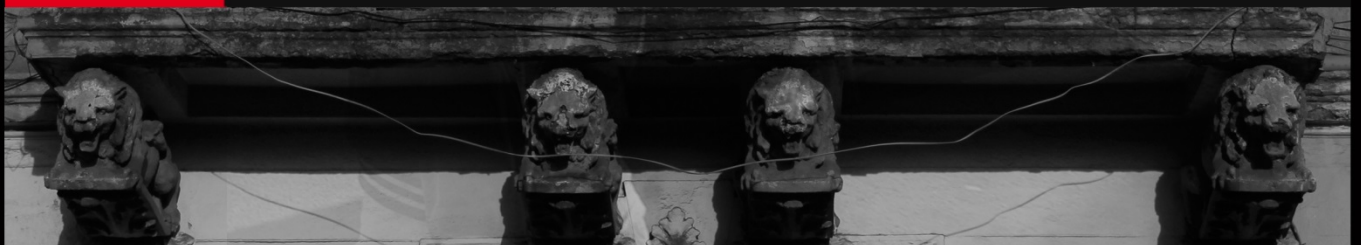


January  
2016

# Asmara Proposed World Heritage Site Integrated Management Plan 2016-2021



**Asmara Heritage Project (AHP)**

**Asmara Proposed World Heritage Site**

**Integrated Management Plan  
2016-2021**

**January 2016**

**Asmara-Eritrea**

## LIST OF ACRONYMS

AHP	=	Asmara Heritage Project
BZ	=	Buffer Zone
CARP	=	Cultural Assets Rehabilitation Project
CCS	=	Commission of Culture and Sports
CMP	=	Conservation Master Plan
CA	=	Core Area
CRA	=	Central Region Administration
DRM	=	Disaster Risk Management
DIS	=	Department of Infrastructures Services
DPWD	=	Department of Public Works Development
ENC-UNESCO	=	Eritrea National Commission for UNESCO
ECNHB	=	The Eritrean Cultural and Natural Heritage Board
EEA	=	Eritrean Environmental Agency
GAA	=	Greater Asmara Area
GIS	=	Geographic Information System
GSE	=	Government of the State of Eritrea
HUL	=	Historic Urban Landscape
ICCROM	=	International Center for the Study of the Preservation and Restoration of Cultural Property
ICOMOS	=	International Council on Monuments and Sites
IMP	=	Integrated Management Plan
LDP	=	Localized Development Plan
MoE	=	Ministry of Education
MoT	=	Ministry of Tourism
MoPW	=	Ministry of Public Works
MLWE	=	Ministry of Land, Water and Environment
MoA	=	Ministry of Agriculture
MoEM	=	Ministry of Energy and Mines
MoMR	=	Ministry of Marine Resources
MoTI	=	Ministry of Trade and Industry
MoTC	=	Ministry of Transport and Communication
NEMP	=	National Environment Management Plan

NHP	=	National Heritage Program
NI	=	New Institution
NM	=	National Museum
OUPR	=	Outline Urban Planning Regulation
OUVs	=	Outstanding Universal Values
SUDP	=	Strategic Urban Development Plan
SP	=	Special Area
SWOT	=	Strengths, Weaknesses, Opportunities, Threats
PZ	=	Protected Zone
RDC	=	Research and Documentation Centre
UNESCO	=	United Nations Educational, Scientific and Cultural Organization
WHS	=	World Heritage Site
WHC	=	World Heritage Center
WHL	=	World Heritage List



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## **PREFACE I**

**Tesfaalem Woldemichael**

**Director General**

**Department of Public Works Development, Central Region Administration**

It gives me pleasure to present the first Integrated Management Plan (IMP) for Asmara: Africa's Modernist City proposed Heritage Site. Asmara is the home of over 500,000 people; it is the hub of Eritrea's political, economic, cultural and social activities. The site is widely recognized as being a significant or unique urban heritage at local, national and international level.

The world is currently experiencing unprecedented kinds of urban developments in the history of mankind; these developments create socio-economic change and growth that should be taken as an advantage at regional, national and international levels. Urban heritage, in its tangible and intangible elements constitutes one of the essential resources enhancing the livability of urban areas and the promotion of economic development as well as social cohesion in changing urban environments. The preservation of this heritage will be one of the challenges to be addressed through appropriate conservation and management plan measures.

The main aim of the IMP for the site is to promote the sustainable management of the nominated site so that its Outstanding Universal Values (OUVs) are conserved over time and transferred to future generations. The overall objective of IMP is to ensure that an appropriate management plan is formulated and duly implemented for the conservation, protection and valorization of the site through the development of appropriate conservation strategies and action plan measures and a mechanism whereby the site will be managed, enhanced and valorized by all stakeholders.

This IMP provides the framework for the proper management of the site. It strives to bring together all stakeholders to have shared understanding of the site and ensure that all concerned parties work in collaboration and coordination to protect the site. The production of this IMP is only the start of the effective management of the site, as the difficult task is the implementation of the Plan.

The IMP has been prepared by the Asmara Heritage Project (AHP), Department of Public Works Development (DPWD) of the Central Region Administration (CRA) and in close

consultation with national and international experts, government and non-governmental organizations.

Finally, on behalf of the DPWD, I would like to express my deepest appreciation to all those who have participated in the preparation of the IMP in particular and to the CRA for providing the necessary budget, the AHP steering committee and the local authorities for their close cooperation in the elaboration process of the IMP. I am confident that this document will prove to be an invaluable management tool for all the stakeholders and organizations involved in the conservation and preservation of this unique urban heritage site.

## PREFACE II

**Asmerom Tsegaberhane**

**Director General**

**Department of Culture and Sports, Central Region Administration**

On behalf of all of our partners and cultural communities, I am delighted that we have prepared this Integrated Management Plan (IMP) for Asmara-Africa's Modernist City proposed Heritage Site; I hope that it will become a key document for managing the site.

Eritrea is a country of multi ethno-linguistic, religious, cultural diversity and tolerance. These distinctive intangible heritages are the cornerstone of our national identity. Asmara is an exceptional city where inclusiveness of multi ethnicity, solid social cohesion, diversity of religious institutions and cultural associations are significantly manifested in the cultural life of its inhabitants. Furthermore, Asmara possesses rich urban heritage which is unique in Africa and has few parallels anywhere in the world.

As the capital city, there are many pressures to encourage its development. At the same time; there are various challenges to protect, conserve and valorize the site. Several measures to protect and manage Asmara's historic urban landscape have already been established and their implementation is underway.

The IMP has been prepared based on the integrated concept the existing plans and procedures, UNESCO conventions and recommendations. The plan describes how the historic attributes within the proposed site will be conserved and managed. This will ensure that the city's importance to world history is not lost and that many people understand the value and share the city's outstanding built environment.

The plan provides a significant basis for the proper management of the site. I thus believe that it will serve as a valuable conservation planning instrument in managing our unique urban heritage.

The plan is envisaged to include dynamism and flexibility, allowing the city to grow and change, whilst ensuring that its historic fabric is not adversely damaged through inappropriate interventions. This is a very difficult task and there will undoubtedly be challenges ahead in achieving the balance between the preservation and change. I believe that this management



plan will offer sound basis in guiding the change while allowing the historic environment to play a vital role in the city's development.

Finally, I would like to take this opportunity to express my profound appreciation to the members of the Management Plan Preparation team, and to the organizations consulted during its preparation for their significant contributions and support.

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## EXECUTIVE SUMMARY

The present proposed Asmara World Heritage Site (WHS) Integrated Management Plan (IMP) 2016-2021 has been prepared by the Asmara Heritage Project (AHP), under the Department of Public Works Development (DPWD), Central Region Administration (CRA), with extensive consultation of experts, government and private organizations.

The plan is based on the present setting, character and needs of the nominated site, i.e. Asmara: Africa's Modernist City. Its overall aim is to protect and preserve the Outstanding Universal Values (OUVs) of the site. It mainly focuses on the various aspects of the management and development considerations necessary to protect, conserve and valorize the site for present and future generations.

The significance of the site is mainly attributed to its OUVs which are justified by their authenticity since its original formation. Subsequent evolution of its urban design and unique architectural elements exemplify a superlative example of modernist architecture combined with local natural landscape and cultural features. Moreover, the planning process of the site has retained its innovative development, material and functional authenticity and integrity.

Asmara is strategically located on the central highland plateau, at the edge of the eastern escarpment, about 2,300m above sea level. The city has been established and developed to become a modernist city. The first planning interventions were practiced during 1913-1916 to become in due course a modern layout of the city in 1935-1939. By 1941, Asmara was already a city with highly developed infrastructure comprising basic services such as water supply and sanitation, sewage disposal and health care delivery system as well as education. However, during late periods (1952-1991) of its colonization, the city's planning and development were interrupted significantly if not halted totally due to political oppression and recurrent war for independence.

After independence, the State of Eritrea launched a comprehensive Strategic Urban Development Plan (SUDP, 2004-2007) to rehabilitate its deteriorated capital city. One of the main goals of the SUDP plan was to promote the city as a cultural center by respecting its heritage values and thereby promote cultural mass tourism by conserving its symbolic built urban landscape and archaeological sites.

The planning directives and regulations of the 1913-1916 were more descriptive rather than prescriptive. Since 1938 the development tendency of Asmara had been orientated according to this principal planning system which has been pursued without any change for the last 77 years. However, a new building regulation was prepared in 2003 as an interim regulation which was later on replaced by the 2005 Outline Urban Planning Regulation (OUPR) with the principle of conserving buildings which have heritage significance.

During the colonial periods the city experienced different management systems which were merely articulating the benefits and protection of their respective colonial realms. After independence, the government of Eritrea started to exert efforts to manage and preserve the built environment. As a result, different forums were held and various projects were developed to preserve the cultural and built heritages for the use of present and future generations. They included the Asmara Urban Forums (1995 and 1996); the Cultural Assets Rehabilitation Project (CARP) (2000); Asmara Infrastructure Development Study (2004-2007); and the National Heritage Program (NHP) (2009-2011).

Besides, different government institutions, working groups and task forces came to be more or less involved in the preservation of the heritage property and the natural landscape of the site. In view of these fragmented developments, the AHP was established in 2014. AHP is entrusted with the preparation of the Nomination Dossier Document, IMP and Conservation Master Plan (CMP) for inscription of the site in the World Heritage List (WHL).

Asmara: Africa's Modernist City is endowed with different strengths and opportunities which have to be exploited for its efficient and effective management. These include strengths like its strategic location, salubrious climate and well planned, designed and built environment and opportunities in cultural, tourism and economic developments. Equally, it has some weaknesses and threats which have to be addressed. These include weaknesses like inadequate institutional capacity, inadequate studies of construction materials, inadequate maintenance, and insufficient awareness and threats like population influx and the natural environment threats (e.g. fire, pollution, flood, earthquake etc.).

The plan outlines the vision, overall objective, overall goal, guiding principles and strategies with regard to the conservation and protection of the site. The major strategies envisaged for the implementation of IMP are grouped under ten themes i.e. a) Integrated Conservation Plan, b) Maintenance of Historic Buildings, Infrastructures and Services, c) Rehabilitation and

Recovery, d) Mobility and Traffic, e) Socio-Economic Development Pressure, f) Tourism and visitor management, g) Protected areas, h) Risk preparedness and disaster mitigation, i) Institutional capacity and j) Capacity Development. Each theme is then presented with its respective rationale and planning, implementation and monitoring and evaluation strategies and actions.

The plan requires an appropriate implementation framework. This is proposed to be achieved by establishing an appropriate institution or organ responsible for the management of the site. The institution or organ to be established will need to be supported by government, private, local and international institutions and the participation of the various communities. In addition, it will need to be supported by an appropriate fund and adequate staff.

Monitoring and evaluation are two very important tools used to critically follow-up and appraise the implementation and effectiveness of the plan. For the purpose, a set of indicators have been prepared to monitor the progress and effectiveness of its implementation. Similarly, periodic evaluation of the plan will need to be conducted every 5 years for assessing its achievement and taking appropriate measures for its improvement.

In this connection the IMP has an annex table (Annex-A) with regard to the action areas a) objectives and strategies, b) the specific actions c) their implementation period and d) the leading or coordinating and other institutions to be involved.



## 1. INTRODUCTION

The present Integrated Management Plan (IMP) with regard to Asmara: Africa's Modernist City is based on the requirements laid down in:

- The Convention Concerning the Protection of the World Cultural and Natural Heritage, the World Heritage Convention, which was adopted by the General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) meeting in Paris from 17 October to 21 November 1972, and
- The Operational Guidelines for the Implementation of the World Heritage Convention which was first drafted in Operational Guideline, 2015.

The IMP has been prepared by the AHP, Department of Public Works Development (DPWD) of the Central Region Administration (CRA) in close consultation with national and international experts, government and private organizations.

### 1.1. Main Aims of the Plan

The main aims of the IMP for the Asmara proposed World Heritage Site (WHS) are:

- To promote sustainable management of the nominated site so that its integrity, authenticity and Outstanding Universal Values (OUVs) are conserved in a multidisciplinary manner over time.
- To determine sustainable approaches to the management of the nominated site by balancing the conservation of its cultural and natural heritage with the needs of its socio-economic development including its infrastructure improvement, tourism, commercial and industrial development.
- To build solidarity among all the stakeholders in order to ensure mutual ownership of the processes for safeguarding and promoting the nominated site.
- To increase public awareness of the OUVs and interest in the property at local, national and international levels.
- To propose an appropriate Action Plan for ensuring the realization of the above indicated aims and/or objectives.

### 1.2. Structure of the Plan

The IMP is structured as follows:

- The Scope of Heritage Management and World Heritage Requirements are briefly presented.
- A brief outline of Asmara's Attributes including its Significance and related Justification and Statement of its OUVs is then presented.
- Next the Historical Background and Planning features of Asmara are summarized by tracing its origin and subsequent development including the Master Plans and series Planning Regulations, Zoning Regulations and Perimeters.
- The Nominated site is then defined by indicating its Boundaries and Buffer Zones and followed by an analysis of its Strengths, Weaknesses, Opportunities and Threats.
- In the light of the above, the envisioned Management System: Vision, Objectives, Strategies and Action Plan is subsequently described by giving due emphasis to the following major action areas:
  - Integrated Conservation Plan
  - Maintenance of Historic Buildings, Infrastructures and Services
  - Rehabilitation and Recovery
  - Mobility and Traffic
  - Socio-Economic Development Pressure
  - Tourism and Visitor Management
  - Protected Areas
  - Risk Preparedness and Disaster Mitigation
  - Institutional Capacity
  - Capacity Development (Human and Financial)
- The Management System's Implementation Framework (Institutional Framework, Institutional Collaboration and Community Participation) is then outlined. This is followed by an indication of the basic essential activities so far undertaken, the capacity development (financial and human resources) requirements and the program for the implementation of the plan.
- Finally the envisaged monitoring, reviewing and evaluation process is outlined and followed with a summary presentation of the Action Plan in a table format (Annex-A) by indicating the period of implementation of the envisaged activities and the corresponding responsible lead/coordinating and other agencies involved.

### **1.3. Plan Preparation Approach**

The preparation process of the IMP has been participatory and learning centered in its approach. The study included desk review, consultation and workshop related to scope and objectives of the management plan. The study is focused on interactive participation to identify problems and to propose policy change to conserve, protect and use of the proposed Asmara WHS for the current and future generations.

The process adapted in preparing the plan included the following steps:

- Review of the World Heritage Convention, Operational Guidelines, SUSTCULT approach and related Documents.
- Preparation of preliminary draft working papers on the various aspects of the plan by deploying national and international consultants.
- Compilation of an integrated draft working document.
- Review and elaboration of the integrated draft working document by the steering committee.
- Review of the draft report by pertinent responsible bodies.
- Finalization of the draft report by taking into consideration comments forwarded.
- Approval of the management Plan.

## **2. SCOPE OF HERITAGE REQUIREMENTS AND ATTRIBUTES**

### **2.1. Scope**

Heritage management refers to the system or approach for the protection, use, conservation and development of a heritage property for present and future generations. Common elements of an effective heritage management system include:

- Shared understanding of the outstanding value of the property and involvement of all concerned stakeholders in its protection;
- An appropriate institutional structure and capacity building;
- Efficient and effective cycle of planning, implementation, monitoring, evaluation; and allocation of adequate resources.

A heritage management system depends on the type, characteristics and needs of the nominated property and its cultural and natural context. It calls for close coordination between management bodies and stakeholder institutions and promotion and development of greater awareness and understanding of its values by the general public.

The strategic goals and action programmes of the system are developed through assessment of the threats jeopardizing the conservation of the property's OUVs and through assessment of the opportunities offered by their enhancement.

### **2.2. World Heritage Requirements**

According to the Operational Guidelines of the World Heritage (2015), each nominated property should have an appropriate documented management system or management plan which must specify how the OUVs of a property/site should be conserved and preserved.

The Guidelines establish that OUVs means cultural and/or natural significance which is so exceptional as to transcend national boundaries. In other words, the World Heritage property must possess a universal symbolism above and beyond regional, national, or purely political, religious or economic significance. A Core Area (CA) (World Heritage Property) is a property which includes within its borders all the attributes which render it to be recognized as being of OUVs that meets the conditions of authenticity and integrity to be inscribed on the WHL.

The Guidelines further establish that a buffer zone is an area surrounding the nominated property which has complementary legal and/or customary restrictions placed on its use and



development. This should include the immediate setting of the nominated property/site, important views and other areas or attributes that are functionally important as a support to the property and its protection. A Buffer Zone is a clearly delineated area, outside but adjacent to the boundaries of a world heritage property, which contributes to the protection, management, integrity, authenticity and sustainability of the OUVs of the designated property/site.

The statement of significance of a World Heritage property is determined by its description and justification in accordance with the criteria laid down in the World Heritage Convention and the Operational Guidelines for its implementation. Depending on the character and qualities of a property, it will be necessary to identify all the elements that together express its OUVs.

A heritage property or site must be of adequate size and must not suffer from adverse effects of development and/or neglect including of its surroundings. The condition of authenticity refers to the verification that all the attributes that justify the OUVs of a property are truthfully and credibly expressed.

## **2.3. Attributes**

### **2.3.1. Significance of Asmara**

Asmara represents perhaps the most concentrated and intact assemblage of modernist architecture anywhere in the world. The urban design within the Historic Perimeter has remained untouched since its original implementation and subsequent evolution throughout the 1930s, and the architectural elements exemplify a superlative example of -modernist architecture in a complete urban setting.

These two contiguous and exceptional tangible components have nurtured a unique and distinct intangible social environment founded on western modernist design ideals realized in a highland African setting.

The rapid transformation of Asmara from a relatively minor town into Africa's most modern and sophisticated city at that time, overlapped with equally momentous events in the world of design and architecture, which involved the global proliferation of modernism and its various forms, including Futurism, Rationalism, Novecento, and Art Deco.

Asmara was an ideal blank canvas on which Italian architects could practice and realize these modern ideals. From 1935-1941, thousands of buildings were constructed in the city, most of which reflect various modernist styles and some of which represent inimitable architectural forms.

### **2.3.2. Justification of Significance and Statement of OUVs**

Asmara represents an outstanding example of a Historic Urban Landscape (HUL) that embodies the universal encounter with modernity in the twentieth century through an exceptional urban planning process of a whole city combined with local natural landscape and cultural conditions.

Its architectural landscape and concentration of iconic buildings reflect the exemplary and innovative approach to the challenges of modern urban requirements in a highland African setting that have retained their integrity and authenticity through a protracted struggle for national liberation.

Asmara meets in particular the hereunder indicated OUVs criteria and unique integrity and authenticity features as:

**Criterion (ii):** Asmara exhibits an outstanding example of the interchange of cultural influences brought about by the encounter with modernity in an African context. The exchange is expressed in the innovative development of the city's architecture and town planning and through the creation of its distinctive human scale.

**Criterion (iii):** Asmara bears exceptional testimony to the expression of indigenous cultural and political consciousness through interaction with successive foreign forces and colonisers that culminated in the universal aspiration for and attainment of a national identity. The continuity through the planning process of Asmara and its protection as a whole urban form are a tangible testimony to the symbolic representation of Eritrean national identity.

**Criterion (iv):** Asmara is an outstanding ensemble in an African context of the transition in architecture and town planning from the nineteenth to the twentieth century and the subsequent universal encounter with modernity. The historic urban landscape encapsulates key stages of modernity's development and its principal characteristics, including colonial encounters and global conflict, rapid technological and urban development, and pioneering transportation and communication. The architectural ensemble not only evidences the early

stages of modernism but also highly innovative and experimental interpretations drawn from international and local precedents.

**Integrity:** Asmara comprises each stage of the planning process throughout the twentieth century as well as all the original architectural structures in their entirety. The site has retained its historical, cultural, functional and architectural integrity with their elements largely intact and in good condition. The establishment of the 'Historic Perimeter' around the centre of the city and a moratorium on new construction within this perimeter by the municipal authorities since 2001 has guaranteed the protection of the site's integrity.

**Authenticity:** Asmara's town planning and architecture represent an innovative developmental phase of modern architecture in the early-twentieth century in a particular cultural and geographic context. The original urban layout has been retained in its entirety and the architectural examples, which include cinemas, apartment buildings, petrol stations, factories, churches, and public buildings, have largely retained their material and functional authenticity. The social and cultural authenticity of the community that has inhabited the site has not only been successfully retained but also the site has played an important role in attainment of the nation's independence.

### 3. BACKGROUND

#### 3.1. Historical Milestones

Asmara was originally established during the 7<sup>th</sup> Century around the area where the present St Mary's (Mariam-Tsion) church (commonly referred to as Enda-Mariam) is located. It was earlier on known as 'Arbate-Asmera', an ancient highland village with four settlement areas i.e. Geza-Asmea, Geza-Gurtom, Geza-Shilele and Geza-Serensir. The four settlements used to live independent of each other and had separate churches i.e. Gheza Asmea St-Kirkos; Geza-Gurtom St-Gabriel; Gheza-Shilele St-George (Biet-Giorgis); and Geza-Serensir St Mikael. They were however commonly linked to the church of Mariam-Tsion.

Notwithstanding the harmonious life which together the four settlements used to have, they were quite often attacked and pillaged by outside raiders and intruders. As the legend goes, during one year of severe drought, they were one day gathered together to pray for rain to the Almighty in the church of Mariam-Tsion. During that occasion, the women took the opportunity to persuade their husbands to unite their four villages for a stronger defense against their common enemies. Hence, a new name was adopted i.e. "Arbaete-Asmera" which means "the Four United". With the passage of time the name 'Arbaete-Asmera' was abridged to the present 'Asmera' or 'Asmara'.

Furthermore, through time it was attempted to trace and indicate the various locations of the settlements as well as buildings in a form of Master plan and the various stages of Asmara's Master Plan development can be entailed in a chronological sequence dating from 1893-2005 as follows:

At the initial stage, the first Master plan was traced during (1893-1896) as "Building Plan" to indicate the approximate location of key administrative buildings and military barracks, private residential buildings, indigenous neighborhood settlements and a neighborhood of residential buildings for officers.

Whereas, the second stage of Master Plan preparation was done during (1902-1908). In 1902, an "Outline of Master Plan" was drawn to show up the various neighborhood settlements, educational as well as health institutions, government buildings, worship facilities, water points and the various inter urban roads as well as the inter-regional roads that lead to Keren

in the north, to Adi Ugri and Saganeiti in the south and to Ghinda in the east. Later, in 1908, a refined plan was drawn to reveal the various habitation zones.

Consequently, the third stage of Master plan preparation was carried out during (1913-1916). It was during the stated period of time that the town planning concept of zoning was clarified and developed. The city was subdivided into zone in a rectangular grid pattern type of urban development and the exclusive designation of zones was clearly demarcated and labeled on the Asmara's zoning plan of 1915. The intervention of planning projects to the urban human scale were designed and practiced during the above stated period of time.

The next stage that followed was the fourth Master plan stage and it was undertaken during (1935-1939). And it was during this time that the real and modern urban layout of Asmara that came into being. The modern urban layout of Asmara had incorporated the street layout that had been previously designed and maintained the existing radial road arteries which were defined in the previous plans. And meanwhile, a new road layout design was developed to solve the traffic congestion that existed in the city.

Thirty years later, the fifth Master plan stage was elaborated during (1970-1973). The main intent of the Master plan was to expand the city to the west as well as to the east directions by maintaining adequate provision of density (inhabitants/hectare). Particular quarters were designated for residential, industrial, administrative as well as for public and social services on the basis of anticipated exigencies of urbanization.

Finally, the last stage was the Strategic Urban Development Plan and it was prepared during (2004-2007). The ultimate goal of the SUDP was to coordinate and manage the spatial development of the Greater Asmara Area (GAA) in a sustainable and compact development type manner. The SUDP anticipates to host a population of 800,000 inhabitants in GAA area in the coming 2025.

Hereunder, the successive development of Asmara Master Plan is going to be discussed in detail and the role that was played by Architects, Engineers as well as consultants who were particularly involved in the inception of the Master plan preparation is going to be described and elaborated in the following paragraphs.

### **3.2. Urban Planning Development**

#### **3.2.1. Evolutionary Development of Asmara**

The initial Master plan of Asmara was prepared in 1893 by Captain Ernesto Cantoni of the Engineers. It attempted to organize the city as a “Building Plan” (1893-1896) with the city center comprising a few buildings used as civilian residences around the hill of the fenced cantonment, later known as the Troop Command. The buildings which still stand today were built along Via Martini and at the junction with Viale Crispi (now 175-1 Street and Denden Street). Meanwhile, the town planning approach that had been pursued was guided more by the geometric criteria of a rectangular spatial grid pattern whose blocks surround the original area of the Cereal Market. This gave rise to the town plan of the Market Place and that of the streets now known as Barentu and Dekemhare Street which provide its east-west axis. Later on, the two Civilian Governors of Eritrea, Ferdinando Martini (1897-1907) and Giuseppe Salvago Raggi (1907-1915) were the real initiators and motivators with regard to the preparation of Master Plan of cities and towns of Eritrea. Their ultimate goal was to improve the colony’s civil organization; they set out the mechanism or way whereby cities and towns in Eritrea were to become worthy representatives of Italy’s great cultural and architectural traditions.

In the year 1902, during Martini’s Administration, an outline of a Master plan was prepared which encompassed the area to the east of the fenced cantonment extending as far as the Mai Bela brook whereas, during the Administration of Salvago Raggi in 1908, another more refined plan was drawn up subdividing Asmara into four zones, with Zone (1) exclusively reserved for “Europeans”; Zone (2) designated for “Mixed” and inhabited by both Europeans and Indigenous population; Zone (3) assigned exclusively for indigenous population and Zone (4) allocated for suburban housing.

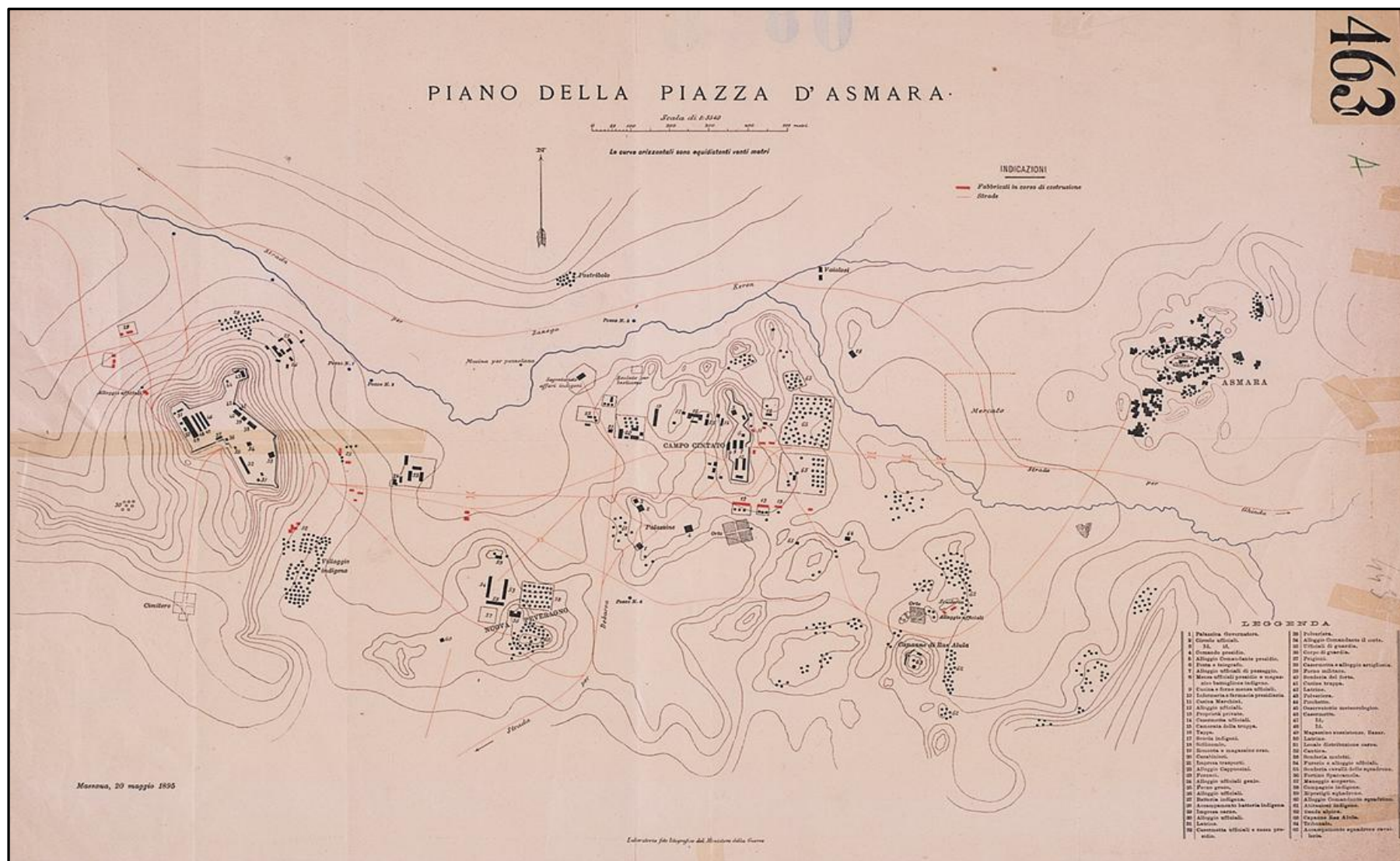


### Asmara Master Plan (1893-1896)



**Figure 3.1:** Asmara Master Plan of Civil Construction, Scale 1:4000 (January, 1893)





**Figure 3.2:** Asmara Square Master Plan, Scale 1:3340 (May, 1895)



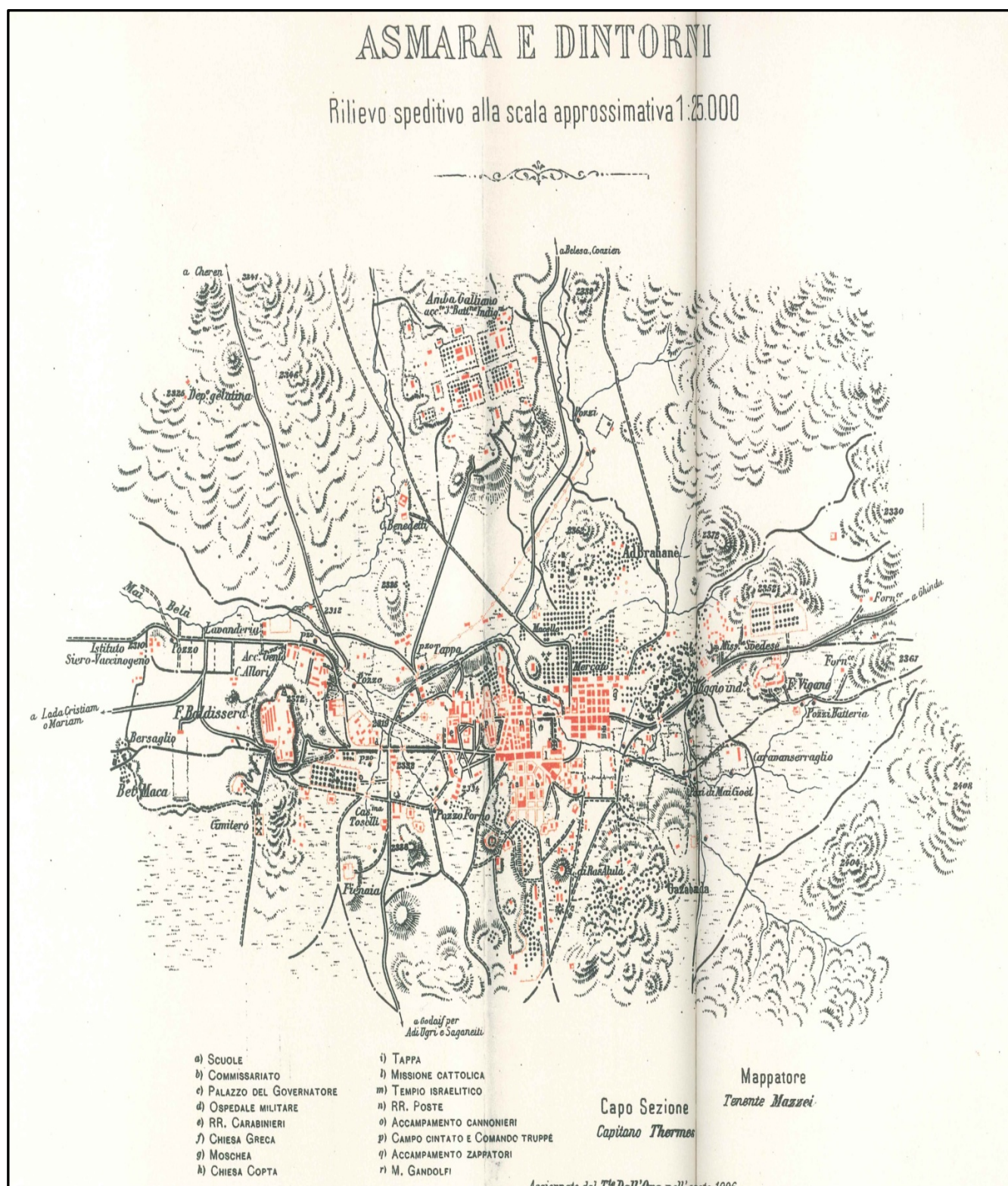
The 1908 plan, that replaced the one that was prepared in 1902, introduced two refinements in the urban planning development practice. These two urban planning developments refinements were: (a) the extension of Zone (1) that was meant for “European” settlers to the east of the fenced cantonment with the central area designated for the Catholic Mission. (b) The development of Zone (2) “Mixed” to the north-east of Zone (1) reserved for “Europeans” around the rectangular square market place.

Meanwhile, starting from the year 1913, Odoardo Cavagnari the Engineer who was directing the Central Civil Engineering Office clarified and developed the town planning concept of zoning which was later on adopted in the planning of the urban layout of Asmara. Above all, Cavagnari while carrying out his urban layout gave more attention to the location and to the natural features of terrains.

Meanwhile, starting from the year 1913, Odoardo Cavagnari the Engineer who was directing the Central Civil Engineering Office clarified and developed the town planning concept of zoning which was later on adopted in the planning of the urban layout of Asmara. Above all, Cavagnari while carrying out his urban layout gave more attention to the location and to the natural features of terrains.

The 1913 Master Plan illustrates that the neighborhoods were studied and designed according to a rectangular grid pattern type of development. The built-up blocks within the geometric grid pattern had brought about the creation of broader open spaces and squares that could serve for urban socialization. The open spaces as well as squares were also the vital spots for commercial development as well as places for conducting financial activities. In addition, the plan had revealed that within the more prestigious zones where the building of command structures were located such as the one around the Governor’s Palace and the one corresponding to the Officer’s club and the government offices a series of carefully designed parks had been established and developed. The first planning intervention of projects which were designed and practiced to the urban human scale was that of Cavagnari and dates back to 1913-1916.

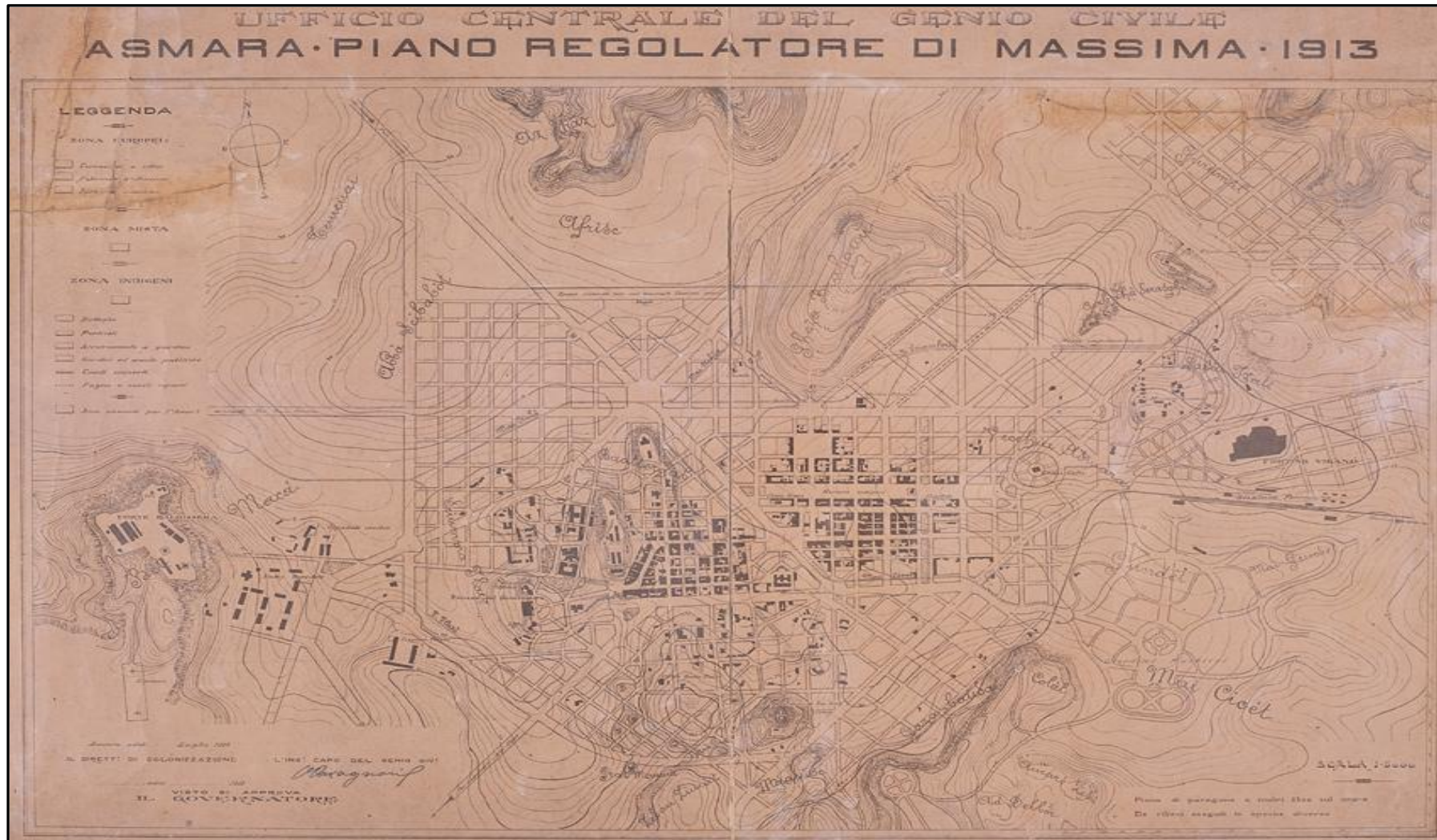
## Master Plan (1902-1908)



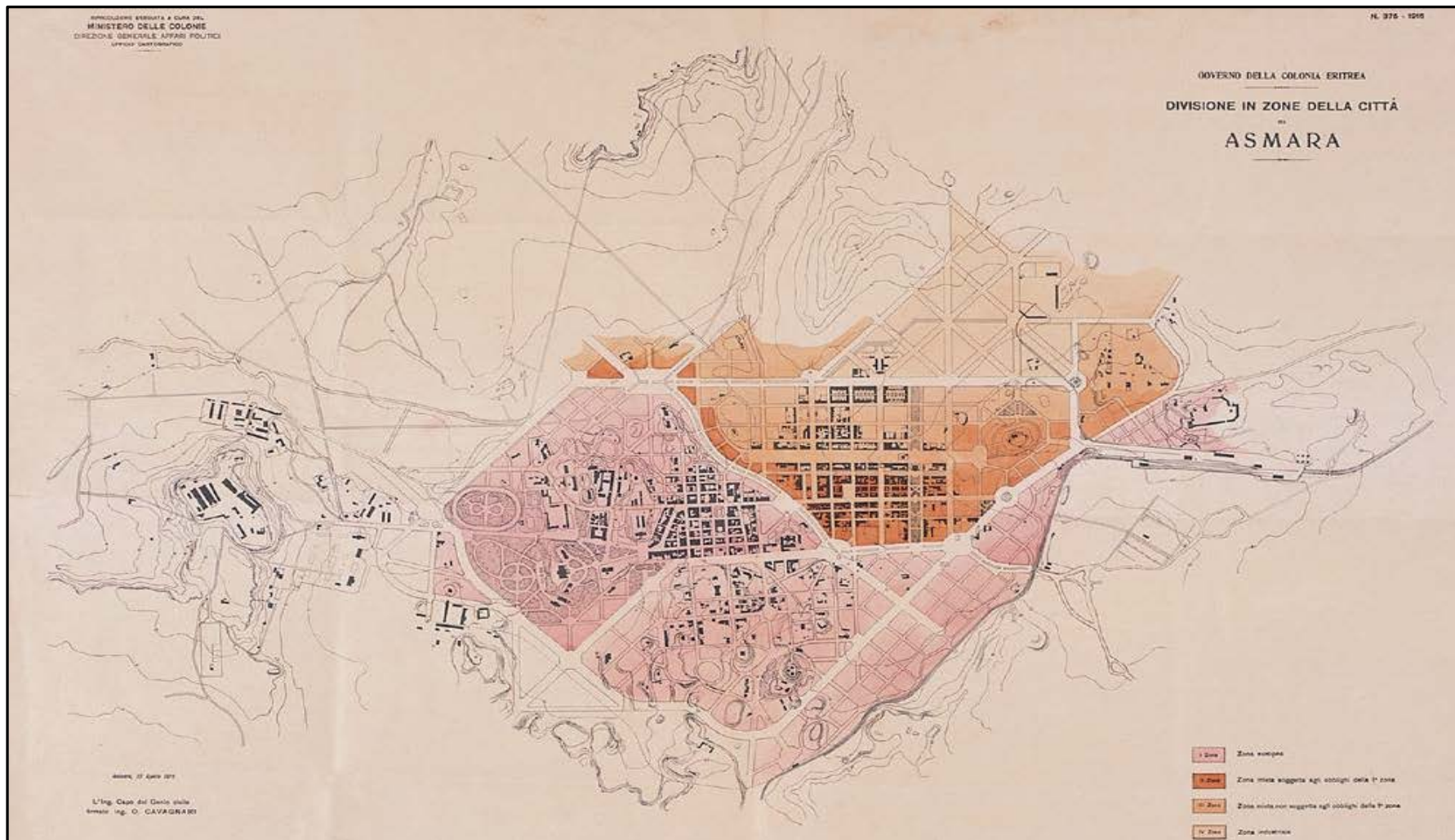
**Figure 3.3:** Asmara Master Plan and its surroundings, Scale 1:25,000 (1906)



## Master plan (1913-1916)



**Figure 3.4:** Preliminary Master Plan of Asmara prepared by the Central Office of Civil Engineers, Scale 1:5000 (July, 1913)



**Figure 3.5:** Asmara's zoning plan, Scale 1:10,000 (April, 1915)

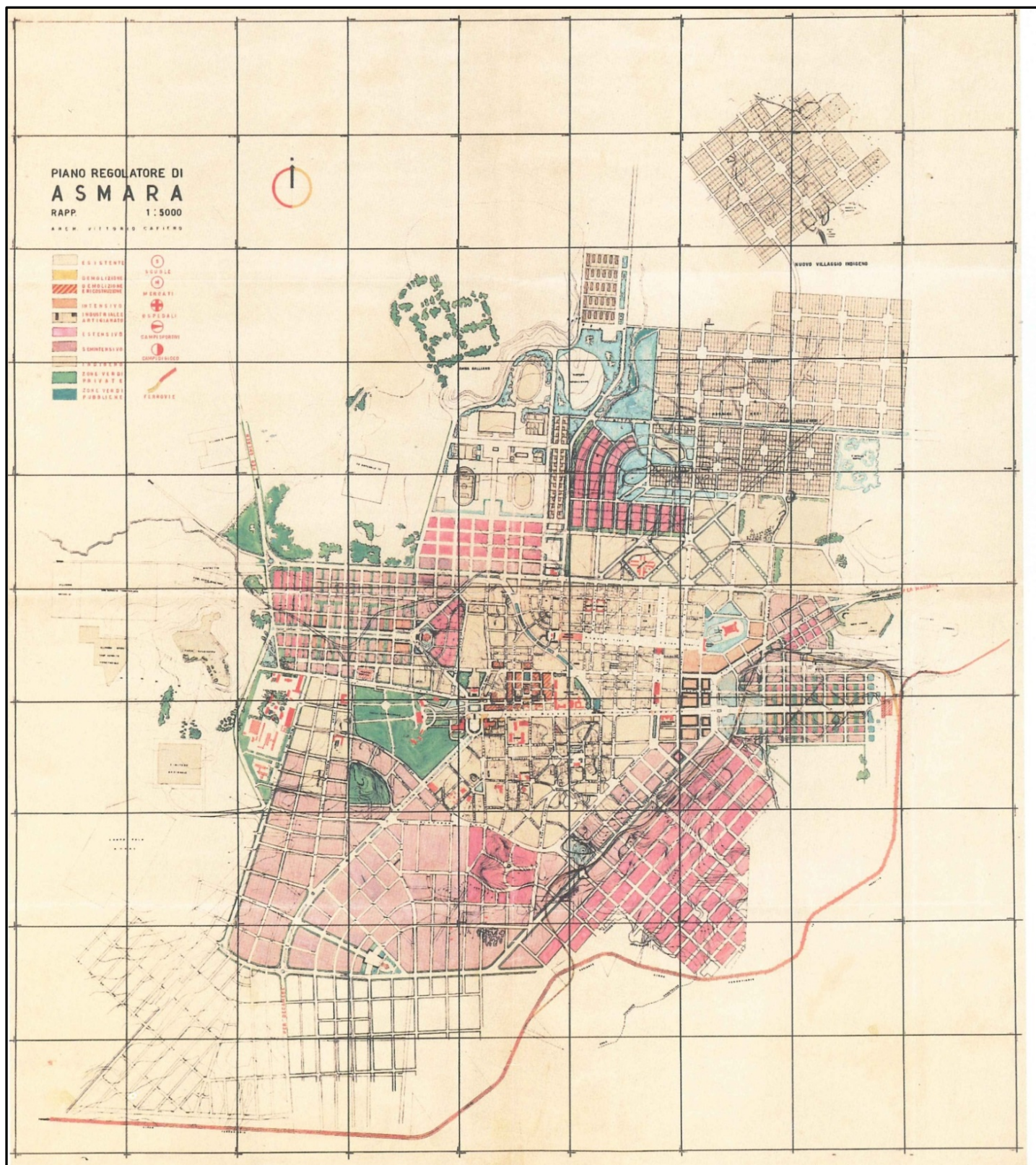
The very real and modern urban layout of Asmara had been indicated or pointed out in the urban planning and construction program which was later elaborated during the years 1935-1939 by a group of technicians led by Architect Vittorio Cafiero. Cafiero incorporated the street layout originally drawn up by Cavagnari into his new master plan, giving much emphasis to the main artery of roads that stretches from the area of the governor's palace at the western end as far as the railway station to the east. The Cafiero plan dwelt extensively on traffic problems. In addition, it maintained the existing arteries defined by the previous Cavagnari plans and designed a new street plan capable of solving the problem of traffic congestion.

During the 1930s, an increased flow of capital was injected towards the fascist expansion of colonial possessions and exerted an unprecedented urban growth to cities and towns of Eritrea. When Italy started its invasion of Ethiopia in 1935, Asmara had been transformed into a logistical base becoming primarily the head quarter of the main offices and command structures.

The unusual conditions under which Asmara developed together with the particular requirement of urgency typically of political and military proceedings made the city to expand suddenly in an uncontrolled manner. The practical consequences were the revelation of urban sprawl features such as the construction of new roads, the introduction of municipal services, the establishment of new buildings, the building of storage sheds and barracks, the burying of fuel tanks, the setting up of troop camps, the allocation of railway stores, the construction of places of worship and hospitals.

After the Master plan of (1935 – 1939) until the beginning of the 1970's no provision of Master plans had been carried out. However in 1973, Studio Mezzedimi prepared a Master plan for Asmara Municipality with the assumption that the population of the city could reach about 500,000 inhabitants in the year 2007 and that the anticipated increased population will consume much of the suitable land in the outskirts or peripheries to the west as well as to the east of Asmara.





**Figure 3.6:** Master Plan of Asmara by Architect Vittorio Cafiero, Scale 1: 5000 (1938)

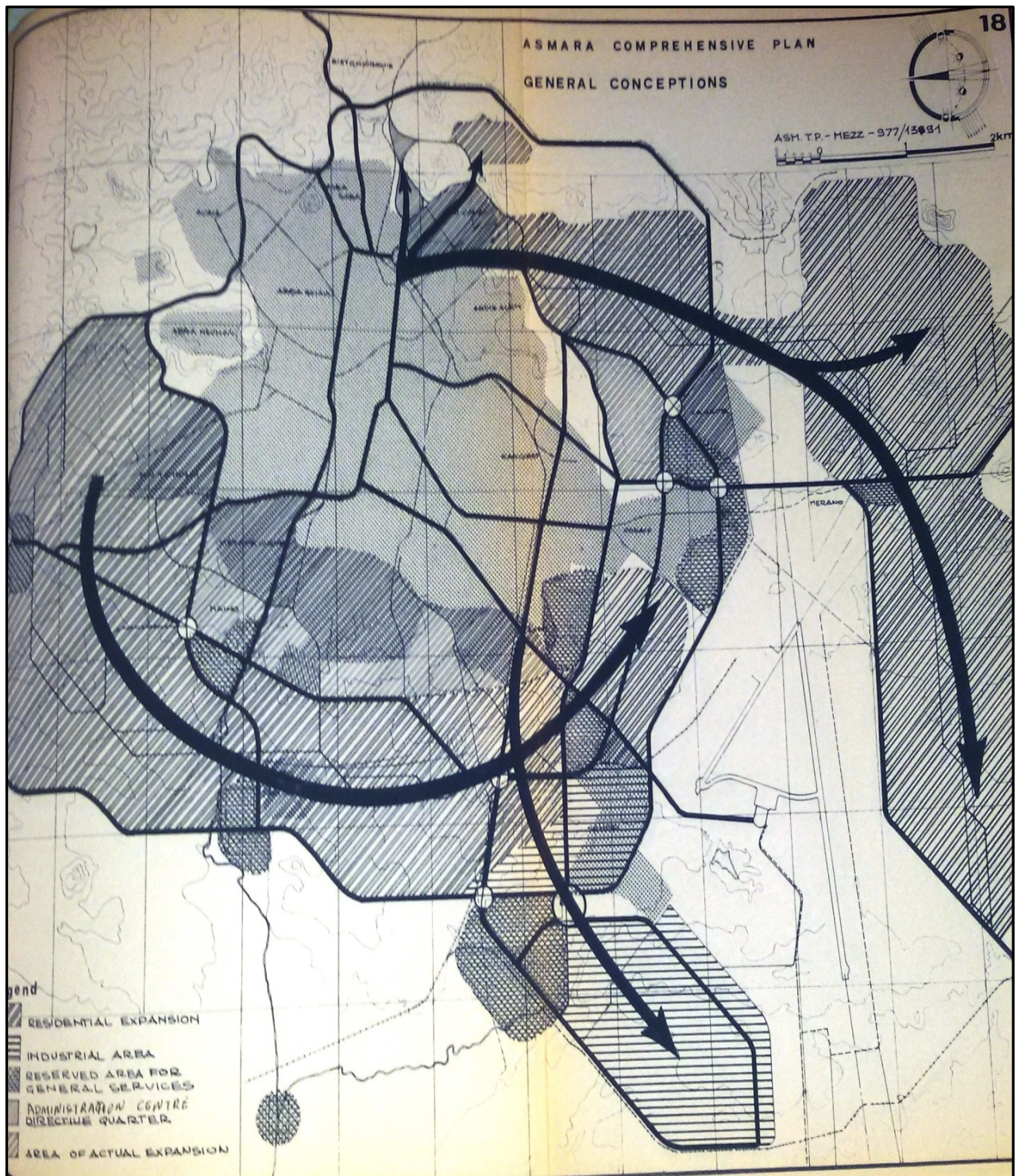
In fact, these two factors were the core ideas behind Mezzedimi's Master Plan preparation. And in the meantime, the planning concept was mainly to subdivide the various areas of Asmara into quarters with varying but adequate "density" (inhabitants/hectare), the preservation of areas for general services and amenities, the setting up of "particular" zones, such as industrial and governmental, the setting of accessible road network, the accommodation of future traffic circulation, the "balanced allocation" of essential social and cultural facilities, the layout of sewage, water supply and electricity systems, the earmarking of parks, reserved areas for future public and social facility uses, ecological green zones, etc. in the context of the projected population and the main direction of development expansion (growth poles).

The designation of "particular" quarters was made on the basis of the anticipated exigencies of urbanization. The allocation of industrial zone in the south western part of the city was made taking into account the flow of wind direction, the accessibility to an easy drainage system, and to the main traffic networks. Even though, there were some development activities that had been carried out according to the design of the Mezzedimi Master Plan, it was not fully realized due to the prevalence of the war situation.

The Strategic Urban Development Plan (SUDP) was prepared in 2004-2007 by an international French consulting team, that is, BCEOM-Group Huit. It envisages a less ambitious, more economical, and more sustainable compact type of development, based on the fact that cities historically tend to evolve in cycles of territorial expansion, alternating with cycles of consolidation and densification of the urban structure – when ultimate territorial gains are secured. As a result, the SUDP was developed for the Central and Municipal authorities as a guiding instrument to coordinate and manage spatial development in the Greater Asmara Area.




## Master Plan (1977)



**Figure 3.7:** Asmara Master Plan by Studio Mezzedimi (1977)





The State of Eritrea

Ministry of Public Works

Department of Urban Development

REGULATION ZONES MAP

A1 . City Center

A2 . Commercial District

A3 . Medeber

A4 . Residential-Administrative

B . Sub Centres: B1, B2, B3, B4

C1 . Planned low cost (popular)

C2 . Unplanned-Village

C2A . Unplanned-Urban

C3 . Residential (villa)

C4 . Tessa

C5 . Housing complex

E . Transport and Warehousing

F . Industry and industrial services

G . Agriculture and Related

H . Communal Infrastructure / R. Reserved

K1. Protected: Parks

K2. Protected: Forest proposed

K3. Protected: Existing Forest

Archaeological sites

Borehole and borehole protection zone

Limits of regulation

Main roads existing

Ring road to be completed

New roads

Upgrading

Asmara Infrastructure Development Study

Phase 1:  
Strategic Urban Development Plan  
for Greater Asmara

2005

Figure 3.8: SUDP prepared by MoPW Department of Urban Development (2006)

21

39



The SUDP proposes long term goals and suggests development principles to guide the urbanization of Asmara in the years to come with the assumption that Asmara will remain the largest capital city of Eritrea with over 800,000 inhabitants in 2025.

The main long term development goals of the plan are to: sustain Asmara's role of viable, vibrant largest capital city by upgrading the infrastructure as well as public and social facilities and making housing provision; develop the service capacity of the city by improving health and educational amenities; extend economic development to the national urban system by promoting industrial establishment in Asmara; support the city as cultural centre by respecting heritage values and promote cultural mass tourism. In addition to the proposed long term goals, the suggested development principles are to: ensure and sustain the cultural heritage values by conserving the symbolic built urban landscape and archaeological sites; provide the support structure for economic development by supporting peri-urban agriculture and agro-industry development; ensure social equity by improving affordable housing, infrastructure and amenities in the existing disadvantaged areas.

It also proposes sub-sector land use strategies to ensure equitable, sustainable and accessible land allocation for housing, infrastructure as well as public and social facilities within the city and around the peripheral areas of the city for the coming 20 years. It identifies priority actions for projects in various sub-sectors by establishing zoning categories and applying the urban planning regulation. It equally implements the metropolitan (GAA) land administration which associates communities with Zobas and ministries, reserving essential areas for future development and start designing for the priority of localized Development Plan (LDP).

### **3.2.1. Urban Planning Directives**

During Cavagnari's planning period (1913-1916), the planning principles that were adopted and the planning directives that were issued in the Master Plan of Asmara were more descriptive rather than prescriptive. They reflected the real urban growth of the city and tended to synergize with practical dynamism at work in the local economies, rather than impose theoretical criteria.

Until the mid of 1938, the development tendency of Asmara were oriented to follow the principal planning directives that is stated under the urban planning regulations whereas the development of urban peripheries were planned taking the main radial arterial roads into consideration.

### **3.2.2. Urban Planning Regulations**

All the Master Plans that had been prepared in Eritrea until the 1920s were in fact drawn up directly by the Italian Authorities working on the spot at the sites, without any need for reference or approval back to Rome. However, from the 1930s onwards nothing at all including town planning and architectural construction policies could be done by the local colonial government without the consent and approval of the central government in Rome.

At the initial phase, to control and regulate the expansion of the city the government's technical body, the Public Works Department took the initiative in drawing the plan aiming at developing the city concentrically around the original nucleus by maintaining the road network system of the main radial arteries, that is the road towards Massawa to the east, the road towards Decemhare to the south-east and the road towards Keren to the north-west. The ultimate intent was to respect Asmara's cityscape and its spatial configuration by taking elevation of terrains into consideration. The general urban layout had focused mainly on the various zones of Asmara for which they were designated to a specific land use provision in the following manner:

- Railway zone for industrial construction and housing for “nationals”
- The zone which is north to the Caravanserai for industrial development
- North-west zone for intensive and detached civilian housing
- Western zone along Maryam Gmbi Street to be occupied by civilian housing
- South-western zone (Godaif) along the road to Decemhare for low-cost public housing as well as industrial building
- Southern zone (Gegeret) for small scale housing blocks and detached housing
- South-east zone (Gheza Banda residential quarter) for detached houses with the features of garden city.
- The zone which is north of Asmara towards the lake of Acria for the development of the native quarter.

### **3.2.3. Building Regulations**

The building regulations which are in force in Asmara until now were prepared in 1938. The regulatory document which is more than 77 years old has been updated taking into account the changes in technology, building practices and rapid urbanization. The Central Region Administration has tried to address the above stated issues and accordingly prepared a new

building regulation in 2003 to serve as an interim building regulation until a better version is prepared.

The interim building regulation of 2003 includes a set of minimum provisions with regard to safety of buildings *vis.* public health, fire protection and structural stability. Its prime objective is to promote public safety through the application of appropriate building standards. It is based on referring various documents of national and international Building Code.

In 2005, an Outline Urban Planning Regulation (OUPR) was developed to control land use allocation and to conserve buildings which have heritage significance. It is the principal tool for implementing and monitoring the application of the SUDP for the Greater Asmara Area (GAA) over a 20 year planning horizon (2005-2025). As an implementation and monitoring tool the OUPR will operate by controlling land use allocations and conserving buildings which have heritage significance in the Greater Asmara Area. In accordance to the above stated purpose, the Greater Asmara Area is subdivided into zones with different land use requirements and with different building regulations. One of these zones which is categorized under Zone A is the Historical Perimeter of Asmara. This perimeter comprises the historic centre of Asmara including various public as well as privately owned buildings that have greater heritage significance and it is subdivided into different subzones as follows:

- Sub-Zone A1: City-centre
- Sub-Zone A2: Commercial district
- Sub-Zone A3: Artizan district (Medeber)
- Sub-Zone A4: Residential-Administrative

Throughout Asmara, especially but not exclusively in the historic perimeter, there are individual buildings which require additional conservation measures to be taken. These buildings are listed in the “Protected Building List”, which is included in appendix 4 of the Outline Urban Planning Regulation (OUPR). The buildings in the “Protected Building List” are grouped according to the following categories of protection measures:

- a) Historical buildings: *1<sup>st</sup> category, Complete Preservation*; without changes in the aspect and/or structural and functional role of internal and/or external elements.
- b) Historical buildings: *2<sup>nd</sup> category, Partial Preservation*; the preservation of important internal elements and of all external elements.

- c) Historical buildings: 3<sup>rd</sup> category, *Selected Preservation*; of the important elements of internal and external architectural design.
- d) Other buildings: designated as having ambient value.

As a result of the above category classification, buildings that need protection measures have been identified and grouped under three preservation categories: namely, Complete, Partial and Selected. The criteria for the classification of the buildings included their age, architectural merit, and historical significance. Thus, the Asmara Heritage Project is now preparing to develop a Conservation Master Plan as well as Planning Norms and Guidelines to address a better Conservation practices.

### **3.2.5. Urban Development Administrative Context**

Urban development activities in the Administrative context during the successive colonial Administration periods can be outline and described in a series of sequences from 1889 – 1991.

#### ***3.2.5.1. Italian Colonial Period (1889-1941)***

The initial urban development activity was marked during the Italian Colonial Period from 1889-1941 and it was during 1935-1941 in particular, that the urban development of the city had reached its highest stage of development due to the direct injection and inflow of capital investment from the colonial Administration. At this stage, the city had attained the highest level of infrastructure service provisions, the introduction of municipal services, the establishment of new buildings, the construction of worship places and the delivery of health care system as well as educational institutions.

#### ***3.2.5.2. British Administration Period (1941-1952)***

During the above sated period of time, urban development activities had almost came to a halt due to the complete prohibition of investment on capital works as well as of the policy “making colonies or territories self-sufficient” by the British administration. These two policy issues were the driving force that had led to the overall stagnation of urban development activities in the city.

#### ***3.2.5.3. Federation and Annexation Period (1952-1974)***

During this period, the Municipality of Asmara was actively engaged in urban development activities particularly in the improvement of urban infrastructure that is the enlargement of

roads and the dressing with bitumen as well as the illumination of streets with public lights, the construction of pavements and sewerage lines, the covering of Mai Bela stream, the development of new settlement quarters and the modification of Abbashawl, the expansion of Hazhaz and Mai Temenai neighborhoods. Other additional major significant works that had been carried out by the Municipality comprise: the construction of the Municipality building, Mai Serwa and Mai Nefhi dams, the Asmara Football stadium, the construction of apartment buildings, and the preparation of a new Master Plan in (1973) by studio Mezzedimi.

#### ***3.2.5.4. Ethiopian Military Government Period (1974-1991)***

When the Ethiopian Military Government came to power the first steps that he had taken was the nationalization of Urban as well as Rural lands and the confiscation of privately owned rental housing properties. As a result, urban development activities in the city came to a standstill thus leading to the deterioration of existing stock of buildings as well as infrastructure services due to neglect and lack of proper maintenance activities.

#### ***3.2.5.5. Post Liberation Period (1991- )***

After the Independence of Eritrea, there was an encouragement on investment on the construction industry to revitalize the reconstruction programme of the country in general and in the city of Asmara in particular. But the buildings that were built were not constructed in harmony with built urban landscape of the city and instead some of the buildings overwhelmed the surrounding areas and had despoiled the visual integrity of the surrounding built environment and deranged the sky line of the city.

To preserve the visual integrity of the built urban landscape, the Municipality of Asmara took the initiative to impose a moratorium in 2001 on new constructions within the historic perimeter of the city until adequate building conservation measure are in place to protect the visual integrity of the city. The moratorium is still in force, ensuring that Asmara's historic urban landscape should not be undermined through inappropriate development activities.

#### **3.2.6. Heritage Conservation Related Measures**

After independence in May 1991, the investment sector was encouraged and new buildings were constructed throughout the country. The Technical Department of Asmara Municipality granted permits to construct high-rise buildings in the city Centre. During this period, some isolated high rise buildings were constructed such as the Nakfa House that stands like an

impregnable fortification blocking Sematat Avenue and overwhelming one of Asmara's iconic architecture, FIAT Tagliero, which is built in the form of an aeroplane without any support to the wings; as well as other buildings that spoil the skyline of Asmara e.g. the Blue, Red Sea Corporation, New Insurance, Raza buildings.

As a result, this gradual but pernicious onslaught on Asmara's architecture had to be challenged. And there was growing awareness, especially at the highest leadership level, of the need for taking appropriate measures to address the challenge. Thus, it was early in 1995, that the future of Asmara's architecture began to be discussed openly and earnestly.

#### **3.2.6.1. Asmara Urban Forums**

The first Urban Forum was jointly organized by the Eritrean Environmental Agency (EEA) and the Municipality of Asmara. Simultaneously, a photographic exhibition of significant Architecture was held in the Casa degli Italiani. At that Forum the idea of a historic perimeter was first raised and discussed. At this time, the disharmony in architectural styles in Asmara's landscape had been well recognized. But as yet no clear strategy had emerged as to how this was to be addressed.

Later, the second Urban Forum was conducted in 1996, and it was fully organized by the Municipality of Asmara to address the issue of the historic perimeter in greater detail. It was during this time that the context within which a historic perimeter could be a useful planning tool to protect and conserve the built environment that was extensively examined.

And it was during this time that a lively public debate on Asmara's Architecture had emerged. The English newspaper, "Eritrean Profile" carried out a number of articles and letters extolling the special character of Asmara and calling on public officials to redouble their effort in preserving the unique style of the city. The Liceo G. Marconi, the Italian School of Asmara, published a book with the title, "Asmara Style". Mike Street's series of articles in the Eritrea Profile further galvanized public opinion. The term "ART DECO" became part of the vocabulary of every one commenting on Asmara's Architecture.

The President of the State of Eritrea, H.E Isaias Afewerki, who participated actively in the Second Forum, gave the process and had added measures of authority and legitimacy. He suggested that *"Architects and Engineers play a most decisive role in determining the shape and form of future development. He further suggested that without a clear understanding of Asmara's unique style, Architects might do more harm than good"*.

As a result, to readdress the wrong tendency, new buildings and projects which have potential negative impact on the skyline of the historic perimeter has been canceled from being constructed inside the historic perimeter. The need for more prudence and in depth studies was stressed especially with regard to further constructions (especially tall buildings) with potential negative effect on Asmara's architectural heritage.

This is because the new buildings and proposed projects were incompatible with the city's physical character and scale, and threatened its urban fabric, its historic setting and its skyline. A discussion ensued, as to how to protect the architectural heritage. The debate also gave rise to a new awareness among professionals, decision-makers and the general public that the historic buildings and the urban environment were under threat and in need of protection. As a result, the government took the initiative by establishing the Cultural Assets Rehabilitation Project (CARP). In addition, the Central Region Administration (Municipality of Asmara) imposed a moratorium regarding new construction in the historic perimeter until appropriate conservation guidelines are put in place. Still this moratorium is not lifted.

#### **3.2.6.2. *Cultural Assets Rehabilitation Project (CARP)***

In 2000, Cultural Assets Rehabilitation Project (CARP) came into being with the purpose of preserving the built heritage environment. This new initiative of the Government and people of Eritrea aimed at preserving the cultural heritage was an affirmation of the nation's distinctive spiritual, material, intellectual and emotional features. The project had developed four components to implement the cultural sector which include i) Site planning, conservation and museum development, ii) built heritage conservation, iii) living culture and iv) documentation and information management. With regard to Asmara built heritage, the following studies and steps were undertaken through this project:

- Planning Initiatives for the Historic Perimeter of Asmara.
- Boundary demarcation of the historic perimeter.
- Establishment of committee between CARP and the Department of Infrastructure Services (DIS) of the Municipality of Asmara to guide development in the historic perimeter.
- Publication of books such as *Asmara - 'Africa's Secret Modernist City*, *Asmara: A Guide to the Built Environment and a tourist map*.
- Local and international public awareness drive regarding Asmara's architectural heritage.



- Document preparation with regard to the historic perimeter of Asmara and its modernist architecture for the tentative listing with UNESCO.

### ***3.2.6.3. Asmara Infrastructure Development Project***

In 2004-2007, Asmara Infrastructure Development Study was launched with the purpose of providing the local authorities with an instrument for achieving the desired balanced spatial planning for the Greater Asmara Area and its environs in the next 20 years.

Asmara is today a city of some 420,000 inhabitants in the city proper. Around 30,000 are living in the immediate vicinity of the city, in the areas comprising thirteen satellite villages. The latter together with the rapidly expanding new housing, industrial and commercial developments at the urban periphery constitute the “Greater Asmara Area”. Within this territory, the study is motivated by the need to control and coordinate the present continuing, rapid and unplanned extension of the city into its adjacent territory, while providing the social and economic basic needs of the whole of the population especially, access to infrastructure and amenities. Thus, there is a pressing need to insure a “balanced” and “integrated” development between Asmara proper, its satellite villages, and the new peripheral developments in the Greater Asmara Area. This will be achieved by considering development that is based on an economical, flexible, and phased program and the objectives of SUDP are summarized as follows:

- Prepare a complete assessment of the present urban context, covering all sectors of activity having an impact on the future development of Greater Asmara Area (GAA).
- Define the future expansion trend of the GAA, at 20 years horizon.
- Define strategies for controlling the spontaneous and haphazard expansion of the city in the surrounding areas.
- Define new city centers, industrial, commercial, administrative areas and identify areas suitable for the construction of dwelling units.
- Recommend ways to rehabilitate and upgrade existing infrastructure facilities and extend services to the un-serviced areas as well as new development areas.
- Identify ways of extending the existing infrastructure services with new facilities provided for new development sites.
- Define strategies for preserving the historic character of the city.

- Identify and formulate ‘priority projects’ to be developed in the short-term, but in consistency with both the current development and the long-term strategy.
- Keeping in mind the limited resources of the country, to prepare “low cost” projects in line with the needs and economic potential of the country.
- Seek for close participation and support of various authorities involved in the development of the GAA, but also the involvement of local communities.

#### **3.2.6.4. *National Heritage Program (NHP)***

In 2009- 2011, a National Heritage Program (NHP) was launched by the Government of State of Eritrea (GSE) and the European Union in Eritrea by providing a €5M grant to establish the project. The program aims at supporting and safeguarding some of Asmara’s built heritage, and to set up the basis for sustaining long-term rehabilitation process. Through the provision of appropriate technical assistance and grants, the program proposes to fully rehabilitate heritage buildings and public spaces and thereby contribute to the improvement of managerial, administrative, heritage conservation practices and through the program to strengthen the capacity of the Department of Infrastructure (DOI) as well as the Municipality of Asmara. As a result through this program, complete documents have been prepared by A.R.S Progetti S.P.A international consultant for the rehabilitation/restoration of Cinema Capitol and Mieda Eritrea (the central market). Although the buildings are not yet restored, but the design of public spaces for rehabilitation program has been completed and on job training with regard to various skills had been carried out including an archival management skill.

#### **3.2.6.5. *Asmara Heritage Project (AHP)***

The Asmara Heritage Project (AHP) is organized on the basis and experiences of the above indicated series of initiatives as well as several lessons drawn from knowledgeable individuals and organizations.

AHP was established in March 2014, and it is responsible for studying the urban and architectural heritage assets of Asmara through inter alia, carrying out research, collecting data, making surveys, communicating with State Parties and International Organizations such as UNESCO as well as potential donors and other stakeholders. The AHP’s organizational structure is designed to accomplish three primary objectives that is, to prepare:

- Nomination Dossier for UNESCO World Heritage Listing (WHL).
- Integrated Management Plan (IMP).

- Conservation Master Plan.

The preparation of the: Nomination Dossier and associated studies (including an *Integrated Management Plan, Conservation Master Plan; Planning Norms and Technical Regulations; Disaster Risk Management Framework; Infrastructure and Public Space Study; Report of Historic Buildings and Open Spaces; Drafting Cultural and Natural Heritage Proclamation; and Socio-Economic Study* began in 2014 with the aim of establishing the institutional framework and capacity to safeguard and manage the unique heritage site of Asmara in perpetuity.

AHP has a Steering Committee to oversee the governance of the AHP. Moreover, the Committee is supervising the AHP's performance and progress, evaluate the various studies, and lastly to ensure that all the activities are carried out in accordance with the project's objectives. Its specific responsibilities include providing strategic guidance and policy decisions; integrating and harmonizing national policies; liaising with UNESCO and attending necessary conventions; and reviewing various research and technical reports.

## 4. DESCRIPTION OF THE SITE

### 4.1. Location

The site is located within the capital city of Eritrea-Asmara in CRA on the central plateau at the edge of the eastern escarpment of the Eritrean highlands. A landform which descends rapidly from 2300 m to the port city of Massawa in the Red Sea coast, in which Asmara is, situated only about 104km from Massawa. It is located at the geographic coordinates of Latitude 15° 20' 12" North and Longitude 38° 56' 47" East at an altitude between 2290m and 2450m above sea level (Figure 4.1).

Asmara's geographical location was a determining factor to the way in which it encountered modernity and the manner in which it was subsequently developed. Its local salubrious climate had ensured a pleasant living condition and its natural topographic formation had shaped the present physical urban form (urban layout and architecture). Hereunder, is the description of the approach to delimitation and the methodology for the boundary delimitation of the site and illustrated in the subsequent paragraphs.

### 4.2. Asmara's Historic Perimeters: Delimitation Approach

In recent decades, a wider and more complex notion of 'heritage' in urban context has emerged that goes well beyond the notion of 'monument' or 'masterpiece' to include the historic city in its entirety, particularly those parts of the urban fabric that have retained a certain 'integrity' in the way they encapsulate peculiar societal values through time.

As a result, any delimitation approach should be based on a clear identification of the heritage values to be preserved. In the case of a historic city however, it should address all the elements of 'urban heritage' that find the expression in the urban morphology and spatial organization of the historic urban fabric not only the monuments or the prominent buildings, but also the street patterns and the open areas that give form to the public space, the different forms and types of residential buildings, commercial establishments, religious institutions, recreational facilities and industrial premises, as well as all of the various artifacts that can be defined as tangible 'urban cultural heritage'.

Consequently, the delimitation of the proposed World Heritage Site of Asmara is the first step towards the establishment of an appropriate and effective setting of protection measures and conducting rehabilitation programmes and creating conditions for the effective

implementation of urban conservation and rehabilitation programme. The following issues are therefore critically considered during the identification of boundary delimitation.

- The delimitation of the proposed World Heritage is to be consistent with the statement of OUVs and taking into consideration the Historic Urban Landscape (HUL) recommendation proposed by UNESCO (2011).
- The proposed historic perimeter must encompass the urban areas that the Urban Conservation and Rehabilitation programme would be applied to protect, preserve and valorise the Outstanding Universal Values of the historic urban fabric and its buildings whilst improving the liveability and promoting the socio-economic conditions of the city.
- Different levels of protection and/or possibilities of transformation will be provided depending on the level of category classification of the built urban fabric and which needs to be assessed through appropriate tools and at different scales of intervention.

The delimitation approach are therefore not intended to ‘frozen’ Asmara in its present state, but rather to create the conditions through which the city can develop and thrive while retaining and enhancing its heritage values through the implementation of appropriate interventions, norms and guidelines based on the accurate identification and evaluation of all the components of the historic urban landscape (HUL).<sup>1</sup>

#### **4.3. Delimitation Methodology**

The criteria for the boundary delimitation of the nominated property have been consistent with the criteria for its inscription and the Statement of Outstanding Universal Values. Besides, the following issues are the basis for the boundary delineation in addition to the various stages of physical development expressed in the urban morphology. It includes:

- Main characteristics of the nominated property and its landscape
- Subsequent stages of urban development activities
- Identification of “unique” buildings and urban “nodes”
- Persistency of street patterns

<sup>1</sup> The Historic Urban Landscape (HUL) is an urban area understood as being the result of historic layering of cultural and natural values and attributes, extending beyond the notion of ‘historic center’ or ‘urban ensemble’ to include broader urban context and its geographic setting (UNESCO Recommendation, 2011). This introduces a notion of ‘conservation’ that is not limited to physical ‘restoration’ but also concerns the management of the urban transformations so as to preserve and ensure the vitality of heritage values.

- Continuity of functional role and cultural significance
- Conservation approach with different degrees of protection

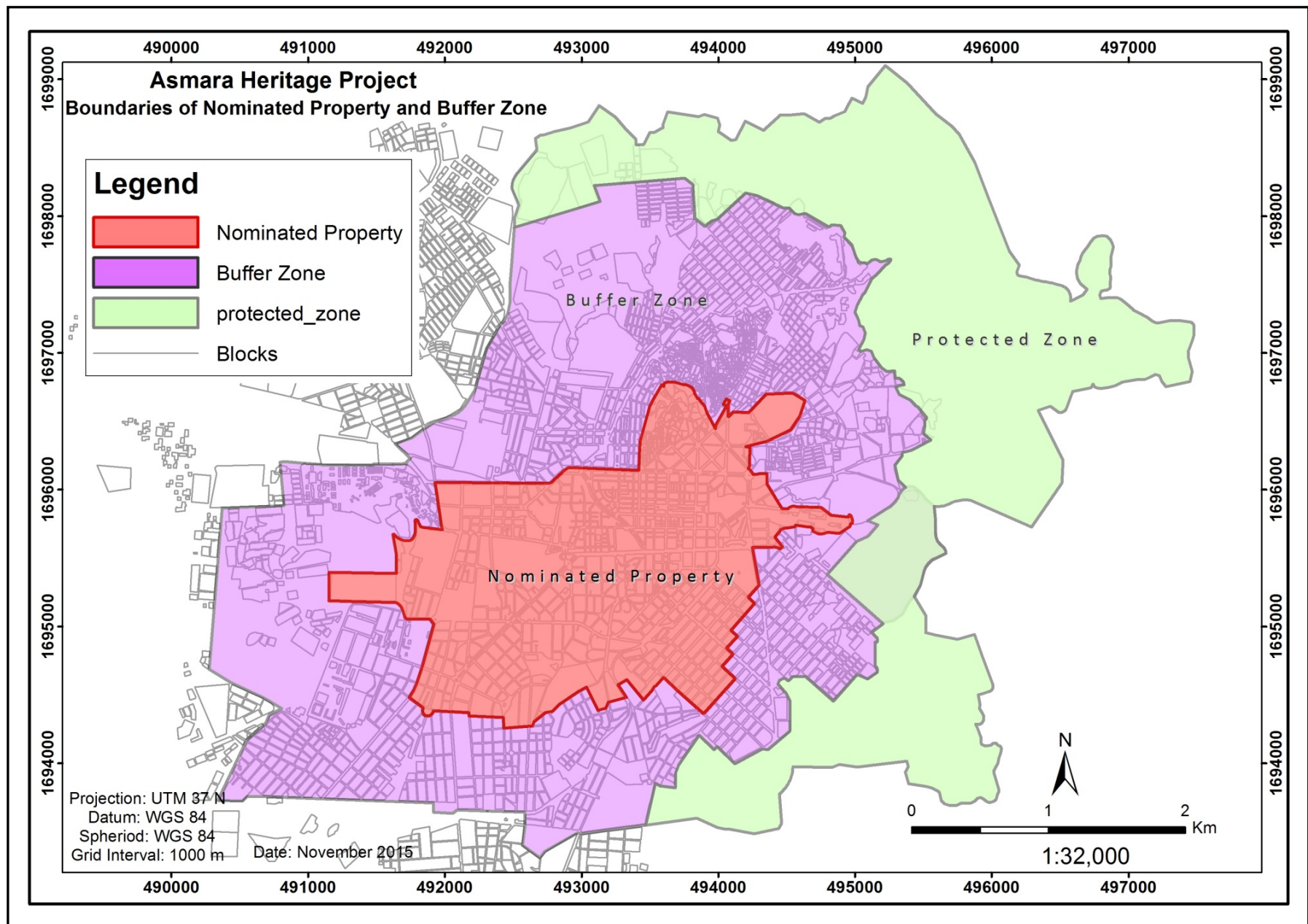
Based on the above stated issues as well as the analysis of urban morphology, the boundary of the nominated property was defined with different degree of protection measures in buffer and protected zones. The identification of the nominated property is not merely based on Architectural aesthetic criteria but also with accurate analysis of its urban evolution (urban tissues and structures) to put in evidence the parts and the components that had persisted through the times, particularly during the past five decades. Moreover, it had also been based on a solid archival documentation, i.e. the historic cartography and iconography which had taken several issues in to consideration.

#### **4.4. Delimitation of Boundaries**

Three distinct urban boundary limits had been identified and designated taking the physical and spatial configuration (Architectural buildings, urban design and urban layout), cultural and historical heritage values and natural environment into account namely the nominated property which is the core area, the buffer zone which encircles the core area by a certain radius as well as the protected zone which surrounds the buffer zone to the north as well as to the east direction (Figure 4.1).

##### **4.4.1. Core Area**

The international movement in both architecture and urban planning developed rapidly in the early twentieth century and corresponds with Asmara development as ‘Africa’s Modernist City’. Consequently, it is important to refer to the city as a product of a modern planning process throughout the first half of the twentieth century, from the first master plan by Odoardo Cavagnari in 1913 to the competition-winning 1938 plan by Vittorio Cafiero, combined with a variety of architectural styles, specifically Rationalist, from the mid of the 1930s.



**Figure 4.1:** Location and geographic coordinates of the site

Asmara's first 'historic perimeter' was initially defined by the Cultural Assets Rehabilitation Project (CARP), based mainly on architectural merits. But later, Asmara Heritage project (AHP) has revised the boundary extents of the delineated 'historic perimeter' to a boundary that could more accurately reflect the combination of an urban planning process that developed through time and modern architectural features. The Core Area<sup>2</sup> comprises Asmara's 'historic' urban centre developed during the years of Italian occupation (1889-1941).

The boundary limit of the core area to the north, it extends up to Afabet road and it encompasses the area of Abbashawl, to the east, it includes the Railway Station and to the northeast Saint Mary Cemetery. To the south, it encompasses Denden Camp and it embraces San Francesco Church as well as Santa Anna Secondary School. To the south east, it includes the neighborhood of Gheza Banda and to the west it incorporates Orrota Hospital as well as the Italian Cemetery. The total coverage area of the nominated property is 481ha (Figure 4.1).

Within the nominated property, there is a high demand of residential housing construction, commercial building as well as public and social facility establishments. However, to satisfy the increasing population with the above stated needs, Asmara's historic urban landscape which has cultural and historical heritage significance should not be compromised.

As far as the vacant and brown field areas (non-functional garages, abandoned warehouses, military barracks etc.) within the nominated property are concerned, they should not be left over under-utilized in order to retain the historic urban landscape in its original form and characters. Instead, they should have to be developed taking into account the scale, proportion, symmetry and harmony of the surrounding built urban configuration. For the above mentioned areas, the Managing Authority which is responsible for the protection and preservation of the cultural and historical heritage assets within the nominated property should make a thorough assessment and study in collaboration and consultation with the concerned Departments and Authorities at National as well as International level in making decision for the respective functional and land use allocation.

The nominated property is subject to integrated conservation strategies with respect to the norms and regulations of the Conservation Master Plan. Buildings that do not correspond to these norms, e.g. in terms of volume, height, or land use, may be subject to modifications.

<sup>2</sup> A core area is a nominated property which includes within its borders all the attributes which render it to be recognized as being of Outstanding Universal Value and that meets the conditions of integrity as well as authenticity for inscription on the World Heritage List (UNESCO).



#### **4.4.2. Buffer Zone**

The Buffer Zone<sup>3</sup> surrounds the nominated property and follows various physical and natural features. The boundary of the Buffer Zone incorporates Hazhaz and Mihram-Chira neighbourhoods to the north to the east; it incorporates the Asmara-Massawa Road and includes the Asmara Bus Company, Catholic Boarding School and Laghetto Night Club. To the south, it goes down up to Sawa Road and encompasses the Asmara Brewery Factory, extending to Ministry of Agriculture. To the west, it includes Denden Camp as well as the Forto Area and it extends up to the depot of scrub materials. The total area of the Buffer Zone is 1,203ha.

Construction and planning projects within the limits of buffer zone are generally not subject to any special approval procedures but they are subject to regulations indicated in the respective urban master plans and to the norms that comply with the volume and height of the core area. The one exception is that building and planning projects that may potentially trigger a negative influence on the nominated property due to their particular set up of building structures or urban plan dimensions, such projects must be reviewed on a case-by-case basis, and where relevant, will require special consent from the concerned Departments and Authorities with responsibility for the protection of World Heritage assets on a National and International level.

#### **4.4.3. Protected Zone**

The Protected Zone<sup>4</sup> is an area that is delineated and preserved from encroachment of various urban development activities from within the Buffer Zone as well as agricultural developments outside the Protected Zone. The flora, fauna, history and culture of the protected area, towering peaks, gorges,

<sup>3</sup> Paragraph 104 of the Operational Guidelines (2015) state that for the purposes of effective protection of the nominated property, a buffer zone is an area surrounding the nominated property which has complementary legal and/or customary restrictions placed on its use and development to give an added layer of protection to the property. This should include the immediate setting of the nominated property, important views and other areas or attributes that are functionally important as a support to the property and its protection. The area constituting the buffer zone should be determined in each case through appropriate mechanisms. Details on the size, characteristics and authorized uses of a buffer zone, as well as a map indicating the precise boundaries of the property and its buffer zone should be provided in the nomination. Today, the World Heritage Committee gives special attention to the proper management of the buffer zone and even broader surroundings of site, which is also reflected in the 2011 International Recommendation on Historic Urban Landscape.

<sup>4</sup> Regarding the boundaries of protected areas, the Operational Guidelines state: 'The delineation of boundaries is an essential requirement in the establishment of effective protection of nominated properties. Boundaries should be drawn to ensure the full expression of the Outstanding Universal Value and the integrity and/or authenticity of the property. For properties nominated under criteria (i) - (vi), boundaries should be drawn to include all those areas and attributes which are a direct tangible expression of the Outstanding Universal Value of the property, as well as those areas which in the light of future research possibilities offer potential to contribute to and enhance such understanding.'

gently rolling hills, spectacular cliffs, rocky stones, diverse of plant trees all combine to create distinctive characteristics and backdrop to the designated area. Furthermore, the number of important archaeological remains around the original village of Arbate-Asmera adds to the richness of the landscape.

The Protected Zone encircles the northern and eastern perimeters of the Buffer Zone. It is delineated to protect the 'green belt' of the escarpment edge which provides an important pleasant fresh air breeze as well as beauty to the cityscape.

The boundary limit of the Protected Zone to the north it reaches up to the mountain of Borborella and to the east it encircles the Eucalyptus Plantation and the Animal Zoo of Bet Ghiorghis as well as the National Martyrs' Park. The total coverage area of the protected zone is 767.5 ha.

#### **4.5. Asmara's Unique Urban Identity**

When the Italians built Asmara they had built it with style and elegance for which they are historically renowned. Inspired by the beautiful natural landscape as well as salubrious climate, and considering the necessity and vitality of urban infrastructure provision for the city, they had laid down a proper infrastructure network of water supply, drainage and sewerage as well as electricity and telephone lines. As a result, they created a dazzling modern city which is from an urban planning point of view properly planned, from an architectural perspective aesthetically and functionally well designed and from an engineering aspect structurally well built with great aesthetic appeal.

Moreover, Asmara was built with a mixed use planning concept of Residential, Commercial and Small scale industrial buildings together with a Detached and Semi – detached housing typology. In general, both the Mixed use planning as well as the housing typology had made the city to be livable with a lot of social interaction undergoing within it and the mixed use planning approach in particular, had enabled to accommodate Government Offices, Residential flats, Public and Social facilities, Administrative and Religious buildings, Marketplaces, Shops and Bars, Garages all together in a friendly blending manner.

In accordance with the above stated spatial configuration, it is inevitable for both the resident and visitor to get caught in its charm. Medium rise Mixed use buildings, Detached as well as Semidetached housing typology alternate with spacious Villas and Workshops to define Street patterns and Squares. Whereas, Offices, Cafes and Restaurants stand side by side in various locations with Residences, Worship places, Carpentry and Metal Workshops, Shoe Shops and

Bicycle repair Shops. Due to the above stated facts, the city is always active even during night times.

Above all, Asmara possesses the greatest concentration of about 4,000 buildings of the most advanced 1930's Architecture in the World. And it was the avant-garde city to introduce the mixed use urban planning concept to guide Urban Development Projects in early 1930s. The construction work of these buildings had been undertaken by taking into account the Spatial Configuration of sites as well as road layouts. However, in the following paragraphs we are going to see how some of the buildings had been adapted to specific sites and configured according to the road layout designs and in the meantime, we are going to unveil some of the hidden secrets behind the tangible and intangible heritage assets of this beautiful city-Asmara.

#### **4.5.1. Site Adaptation**

The Nominated property is bounded by fascinating urban designs and a linear urban development patterns allocating iconic architectural buildings in a strategic locations thus adapting to the natural spatial configuration of sites. In almost all the urban layout of the Nominated property, it can be said that the architectural buildings had been adapted to Spatial Configuration of sites. Hereunder, are some examples of Architectural buildings that have been adapted to the Spatial Configuration of the various sites and are outlined in Figures 4.5(a – d).



**Figure 4.5 a) Bar Zilli**



**Figure 4.5 b) Albergo Italia**



**Figure 4.5 c)** Ministry of Trade & Industry



**Figure 4.5 d)** Asmara University Training Center

Besides, to the above mentioned buildings there are also other buildings that had been built in accordance with the configuration of sites and to state some of them are Palazzo Mutton (located on Harnet Avenue, now pharmacy Dalul, in which the architectural design resembles a scaled-down version of the famous Novocomum apartments in Como that was built in 1927-1929 in Italy designed by Giuseppe Terragni, one of the founding members of Italy's Gruppo 7), former Ministry of Tourism office, Ministry of Health and an Apartment building with shop that is located at the junction of Afabet and Segeneity street. See Figures 4.5(e - h).



**Figure 4.5 e)** Dalul Pharmacy



**Figure 4.5 f)** Former Ministry of Tourism





**Figure 4.5 g) Ministry of Health**



**Figure 4.5 h) Shop and Apartment at Afabet and Segeneity Street**

Moreover, some of the Religious as well as the Administrative buildings such as the Catholic Cathedral and Grand Mosque with their elevated settings, the High Court and the City Hall with their substantial setback for greenery and parking lots had been allocated to adapt to the various sites within the prime areas in addition with the carefully disposed fine architectural set pieces in the surrounding areas. See Figures 4.5(i – l).



**Figure 4.5 i) The Cathedral**



**Figure 4.5 j) Grand Mosque**



**Figure 4.5 k) High Court**



**Figure 4.5 l) City Hall**

All of the above stated unique architectural buildings and their disposition to the specific site location are symbolic in their appearance and are represented as land marks. In the overall aspect, it can be concluded that without the introduction of planning principles and urban development guidelines, the strict application of building regulation, the careful land use allocation and implementation to their respective sites, the city would have never been appeared panoramically attractive and functionally dynamic.

#### **4.5.2. Road Configuration**

Within the site (CA) the allocation of architectural buildings and the emplacement of infrastructure services with respect to the setup of the road configuration are so peculiar and unique that it gives you an impression of the zeal, precision and dedication of the workmanship that had been involved. See Figure 4.5(aw)). In particular, the allocation of buildings with regard to the road network setting is of two fold. On the one hand, some of the architectural buildings are allocated respecting the curvilinear nature of the road layout in order to open up a wider open spectrum of the streetscape and on the other hand, the buildings are allocated facing perpendicular to the axis of roads in which the building is so symmetrically placed that the axis of the road divides the building into two parts. Hence, it provides a panoramic vista with an aesthetic appeal to a spectator to visualize and understand the setup of the building. Meanwhile, by passing several times along or in front of a building it invites you to read the detail composition of building elements and you will discover various hidden delights. Thus, it can be deduced that the built urban configuration of the city is full of details, of curves, and of changing lines.



**Figure 4.5:** Zeal and Dedication of Workmanship

Meanwhile, with respect to the road configuration, there are some peculiar architectural buildings that are configured and adapted in relation to the road layout design. The set up gives a magnificent outlook to the built urban environment and ensures a smooth vehicular circulation. These roads are configured in conformity with the topographic nature of the terrain and tend to have a continuous vehicular accessibility and they open up into a wider visible streetscape.

One of these buildings is the Apartment building that is located adjacent to the intersection of the two streets namely Denden as well as Maryam Gmbi Street with a floor plan in the shape of quarter of a circle with its three floors apartments, each with a balcony and access to the street.

The apartment building in architectural terms is well designed almost in a Rationalist style and is carefully configured with the road layout. Likewise, Palazzo Berti is an example of the Stripped-Classicism of the Novecento style which has shops and apartments and is placed at the road junction between the roads that goes to Bar Vitoria and to Campo Cintato and it stands elegantly with grace and style separating the above stated roads.



Following to the above stated buildings is Palazzo Bahobesci, that is located at the corner of road junction of Harnet Avenue as well as Fenkil Street and provides a smooth curvilinear vehicular accessibility and gives a unique glimpse to the surrounding built urban landscape with shops on the ground floor and apartments on the five floors above, and remains one of Asmara's largest residential blocks.

The next is the apartment building which is located at the junction of Selam and Akeleguzay Street, which provides vehicular mobility toward the grand mosque as well as to the market place. This shop and apartment building is a good example of Novecento Style with the most significant features of which include the brick balconies and columns of windows, and the rounded corner incorporating three round arches divided by simplified mullion. See Figures 4.5(m – p).



**Figure 4.5 m)** Building at Denden and Maryam  
Gmbi Street



**Figure 4.5 n)** Palazzo Berti



**Figure 4.5 o)** Palazzo Bahobesci



**Figure 4.5 p)** Building at Selam and Akeleguzay  
Street



Besides to the adaptation of buildings to the curvilinear nature of road layout settings, other buildings as well as dome structures had also been found allocated facing exactly to the axis of various roads. When viewed standing at the road axis, the building itself appears to be divided symmetrically into two.

One of the prominent example that could be stated is Teatro Asmara (Asmara Theatre) which was designed in 1919 and completed in 1920, probably the last work of Odoardo Cavagnari one of Asmara's foremost engineers and the chief of the Civil Works Office. Asmara Theatre which was situated alongside Harnet Avenue was also situated perpendicular to the axis of the road Segali and provides an excitement to the viewer who comes along this road. The building is perpendicularly placed to the axis of the road and the axis divides every element of the building that is the door, the window, the tip of the roof, even the suspended lamp and the gate of the building symmetrically into two.

The second example is San Francesco church which is a Romanesque style, had been started in 1938 and finalized in 1939. It is located at the junction of Atlanta, Mereb and 178 – 4 Street. The center of the church as well as the center of the monument of San Francesco is located facing directly to the axis of 178-4 road. When you come along the axis of this road, the monument of San Francesco stands directly in front of you as if it is going to embrace you.

The third example is Bank of Eritrea building which probably had been built during 1895 – 1905. The building was the earliest on Piazza Roma, and clearly reflects the Moorish styles that inspired the Italians after they arrived in Massawa. The building is one of Asmara's finest examples of neo-Gothic architecture, with the style as once being described influenced by Venetian Architecture. It is located alongside Nakfa Avenue and perpendicular to the axis of the Street (176 – 1). When you come along the street you start to visualize the detail composition of the building elements. And you realize that the axis of the road bisects the building symmetrically in to two parts.

Following are the two dome structures that are located at the extreme ends of the Grand Mosque and which are located at the axis of the two Ad Ebrhim roads that diverge from Nakfa Avenue and leads up towards the Grand Mosque to meet the two dome structures.

In 1943, Architect Giuseppe Arata was commissioned “under the request of the Muslim community of Asmara,” to incorporate the pedestrian walkways into the mosque by forming two dome structures that linked the former Largo Libya with the former Largo Campania, thereby increasing the capacity of the Grand Mosque. From Figure 4.5(t) it is clearly visible that during the

construction of the road, the axis of the road bisects the dome structure into two. (For the allocated buildings with respect to the road axis see Figures 4.5(q – t).



**Figure 4.5 q)** Teatro Asmara (Asmara Theatre)



**Figure 4.5 r)** San Francesco Church



**Figure 4.5 s)** Bank of Eritrea



**Figure 4.5 t)** Dome at the center of road axis

It can be concluded that the precise allocation of the various buildings in their respective sites, the adaptation of buildings to the curvilinear nature as well as to the axis of the road lay out setting was due to the careful coordination and follow-up among the various stakeholders that were involved in the construction work. Moreover, it was also because of the persuasion among the planners, architects and engineers in the workmanship as regard to the design of architectural building, the layout of the urban plan, the structural design of the building as well as to the setting up of infrastructure services.

On another aspect, pavements are also road features that complement to the configuration. The pavements had been refurbished and dressed with tiles to cover up the channelized infrastructure services which are laid down underneath and they are planted with palm as well as Ficus trees. The

aligned palm trees are found in grand boulevards such as Harnet and Hday avenues whereas, the Ficus trees aligned are placed in district as well as local streets of Denden, Ararib and Maryam Gmbi to mention only a few from the rest of the streets. (For the disposition and location of trees and poles on pavements see Figures 4.5(u – x).



**Figure 4.5 u)** Palm trees (Harnet Avenue)



**Figure 4.5 v)** Ficus trees (Denden Street)



**Figure 4.5 w)** Pavement with aligned trees  
Ararib Street



**Figure 4.5 x)** Pavement with aligned trees  
Maryam Gmbi Street

Besides to the aligned trees, there are alignments of infrastructure services such as electric and telephone poles as well as signs of traffic posts. In almost all of the streets and avenues in the nominated property, the trees are planted at a regular interval of 5 or multiple of 5 meters whereas; the electric poles are disposed at an interval of 30 meters apart. In the meantime, the trees as well as the poles are located at a distance of 50 centimeters from the edge of the curb stones. All of the above stated planning parameters had been implemented in accordance to the urban planning principles and guidelines.



### 4.5.3. The Human Scale Setting

As regard to the human scale setting, the two main avenues of the city Harnet and its continuation Sematat Avenue are embraced with buildings of low-rises (3-4 storeys) with *grand Italian Palazzos* of which many are dressed by marble and granite stones and are located along broad tile dressed pavements and gracefully aligned palm and Ficus trees. These buildings are equipped with Public and Private Service giving Offices but most of them are of mixed use type of Housing that is Apartments with Businesses such as in and outdoor Cafes, Bars as well as various types of Shops.

Besides, the two avenues are equipped with The Cathedral, City Hall, High Court, Ministry of Education, Asmara Theatre, Cinema Impero, Ministry of Trade and Industry and Cinema Roma. Those are some of the significant buildings that had maintained the city's urban visual integrity and are identified as land marks. Fortunately enough, the areas of these buildings are not occupied by skyscraper buildings of Commercial Banks, Law Firms and Insurance companies that derange the skyline as we find in most city centers of other countries. See Figure 4.5(ax).

While the areas behind these two avenues have similar layout and functions elsewhere further, are buildings of one or two storey beautiful residential villas having setbacks and with short wall fence and a metal grill on top. Many of the fences are covered with beautiful colors of flowering plants. In addition, there are Row Housing typology of one or two storey buildings of mixed use functions with no setbacks of Residential, Grocery, Butchery and other type of shops.



**Figure 4.5(ax):** The setting of Asmara in human scale

Therefore, Asmara is one of the rare capital cities which have an appropriate human scale settings that anyone would envy to live, walk along its broad tile dressed pavements with aligned trees and

ride bicycle along its streets. As one London based consultant of Urban Planning has said “Asmara is the lived – in city that provides the model for sustainable living in the 21<sup>st</sup> century”.

Finally, it can be concluded that the city of Asmara due to its outstanding urban planning settings coupled with the emplacement/disposition of buildings of various architectural styles adapting to specific sites in addition to the construction of housing typology which have similar building configuration in a perfect harmony to each other and the relationship of building with respect to the span of road settings what makes Asmara to be a unique open city of an absolute human scale that is much more reflected within the nominated property.

#### **4.5.4. The Natural and Intangible Heritage Aspect**

Some of the major or exceptional intangible heritage values of the nominated property include:

- a) The salubrious climatic condition that prevails in Asmara particularly during the months of November-February,
- b) The micro-climate that is generated by the shade of the trees during day times as well as by the shade of buildings due to their orientation towards the direction of sun rise during the various months of the year,
- c) The continuous flow or movement of people in the streets particularly during the evenings,
- d) The harmonious living condition that exists between the adherents of the different beliefs, and
- e) The cherished or nostalgic feelings or memories of its inhabitants with regard to its natural beauty, unique cultural features and colorful events.

In general Asmara has a salubrious climate that ensures a pleasant living environment with an off shore breeze from the Red Sea coast during the months of November-February.

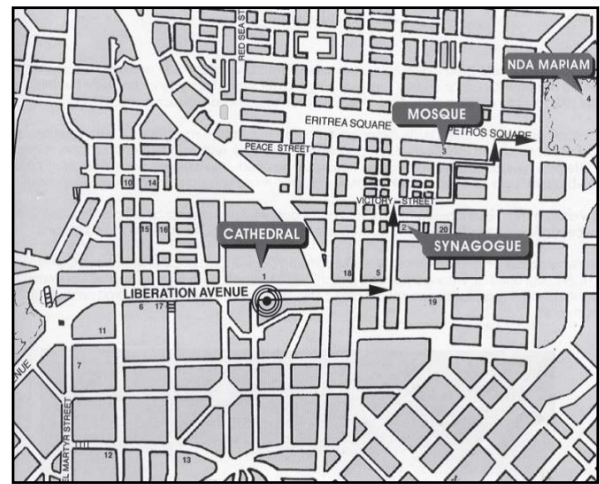
The buildings which are oriented towards the north direction are exposed to the prevailing winds that blow from north east to south west and often times are very cold. The pavements sometimes get wet in the morning during the months of September-February. The phenomenon switches during the months of March-August.

Sometimes, during these months the atmospheric vapor condenses in the plateaus of Eritrea in general and in the site in particular and forms mist which at times covers all the entire site and when one walks along the streets one can hardly see what is in front (Figure 4.11a). The phenomenon gives one pleasure because of the pleasant weather and at the same time provides one with a healthy breath.

Pavements are spaces and corridors for the continuous movement of inhabitants as well as visitors of all ages from one place to another in a comfortable manner. In addition to the shadow that is created by the trees planted at equidistant spots on the tile dressed pavements, the general built urban landscape which is set up according to the urban layout of the city is oriented to the direction of sun rise in a peculiar way. As a result, in most of the streets and grand avenues one side of the pavements gets shadow from the block of buildings (Figure 4.10) while the other side gets light; and thus one can have the choice to take a walk whichever side of the pavement one prefers or feels comfortable.



**Figure 4.11a:** Effect of mist



**Figure 4.11b:** Disposition of worship facilities

As regards to the movement of people in the streets, each evening the inhabitants of the city are used to go out to the streets to enjoy the tradition of *Passeggiata* (promenade). Besides, in some pavement corridors within the nominated property of the city there are flowering plants called “Queen of the night” that are planted along the fences of some buildings which emit a pleasant scent that entices one to walk along the same street repeatedly.

Families and friends gather in cafés to enjoy Cappuccino and Macchiato. Shops and bars stay open to deliver service late in the evening. Women walk alone on the streets un-harassed at night. One can hardly see violence and crime on the streets. In fact, the streets are places or spaces of walking, chatting etc. The grand avenues, Harnet and Sematat often are avenues where festivities, parades, commemorations and celebrations are conducted.

One will never be tired watching events while walking. It is simply enough that one knows how to look around and how to explore.

The streets are cleaned early morning from 6:00 - 8:00 am by janitors to keep Asmara beautiful and clean. During day times the pleasant micro-climate that is generated under the shade of trees along the streets gives comfort and pleasure to walk on pavements. One can walk from one end of a block to the other along the pavements and enjoy a vista of graceful streets with aligned trees at regular intervals (Figure 4.10a). The city goes to rest for about one hour from 1:00 - 2:00 pm and during this time interval all activities on the streets stop to a standstill.



**Figure 4.10a:** Micro-climate shade of trees



**Figure 4.10b:** Shadow of buildings

Asmara hosts a diversity of religious beliefs including Orthodox, Muslim, Catholic as well as Protestant. The adherents of the different beliefs live side by side in a civilized and respectful manner. The prominent places of worship are situated in areas with a catchment radius from one worship facility to the other of not more than 500 meters (Figure 4.11b).

One can vividly see standing on an elevated spot the skyline of the city dominated by the bell tower of the Catholic Cathedral, the fluted minaret of the Grand Mosque, the pyramid-topped tower of the Protestant Church and the Agdo-style roofs on the two towers of St. Mary Orthodox Cathedral.

With regard to religious acoustics, the city experiences the daily sound of Muslim prayers from Mosques at dawn and during the evenings, the sound of bells of the Catholic Church signaling noon time as well as the beautifully synchronized sound of bells during Christmas days and the occasional sounds of prayer during the various Saint's days of the Orthodox Churches.

The cherished or nostalgic feelings or memories of its inhabitants with regard to its natural beauty, unique cultural features and colorful and indelible events have been and are still being vividly reflected or expressed through amorous and patriotic songs, dramas, historical narrations about its unique physical characteristics, living and commercial quarters, strategic role in the socio-political developments of Eritrea as a whole.

It can be thus concluded that it is essential to preserve the cultural spirit of Asmara - for the benefit of the city's inhabitants, for the country as a whole and for the world at large.

#### **4.6. SWOT ANALYSIS**

The site is not a discrete isolated heritage site situated within a stable environment. It is a dynamic ensemble of built heritage assets as well as historic urban landscapes with rich heritage values.

The integrated and sustainable development of the site can be framed on the basis of an analysis of its relevant Strengths, Weaknesses, Opportunities and Threats (SWOT) for ensuring the sound formulation and efficient/effective implementation of the management plan. The SWOT analysis of the site which is presented hereunder has been carried out by taking into account the current management, planning, legal instrument, institutional capacity, and funding as well as natural environment. For the summary of the SWOT analysis carried out see Table 4.1.

##### **4.6.1. Strengths**

The major strengths of the site have been identified to be the following:

- The site being within the capital city has a strategic link with the rest of the country; and more in particular with the port and vacation resort city of Massawa on the Red Sea coast.
- It has a salubrious climate that ensures pleasant living condition.
- It is a dazzling modern city which is from an urban planning point of view well planned, from architectural perspective aesthetically and functionally well designed and from engineering aspects structurally well built with great aesthetic appeal.
- Both the mixed use planning as well as the detached and semi-detached housing typology has made the city to be livable with a lot of social interaction. .
- Asmara possesses the greatest concentration of above 4,000 buildings of the most advanced 1930's architecture in the world, executed by taking into account the spatial configuration of sites as well as the layout of roads.
- Its pavements are road features that complement its road configuration. They are dressed with tiles to cover the channelized infrastructure services that are laid down underneath and are planted with aligned palm as well as Ficus trees.
- In almost all of the streets and avenues, trees are planted at a regular interval of 5 or multiple of 5 meters and the electric poles at an interval of 30 meters. The trees as well as the poles are located at a distance of 50 centimeters from the edge of the curb stone.



- Each evening the inhabitants of the city are used to go out to the streets for the Passeggiata (promenade). Women walk alone on the streets unmolested at night. Passing several times along or in front of a building one will discover various hidden delights.
- The micro-climate that is generated under the shade of trees gives one comfort and pleasure to walk on pavements. Asmara is a city of details, curves, and changing lines. Above all, Asmara is a city of pleasure.
- Asmara is lucky to have the commitment of the city's administration to delimit its historic perimeter and thereby ensure the conservation of its above listed unique qualities.

#### **4.6.2. Weaknesses**

Some of the major weaknesses of the site have been identified to be as follows:

- Inadequate institutional capacity and facilities to cater for the preservation and restoration of the cultural heritage assets in order to ensure a sound socioeconomic development of the city.
- Lack of skilled manpower for the preservation, conservation and restoration of the heritage assets.
- Inadequate studies with regard to the utilization of various construction materials used as well as restoration methodologies that could be applied for the preservation, conservation and restoration of heritage assets.
- Lack of awareness for the preservation, conservation, restoration and management of heritage assets by the local community as well as stakeholders.
- Financial resource constraints for the preservation, conservation and restoration of the heritage assets.
- Lack of proper maintenance of iconic buildings as well as restoration of other historic buildings.
- Poor maintenance of roads, sewer and surface water drainage channels as well as pedestrian pavements. Lack of adequate hygienic facilities (public latrines, garbage collection facilities and service).
- Inadequate water supply system and poor distribution network to meet the demand of the city.
- Inadequate power supply system for residential, commercial and industrial consumption of the city.
- Lack of car pollution control.

#### 4.6.3. Opportunities

The site is endowed with various opportunities that would need to be efficiently and effectively exploited. They include:

- Cultural development opportunities in view of its location in an area where historic Architectural buildings have already been found as well as its proximate location to the neighboring countries for the promotion and development of diversified cultural practices.
- Tourism development opportunities due to its salubrious climate that ensures pleasant living condition, diversified cultural heritage resources, proximity to the Red Sea coast particularly to the port city of Massawa which enables one to enjoy two seasons within two hours.
- Economic development opportunities through sound rehabilitation program which promote the physical improvement of the inappropriate use of empty spaces or vacant areas as well as of the inappropriately utilized structures or brown field areas and thereby creating employment opportunities for the growing population.
- The commitment of the Government (particularly the DPWD) as well as the local community for the protection, conservation and restoration of heritage assets.
- The Natural and Cultural Heritage Proclamation (177/2015) has been enacted to protect the natural and cultural heritage of the nation (site).

#### 4.6.4. Threats

The site in general is not afflicted by natural disasters in the way that other cities are. However, it is not immune to the effects of a) mild flooding due to poor drainage system b) land use change and degradation, c) fire, d) inadequate maintenance, e) climate change, f) scarcity of water supply, g) groundwater level rise, and h) the urban development pressures that will exist within the built urban landscape.

- **Flooding:** Flooding poses a threat to limited parts inside the perimeter of the nominated property, particularly in the surrounding areas with poor drainage system and unpaved roads.
- **Land use Change and Degradation:** There are some pits excavated for quarry purpose in the eastern part of the nominated site which are drastically damaging its beautiful landscape.
- **Fire:** Fire poses a threat to any building inside the site. When it occurs, there is a significant risk to authentic fabric and valuables of the building.
- **Urban Development Pressures:** There is quite a substantial increase in population size in the city of Asmara in relation to other cities of the country and in the meantime there is a high demand for the construction all services.

- **Climate Change:** Climate change will affect the urban fabric by speeding up the fading and decay of building walls.
- **Inadequate Maintenance:** There is inadequate preservation, conservation and restoration of building which have heritage values in the nominated site. Similarly, there is no proper identification of appropriate material for restoration and maintenance methodologies. .
- **Scarcity of Water Supply:** Recurrent drought poses domestic water supply risk for the community of the city as well as to the natural environment.
- **Groundwater Level Rising:** Certain buildings and infrastructures of the nominated site are vulnerable to crack walls and floors, damp walls and bumping of roads due to groundwater level rising.

**Table 4.1:** SWOT Analysis Summary

Factors	Positive	Negative
<b>Internal</b>	<b>Strengths:</b> <ul style="list-style-type: none"> <li>▪ Strategic location</li> <li>▪ Salubrious Climate</li> <li>▪ Well planned, designed and built</li> <li>▪ Active during night times</li> <li>▪ Advanced 1930's Architecture</li> <li>▪ Pavements dressed with tiles and planted with aligned trees</li> <li>▪ Street promenade (<i>Passeggiata</i>)</li> <li>▪ Micro-climate generated under the shade of trees</li> <li>▪ Orientation of built urban landscape towards the sun rise direction</li> <li>▪ Accessibility</li> <li>▪ Services/accommodation</li> <li>▪ Communication</li> </ul>	<b>Weaknesses:</b> <ul style="list-style-type: none"> <li>▪ Inadequate institutional capacity</li> <li>▪ Lack of skilled manpower</li> <li>▪ Inadequate studies of construction materials</li> <li>▪ Lack of awareness</li> <li>▪ Constraints of financial resources</li> <li>▪ Lack of proper maintenance</li> <li>▪ Congested areas</li> <li>▪ Damaged infrastructure</li> </ul>

*SWOT Analysis Summary... Cont.*

<b>External</b>	<b>Opportunities:</b> <ul style="list-style-type: none"> <li>▪ Cultural development</li> <li>▪ Tourism development</li> <li>▪ Economic development</li> <li>▪ Commitment of Government</li> <li>▪ Existing institutional capacity</li> <li>▪ Local community commitment</li> <li>▪ Existing physical features</li> <li>▪ Natural and Cultural Heritage Proclamation (177/2015)</li> </ul>	<b>Threats:</b> <ul style="list-style-type: none"> <li>▪ Population influx</li> <li>▪ Natural environment: <ul style="list-style-type: none"> <li>✓ Fire</li> <li>✓ Flooding</li> <li>✓ Urban development</li> <li>✓ Climate change</li> <li>✓ Scarcity of water supply</li> <li>✓ Groundwater rising</li> <li>✓ Inadequate maintenance</li> <li>✓ Air quality</li> <li>✓ Earthquake</li> </ul> </li> </ul>
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## 5. VISION, OBJECTIVES, STRATEGIES AND ACTIONS

The vision, objectives, strategies and action plan with regard to the IMP of the site are based on the assessment of the present setting of the site and the various issues that would need to be taken into consideration for its proper conservation, protection, restoration and management.

For this purpose, various relevant documents have been reviewed. Similarly a series of discussions and consultations have also been held with several experts in the field and pertinent stakeholders/partners.

### 5.5. Vision

The vision of the IMP of the site is to ensure that its OUVs are conserved appropriately through an integrated approach and its role in national identity is boosted and transferred to future generations without compromising the important role which Asmara plays in the socio-economic development of Eritrea as a whole.

### 5.6. Overall Objective

The overall objective of IMP is to ensure that an appropriate management plan is formulated and duly implemented for the conservation, protection and restoration of the OUVs of the site and its buffer zones.

### 5.7. Overall Goal

The overall goal of IMP is to: a) Develop strategies and action plans to protect, conserve, restore and manage the nominated property's OUVs; and b) Create a mechanism whereby the nominated property will be able to contribute effectively to the enhancement of the socio-economic development of Eritrea in general and Asmara in particular.

### 5.8. Guiding Principles

The major guiding principles on which the IMP is based are the following:

- Defining, conserving and protecting the site's (i.e. Asmara's historic buildings and urban fabric) OUVs and their significance;
- Safeguarding and valorization of Asmara's built environment together with its open areas, which are well or widely recognized for their historical, architectural and environmental significance;
- Promoting as much as possible the continued use of the historic buildings according to their original purpose;

- Promoting sustainable development and integration of new buildings without compromising the OUVs of historic buildings;
- Developing and maintaining a high-quality public realm, that is, squares, open spaces, etc.
- Enhancing Asmara's distinctive cultural life and identity; and
- Promoting knowledge of the site's OUVs and their significance to local and global audience.

## 5.9. Strategies and Actions

The major strategies envisaged for the effective implementation of the IMP (or to protect, conserve, restore and manage the site's OUVs) have been grouped under the following themes:

- 1) Integrated Conservation Plan
- 2) Maintenance of Historic Buildings, Infrastructures and Services
- 3) Rehabilitation and Recovery
- 4) Mobility and Traffic
- 5) Socio-Economic Development Pressure
- 6) Tourism and Visitor Management
- 7) Protected Areas
- 8) Risk Preparedness and Disaster Mitigation
- 9) Institutional Capacity
- 10) Capacity Development (Human and Financial)

### 5.9.1. Integrated Conservation Plan

**Rationale:** So far there is no Integrated CMP for the nominated property as an integral part of a coherent policy of economic and social development. The establishment of an appropriate conservation plan which provides a framework for conserving the urban and architectural heritage in the different protection areas based on typology, architectural and spatial value, historic context, state of conservation and physical and functional characteristics is thus of paramount importance.

**Objective 1:** The objective of the conservation plan comprises the development and proper implementation of appropriate planning instruments for the management of the protected historic urban areas and the control of development and change within the designated site.

**Strategy 1.1 :** Study and develop further the Conservation Master Plan of Asmara which is under preparation to include, inter alia, appropriate strategies to guide conservation measures in the core and buffer zones effectively.



**Action 1.1.1:** Identify, study other countries experience in the field of conservation practices.

**Action 1.1.2:** Establish expert committee(s) for the preparation of the CMP and hold consultations with pertinent stakeholders/partners.

**Action 1.1.3:** Study and further develop the CMP document under preparation as appropriate.

**Strategy 1.2:** Integrate appropriate planning instruments into the urban planning documents, by taking into consideration the different degrees of integrity of the urban fabric and the different levels of heritage interest of the architectural items.

**Action 1.2.1:** Identify and classify the state of conservation of buildings, streets and public spaces etc. by specifying their conditions.

**Action 1.2.2:** Launch the establishment of short, medium and long term conservation programs.

**Strategy 1.3:** Monitor on a continuous basis and evaluate and review as appropriate the implementation of the CMP and the planning norms and guidelines accordingly every five years.

**Action 1.3.1:** Monitor on regular basis the implementation of the CMP.

**Action 1.3.2:** Evaluate and review as appropriate the implementation of the CMP and the planning norms and guidelines on regular basis.

### **5.9.2. Maintenance of Historic Buildings, Infrastructures and Open spaces**

**Rationale:** The comprehensive survey historic buildings, infrastructures and open spaces conducted by AHP in 2015 reveals that there are large numbers of historical buildings; public open spaces such as squares and fountains; services such as schools, health facilities, cinemas, post offices, etc.; infrastructure which include roads, pedestrian walks, street lightings, water supply and sewerage systems in need of maintenance interventions. Thus there is an urgent need for taking action to redress the present situation on a regular basis.

**Objective 2:** To develop an appropriate maintenance and implementation program with regard to those cited above a) historical buildings, b) public open spaces, c) services and d) infrastructures.

**Strategy 2.1:** Formulate short, medium and long-term maintenance programs (i.e. restoration, renovation, rehabilitation, reconstruction and adaptation) to conserve the above stated built in environment.

**Action 2.1.1:** Select and classify the built environment to be maintained.

**Action 2.1.2:** Prioritize the selected and classified built in environment components.

**Strategy 2.2:** Based on the formulated plan develop appropriate implementation programs of the built in environment components.

**Action 2.2.1:** Develop specific portfolios and /or projects for the prioritized components.

**Action 2.2.2:** Implement and/or supervise the implementation of the selected portfolios and /or projects.

**Strategy 2.3:** Monitor on a continuous basis and evaluate and review as appropriate the implementation of the maintenance programs of the built in environment components.

**Action 2.3.1:** Monitor on a regular basis the implementation of the maintenance programs of built in environment components.

**Action 2.3.2:** Evaluate and review as appropriate the implementation of the maintenance programs of built in environment components on a regular basis.

### **5.9.3. Rehabilitation and Recovery Program**

**Rationale:** The 2015 comprehensive survey assessment by AHP revealed that there are significant a) Historical buildings, and b) Public spaces and squares that need rehabilitation and recovery program to be developed in order to ameliorate their physical and functional conditions.

**Objective 3:** To develop an appropriate rehabilitation and recovery plan and implementation program with regard to above cited historical buildings, public spaces and squares.

**Strategy 3.1:** Update the existing program and formulate new rehabilitation and recovery program aimed at improving the existing historical building stock, public spaces and squares and preventing their further degradation.

**Action 3.1.1:** Update the existing programs, i.e. Mieda Eritrea Square, Medeber, and Cinema Capitol; Asmara Teatro, Fish Market, Mai Jah-Jah, etc.

**Action 3.1.2:** Formulate new rehabilitation and recovery program for other selected key historical buildings, open spaces and squares.

**Strategy 3.2:** Develop and implement short and medium rehabilitation and recovery programs.

**Action 3.2.1:** Classify the historical buildings, open spaces and squares to be rehabilitated and recovered.

**Action 3.2.2:** Prepare portfolios and/or projects for the implementation of the programs.

**Action 3.2.3:** Implement and/or supervise the implementation of the selected portfolios and /or projects.

**Strategy 3.3:** Monitor and evaluate and review as appropriate the implementation of the rehabilitation and recovery programs of the historical buildings, open space and squares.

**Action 3.3.1:** Monitor on a regular basis the implementation of the rehabilitation and recovery programs of historical buildings, open space and squares.

**Action 3.3.2:** Evaluate and review as appropriate the implementation of the rehabilitation and recovery programs of historical buildings, open space and squares.

#### **5.9.4. Mobility and Traffic**

**Rationale:** Asmara city center has a high concentration of commercial establishments, government and private offices, religious buildings, shops, cafes, restaurants etc. As a result, there is heavy traffic congestion of pedestrians, cyclists and vehicles. Thus, the various modes of transport and mobility of people in the city center require an integrated mobility and traffic management plan.

**Objective 4:** To develop an appropriate mobility and traffic plan and implementation program for alleviating the heavy traffic congestion of pedestrians, cyclists and vehicles.

**Strategy 4.1:** Formulate and develop an integrated mobility and traffic management plan through the provision of a broad range of sustainable mode of transportation options.

**Action 4.1.1:** Study the present traffic and mobility setting in detail with emphasis on prevailing bottlenecks and drawbacks and problems.

**Action 4.1.2:** Study other successful practices from other countries/heritage sites.

**Action 4.1.3:** Develop/formulate an appropriate mobility and traffic movement plan by establishing a committee of relevant stakeholders.

**Strategy 4.2:** Develop appropriate implementation programs for the formulated mobility and traffic management plan.

**Action 4.2.1:** Establish and implement an appropriate scheme for the public transport facilities, including routes, timetables, terminals and stops.

**Action 4.2.2:** Initiate and launch appropriate projects for improving the mobility, accessibility and traffic conditions in the core and buffer zones.

**Action 4.2.3:** Take appropriate measures to improve mobility and traffic safety and create conducive environment.

**Action 4.2.4:** Establish an appropriate management unit and manage the mobility and traffic into and across the Site on a sustainable manner.

**Strategy 4.3:** Develop and implement appropriate monitoring and evaluation mechanisms with regard to the mobility and traffic implementation program.

**Action 4.3.1:** Monitor on a regular basis the implementation of the mobility and traffic implementation program.

**Action 4.3.2:** Evaluate and review as appropriate the implementation of the mobility and traffic implementation program.

#### **5.9.5. Socio-Economic Development**

**Rationale:** Asmara is presently faced with two daunting challenges, i.e. a) Conserving or preserving its highly impressive and cherished heritage of OUVs, and b) Meeting its growing socio-economic development requirements as the main metropolis i.e. social, economic and political fulcrum of development of Eritrea as a whole. Accordingly, it would need to be guided by a set of appropriate policies and guidelines that addresses these two challenges satisfactorily.

**Objective 5:** To develop a harmonized development plan for the nominated property and Asmara as a whole that takes into consideration the above two daunting challenges.

**Strategy 5.1:** Study and update the exiting development plan with focus on the socio-economic development pressure of the city.

**Action 5.1.1:** Identify and assess the needs for social and economic services within the Site and its Buffer zones.

**Action 5.1.2:** Based on the identified needs, formulate appropriate socioeconomic polices to alleviate the current daunting challenges being faced by the city.

**Strategy 5.2:** Develop effective implementation programs with focus on the socio-economic development pressure of the city.

**Action 5.2.1:** Identify and prioritize inappropriate buildings and underutilized plots or parcels within the Site and its environs and establish programs for their harmonious redevelopment.

**Action 5.2.2:** Identify and release land for development within the Site and the buffer zones in such a way that is not incompatible with the conservation master plan and planning guidelines.

**Strategy 5.3:** Develop and implement an appropriate monitoring and evaluation mechanism with focus on the socio-economic development pressure of the city and the site.

**Action 5.3.1:** Monitor on regular basis that the implementation program is effectively put in to practice to mitigate the socioeconomic pressure.

**Action 5.3.2:** Evaluate periodically the progress made in this connection.

### **5.9.6. Tourism and Visitor Management**

**Rationale:** The nominated property is a valuable asset with regard to tourism attraction and development potential. Thus, there is the need to review the existing tourism and visitor plan with focus on the nominated property.

**Objective 6:** To develop further the tourism potential of the nominated property and workout an appropriate tourism and visitors' management scheme.

**Strategy 6.1:** Study the tourism master plan with focus on improving the existing visitor management, access, movement and facilities within the Site, its Buffer and Protected zones.

**Action 6.1.1:** Study the existing tourism master plan with focus on improving the existing visitor management, access, movement and facilities within the Site, its Buffer and Protected zones.

**Action 6.1.2:** Modify/enhance as appropriate/accordingly the tourism master plan.

**Strategy 6.2:** Develop and implement tourism infrastructure and facilities to the highest standard.

**Action 6.2.1:** Establish a coordinated approach with various stakeholders with the respect to tourism infrastructures and facilities improvement.

**Action 6.2.2:** Establish a coordinated approach with various stakeholders regarding the implementation of the tourism presentation and visitors management scheme.

**Strategy 6.3:** Develop and implement an appropriate monitoring and evaluation mechanism with focus on the further development of the tourism potential of the nominated property



and the working out of an appropriate tourism presentation and visitors management scheme.

**Action 6.3.1:** Monitor regularly the further development of the tourism potential of the nominated property and the working out of an appropriate tourism presentation and visitors management scheme.

**Action 6.3.2:** Evaluate periodically the progress made in this connection.

#### **5.9.7. Protected Zones**

**Rationale:** There are various areas in Asmara that are earmarked for conservation and protection. However, at present there is still large room left for their appropriate conservation and protection.

**Objective 7:** Define and outline conservation and protection measures to safeguard and preserve the protected zones of the nominated site.

**Strategy 7.1:** Formulate short, medium and long term plan for the appropriate protection (conservation) of the protected zones of the nominated site.

**Action 7.1.1:** Workout an appropriate priority plan for safeguarding the protected zones by involving pertinent stakeholders as appropriate.

**Action 7.1.2:** Formulate an appropriate scheme/modality of implementation for the prioritized zones' conservation and protection.

**Strategy 7.2:** Develop an appropriate implementation program for the implementation of the above plan.

**Action 7.2.1:** Develop a detailed program for the implementation of the plan.

**Action 7.2.2:** Implement the detailed program as formulated.

**Strategy 7.3:** Monitor and evaluate that the management of the protected zones is undertaken in line with the developed scheme and implementation program.

**Action 7.3.1:** Monitor on a regular basis that the safeguarding and protection of the zones is implemented as programmed.

**Action 7.3.2:** Conduct periodically an evaluation of the implementation program.

### 5.9.8. Risk Preparedness and Disaster Mitigation

**Rationale:** The Disaster Risk Management (DRM, 2015) document reveals that the proposed Asmara WHS is not generally afflicted by natural disasters in the way that other WHS are, but it is not immune to the effects of mild flooding, fire, climate change, pollution and earthquake. Accordingly, appropriate timely measures would need to be taken to mitigate these problems.

**Objective 8:** Develop appropriate risk preparedness and disaster mitigation plan and implementation measures.

**Strategy 8.1:** Formulate appropriate risk preparedness and disaster mitigation plan on the basis on AHP DRM (2015) document.

**Action 8.1.1:** Study critically the DRM (2015) study.

**Action 8.1.2:** Formulate tailored implementation programs.

**Strategy 8.2:** Develop detailed implementation scheme for the tailored programs.

**Action 8.2.1:** Prioritize the intervention measures to be taken by taking into consideration factors such as technical, financial etc.

**Action 8.2.2:** Involve as much as possible all pertinent stakeholders in the implementation of the program.

**Strategy 8.3:** Monitor and periodically evaluate that disaster preparedness and mitigation plan is implemented as designed.

**Action 8.3.1:** Monitor on a regular basis that the risk preparedness and disaster mitigation plan is implemented according to the worked out scheme.

**Action 8.3.2:** Conduct periodically an evaluation of the implementation program.

### 5.9.9. Institutional Framework

**Rationale:** At present there are different government organs, institutions, working groups and task forces more or less involved in the conservation, protection, restoration and management of the heritage property and the natural landscape of the proposed Asmara WHS. They include mainly: Ministry of Education (MoE): Eritrea National Commission for UNESCO, National Museum, Central Region Administration, Ministry of Tourism, The Eritrean Cultural and Natural Heritage Board, Commission of Culture and Sports and Asmara Heritage Project (AHP). However, there is no specific (centralized) institution responsible for the conservation, protection, restoration and

implementation of the management plan i.e. with appropriate a) legal instrument, b) planning and management responsibility, and c) research and awareness mandate.

**Objective 9:** To establish a central institution for conservation, protection, restoration and implementation of the management plan for the nominated site.

**Strategy 9.1:** Formulate a plan for the development of a centralized institution for the implementation of the management plan.

**Action 9.1.1:** Conduct appropriate survey of the duties and responsibilities of all the institutions currently involved in various aspects of heritage issues.

**Action 9.1.2:** Establish a forum of consultation involving the above mentioned institutions for discussing and reaching on a consensus on how best a centralized institution can be set up.

**Action 9.1.3:** Develop an appropriate plan based on the survey and consensus reached regarding the establishment and activity of the centralized institution to be created.

**Strategy 9.2:** Develop and implementation program for the operation of the centralized institution.

**Action 9.2.1:** Develop an appropriate capacity building program for the centralized institution.

**Action 9.2.2:** Work out in detail the duties and responsibilities of the centralized institution.

**Action 9.2.3:** Work out the linkage of the centralized institution with other related institutions.

**Action 9.2.4:** Develop an appropriate budget for the effective and efficient operation of the centralized institution.

**Strategy 9.3:** Monitor and periodically evaluate the timely implementation of the institution and its appropriate functioning.

**Action 9.3.1:** Monitor regularly the implementation of the above scheme and the appropriate functioning of the established institution.

**Action 9.3.2:** Evaluate periodically the outlined programs.

#### **5.9.10. Capacity Development**

**Rationale:** Since independence different institutions have been working more or less intensively with regard to heritage management of the site in particular and the nation in general. Currently, the institutions have about 153 staff composed of Architects, Planners, Engineers, Surveyors, GIS experts, Drafts Men, Auto CAD operators and other supporting staff. However, the staff involved in restoration and conservation works based on critical process consisting of a critical-historical

definition and assessment, as well as the necessary scientific analyses of the OUVs in view of their safeguarding are inadequate.

Similarly, the City of Asmara does not have specific financial resources allocated to safeguard the OUVs of the site. Considering the importance and the uniqueness of the site's OUVs, it is advisable that a capacity development (human and financial) program be established. Accordingly, timely steps would need to be taken for the establishment of the program.

**Objective 10:** To establish a capacity development (human and financial) program to safeguard the site's OUVs.

**Strategy 10.1:** Formulate an appropriate capacity development plan to safeguard the OUVs of the site's OUVs.

**Action 10.1.1:** Assess and identify training needs/gaps that guarantee the safeguarding of site's OUVs.

**Action 10.1.2:** Organize training programs that satisfy the needs/gaps and facilitate collaboration between different disciplines and communicate with the public.

**Action 10.1.3:** Create a market for the trained staff to prepare and approve a career structure, and help them to have reasonable income.

**Action 10.1.4:** Review other countries' success stories with regard to the establishment of special fund for safeguarding of the site's OUVs.

**Action 10.1.5:** Develop proposals for the establishment of appropriate capacity development program in line with Eritrean realities for the consideration of appropriate authorities.

**Strategy 10.2:** Develop appropriate strategies for the implementation of the capacity development plan/program.

**Action 10.2.1:** Create career structure and training typology to clearly identify the time required for training.

**Action 10.2.2:** Develop and implement training program that enable to carry out a whole range of actions to safeguard the site's OUVs.

**Action 10.2.3:** Develop and implement appropriate strategies for raising of funds from domestic sources including private sectors.

**Action 10.2.4:** Develop and implement appropriate strategies for rising of funds from international sources.

**Strategy 10.3:** Monitor and evaluate the capacity development plan is implemented according to the formulated implementation program.

**Action 10.3.1:** Monitor on continuous basis the implementation of the capacity development program.

**Action 10.3.2:** Evaluate periodically as appropriate the implementation of the capacity development program.



## 6. IMPLEMENTATION FRAMEWORK

After independence, different government organizations, institutions, working groups and task forces came to be more or less involved in and some to be duly established for the conservation, protection, restoration and management of the heritage property and the natural landscape of the Asmara City Center. They included the MoE: ENC for UNESCO, NM, CRA, MoT, and recently the CCS, the ECNHB, over and above the CARP and AHP.

### 6.1. Institutional Framework

The institutional framework of the envisaged core or focal organ that need to be established for the efficient and effective management of the site is foreseen to be worked out by taking into consideration, inter alia,

- The national guidelines inscribed in relevant legal instruments,
- Mandates of already established pertinent national institutions/organizations,
- Applicable international (UNESCO) guidelines,
- Relevant examples or practices of other countries,

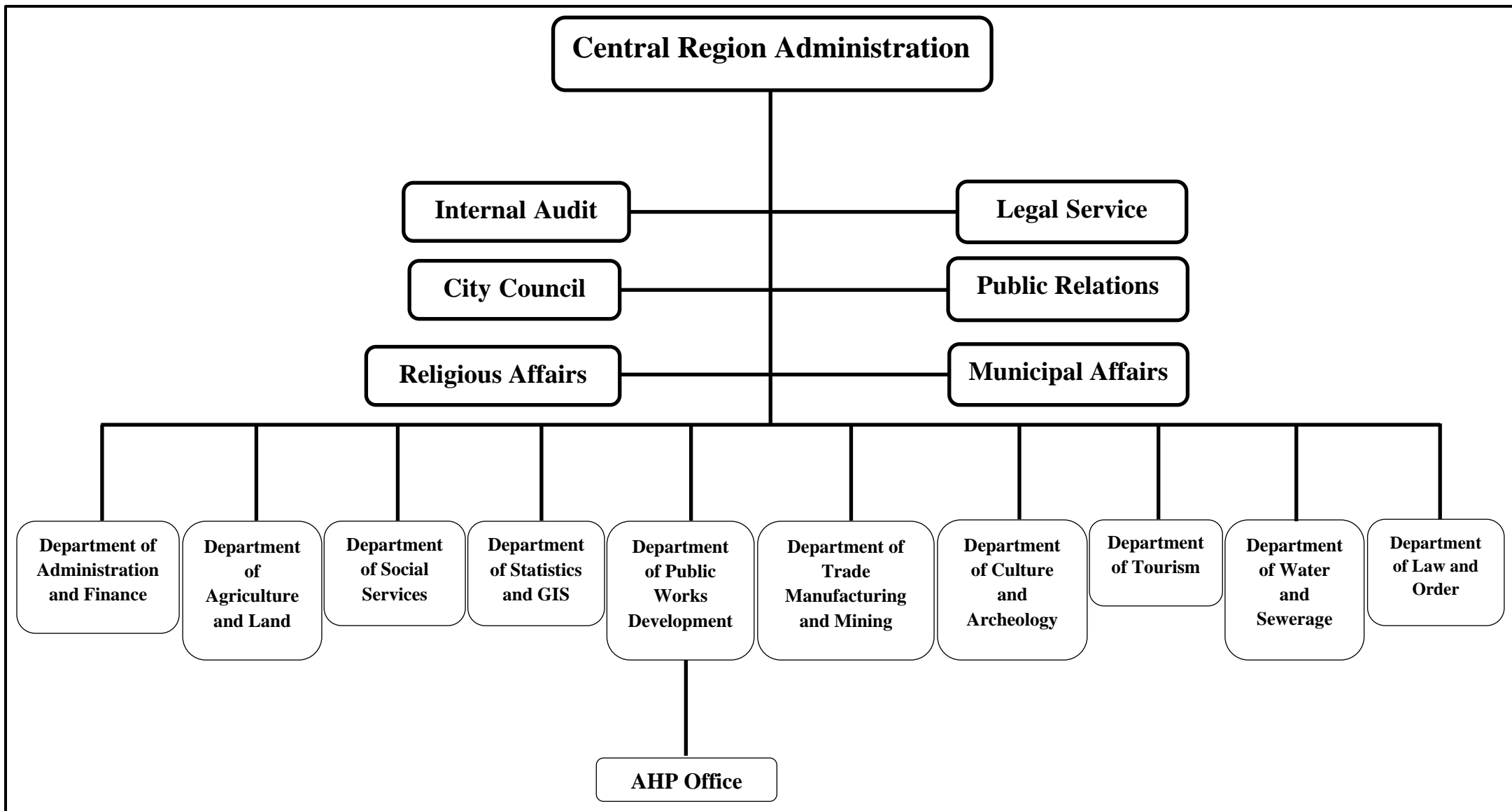
and more specifically to start with:

- a) CRA's mandate and organizational structure,
- b) The recent Eritrean Cultural and Natural Heritage Proclamation No. 177/2015 guidelines,
- c) The recently established CCS mandate and organizational structure,
- d) AHP's mandate and organizational structure, and
- e) UNESCO guidelines.

#### 6.1.1. Central Region Administration

Since independence, the CRA has been the responsible government institution for conducting and preparing restoration and rehabilitation programs and/or projects for safeguarding of the heritage property of the site. Moreover, the institution has been working as a liaison office for the community and other institutions which are working in preserving the heritage assets of the city.

The structure of the CRA which will be the overall responsible organization for implementation of IMP of the site by virtue of its location within the Region includes various departments as shown in Figures 6.1.



**Figure 6.1:** Central Region Administration Organizational Structure

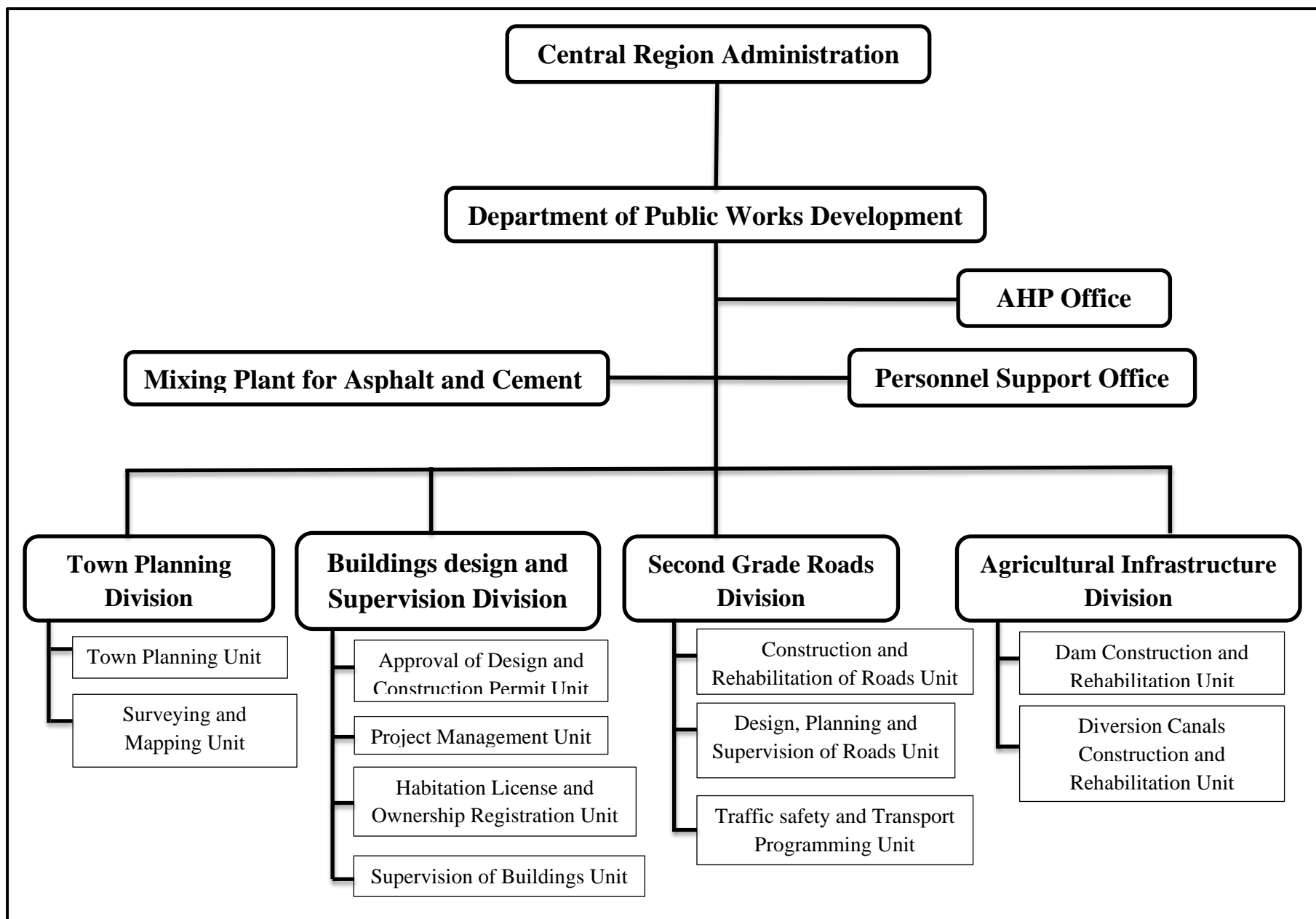
### **6.1.2. Department of Public Works Development**

This department was previously called DIS and it is the leading agency for infrastructure and, in general terms, urban issues. It has, at the same time, very operational responsibilities such as day by day road maintenance, but also planning responsibility. It has also, longer administrative tradition than the departments at the central level, as refers the history of the Municipality.

The department is composed of three divisions: 1) Planning and Surveying Division, 2) Building and Supervision Division, 3) Roads and maintenance Division. In addition, it has other support units, which include: Archives, People's Affairs office, Personnel and Machinery Pool.

Regarding the tools and procedures used for urban planning, the Department appears today as the main responsible organ of urban planning in Asmara. In general terms, the Department is in charge of:

- Parceling land and preparation of land assignment documents as per given development plans,
- Approval of projects and issuing construction permits,
- Maintenance of roads (within and outside the city), street lights and drainage,
- Preparation and design of small municipal projects,
- Controlling building permits and supervising of works according the outline of urban regulation,
- Requesting of additional design documents and strictly supervising for sensitive areas in the historic perimeter (special building projects),
- Granting planning approval according to the outlines of urban regulations,
- Modification/adaptation and validation of Outline urban Planning Regulations,
- Approval and supervise for most of design and works performed by the private sectors, and Others. See Figure 6.2.



**Figure 6.2:** Department of Public Works Development Organizational Structure

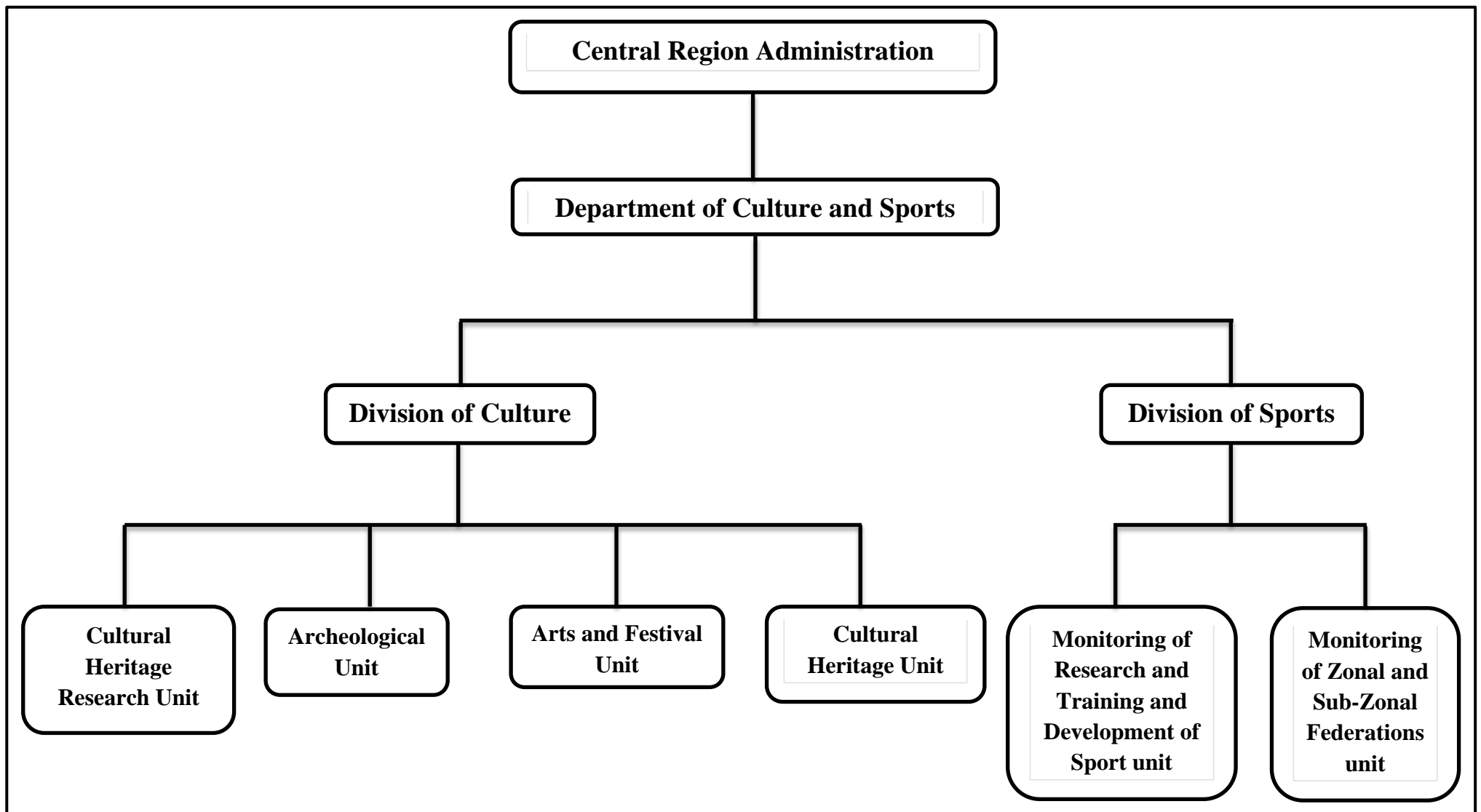
### **6.1.3. Department of Culture and Sports**

The recently established Department of Culture and Sports (Figure 6.3) is entrusted among others with the following mandate to:

- Preparing policies and strategic plan in accordance to the central government directives by involving the responsible members for approval and implementation.
- Prepare studies to improve the unit's activities and submit it to the regional administrator.
- Conserve and protect the culture by leading and coordinating the community.
- Propagate the culture of Eritrean patriotism in matter to transmit and develop the concept to the coming generation.
- Conserve the valuable cultural heritage assets like manuscripts in video and audio for archival in Museums and Library at regional level.
- Discover and find a way to conserve natural or manmade (handcraft) valuable assets by careful identifications and preservation.
- Find way to identify historical and artisanal (Artistically) assets by examining the origin, nature, age with scientifically collected conservation documents.
- Outline training programs all employs of the commission and pertinent stakeholders.

This organizational structure is evolved from the mandates and responsibilities of Commission of Culture and Sports at nation level.





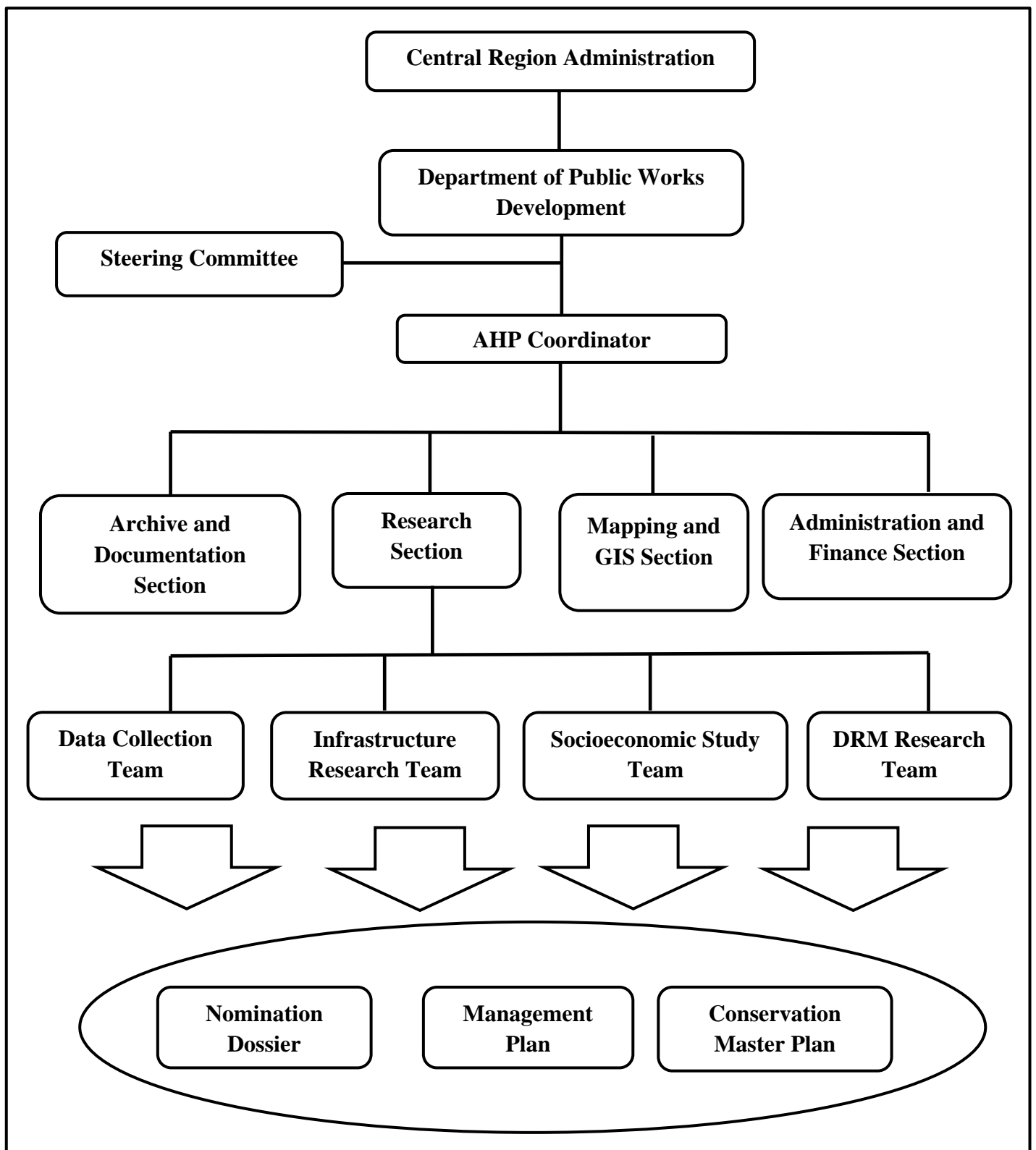
**Figure 6.3:** Department of Culture and Sports Organizational Structure

#### 6.1.4. Asmara Heritage Project

AHP was established in March 2014 under the CRA (Municipality of Asmara) with the mandate of carrying out research and documentation required for the inscription of Asmara Modernist City in the list of WHS with the ultimate aim of promoting and safeguarding its OUVs.

Its three primary objectives comprise preparation of a) the Nomination Dossier for UNESCO WHL, b) the IMP and c) the CMP. The AHP office's organizational structure (Figure 6.4) comprises:

- **The Steering Committee**, composed of twelve members from various organizations with a range of academic and professional backgrounds, which supervises AHP's performance and progress, evaluates its various studies, and ensures that all the activities are carried out in accordance with the project's objectives and with specific responsibilities of providing strategic guidance and policy decisions; integrating and harmonizing national policies; liaising with UNESCO and attending necessary conventions; and reviewing various research and technical reports.
- **Project Coordinator**: responsible for coordinating the overall activities of the project and four Departments, i.e.:
  - a) **Research**: responsible for conducting research within the historic perimeter of the nominated site including the preparation of pertinent publications; organizing exhibits and posters; organizing information about the historic development of the city center, and its socio-economic development; classification of buildings and recording of architectural details and features and others.
  - b) **Archive and Documentation**: responsible for documentation and archival of spatial and non-spatial data and/or information both in hard and electronic copies as well as the component is responsible for disseminating and publication of information/data and documents appropriately.
  - c) **GIS Mapping and Database**: responsible for organizing and creating of spatial and non-spatial data relevant to and adjacent to the site as well as analyzing, manipulating and mapping for appropriate documentation and dissemination of spatial data.
  - d) **Administration and Finance**: responsible primarily for monitoring and tracking of budgeting lines and accounting and administration and the management of the project office's human and material resources.



**Figure 6.4:** Asmara Heritage Project Organizational Structure

#### **6.1.5. Eritrean Cultural and Natural Heritage Proclamation No. 177/2015**

The principal legal instrument issued for the effective conservation of the cultural and natural heritage of Eritrea is the recent Eritrean Cultural and Natural Heritage Proclamation No. 177/2015.

The objectives of the Proclamation are to: a) introduce an integrated and interactive system at all levels and lay down the general principles for the management, conservation, preservation, protection, restoration and development of Cultural and Natural Heritage resources of Eritrea to be bequeathed to future generations; b) introduce an integrated system for the identification, assessment, registration, documentation and supervision of the Cultural and Natural Heritage resources of Eritrea; c) garner adequate knowledge and data on Eritrea's Cultural and Natural Heritage and to develop efficient system for dissemination of same; d) encourage and regulate research on Cultural and Natural Heritages; e) control the export of significant heritage objects and the import into Eritrea of cultural properties located in, or illegally exported from, foreign countries; f) protect Cultural and Natural Heritage resources against man-made and natural disasters and other causes of damage; g) contribute to the social, intellectual and economic development of Eritrea and its people; h) empower and ensure the participation of the general population to nurture and conserve heritage resources and their cultural and indigenous values; and i) ensure the participation of the Government and peoples of Eritrea in international cooperation and their integration in international mechanisms and structures in the conservation, preservation, protection and development of Cultural and Natural Heritage resources.

According to the Proclamation, the MoE is the focal ministry entrusted to exercise, on behalf of the State of Eritrea, all rights pertaining to the integrated management, conservation, preservation, protection, restoration and development of cultural and natural heritage resources of Eritrea. In carrying out its mandate the MoE is envisaged to operate through the following organs:

- a) The Eritrean Cultural and Natural Heritage Board
- b) the Managing Director and
- c) Various Committees

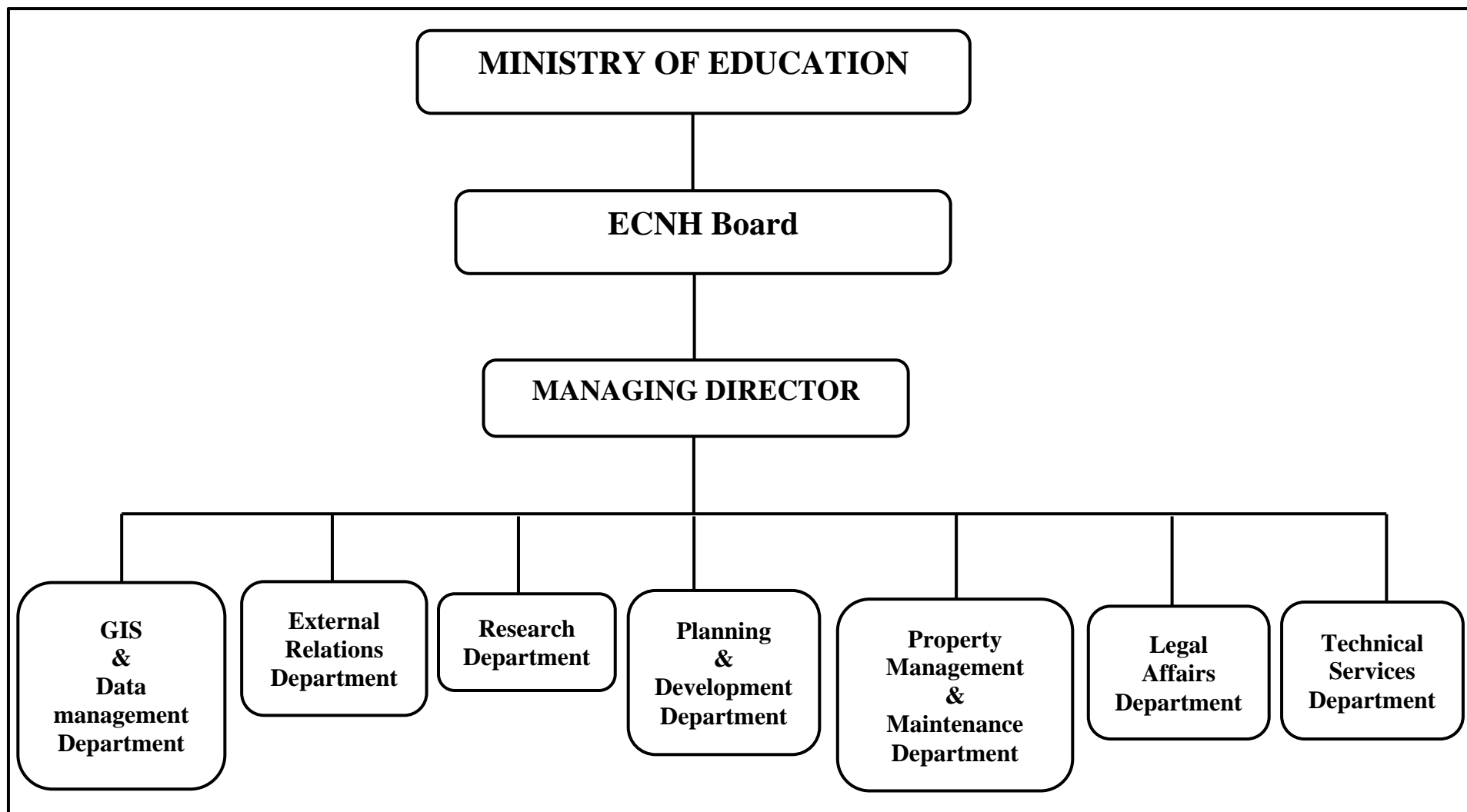
**The Eritrean Cultural and Natural Heritage Board:** is accountable to the MoE, is composed of representatives of the following Members appointed by their respective

organizations: MoE, Ministry of land, Water and Environment (MLWE), Ministry of Agriculture (MoA), Ministry of Energy and Mines (MoEM), Ministry of Marine Resources (MoMR), MoT, NM, Research and Documentation Centre (RDC), two other Members, either singular individuals or representatives of institutions, that are active in conservation of Eritrean cultural and natural heritage and appointed by the Minister.

The Board is responsible, inter alia, to: adopt, direct, oversee and/or approve the formulation and implementation of a Cultural and Natural Heritage Policy, regulations, guidelines and short, medium, and long term plans, for the development and protection of the Cultural and Natural Heritage resources of Eritrea; review and advice with regard to national policies, laws, regulations and guidelines with a bearing on Cultural and Natural Heritage; review plans prepared by the Managing Director prior to their submission to the Minister; and advise the Minister on the number of, and selection criteria for, Members of the Committee as well as its organization.

**The Managing Director** shall constitute and administer the Heritage office and shall, among others, function, for the Government, as the focal person for all technical decisions and standards on heritage matters; prepare the work plan and program as well as the annual budget proposal of the Board and implement same upon approval; recommend the number, type, constitution and composition of such committees as are essential for the attainment of the objectives of the Proclamation; foster links with other similar organizations, regional or international, and with the donor community for the purposes of funding projects for the conservation and development of Cultural and Natural Heritage; prepare a National Cultural and Natural Heritage Management Plan for endorsement by the Board and approval by the Minister and follow up its review and implementation.

**The Cultural and Natural Heritage Committee(s)** consisting of representative experts working on various areas on Cultural and Natural Heritage, appointed by the Minister in consultation with other relevant stakeholders, advise the Minister on the management and conservation of heritage resources and perform such tasks as may from time to time be assigned to it by the Minister. See Figure 6.5.



**Figure 6.5:** Proposed organizational structure of National Cultural and Natural Heritage Institution (Source: Proclamation No. 177/2015)



### 6.1.6. UNESCO Guidelines

The UNESCO guidelines and recommendations referred for the purpose of the proposal regarding the new institutions structure include among others the following:

- The 1972 UNESCO adopted convention
- ICOMOS and ICROMS recommendations
- The 1976 UNESCO recommendation

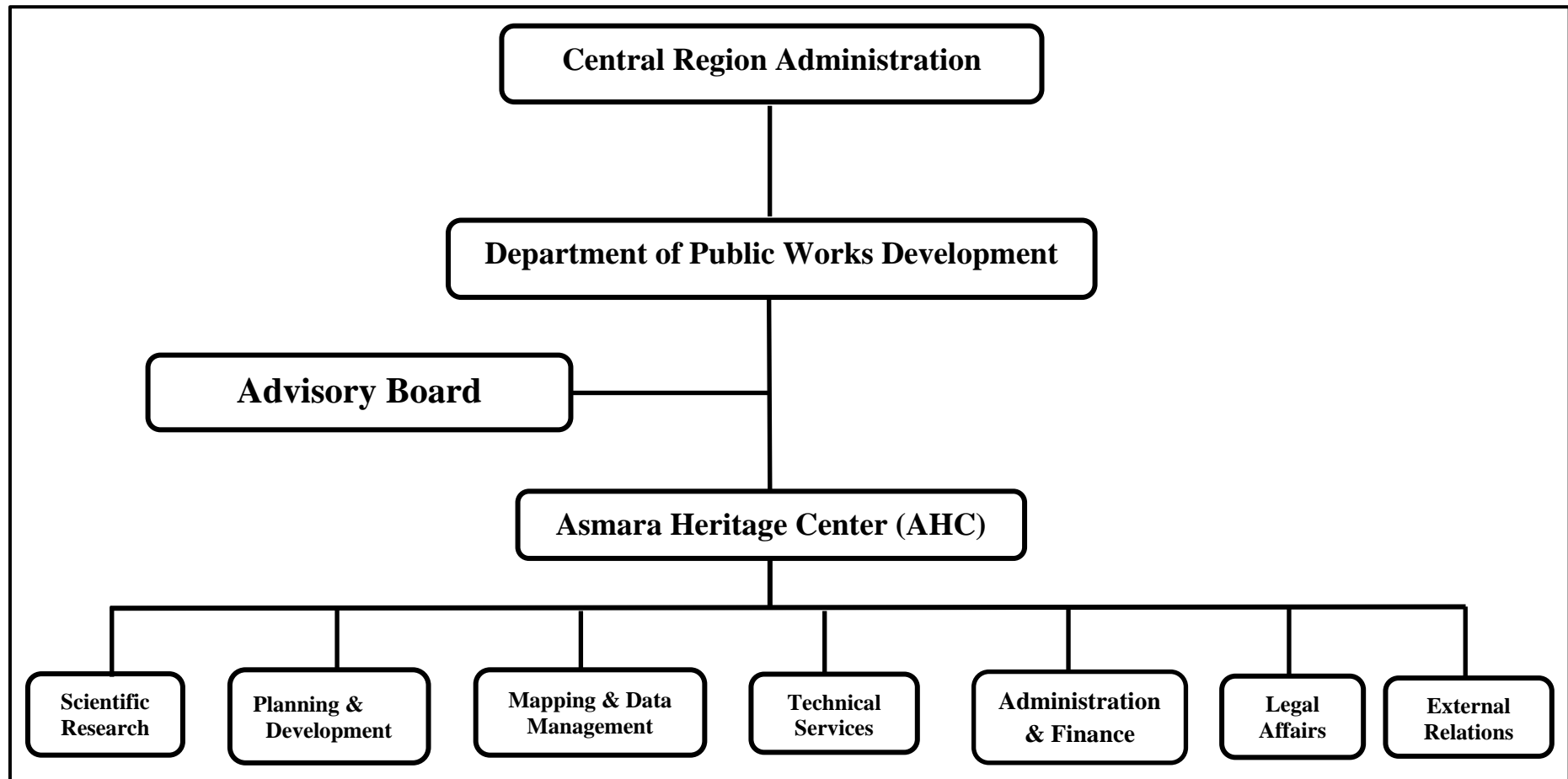
The above UNESCO guidelines and recommendations outlines that world heritage sites requires independent institution or organ responsible for safeguarding heritage property. Therefore, based on this requirement the GSE decided to have an independent institution to safeguard the cultural and natural heritage values of the nation.

### 6.1.7. The Envisaged Core Organ

The organ to be established for the implementation of the IMP will need to be structured (Figure 6.6) in such a way that it does not duplicate the mandates of already established related organs but play a vital or essential role in complimenting, integrating or coordinating the various mandates for the purpose of efficient and effective conservation, protection, restoration and management of the heritage property and the natural landscape of the Asmara City Center.

In this endeavor, its structuring is proposed to partly reflect the present structuring of AHP enhanced by appropriate adaptation of the basic structural features and mandates of the organs specified in the Cultural and Natural Heritage Proclamation, and more in particular the following mandates or activities:

- a) Planning and Development:** Responsible for preparation of strategic plans that protect, restore, conserve and management of the OUVs of the nominated site.
- b) Technical Services:** Responsible for i) upgrading of the infrastructure and liaison with the utilities companies; ii) undertaking detail design and develop design regulations and guidelines for new construction (including renovation, restoration and conservation); iii) issuing of building permits and using of public spaces.
- c) Legal Affairs:** Responsible for monitoring, evaluating and reviewing of all rules, regulations, policies developed concerning the nominated site.



**Figure 6.6:** Proposed Organizational structure of Asmara Heritage center

- d) Property Management and Maintenance:** Responsible for managing and maintaining the historical buildings; infrastructures; open and public spaces; squares and the natural landscape of the nominated site.
- e) External Relations:** Responsible as appropriate for liaison with the local, regional and international organizations (UNESCO, ICOMOS and others) involved in the preservation (maintenance, restoration, conservation and renovation) of the OUVs and the natural landscape of the nominated site.

## **6.2. Institutional Collaboration**

The successful implementation of the IMP will greatly depend on the support, commitment and active participation of all stakeholder institution, that is, all relevant Ministries, public and private agencies and more in particular the following:

- a) Ministry of Education
- b) Ministry of Land, Water and Environment
- c) Ministry of Agriculture
- d) Ministry of Trade and Industry
- e) Ministry of Health
- f) Ministry of Energy and Mines
- g) Ministry of Tourism
- h) National Museum of Eritrea
- i) Research and Documentation Centre
- j) Ministry of Local Government

## **6.3. Community Participation**

Similarly the active participation of the public or community in the formulation and implementation of the IMP is equally quite important. Accordingly the organizations so far established to represent women, youth and students, business community, workers interests as well as religious organizations will need to be involved, that is:

- a) National Association of Eritrean Women
- b) National Union of Eritrean Youth and Students
- c) Eritrean National Chamber of Commerce
- d) Employers Federation of Eritrea
- e) National Confederation of Eritrean Workers

- f) Professional Associations
- g) Cultural and Sports Associations
- h) Religious Organizations
- i) Various sub-administrations of Asmara city and their respective inhabitants as appropriate

#### **6.4. Essential Activities under Implementation**

The major basic essential activities so far undertaken by the AHP office with high relevance to the implementation of the IMP include the following:

- a) Delimitation of Asmara's World Heritage Site;
- b) Preparation of nomination dossier
- c) The Cultural and Natural Heritage Proclamation;
- d) Preparation of Disaster Risk Management Plan (2015);
- e) Infrastructure and Public space Study (2015);
- f) Report of Historic Buildings and open space (2015);
- g) Socio-Economic Study (2014);
- h) Conservation Master Plan (CMP);
- i) Development of planning Norms and Technical Regulations;
- j) Detailed survey and electronic documentation of more than 4000 historic buildings in a database; and
- k) Upgrading/rehabilitation of; a) Hawakil Recreation Center, b) Mai Jah-Jah Public Fountain among others.

#### **6.5. Capacity Development**

In this connection the context of capacity development is explained as the existing status and future needs of human and financial resources for effective and efficient implementation of the IMP and hence safeguarding of the OUVs of the site.

##### **6.5.1. Financial Resource**

In the past two decades, the CRA allocated millions of Nakfa for major maintenance and rehabilitation of infrastructures and public spaces for the site. As a result, the city center infrastructures and public spaces have improved significantly. The CRA (Municipality of Asmara) earmarked also 10million Nakfa to establishing Asmara Heritage Project. Moreover, the national government initiated large scale projects such as the CARP (\$5million) and the

NHP (€million) which had been financed by the World Bank and the European Union. In addition, the national government was earmarked funding for restoration of built in environment. At present there is no special fund allocated for management of the site.

The Cultural and Natural heritage Proclamation outlines the establishment of an Eritrean Cultural and Natural Heritage Fund. The sources of the fund have been indicated to be:

- Government budget support or subsidy,
- Fees, charges and penalties collected by the MoE in accordance with the Proclamation, and
- Contributions and donations from domestic and international sources.

By the same token, the implementation of the IMP of the site will need to be supported with the establishment of an appropriate fund to be raised in line with what is prescribed above.

#### **6.5.2. Human Resource**

Currently, there are different institutions involving in protecting and conducting research with respect to the site. The institutions are staffed with about 153 experts and technicians who are composed of Architects, Planners, Engineers, Surveyors, GIS experts, Draftsmen, Auto CAD operators and other supporting staff. However, there is lack of specialized staff especially in the field of restoration and conservation works which is based on a critical process consisting of a critical-historical definition and assessment, as well as the necessary scientific analyses of the OUVs in view of their safeguarding.

Therefore, for the successful implementation of the IMP the envisaged core organ will need to be adequately staffed especially with the above stated fields both in terms of number and qualification. Accordingly the staff to be recruited will be properly identified. Furthermore, they will be trained periodically as appropriate within and outside Eritrea. Equally, the staff of the pertinent stakeholder organizations will be trained to promote mutual understanding and better performance in their respective fields.

#### **6.6. Implementation Program**

As indicated, the implementation of the IMP will be coordinated through the envisaged organ to be established for the purpose. In other words the implementation of the plan will be executed in close cooperation with leading government organs responsible for heritage

resources and pertinent stakeholders. Moreover, the management plan will be harmonized with other related management plans within the perimeter of the site.

Accordingly appropriate and tailored indicative action programs have been worked out (Annex A) for the efficient and effective directing and follow-up of the designed tasks to be accomplished. Above all total commitment and involvement of all stakeholders will be highly essential for the successful implementation of the IMP.

The implementation program will be supported by important tools like Planning Norms and Technical Regulations; Conservation Master Plan; Disaster Risk Management Plan; Natural and Cultural Heritage Proclamation No. 177/2015; Infrastructure and Public Space Study; detailed survey of Historic Buildings and Open Space; (2015); electronic documentation for activity tracking and others.



## 7. MONITORING AND EVALUATION

Monitoring is an essential component for both the implementation of the Management Plan and the status quo of the nominated property on one hand, to ensure the proper application of the management program and on another hand, to assure the continuous survival and existence of the nominated property. Moreover, monitoring delivers timely and relevant information that allows in tracking the progress of the management program towards the outcomes. Further, it makes an adjustment to implementation arrangements as necessary within the nominated property. The tracking progress is made in a deliberate and systematic manner at regular intervals during the implementation of the management plan.

Whereas, review is a ‘snapshot’ in the follow up of a management process and tend to focus on operational issues, effectiveness of project management structures, and may also include policy outcomes. Findings and recommendations from reviews should be used to improve the implementation of the management programs. Besides, the factors for reviewing help to assess the progress of the implementation programs at critical milestones or in response to specific issues.

For the detailed description of Monitoring and Reviewing as well as the Administrative Arrangements for Monitoring and Reviewing of the Nominated property and the Key Indicators for Monitoring the State of Conservation are outlined hereunder in the following paragraphs.

### 7.1. Monitoring

Monitoring is an important tool in the management process for the protection and conservation of the nominated property and its OUVs. In addition, monitoring enhances the knowledge base and enables a better understanding of the nominated property and its management requirements. The outcome of monitoring is an essential factor as an input or feedback to the implementation of the management plan.

Monitoring the implementation progress of the management plan can be achieved by:

- Monitoring the implementation of projects as set out in each year’s annual work plan. Report on the progress of the management program and identify priorities for the year that follows.
- Assess the effective implementation of projects that had achieved the objectives of the management plan, and

- Review the overall implementation of the management plan strategy and initiatives in response to priority changes and needs.

Therefore, the management has to be monitored annually on a regular basis. The envisaged monitoring tool has to cover the following inter alia but will not be limited to activities and/or developments:

- **Social developments:** Residential density, expenditure on housing, access to social programs.
- **Property market data:** Number and type of property transactions, change in tenure ownership of transacted properties.
- **Development activities:** Number of applications for building permit by type of building and purpose of permit (demolition, new construction, renovations).
- **Economic activities:** Number and type of new businesses registered or closed; number of jobs created.
- **Database and Archive:** It includes/contains photographs, videos, drawings, designs, listed building records and areas for conservation. The above stated records form baseline information for monitoring changes and they need to be compiled and documented.

## 7.2. Reviewing

The occurrence of new developments can have an adverse effect on the management plan of the site. Besides, when additional information or issue of development comes to light; the overall understanding of the significance of the OUVs of the site as well as its components may also change. As a result, all of the above stated considerations will have an effect on the implementation of the management plan of the site.

It is therefore, imperative that the management plan is regularly reviewed and the responsibility for monitoring and reviewing lies with the envisaged organ responsible for the implementation of the management plan of the site.

A formal review of the IMP, the boundary of the site and BZ and PZ should be undertaken every five years, and should be revised annually and modified as required to reflect changed circumstances (Liverpool Management Plan, 2003).

Finally, an updated version of the IMP has to be produced and notifications of changes should be issued to the public, government and private organization and the international community

(World Heritage Center) and other agencies which have an interest in the management of the site.

### **7.3. Monitoring and Reviewing Arrangements**

The envisaged organ which will be is responsible for the preservation and conservation of the site has to undertake a regular monitoring and reviewing task during the implementation of the IMP. The envisaged organ has to organize monitoring programs and carryout a review of the implementation programs without fail on a continuous and regular basis. Moreover, it is essential that other relevant authorities and owners of historic buildings be invited to participate in the monitoring activities. The monitoring and reviewing activities should be undertaken at national as well as at local administrative levels.

#### **7.3.1. National Level**

The envisaged organ established at local level, is a government institution responsible for the management and monitoring of the country heritage assets as a whole; including properties within the Asmara's: Modernist City CA and BZ as well as other cities of Eritrea.

#### **7.3.2. Local Levels**

For monitoring the management of the heritage assets of the Asmara: Africa's Modernist City there should be enforcement organs of the concerned local authorities that overlook the activities that would be undertaken within the site. Under the existing by-laws, applicants are required to obtain permission from Municipality of Asmara for building works which involves repairs, renovation and restoration, as well as for the construction of buildings on vacant and brown field areas.

In the case of minor construction works within the nominated property, a simple form stating only the work to be carried out has to be submitted whereas, for major construction works a building plan submission with necessary scaled drawings of floor plans, elevations and sections which are in harmony with the built urban landscape are required. For the Historic City of Asmara, the applications should be evaluated by the concerned Heritage Preservation Units. Applicants would be required to comply with conservation norms and guidelines and other building by-laws.

In cases where construction works are carried out without the prior consent of the concerned authorities as well as without the acquisition of required building permit a prohibition notice will be issued. Further contravention of the building By-laws may result in fines and

prosecution in Court. To monitor the development activities that would be undertaken within the site hereunder are the key indicators that have been established for monitoring the state of conservation.

### **7.3.3. Key Monitoring Indicators**

To manage and monitor a heritage property like the one which is identified here as the site (CA), requires a number of innovative instruments, such as the heritage conservation indicators. As a result, tailored/specified indicators will be developed to know the status of the intervention/actions outlined in Chapter Five overtime.

## **7.4. Evaluation**

The Asmara: Africa's Modernist City IMP (2016-2021) is the first version of the management plan for the site. As a result, it requires periodic evaluation (every five years) at national level by ECNHB and at local level by the DPWD. The evaluation of the IMP is conducted in order to a) review its performance; b) identify completed actions and carry forward action in progress; c) review issues that have emerged since 2016; and d) revise accordingly the IMP in line with the UNESCO-WHC recommendations.

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## ANNEXES

### ANNEXE-A: Indicative list of Key Action Areas

Objectives and Strategies	Actions	Period			Responsible Institutions	Leading/ coordinating Institution
		Short	Medium	Long		
<b>Objective 1:</b> The objective of the conservation plan comprises the development and proper implementation of appropriate planning instruments for the management of the protected historic urban areas and the control of development and change within the designated site. <b>Strategy 1.1:</b> Study and develop further the Conservation Master Plan of Asmara which is under preparation to include, inter alia, appropriate strategies to guide conservation measures in the core and buffer zones effectively. <b>Strategy 1.2:</b> Integrate appropriate planning instruments into the urban planning documents, by taking into consideration the different degrees of integrity of the urban fabric and the different levels of heritage interest of the architectural items. <b>Strategy 1.3:</b> Monitor on a continuous basis and evaluate and review as appropriate the implementation of the CMP and the planning norms and guidelines accordingly every five years.	<b>ACTION AREA 1: Integrated Conservation Plan</b>					
	<b>Action 1.1.1:</b> Identify, study other countries experience in the field of conservation practices.	√			NI, CRA, MoPW and pertinent stakeholder, NM, MoTI	NI, CRA, appropriate Institution
	<b>Action 1.1.2:</b> Establish expert committee(s) for the preparation of the CMP and hold consultations with pertinent stakeholders/partners.	√			NI, pertinent stakeholders, NM, MoTI	√
	<b>Action 1.1.3:</b> Study and further develop the CMP document under preparation as appropriate.		√		NI, CRA, MoPW pertinent stakeholder, NM, MoTI	√
	<b>Action 1.2.1:</b> Identify and classify the state of conservation of buildings, streets and public spaces etc. by specifying their conditions.	√			NI, CRA, MoPW pertinent stakeholder, NM, MoTI	√
	<b>Action 1.2.2:</b> Launch the establishment of short, medium and long term conservation programs.	√			NI, CRA pertinent stakeholder, NM, MoTI	√
	<b>Action 1.3.1:</b> Monitor and review on regular basis the implementation of the CMP.	√	√	√	NI, CRA pertinent stakeholder, NM, MoTI	√
	<b>Action 1.3.2:</b> Evaluate periodically as appropriate the implementation of the CMP and the planning norms and guidelines on regular basis.	√	√	√	NI, CRA pertinent stakeholder, NM, MoTI	√

#### Remark:

**MoE:** Ministry of Education, **ENC-UNESCO:** Eritrea National Commission for UNESCO, **NM:** National Museum, **CRA:** Central Region Administration, **MoT:** Ministry of Tourism, **ECNHB:** The Eritrean Cultural and Natural Heritage Board, **CCS:** Commission of Culture and Sports and **AHP:** Asmara Heritage Project, **NI:** The new Institution is the institution to be established to taking care of the site, **MoPW:** Ministry of Public Works, **MoTI:** Ministry of Trade and Industry.

Objectives and Strategies	Actions	Period			Responsible Institutions	Leading/ coordinating Institution
	ACTION AREA 2: Maintenance of Historic Buildings, Infrastructures and Open Spaces	Short	Medium	Long		
<p><b>Objective 2:</b> To develop an appropriate maintenance and implementation program with regard to the above cited a) historical buildings, b) public open spaces, c) services and d) infrastructures.</p> <p><b>Strategy 2.1:</b> Formulate short, medium and long-term maintenance programs (i.e. restoration, renovation, rehabilitation, reconstruction and adaptation) to conserve the above stated built in environment.</p> <p><b>Strategy 2.2:</b> Based on the formulated plan develop appropriate implementation programs of the built in environment components.</p> <p><b>Strategy 2.3:</b> Monitor on a continuous basis and evaluate and review as appropriate the implementation of the maintenance programs of the built in environment components.</p>	<b>Action 2.1.1:</b> Select and classify the built environment to be maintained.	√			NI, CRA, MoPW, MoTC, NM	NI , CRA, appropriate Institution
	<b>Action 2.1.2:</b> Prioritize the selected and classified built in environment components.	√			NI, CRA, NM, MoPW, MoTC	√
	<b>Action 2.2.1:</b> Develop specific portfolios and /or projects for the prioritized components.		√		NI, CRA, MoPW, MoTC, NM stakeholders,	√
	<b>Action 2.2.2:</b> Implement and/or supervise the implementation of the selected portfolios and /or projects.		√		NI, CRA, MoPW, MoTC, NM stakeholders,	√
	<b>Action 2.3.1:</b> Monitor on a regular basis the implementation of the maintenance programs of built in environment components.	√	√	√	NI, CRA, MoPW, NM, MoTC, stakeholders	√
	<b>Action 2.3.2:</b> Evaluate and review as appropriate the implementation of the maintenance programs of built in environment components on regular basis.	√	√	√	NI, CRA, MoPW, MoTC, NM, stakeholders	√

**Remark:**

**MoE:** Ministry of Education, **ENC-UNESCO:** Eritrea National Commission for UNESCO, **NM:** National Museum, **CRA:** Central Region Administration, **MoT:** Ministry of Tourism, **ECNHB:** The Eritrean Cultural and Natural Heritage Board, **CCS:** Commission of Culture and Sports and **AHP:** Asmara Heritage Project, **NI:**The new Institution is the institution to be established to taking care of the site, **MoPW:** Ministry of Public Works, **MoLWE:** Ministry of Land, Water and Environment, **MoTC:** Ministry of Transport and Communication, **MoTI:** Ministry of Trade and Industry.

Objectives and Strategies	Actions	Period			Responsible Institutions	Leading/ coordinating Institution
	ACTION AREA 3: Rehabilitation and Recovery Program	Short	Medium	Long		
<p><b>Objective 3:</b> To develop an appropriate rehabilitation and recovery plan and implementation program with regard to above cited historical buildings, public spaces and squares.</p> <p><b>Strategy 3.1:</b> Update the existing program and formulate new rehabilitation and recovery program aimed at improving the existing historical building stock, public spaces and squares and preventing their further degradation.</p> <p><b>Strategy 3.2:</b> Develop and implement short and medium rehabilitation and recovery programs.</p> <p><b>Strategy 3.3:</b> Monitor and evaluate and review as appropriate the implementation of the rehabilitation and recovery programs of the historical buildings, open space and squares.</p>	<b>Action 3.1.1:</b> Update the existing programs, i.e. Mieda Eritrea Square, Medeber, and Cinema Capitol; Fish Market, Mai Jah-Jah, etc.		√		NI, CRA, MoPW, NM, stakeholders	NI, CRA, appropriate Institution
	<b>Action 3.1.2:</b> Formulate new rehabilitation and recovery program for other selected key historical buildings, open spaces and squares.		√		NI, CRA, MoPW, NM, stakeholders	√
	<b>Action 3.2.1:</b> Classify the historical buildings, open spaces and squares to be rehabilitated and recovered.		√		NI, CRA, MoPW, NM, stakeholders	√
	<b>Action 3.2.2:</b> Prepare portfolios and/or projects for the implementation of the programs.		√	√	NI, CRA, MoPW, NM, stakeholders	√
	<b>Action 3.2.3:</b> Implement and/or supervise the implementation of the selected portfolios and /or projects.		√	√	NI, CRA, MoPW, NM, stakeholders	√
	<b>Action 3.3.1:</b> Monitor on a regular basis the implementation of the rehabilitation and recovery programs of historical buildings, open space and squares.	√	√	√	NI, CRA, MoPW, NM, stakeholders	√
	<b>Action 3.3.2:</b> Evaluate and review as appropriate the implementation of the rehabilitation and recovery programs of historical buildings, open space and squares.	√	√	√	NI, CRA, MoPW, NM, stakeholders	√

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Objectives and Strategies	Actions	Period			Responsible Institutions	Leading/ coordinating Institution
		Short	Medium	Long		
<p><b>Objective 4:</b> To develop an appropriate mobility and traffic plan and implementation program for alleviating the heavy traffic congestion of pedestrians, cyclists and vehicles.</p> <p><b>Strategy 4.1:</b> Formulate and develop an integrated mobility and traffic management plan through the provision of a broad range of sustainable mode of transportation options.</p> <p><b>Strategy 4.2:</b> Develop appropriate implementation programs for the formulated mobility and traffic management plan.</p> <p><b>Strategy 4.3:</b> Develop and implement appropriate monitoring and evaluation mechanisms with regard to the mobility and traffic implementation program.</p>	<b>Action 4.1.1:</b> Study the present traffic and mobility setting in detail with emphasis on prevailing bottlenecks and drawbacks and problems.		√		NI, CRA, MoTC, MoPW, stakeholders	NI, CRA, appropriate stakeholders
	<b>Action 4.1.2:</b> Study other successful practices from other countries/heritage sites.		√		NI, MoTC	√
	<b>Action 4.1.3:</b> Develop/formulate an appropriate mobility and traffic movement plan by establishing a committee of relevant stakeholders.		√		NI, CRA, MoTC, MoPW, stakeholders	√
	<b>Action 4.2.1:</b> Establish and implement an appropriate scheme for the public transport facilities, including routes, timetables, terminals and stops.			√	NI, CRA, MoTC, MoPW, stakeholders	√
	<b>Action 4.2.2:</b> Initiate and launch appropriate projects for improving the mobility, accessibility and traffic conditions in the core and buffer zones.		√		NI, CRA, MoTC, MoPW, stakeholders	√
	<b>Action 4.2.3:</b> Take appropriate measures to improve mobility and traffic safety and create conducive environment.		√		NI, CRA, MoTC, MoPW, stakeholders	√
	<b>Action 4.2.4:</b> Establish an appropriate management unit and manage the mobility and traffic into and across the Site on a sustainable manner.			√	NI, CRA, MoTC, MoPW, stakeholders	√
	<b>Action 4.3.1:</b> Monitor on a regular basis the implementation of the mobility and traffic implementation program.	√	√	√	NI, CRA, MoTC, MoPW, stakeholders	√
	<b>Action 4.3.2:</b> Evaluate and review as appropriate the implementation of the mobility and traffic implementation program.	√	√	√	NI, CRA, MoTC, MoPW, stakeholders	√

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Objectives and Strategies	Actions	Period			Responsible Institutions	Leading/ coordinating Institution
		Short	Medium	Long		
<b>Objective 5:</b> To develop a harmonized development plan for the nominated property and Asmara as a whole that takes into consideration the socioeconomic pressure challenges.  <b>Strategy 5.1:</b> Study and update the exiting development plan with focus on the socio-economic development pressure of the city.  <b>Strategy 5.2:</b> Develop effective implementation programs with focus on the socio-economic development pressure of the city.  <b>Strategy 5.3:</b> Develop and implement an appropriate monitoring and evaluation mechanism with focus on the socio-economic development pressure of the city and the site.	<b>Action 5.1.1:</b> Identify and assess the needs for social and economic services within the Site and its Buffer zones.	√			CRA, NI, stakeholders	CRA, NI, appropriate stakeholders
	<b>Action 5.1.2:</b> Based on the identified needs, formulate appropriate socioeconomic policies to alleviate the current daunting challenges being faced by the city.	√			CRA, NI, stakeholders	NI, appropriate stakeholders
	<b>Action 5.2.1:</b> Identify and prioritize inappropriate buildings and underutilized plots or parcels within the Site and its environs and establish programs for their harmonious redevelopment.		√		CRA, NI, stakeholders MoLWE, MoPW,	CRA, NI, appropriate stakeholders
	<b>Action 5.2.2:</b> Identify and release land for development within the Site and the buffer zone are guided by the conservation master plan and planning guidelines.		√		CRA, NI, stakeholders MoLWE, MoPW,	CRA, MoLWE, NI, appropriate stakeholders
	<b>Action 5.3.1:</b> Monitor on regular basis that the implementation program is effectively put in to practice to mitigate the socioeconomic pressure.	√	√	√	CRA, NI, stakeholders	CRA, NI, appropriate stakeholders
	<b>Action 5.3.2:</b> Evaluate periodically the progress made in this connection.	√	√	√	CRA, NI, stakeholders	√

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Objectives and Strategies	Actions	Period			Responsible Institutions	Leading/ coordinating Institution
	ACTION AREA 6: Tourism and Visitor Management	Short	Medium	Long		
<b>Objective 6:</b> To develop further the tourism potential of the nominated property and workout an appropriate tourism presentation and visitors' management scheme. <b>Strategy 6.1:</b> Study the tourism master plan with focus on improving the existing visitor management, access, movement and facilities within the Site, its Buffer and Protected zones. <b>Strategy 6.2:</b> Develop and implement tourism infrastructure and facilities to the highest standard. <b>Strategy 6.3:</b> Develop and implement an appropriate monitoring and evaluation mechanism with focus on the further development of the tourism potential of the nominated property and the working out of an appropriate tourism presentation and visitors management scheme.	<b>Action 6.1.1:</b> Study the existing tourism master plan with focus on improving the existing visitor management, access, movement and facilities within the Site, its Buffer and Protected zones.		√		NI, CRA, MoTC, MoPW, MoT, Stakeholders	NI, CRA, MoT, stakeholders
	<b>Action 6.1.2:</b> Modify/enhance as appropriate/accordingly the tourism master plan.		√		NI, MoT, Stakeholders	NI, MoT, stakeholders
	<b>Action 6.2.1:</b> Establish a coordinated approach with various stakeholders with the respect to tourism infrastructures and facilities improvement.		√		NI, CRA, MoTC, MoPW, MoT, Stakeholders	√
	<b>Action 6.2.2:</b> Establish a coordinated approach with various stakeholders regarding the implementation of the tourism presentation and visitors management scheme.		√		NI, CRA, MoTC, MoPW, MoT, Stakeholders	√
	<b>Action 6.3.1:</b> Monitor regularly the further development of the tourism potential of the nominated property and the working out of an appropriate tourism presentation and visitors management scheme.	√	√	√	NI, MoT, Stakeholders	√
	<b>Action 6.3.2:</b> Evaluate periodically the progress made in this connection.	√	√	√	NI, MoT, Stakeholders	√

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Objectives and Strategies	Actions	Period			Responsible Institutions	Leading/ coordinating Institution
	ACTION AREA 7: Protected Areas	Short	Medium	Long		
<b>Objective 7:</b> Define and outline conservation and protection measures to safeguard and preserve the protected zones of the nominated site.  <b>Strategy 7.1:</b> Formulate short, medium and long term plan for the appropriate protection (conservation) of the protected zones of the nominated site.  <b>Strategy 7.2:</b> Develop an appropriate implementation program for the implementation of the above plan.  <b>Strategy 7.3:</b> Monitor and evaluate that the management of the protected zones is undertaken in line with the developed scheme and implementation program.	<b>Action 7.1.1:</b> Workout an appropriate priority plan for safeguarding the protected zones by involving pertinent stakeholders as appropriate.	√			NI, and pertinent stakeholders	NI, CRA, appropriate institution
	<b>Action 7.1.2:</b> Formulate an appropriate scheme/modality of implementation for the prioritized zones' conservation and protection.	√			NI, CRA, and pertinent stakeholders	√
	<b>Action 7.2.1:</b> Develop a detail program for the implementation of the plan.	√			NI, CRA, MoPW, pertinent stakeholders	√
	<b>Action 7.2.2:</b> Implement the detail program as formulated.		√	√	NI, CRA, pertinent stakeholders	√
	<b>Action 7.3.1:</b> Monitor on a regular basis that the safeguarding and protection of the zones is implemented as programmed.	√	√	√	√	√
	<b>Action 7.3.2:</b> Conduct periodically an evaluation of the implementation program.	√	√	√	√	√

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Objectives and Strategies	Actions	Period			Responsible Institutions	Leading/ coordinating Institution
		Short	Medium	Long		
<b>Objective 8:</b> Develop appropriate risk preparedness and disaster mitigation plan and implantation measures.  <b>Strategy 8.1:</b> Formulate appropriate risk preparedness and disaster mitigation plan on the basis on AHP DRM (2015) document.  <b>Strategy 8.2:</b> Develop detailed implementation scheme for the tailored programs.  <b>Strategy 8.3:</b> Monitor and periodically evaluate that disaster preparedness and mitigation plan is implemented as designed.	<b>Action 8.1.1:</b> Study critically the DRM (2015) study.	√			NI, CRA, stakeholders	NI, CRA, appropriate institution
	<b>Action 8.1.2:</b> Formulate tailored implementation programs.		√		√	√
	<b>Action 8.2.1:</b> Prioritize the intervention measures to be taken by taking in to consideration such factors technical, financial etc.	√			√	√
	<b>Action 8.2.2:</b> Involve as much as possible all pertinent stakeholders in the implementation of the program.	√	√	√	√	√
	<b>Action 8.3.1:</b> Monitor on a regular basis that the risk preparedness and disaster mitigation plan is implemented according to the worked out scheme.	√	√	√	√	√
	<b>Action 8.3.2:</b> Conduct periodically an evaluation of the implementation program.	√	√	√	√	√

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Objectives and Strategies	Actions	Period			Responsible Institutions	Leading/ coordinating Institution
		Short	Medium	Long		
<b>Objective 9:</b> To establish a central institution for conservation, protection, restoration and implementation of the management plan for the nominated site.  <b>Strategy 9.1:</b> Formulate a plan for the development of a centralized institution for the implementation of the management plan.  <b>Strategy 9.2:</b> Develop an implementation program for the operation of the centralized institution.  <b>Strategy 9.3:</b> Monitor and periodically evaluate the timely implementation of the institution and its appropriate functioning.	<b>ACTION AREA 9: Institutional Framework</b>					
	<b>Action 9.1.1:</b> Conduct appropriate survey of the duties and responsibilities of all the institutions currently involved in various aspects of heritage issues.	√			MoE, ENC-UNESCO, NM, CRA, MoT, ECNHB, CCS, AHP	CRA, AHP, appropriate stakeholders
	<b>Action 9.1.2:</b> Establish a forum of consultation involving the above mentioned institutions for discussing and reaching on a consensus on how best a centralized institution can be set up.	√			CRA, AHP, stakeholders	√
	<b>Action 9.1.3:</b> Develop an appropriate plan based on the survey and consensus reached regarding the establishment and activity of the centralized institution to be created.	√			√	√
	<b>Action 9.2.1:</b> Develop an appropriate capacity building program for the centralized institution.	√			√	√
	<b>Action 9.2.2:</b> Work out in detail the duties and responsibilities of the centralized institution.	√			√	√
	<b>Action 9.2.3:</b> Work out the linkage of the centralized institution with other related institutions.	√			NI, CRA, AHP, stakeholders	NI, appropriate stakeholders
	<b>Action 9.2.4:</b> Develop an appropriate budget for the effective and efficient operation of the centralized institution.	√			NI, CRA, stakeholders	√
	<b>Action 9.3.1:</b> Monitor regularly the implementation of the above scheme and the appropriate functioning of the established institution.	√	√	√	NI, CRA, stakeholders	√
	<b>Action 9.3.2:</b> Evaluate periodically the outlined programs.	√	√	√	NI	√

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Objectives and Strategies	Actions	Period			Responsible Institutions	Leading/ coordinating Institution
		Short	Medium	Long		
<b>Objective 10:</b> To establish a capacity development (human and financial) program to safeguard the site's OUVs.  <b>Strategy 10.1:</b> Formulate an appropriate capacity development plan to safeguard the OUVs of the site's OUVs.  <b>Strategy 10.2:</b> Develop appropriate strategies for the implementation of the capacity development plan/program.  <b>Strategy 10.3:</b> Monitor and evaluate the capacity development plan is implemented according to the formulated implementation program.	<b>Action 10.1.1:</b> Assess and identify training needs/gaps that guarantee the safeguarding of the site's OUVs.	√			NI, AHP and pertinent stakeholders	NI, appropriate stakeholders
	<b>Action 10.1.2:</b> Organize training programs that satisfy the needs/gaps and facilitate collaboration between different disciplines and communicate with the public.	√	√	√	NI, pertinent stakeholders	√
	<b>Action 10.1.3:</b> Create a market for the trained staff to prepare and approve a career structure, and help them to have a reasonable income.	√	√	√	√	√
	<b>Action 10.1.4:</b> Review other countries success stories with regard to the establishment of special fund for safeguarding of the site's OUVs.	√			√	√
	<b>Action 10.1.5:</b> Develop proposals for the establishment of appropriate capacity development program in line with Eritrean realities for the consideration of appropriate authorities.	√	√	√	√	√
	<b>Action 10.2.1:</b> Create career structure and training typology to clearly identify the time required for training.	√			NI, CRA	√
	<b>Action 10.2.2:</b> Develop and implement training program that able to carry out a whole range of actions to safeguard the site's OUVs.	√	√	√	NI, CRA, pertinent stakeholders	√
	<b>Action 10.2.3:</b> Develop and implement appropriate strategies for rising of funds from domestic sources including private sectors.	√	√	√	√	√

	<b>Action 10.2.4:</b> Develop and implement appropriate strategies for rising of funds from international sources.	√	√	√	√	√
	<b>Action 10.3.1:</b> Monitor on continuous basis the implementation of the capacity development program.	√	√	√	√	√
	<b>Action 10.3.2:</b> Evaluate periodically as appropriate the implementation of the capacity development program.	√	√	√	√	√

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