in terms of promotion zones such as tourism promotion zones, commercial promotion zones and so on
3. Allocation of percentage of land use activities in different Density Zones
4. Identification of future development land (residential, tourist, commercial, Institutional)
5. Calculation of residential populations and commuting populations according to the land use pattern in those density zones according to the space occupied by one person (literary source)

Engineering Tool Box, (2001).(online) Available at, <https://www.engineering tool box.com>

Per Capita Activity Space Standards for City of London
6. Commuter Population Calculation (Estimating the number of commuting populations for each land use by 2030)
7. Calculate how much of the residential population will be in each of the density zones by 2030

Annexure viii - Zone Factor calculation

$$\text{(Zone Factor)} = \frac{\text{Future Developable Space}}{\text{Current Developable space}}$$

Zone Factor – Hakmana Urban Development Area

Zone	Residential Population	Residential space per person	Total Space	Commuting Population	Space per person	Total Space	Developable space	Zone factor
Intense Zone	817	25	20425	7750	36	279000	154530.1	1.75
Moderate Intense Zone	1634	28	45752	4375	36	157500	278545.6	0.75
Low Intense Zone	1229	34	41786	2583	36	92988	868736.0	0.50
Green Conservation Zone	0	0	0	792	36	28512	832084.1	0.01