



**SOCIO-CULTURAL FACTORS AFFECTING HOUSE LAYOUT
FORMATION IN SOMALIA: INVESTIGATION OF USER EVALUATION
OF VILLA AND APARTMENT DESIGNS IN MOGADISHU**

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ABSTRACT

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Mogadishu was once named the White Pearl of Indian Ocean. A civil war which lasted for more than 30 years destroyed the cities modern Italian and Arab influenced architecture. Since 2011 Federal Government of Somalia (FGS) was able to retake control of Mogadishu. On afterwards the city was invested in heavily by Somali investors. Buildings, roads and other commercial facilities were constructed. As the city grew so as the population did and the need for housing especially apartment buildings increased. The increase of apartments led to this study. the investigation of socio-cultural factors that affect housing in Mogadishu, by investigating user satisfactions on the design of the apartments and villas. A questionnaires' survey that consisted of 36 question was carried out on 156 residents of Mogadishu. the survey was carried out by Google forms on the internet. And the participants were recruited through random process using snowball method (chain referral). The results showed that the participants were mainly satisfied in the apartments. but they believe that in the future, apartment buildings could have impact on the Life style of the Somali people. On the other hand, participants main factors (preference) on choosing an apartment unit was; unit size (4+1,3+1) are preferred, number of rooms, room arrangements, room sizes, and balcony. family size, number of rooms, and apartment size are related. And in the future participants might choose apartment

units that have children 's playing room, storage, laundry and other amenities. On the other hand, most of the participants live in a villa, but still agreed that living in apartments is more comfortable and satisfactory. Even though they might not have experience of living in an apartment building. The participants also preferred living in apartments over villas.

Keywords: Housing in Somalia, Socio-Cultural Factors, Life style in Somalia, Apartments in Mogadishu



ÖZET

SOMALİ'DE KONUT DÜZENİNİ ETKİLEYEN SOSYO-KÜLTÜREL FAKTÖRLER: MOGADIŞU'DAKİ VİLLA VE APARTMAN TASARIMLARININ KULLANICI DEĞERLENDİRMESİNİN İNCELENMESİ

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Mogadişu bir zamanlar Hint Okyanusu'nun Beyaz İncisi olarak adlandırılıyordu. Ancak 30 yılı aşkın bir süre devam eden iç savaş, şehrin modern İtalyan ve Arap mimarisinden etkilenen yapısını tahrip etmiştir. 2011 yılından bu yana Somali Federal Hükümeti (FGS) Mogadişu'nun kontrolünü yeniden ele geçirmeyi başarmış ve bunun üzerine kente Somalili yatırımcılar tarafından büyük yatırımlar yapılmıştır. Ayrıca binalar, yollar ve diğer ticari tesisler de inşa edilmiştir. Şehir büyüdükçe nüfus da artmış ve konut ihtiyacı, özellikle de apartman ihtiyacı artmıştır. Apartmanlardaki bu artış, Mogadişu'da konut yapımını etkileyen sosyo-kültürel faktörlerin araştırılması amacıyla yapılan bu çalışmada, apartman ve villaların tasarımına ilişkin kullanıcı memnuniyetinin incelenmesine vesile olmuştur. Çalışma kapsamında 156 Mogadişu sakini üzerinde 36 sorudan oluşan bir anket uygulanmıştır. Anket internet üzerinden Google formları aracılığıyla gerçekleştirilmiş ve katılımcılar kartopu yöntemi (zincirleme yönlendirme) kullanılarak rastgele bir süreçle toplanmıştır. Sonuçlar, katılımcıların çoğunlukla apartmanlardan memnun olduklarını ancak gelecekte apartmanların Somali halkının yaşam tarzı üzerinde etkisi olabileceğine inandıklarını göstermiştir. Öte yandan, katılımcıların apartman birimi seçimindeki ana faktörler (tercih); birim büyüklüğü (4+1,3+1), oda sayısı, oda düzenlemeleri, oda büyüklükleri ve balkon olarak belirlenmiştir. Aile büyüklüğü, oda

sayısı ve daire büyüklüğü ilişkilidir. Gelecekte katılımcıların çocuk oyun odası, depo, çamaşırhane ve diğer olanaklara sahip apartman birimlerini tercih edebilecekleri düşünülmektedir. Öte yandan, katılımcıların çoğu villada yaşamaktadır, ancak yine de apartmanda yaşama deneyimleri olmasa da apartmanda yaşamının daha rahat ve tatmin edici olduğu konusunda hemfikirdirler. Katılımcılar ayrıca apartman dairelerinde yaşamayı villalara tercih etmiştir.

Anahtar Kelimeler: Somali'de Konut, Sosyo-Kültürel Faktörler, Somali'de Yaşam Tarzı, Mogadişu'da Apartmanlar



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LIST OF SYMBOLS AND ABBREVIATIONS

SYMBOLS

Mm	: Millimeters
Cm	: Centimeter
M	: Meter
Km	: Kilo meter
Sqm	: Square meter
°C	: Celsius

ABBREVIATIONS

SRC	: Supreme Revolutionary Council
SRSP	: Soviet-inspired Somali Revolutionary Socialist Party
USC	: United Somali Congress
SFG	: Somali Federal Government
ITCZ	: Inter-Tropical Convergence Zone
FAO	: Food and Agriculture Organization
ICAO	: International Civil Aviation Organization
BMO	: British Meteorological Office
ASAL	: Arid and Semi-Arid Lands
IDPs	: Internally Displaced Persons
GDP	: Gross domestic product
LDC	: Least Developed Countries
CAHF	: Centre for Affordable Housing Finance in Africa

CHAPTER 1

INTRODUCTION

Somalia has been in state of civil war and unrest in almost 30 years. Mogadishu was once called “the White Pearl of Indian Ocean”. Mogadishu has lost its ancient and modern Italian and Arab influenced architecture. There has being a rapid increase in the development and construction of residential villas and apartments in Mogadishu. since the start of the overthrow of the al-Shabaab group that once controlled the city in 2011. The city of Mogadishu has seen a massive development and investment. The Somali diasporas (Somalis of live in foreign countries) as well as the local wealthy people started to invest heavily in Mogadishu especially the safer areas of Mogadishu (the city center) where the government offices are located and has tight security. These areas saw increased number investments that includes apartments, shopping mall, and office buildings.

During the civil war in Somalia much of the education sector was damaged especially the higher education (universities). There was no recognized university that offered a bachelor’s degree in architecture or interior design. Thus, the apartments, shopping malls and the office buildings where designed by foreign architects and designers especially from Kenya, turkey and other foreign countries.

Although the investment and the new buildings improve the overall aesthetics of the city, they also show an image to world that Somalia is finally developing as a country and is becoming more safer for investors.

1.1 AIM OF THE RESEARCH

The aim of this research is to analyze the socio-cultural factors affecting housing ins Somalia: by investigating the user satisfaction of villas and apartment design in Mogadishu. During the last decade or so, there has being a rapid increase in the development and construction of villas and modern apartments in Mogadishu. Even though these apartments are designed and constructed by foreign companies, the

designs of these apartments may not meet or satisfy the needs and the socio-cultural livelihood or lifestyle (manner of life) of the Somali people. In this way we need to analyze and study the social life style of the Somali people giving especial focus on Mogadishu and its existing apartments.

1.2 SCOPE

Due to political tensions and for safety reasons, and the ease of collecting valuable information this study will be conducted in the southern part of Somalia, where the capital city Mogadishu is located. During the colonial period the northern part was colonized by the British colonials and the southern part of Somalia was colonized by the Italian colonials. Due to Somali people's way of life, culture being identical throughout the country this research can also be carried out in other parts of Somalia.

During imperialism, Somalia was divided into two parts by the British and the Italians who had very different effects on the country. British was the first to colonize Somalia. The British wanted to keep the route to India open by the Suez Canal, so they took over Northern Somalia and proclaimed it British Somaliland. The Italians saw a chance to expand with little resistance, so they took over most of southern Somalia and proclaimed it Italian Somaliland.

1.3 LIMITATION OF THE RESEARCH

Due to the Somali being in state of civil war for almost 30 years, there is no much of a research done in Somali architecture as well as Somalia's culture and traditions and ways of living. Most researches that focused on Somali culture and traditions usually focused on the nomadic lifestyle of the Somali people and this was before 1991, but due to the civil war much has changed in the lifestyle of Somalis especially those who live in Mogadishu. With that in mind it was hard finding valuable information that focused on the live style of Somalis that live in Mogadishu and the Somali architecture.

1.4 STRUCTURE OF THE THESIS

There are six chapters in this dissertation thesis. The first chapter goes over introduction, aim of the research, scope of the research and so forth while the second chapter goes over relevant literature on the subject the third chapters provides vital

information on Somalia and Mogadishu. The fourth chapter goes over the study approach utilized to generate data in order to answer the hypothesis, the distribution of a questionnaire served as the primary method of gathering data. The gathered data is then presented, examined, and analyzed and the results are also presented. Then in the fifth chapter it is all about the findings and discussions. Finally, the sixth chapter is about conclusions.



CHAPTER 2

LITERATURE REVIEW ABOUT HOUSING AND INFLUENCING DIFFERENT FACTORS BESIDES USER SATISFACTION

In this chapter the aim was to analyzing the information about factors affecting housing formation focusing on users and their social attributes. More over the focus was about the scientific studies made related to Somali modern housing especially in Mogadishu. However, there are neither in English and nor in Arabic and nor in Somali language study made. Therefore, only general information is gathered and summarized. Since the subject is quite common in architectural and social studies only the main affecting and the information from recent publications are placed in this chapter. Necessary information about Somalia and Mogadishu, the capital city is in chapter 3.

2.1 Housing, Socio-Economic Environment, Daily Life of People and Its Effect on Housing

One of man's basic needs has always been shelter. Man requires shelter for *safety, comfort, and security*. Throughout history, man has attempted to reshape his immediate environment in order to provide cover and protection from the elements. To satisfy these desires, the house must be built to meet certain construction, space arrangement, hygiene, and comfort standards. The house and building forms that result become a physical manifestation of man's cultural and social system (Mills-Tettey 1989).

Human needs go far beyond the physical limits of the built form when defining *what constitutes a "home," including psychological, spiritual, and emotional aspects* (Mallett 2004). The concept of home is more than just about the individual's needs; it's also, about the needs of the entire community as a whole. Housing is a significant investment for families, especially given that most people spend the majority of their time inside their homes (Al-Mohannadi et al. 2019).

Housing is more than just a place to live; it is also a valuable commodity with many functions such as *social relations, status, aesthetics, anticipation, investment, and lifestyle*. Housing is an ongoing requirement. Individuals spend the majority of their daily lives in their housing, which is their primary living space. The individual is frequently involved in social activities with his family. Housing is an emotional place where psychological and social processes develop with the environment in which one lives and with other people (Francescato 1998; Kellekçi & Berköz 2010). The word "house" can refer to nine different meanings: one's social connections and networks, one's own identity and sense of privacy, one's own sense of continuity and customization, their childhood homes, their activity bases, and their physical structures (Shin 2014).

2.2 SOCIO-ECONOMIC ENVIRONMENT, DAILY LIFE OF PEOPLE AND ITS EFFECT ON HOUSING

The *socio-cultural norms* that people adhere to are the primary contributors to the formation of a *society's identity*. According to A. Rapoport's research from 1969, the socio-cultural forces can be broken down into the following categories: *religious beliefs, the structure of the family and clan, social organization*, the means by which one makes a living, and the social relations between persons (Rapoport 1969:47). Also, Cimrin (1996:79-82) states that the socio-cultural variables that shape rural settlements may be broken down into four categories. These categories are *family composition and size, safety and privacy, and religious practices*. Another important factor is *Economic and demographic factors*. they are considered to be the most significant predictors of home choice in conventional housing studies. The cost a household can pay, the size of the family, or the number and age of their children, are all significant factors in residential decisions. Families change their home arrangement throughout the course of a lifetime to suit their financial condition and the space needs of their household (Karsten 2007).The house has always evolved with regard to both sociocultural and economic factors. As a result, each culture creates its unique house shape, which is profoundly representative of the historically prevailing cultural values and is objectively influenced by the structural system of social organization (Awotona & Ogunshakin 1994).

In research carried out in Malaysia related on the Exploring the Perception of Lifestyle Housing Development. The article explains the Malaysian housing lifestyle

idea, the housing typology, and identifies the distinctive property attributes that Malaysian home purchasers seek as a reflection of the change in their standards of living and way of life. Through a questionnaire study, 117 responses from prospective homebuyers in Kuala Lumpur were gathered. People who are actively searching to buy a home and who are currently weighing their housing options made up the respondents. The model of influences on home choice was supported after the correlations between their lifestyle and housing preferences were put to the test. The findings demonstrate that the housing preferences of home purchasers are influenced by a sophisticated network of *neighborhood-level variables*, as supported by the narrative studies (Sarip & Lee 2015).

Houses today have undergone significant evolution in terms of size, design, concept, and features due to the quick change in lifestyles and higher standards of living in society, all of which were influenced by the escalating needs and lifestyle requirements of the wealthy and discerning home buyers. The wide range of distinctive housing features and ideas that we can currently find on the real estate market, including developments surrounded by lush greenery, self-contained communities with amenities right at their doorstep, sustainable and green living, and gated and guarded communities for a secure living environment. Modern clubhouse amenities, etc., suffice to demonstrate that property buyers' demands now are significantly greater and more sophisticated than they were in the past (Sarip & Lee 2015). The relationship between design and cultural traditions, using a large number of examples drawn from different parts of the world. These examples demonstrated that *cultural aspects* (such as *values, beliefs, meanings, standards, conventions, and expectations*) do, in fact, influence the way in which the built environment is shaped (Rapoport 1998).

2.3 HOUSING LAYOUT TRANSFORMATION (FACTORS AFFECTING FORMATIONS, LAYOUT AND STRUCTURE OF THE HOUSE)

Tipple (1991) defines housing as additions or modifications requiring construction activity and utilizing materials and technologies in use in the area. A layout transformation is a series of alterations to a home's design that happen gradually over time. These alterations can range from simple modifications in the furniture placement and color scheme to more substantial ones, such as the construction of new rooms or the removal of whole housing units (Popkin et al. 2012). Households' basic demands, which lead to home change, include the need for additional space to

accommodate growing family members, security concerns addressed by constructing walled walls, economic activity, and the want for interior house utilities like toilets and bathrooms (Tipple 2000). Households can grow in a number of ways, including through marriage and the formation of new households, high birth rates, or the migration of extended family or friends from rural areas to urban areas in search of employment. When young people become adults and need privacy, the demand for housing also rises (Aduwo et al. 2013). this can be related with the ways of Somali people and how families grow with the addition of relatives from other cities in the country whether for marriage, employment or study purposes.

The failure to consider traditional lifestyles and socioeconomic traits has also had an impact on housing (Amiryar & Asano 2022). Any amount and type of changes, including additions and/or revisions made to the unit's external and/or interior layout, are referred to as "layout transformation" (Salama, 1996). Alterations, adaptations, enhancements, and changes all fall within the definition of transformation. People often assess their home conditions depending on their familial and cultural standards, according to Morris and Winter (1975). This is true because settlements are made to accommodate the needs, social customs, and way of life of the local populace. The adjustments could represent the occupants' demands in terms of their physical, behavioral, environmental, social, and cultural characteristics. Rapoport used an extensive volume of illustrations from around the world to emphasize the relationship between culture and layout. These examples demonstrated the impact of cultural components (values, beliefs, meanings, standards, norms, and expectations) on the built environment. Similarly, the concept of culture and its applications can be found not only in people's values and beliefs, perceptions, norms, and behaviors, but also in their physical surroundings, such as their homes, neighborhoods, and cities. When people are not satisfied with the layout of their homes they tend to make changes to the layout in order to fit their needs as shown in figure 2.1 and figure 2.2 both the clients of these homes were forced to make changes to the layout so that they can fit their needs. From both examples removal of some units was the solutions to the layout changes.



BEFORE

AFTER

Figure 2.1: Apartment plan from Taiwan (ROC) Before and after renovation (Ne_On Apartment / NestSpace Design | ArchDaily, 2020)



Figure 2.2: Grandparent Renovation Story - Coming home to stay in Brooklyn Before and after renovation (An NYC Grandparent Renovation Story: Access, Style & Space | Sweeten, 2018)

Rapaport (1969:47) states that, House form is not simply the result of physical forces or any single casual factor, but of a wide range of socio-cultural factors viewed in their most extreme form. cultural characteristics such as accepted ways of doing things, socially unacceptable ways, and implicit ideals must be considered because they influence housing and settlement form. This includes both subtleties and functional features.

In a research carried out on Zebdeh-farkouh, in Jordan in the case of public housing, the study focuses the Impact of socio-cultural factors on the transformation of house layout. With no clear policy defining the parameters of their flexibility or the extent of modification, the research sought to highlight the influence of socio-cultural elements on the internal design of public housing dwellings. Six factors were examined in order to build a thorough understanding of this relationship: social role, social network, hospitality, gender segregation, safety, and privacy. The researchers used a mixed-method approach that included 202 resident questionnaire surveys, 35 in person interviews, and documentation of the altered layouts. According to the findings, gender segregation, privacy, social networks, and safety are important sociocultural elements that influence changes in internal architecture(Abed et al. 2022). Similar factors are considered for the questions of the survey in this study. In the case of this research six factors are examined and are based on *family structure, daily life (day to day life), hospitality, gender segregation, life style, and privacy.*

There are also others that discussed layout changes within various regions in response to physical and environmental factors. A study carried out in in one of Ghana's largest low-cost government estates, built in Accra in 1975, the study investigates housing transformation and livelihood consequences. Utilizing surveys, interviews, observations, and field photography, the authors gathered field data. According to the study, housing transformation in public estates is a technique to address deficiencies in physical design, structure, and construction, particularly in terms of living space, lifestyle, and size, as well as for resolving financial and livelihood issues through home-based businesses. The key elements influencing alterations were household requirements and household possessions. Layout modification in relation to regional adaptation to physical and environmental factors. The study suggests that Housing and building regulations must be adjusted to consider local efforts to improve the housing supply and livelihoods. Instead of relying on antiquated colonial norms that are inappropriate for present living situations, housing design and construction must be responsive to the demands, lifestyle, and resource availability of low-income households(Avogo et al. 2017).

2.4 HOUSING USER NEEDS & SATISFACTION

The concept of "housing satisfaction" refers to how satisfied households are with their current *living arrangements* (Teck-Hong, 2011). There have been numerous

attempts to define housing satisfaction from a variety of disciplines, including economics, sociology, psychology, planning, and geography. Overall, it is important to note that theories of housing satisfaction all revolve around the idea that measuring housing satisfaction involves comparing households actual and desired (or aspirational) housing and *neighborhood situations* (Galster and Hesser 1981; Lu 1999). *Housing satisfaction reflects the degree to which the ideal residence with which the owner or user lives and the current residence with which he wishes to live are compatible* (Galster, Hesser, & Garry 1981). Residential satisfaction is a term used to describe the perceived discrepancy between the requirements and aspirations of residents and the reality of their existing living arrangements (Galster 1987). The level of satisfaction that residents of a given housing unit experience is a measure of how much they identify with their socio-cultural background (Jiboye 2008). Residents' housing satisfaction suffers as a result of a lack of socio-cultural considerations, leading them to change the layouts of their homes in order to create more efficient, suitable, and personalized spaces (Abed et al. 2022). Maslow introduced The Social Network as the social ties that foster a sense of solidarity and belonging among community members. The social network is made up of four components: membership, influence, need fulfillment, and shared emotional connection. Maslow (1954). a study in Spain in which the major objective of the study, was based on primary research in a section of council housing in Madrid, is to examine the objective and subjective elements that affect tenants' happiness with living in council housing on both a physical and social level. A multiple regression analysis of 447 housewives' survey responses revealed that ties with neighbors and commitment to the neighborhood accounted for the majority of the variance in residential satisfaction. The measuring of home satisfaction raises several methodological challenges that are also examined (Amérigo & Aragonés 1990).

In study carried out in Erzincan, Turkey. Many variables were used to investigate resident satisfaction. Structural Equation Modeling was used to analyze horizontal cut data from 383 surveys conducted in 2018 with Erzincan center residents. Investigated was the connection between the people's demographic traits, the house's environmental quality, its area of usage and architecture, and the people's contentment with the house. The "Demographic Structure" variable had a positive low-level influence ($= 0.19$; $t = 3.25$) on housing satisfaction, according to the results of the structural equation model. The "Housing Location" variable has a positive and

significant influence on the contentment with the home ($= 0.83$; $t = 13.93$). Housing satisfaction is positively impacted and at a high level by the variable "Housing Environment" ($= 0.90$; $t = 10.69$). The "Housing Architecture" variable significantly and positively ($= 0.95$; $t = 14.02$) influences the housing satisfaction. Once more, the "Housing Characteristics" variable has a significant and favorable impact on the happiness with the home ($= 0.90$; $t = 17.22$). Housing satisfaction and the variable "Socioeconomic Structure" did not interact (Keleş et al. 2020).

In Samsun Turkey there was study carried out in order to discover and pinpoint customer satisfaction elements through mass housing initiatives in the Turkish city of Samsun. A face-to-face survey with 451 samples was completed as a result. User happiness is covered in the study under a number of different topics, including user profile assessments, physical evaluations of the house, environmental evaluations, evaluations of social relations, service evaluations, and user evaluations of houses in general. In conclusion, it was anticipated that the study's findings will inform mass housing policies' disregard for planning considerations (Bodur & Keskin 2021).

2.5 CONCLUSIVE REMARKS ABOUT CHAPTER 2

The literature is selected to support the future investigation about Mogadishu apartment housing and user satisfaction of Mogadishu people. The above short study gave principal aspects to be questioned to the sample people. Family size, age and gender distribution, economic conditions, their daily life, size of the houses, their layout, social status, in other words family's social relations and their social attributes are important aspects to be inquired in the questionnaire. Besides as it is stated by Galster, Hesser, & Garry (1981) Housing satisfaction reflects the degree to which the ideal residence with which the owner or user lives and the current residence with which he wishes to live are compatible, questions should investigate the expectations of the users.

Therefore, it is a must to understand Somalia, and Mogadishu and its residents, consequently a thorough research has been made. The following chapter 3 gives the overall knowledge about the Country and the city

CHAPTER 3

INFORMATION ABOUT SOMALIA AND MOGADISHU

3.1 HISTORY OF SOMALIA

From the Horn of Africa, the Somalis are an ancient people. Ancient Egyptians began trading with an area known as the Land of Punt in the fifth dynasty, importing myrrh and frankincense for ceremonial, aesthetic, and medical purposes. Before the Islamic era, Arabs, mainly Yemenis and Omanis, traded with Somalia and referred to it as the bilaad al-Berber (land of the Berbers). Geographers and visitors from the Middle Ages recorded trade with Indian Ocean civilizations and even China. However, it was only with the establishment of Islam that great city-states on the coast and in the interior were founded. These countries had significant commercial and cultural links, but they never came together politically (Mukhtar 2003:3).

Somalis claim descent from Arabian families who settled on the Somali coast 1,000 years ago. Although there undoubtedly is an infusion of Arab blood among Somalis, historians and linguists trace the origins of the Somali people to a much earlier time in the region. While scholars still debate the origins of the Somalis and the time of their entry into present-day Somalia, there is no doubt that they were in the region several hundred years before the first recorded use of their names in the early 15th century (Putman & Noor 1993:11).

Among ancient Egyptians, Somalia was known as the Land of Punt and was renowned for its frankincense and myrrh, which it still exports. Descriptions of the northern inhabitants of the region are found in the periplus of the Erythrean Sea, an A.D. 60 Greek guide to sailors, and in Ptolemy's Geography, compiled between the 2nd and 5th centuries; contact with Egyptian, Phoenician, Persian, Greek, and Roman traders' dates to this time. In the 10th century, Chinese merchants returned home from Somalia with giraffes, leopards, and tortoises for the imperial menagerie. By this time, Arab and Persian merchants had established towns along the coasts of the northern plains and the Indian Ocean (Putman & Noor 1993:11-12).

Some clan family's forefathers had established themselves in their current territories by the 12th century. Others, on the other hand, continued to migrate south until the nineteenth century. Large numbers of Somalis were left out when the borders of modern-day Somalia were drawn by colonial powers near the end of the nineteenth century, and an estimated three million Somalis now live in eastern Ethiopia and northern Kenya. Outside of Somalia's national borders, the presence of Somalis continues to be a cause of strife in the region (Putman & Noor 1993:12).

Scholars of Somali studies agree that there was no permanent centralized authority prior to the colonial partition of Somali territories, only a variety of local administrations and occasional centralized rules. Between 1550 and 1650, the Ujuuraan sultanate ruled much of Banadir, and their power extended "from the upper levels of Shebelle as far as the town of Qallaafu (Khayre 2017).

In the north, the process of Somali conversion to Islam began relatively early, most likely in the 11th and 12th centuries. Somalis fought in regional conflicts between Christians and Muslims from the 13th to 16th centuries. Somali clans took part in operations against Ethiopia, then known as Abyssinia, in the 16th century, headed by Ahmed ibn Ibrahim al Ghazi, also known as Ahmed Gureey or the Left Handed (in English) (Putman & Noor 1993:12).

3.2 THE PEOPLE

As one of Africa's largest single ethnic groups, the Somali-speaking people are dispersed over an area of almost 600,000 square kilometers. Around 8 million Somalis live in the Awash Valley in the northwest, on the edge of Ethiopia's highlands, along the Aden gulf and Indian Ocean coasts, and along the Tana river in north-eastern Kenya.(Issa-Salwe 1996:5).

The Somali people are Hamitic in both culture and ethnicity. Their nearest relatives are the nearby Hamitic or the Cushitic peoples of the Eritrea and Ethiopian in the lower lands, specifically the historically aggressive Afar, the Oromo known as Galla, Sano, and Beja. The pastoral Afar, who share Djibouti and stretch into Eritrea and Ethiopia, are their close neighbors to the north. The Somali are bordered to the west by the pastoral and agricultural Oromo of Ethiopia, and to the south by the Boran Galla of Kenya. (Lewis 1988:4-5).

Even though there is a lot of variation among them, the physical features that immediately catch the eye and seem to be most generally characteristic of the Somali

people as a whole are their tall stature, thin bone structure, and decidedly long and narrow heads. Even though there is a lot of variation among them, the physical features that catch the eye immediately and seem to be most generally characteristic of the Somali people as there is a significant amount of variation in the color of the skin, which can range from a coppery brown to a dark black. In particular, the Somalis' facial characteristics show evidence of their long-standing relationship with Arabia. In the south, among the Digl and Rahweyn tribes, physical remnants of their past contact with Oromo and the bantu peoples of this region may be found.(Lewis 1988:5).

3.3 CLAN SYSTEM

The Somali people are divided up into various clans and sub-clans. The existence of these hierarchical descent groups, each of which is supposed to have descended from a single male ancestor, is fundamental to Somali culture (Putman & Noor 1993:19). Understanding Somali society's political structure requires a primary focus on the kinship system and the specific form of social contract it entails. Their kinship system, which is known as clan, is based on agnatic lineage, which means that it descends from the father's side of the family. The social contract is a form of pact that establishes the parameters of the collective unity of the agnatic clans which is also known as patrilineal clans. Genealogies determine a person's kinship with members of a particular clan based on the ancestor from which the individual descends. The concept of a social contract, as outlined by political philosophers, can be likened to the *xeer*, which is the Somali word for the political contract that is supervised by lineage elders.(Joakim 2006:4).

Somali society's established structure can be traced back to two brothers, Soomaal (also known as Samaale) and Sab, according to conventional belief. Sab's followers practiced an agricultural nomadic lifestyle, in contrast to the pastoral-nomadic way of life practiced by Soomaal's. Among Soomaal's descendents are the Dir, Daarood, Isaaq, and Hawiye clans and their members. A direct ancestor of Rahanweyn and Digil can be identified as Sab. Groups one through six make up more than half of Somalia's population. Some smaller communities exist in addition to the six main groups of Somali clans, such as the Wa-Gosha, who live in the lower Jubba river valley; the Reer Shabeelle, who live along Ethiopia's Hararghe River near Ferfeer and into Somalia; the Shiidle, who primarily inhabit Ethiopia's Upper Shabeelle River valley; and the Goobwayn, who live in the Jubba river valley near Luuq. There are

four Bantu-speaking ethnic groupings.(Issa-Salwe 1996:6). The Somali clan structure or tree of the Somali clan system is roughly outlined and provided in figure 3.1.

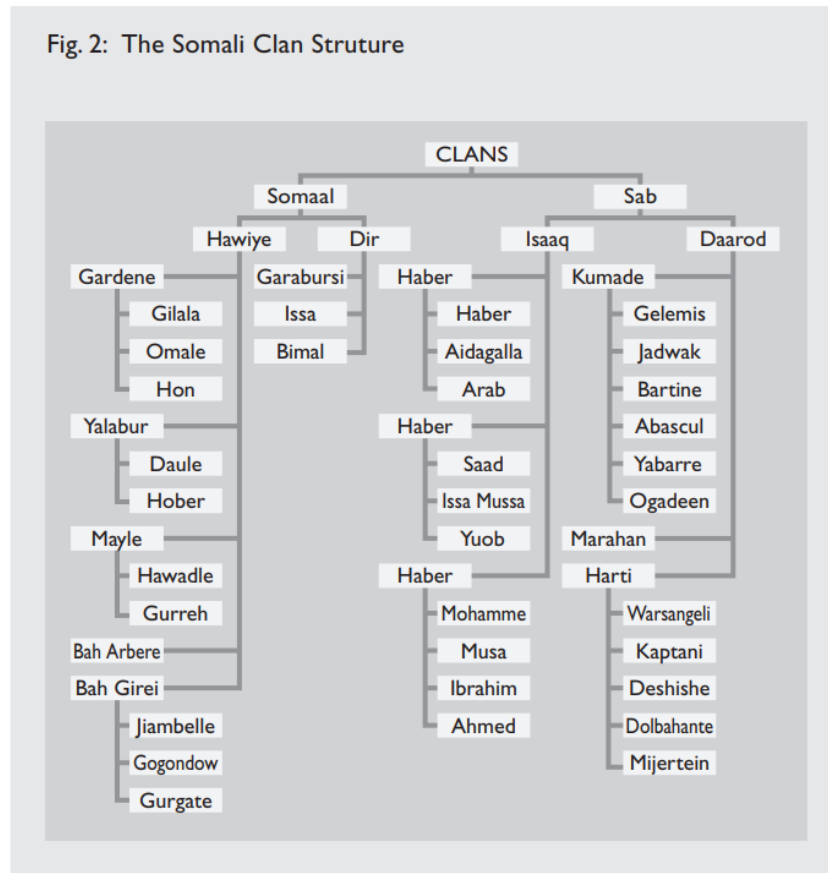


Figure 3.1: Somali clan structure (Møller, 2009)

The Reer Hamar, who live largely in Mogadishu and Marka, are another group of people in the area. Gibil-ad and Gibil-madow are subgroups of this mixed-race society, descended from Soomaal and Asian ancestry. Gibil-ad is made up of the Shaanshiyo, Duruqbo, Gaameedle, Gudmane, Qalin-shube, Sheekhaal Gendershe, Bandhabow, Asharaaf, Haatim, Reer Fiqi and Reer Sheekh clans; whereas the Gibil-madow is formed by Shukureere, Reer Ahmed Nuur and Reer Maanyo. Barawe is home to the Wa-mbalazi or Wa-miini (also known as Reer Barawe), who also reside in Marka (Merca) and Muqdisho (Mogadishu). Chi-mblazi or Chi-miini is the name given to the language spoken by this particular ethnic group. (Issa-Salwe 1996:6). Figure 3.2 shows where different Somali clans live in Somali and their territorial even though all clans live mixed in big cities.

Clans have an important role in Somali society, serving as both a source of support and a point of contention. In order to protect themselves, as well as to have a

voice in the community, clans form alliances. The Somali clan structure is marked by shifting allegiances and short-lived alliances. Among nomadic tribes, a proverb sums up clan politics in a succinct way.(Putman & Noor 1993:8).

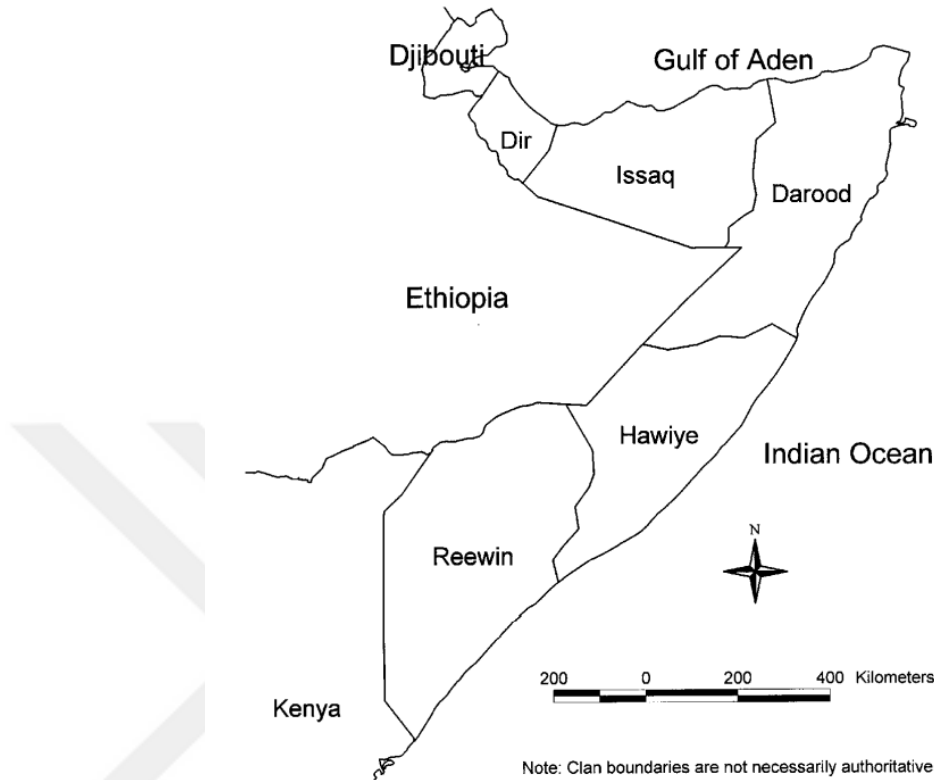


Figure 3.2: Major clans of Somalia and their locations (Mukhtar, 2003)

Traditionally, the Somali kinship system has served as both a foundation for civil society and an instrument for resolving conflict. Somali-kinship social organizations were transformed into political platforms for action and administration after state collapse produced a political vacuum.

It is the clan system of nomadic pastoralist Somalis that is the most important social component." One's sense of self-identity in Somalia is heavily influenced by one's affiliation with a clan. When it comes to government, the clan system has a significant impact. Somalis are well-versed in their clan structure, and Mogadishu is no exception.(Home Office 2019:13).

Patrilineal and hierarchical in structure, the clan system is the norm. Clan family, clan, sub-clan, major lineage, and mag or diya paying group are some of the subdivisions. Claims are headed by elders and leaders. Higher-ranking officials refer to these individuals as suldaan, ugaas, or issim. Their primary responsibilities lie in the realms of justice and advocacy. Access to communal resources is regulated and

conflicts are resolved by elders (oday or elders) at lower levels (mag paying groupings). Somalia's clan and elders have regained significant influence over the structure of society in the absence of functioning state institutions. In contrast, clans do not have a centralized administration or governmental body. Clan elders were frequently targeted by violence throughout the civil war, which weakened their authority. But despite this, they continue to exert a substantial effect on both society and politics.(Home Office 2019:13). The Somalis clan system is one of the most important aspect inside the society, we will be looking more of the clan system in the later parts of this chapter.

3.4 SOMALI INDEPENDENCE

3.4.1 Independence 1960–69

The end of the nineteenth century saw European colonial intrusion into Somali society, which left the Somali people terrified. A unifying people was torn apart and their land was divided into five separate governmental units as a result. There is a major problem in the Horn of Africa as a result of the colonial split of the Somali population. When Somali nationalists and their neighbors refused to work together to resolve territorial difficulties, it created several international problems. (Issa-Salwe 1996:62).

Trusteeship was granted to Italy by the United Nations in 1949 for a period of ten years. However, tensions that would lead to future regional warfare and civil war were already visible when British Protectorate and Trust Territory gained independence in 1960, becoming what is now known as the Somali Republic. There was a sense in which this country saw itself as guardian of all ethnic Somalis in the Horn of Africa. Five Somalia, two autonomous and one united in 1960, are symbolized by the five-pointed star in the center of the flag of Somalia's republic. There are three distinct Somaliland countries: Somaliland, Ethiopia, and Kenya.(Mukhtar 2003:249).

Only the beginning of the struggle for a unified Somalia took place on July 1, 1960, when the autonomous Somali Republic was established. This connects the colonial powers that ruled Somalia in the past, such as Italy and Britain (Issa-Salwe, 1996:62). British Somaliland was rapidly prepared for independence in order to join Somalia after the latter gained independence in 1960, following the wishes voiced by senior leaders in both nations. However, the British Protectorate gained independence

on June 26, 1960, and Italian Somalia joined on July 1, creating the Somali Republic, whose leaders were drawn from the two countries' governments at the time. National Assembly members from the two legislatures gathered in Mogadishu on Saturday and voted to appoint Adan Abdulle Osman (Hawiye) as temporary president of the new country.(Lewis 2008:33).

It was during this time period that Somalia had an independent judiciary, 123 deputies (members of the parliament) chosen every five years, and a president elected every seven years. Six regions came from the old Trust Territory, and the other two were from the former British Somaliland, resulting in a total of eight administrative regions. The Ministry of the Interior appointed the regional governors and district commissioners, but their authority was minimal; district and municipal councils were elected to accomplish decentralization of governance.(Mukhtar 2003:7).

3.4.2 Military rule and revolution (1969–91)

Political development in Somalia's first decade of independence was scammed by two crucial events. The Somali army's commander and a handful of young officers overthrew the civilian government in October 1969. They detained and imprisoned senior civilian officials, launched an anti-corruption campaign, tightened revenue collection and enhanced budgetary assistance for the Armed Forces (Jama 2017). Mohamed Siad Barre founded the Supreme Revolutionary Council (SRC) of 25 officers, with Barre as chairman, from 1969 to 1990, when the constitution was suspended under military rule. SRC soon after declared "scientific socialism" as official Somali Democratic Republic ideologies Republic(Mukhtar 2003:6).

Initially, following the coup d'état in 1969, the country turned to Soviet support (which lasted until the mid-1970s); later, after abandoning the socialist doctrine, it relied on donors, mostly international financial institutions; this was at a time of extremely high public debt as a result of external funding, limited investment was made in terms of domestic fiscal capacity. In addition, the Barre government only barely penetrated Somali society, which was characterized by a predominantly pastoralist population, a robust informal economy, and a significant reliance on clans, when it was in power.(World Bank Group 2019:2).

The Soviet-inspired Somali Revolutionary Socialist Party (SRSP) supplanted the Socialist Revolutionary Council (SRC) in 1976. Barre served as the party's secretary general while the SRC's members were all elected to the central committee.

Following the adoption of a new constitution in 1979, which established the country as a Marxist-Leninist republic with a solitary political party, the People's Assembly of 177 members was elected in December of that year. Barre was first elected president on January 24, 1980, and he was re-elected in 1986 for a second six-year term. Aden Abdulle (1960–1967) and Abdirashid Ali Shermarke (1960–1967) had shorter terms as president. (1967–1969)(Mukhtar 2003:6)

3.4.3 The civil war 1991

After the removal of Siyaad Barre, violence continued. Civilians suffered greatly as a result of clan rivalry for control and the desire to settle past scores. Without consulting any other factions of the United Somali Congress (USC) or other opposition or government-aligned parties after the departure of Siyad Barre, Ali Mandi Mohammed constituted an interim administration. The Somali National Movement convened a two-month regional conference that ended in the declaration of the North as the Somaliland Republic in response to public pressure. USC divided into two sections in the South, one of which was headed by Ali as interim president, which resulted in violence.

3.5 POLITICAL SITUATION

The Somali Republic split into South-Central Somalia, Somaliland, and Puntland after Siad Barre's defeat in 1991. Somalia is divided. After decades of conflict, no institutional authority controls the entire territory. Traditional, informal power structures may inhibit inclusive politics by controlling political procedures like elections. Formal and informal power structures, economic activity, and local authority provide obstacles for formal politics, both domestically and internationally. Paralyzed by infighting, formal government institutions deliver almost no public goods to their constituents. The Somali Federal Government maintains only nominal control over Mogadishu and southern Somalia. (Webersik et al. 2018).

There have been local, regional, and international peace-building efforts since 1991. These Peace reconciliation conferences included the ones that were held in Arta, Djibouti in 2000, Mbagathi, Kenya in 2003, and again in Djibouti 2008. Hansen puts peace-building tactics into four categories in his article 'Warlords and Peace Strategies: The Case of Somalia based on centralization of peace discussions and local community involvement. (Hansen 2003).

3.5.1 Somali Federal Government

Somalia is a federal, independent, democratic republic founded on inclusive representation of the people, a multiparty system, and social justice, according to its provisional constitution. Two or more regions can constitute a regional federal state, according to the Constitution. (Elmi 2014). This gives federal states some autonomy. It would be a major difficulty if the Somali Federal Government (SFG) failed to offer federal state members full autonomy. (Balthasar 2014).

3.5.2 Regional Federal States

All Somalia's regions are equal in status, representation, and power, under the constitution. Six regional federal states are unequal in existence and power. Puntland, Jubaland, Galmudug, Hirshabelle, and South West State are involved. The six states are shown in figure 3.3. Somaliland doesn't want to join a federation, yet it has representatives in the Somali Federal Government (SFG). Somaliland is autonomously part of Somalia, according to the SFG.

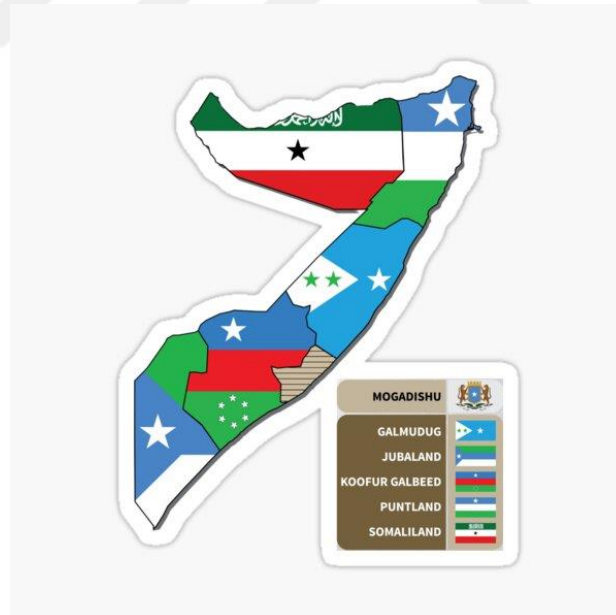


Figure 3.3: Federal States in Somalia (Somali States: A Political Map Sticker by VintageSomalia, n.d.)

3.5.3 Somaliland

Somaliland has been independent since 1991, but no country recognizes its sovereignty figure 3.4 shows Somaliland's boundary even though its disputed by

neighboring region of Puntland. The region has a functional centralized government and reliable security. Its ability to pass and implement laws is low.

Elders and politicians created Somaliland in 1991. Comparatively tranquil compared to Somalia, and a multiparty political system. Somaliland has law and order and open elections. (Webersik et al. 2018).



Figure 3.4: Somalia, Somaliland & Puntland map (Somaliland | Historical Region, Africa, n.d.)

3.6 CLIMATE

Somalia has four distinct seasons and two monsoon periods. April to June is Gu, the main rainy season. Then comes Xagaa, a dry season from June to October, and Deyr, from October to December. December to March is Jilaal, a dry time. Annual mean temperature is close to 30°C nationwide. Somalia has irregular rain patterns. Average annual rainfall is 250 millimeters (mm), but the northeast and north receive 50 to 150 mm and the south 400-700 mm. (Eklöv & Krampe 2019; NAPA 2013).

The Jubba and Shabeelle rivers run from Ethiopia into southeastern Somalia. Because Somalia is near the equator, it has little seasonal change. Somalia has tremendous terrain. Tropical environment with inconsistent rainfall and regular droughts. Large sections have a desert or semi-desert environment, with savannah being the wettest. Northeastern and central Somalia are arid, whereas the northwest and south are semiarid.

The country's temperature is quite pleasant, with a scorching sun for six months, very hot in the plains for three or four months, especially when the strong "kharif" wind blows with dust and sand, and generally very healthy. During the winter, the temperature variation is wide and the nights are frigid on higher areas. Insufficient clothing seems to be the Somalis' biggest problem. Figure 3.5 shows the classification of Somali climate. (Omar 2001:3).

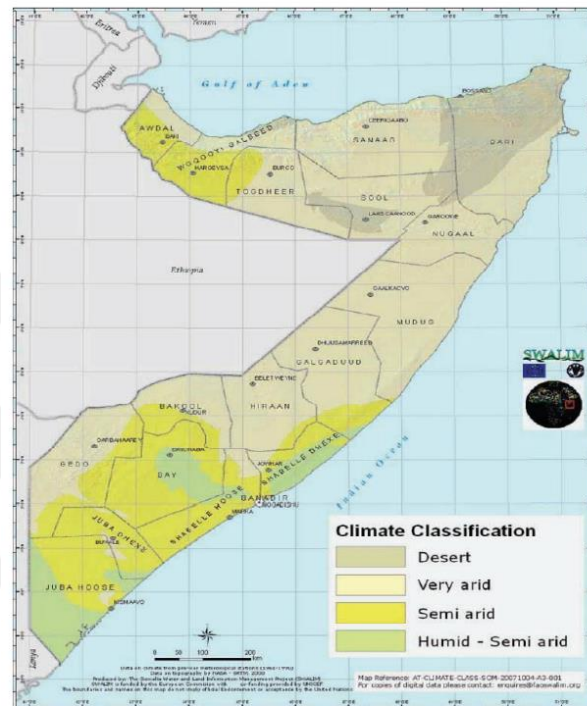


Figure 3: Climate classification for Somalia (Source: FAO – SWALIM 2009)

Figure 3.5: Climate classification of Somalia (Muchiri P.W., 2007)

3.6.1 Temperature

Somalia has high yearly temperatures. The country's proximity to the equator causes year-round high temperatures. The vast shoreline contributes to north-south temperature differences. Arid and semi-arid landmasses have high temperatures and harsh weather. Somalia's average daily high temperature ranges from 30 to 40 degrees Celsius (°C), with highs of 38°C in Berbera in the north (June–September) and 32°C in Mogadishu in April. (Eklöw & Krampe 2019:12). In figure 3.6 it shows Somalia's annual temperature from 1901-2015.

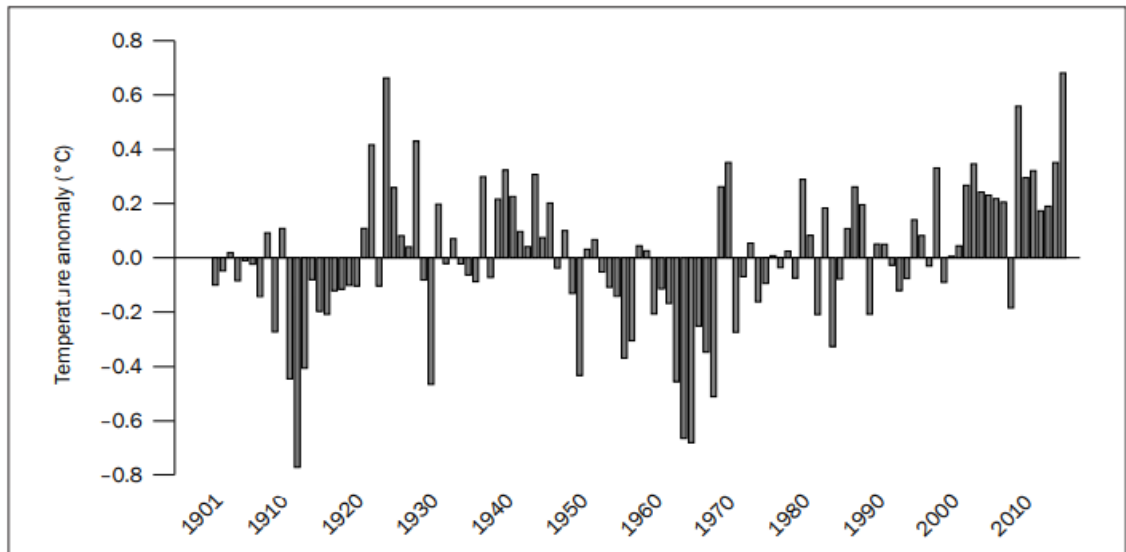


Figure 3.6: Annual temperature of Somalia in degrees since 1901-2015 (eklöw & krampe, 2019)

Somalia's climate is influenced by the ITCZ, monsoonal winds and ocean currents, jet-streams including the Somali Jetstream or Somalia Current, easterly waves, tropical cyclones, and Indian Ocean and Red Sea conditions. Somalia is semi-arid with two rainy seasons. The country's average annual temperature is 30°C. April through June are the warmest months. The north's hottest months are June to September, whereas the souths are December to March.

3.6.2 Precipitation

Somalia has little, irregular rainfall. Average yearly rainfall is 250 mm. The northern maritime plains are hot and arid, with annual rainfall below 250 mm in the north and south and 700 mm in the south-west (FAO 1995). Central semi-arid regions receive 50-100mm of rain annually. Few spots along Somalia's coast are sub humid. The mean Annual rainfall distribution in the county is as shown in Figure 3.7.

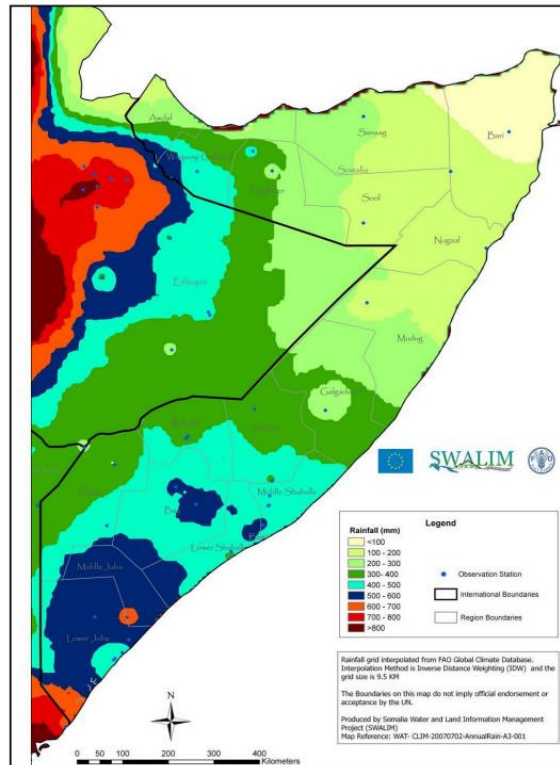


Figure 3.7: Annual rainfall distribution of Somalia (NAPA, 2013)

Since the mid-19th century, Somalia has recorded rainfall. Kismayo's rainfall records date to 1894. The country's first weather station, Other stations were created where Italian and British colonists settled around 1900. In the 1920s, rainfall statistics were collected. Despite some stations' inconsistent data collection, most of Somalia had rain gauges. After 1960, many ancient stations were modernized. The Agriculture Ministry received the nationwide weather monitoring network. Since then, enormous amounts of data have been unearthed, especially rainfall data. The data traced so far came from different, not necessarily credible sources, indicating that the documentation was out of date. ICAO, BMO, and other foreign-aided projects collected weather data. (Muchiri P.W. 2007:5). When Somalia's civil war broke out in 1990, the entire weather recording system collapsed, destroying weather stations and monitoring networks. (Muchiri P.W. 2007:5).

3.6.3 Wind

Somalia's wind is a result of the ITCZ and ITF's north-south movement. Topography affects north wind speed and direction. The FAO database was used for wind speed data, while past studies and Somali natives provided wind direction data. (Muchiri P.W. 2007:34).

Winds average 0.2-8.5 m/s. Annual and seasonal values vary substantially. Hargeisa's July average is 17 m/s. Most of southern Somalia has low wind speeds (0.2-4 m/s), except south of Juba (8-10 m/s). Figure 16 demonstrates that Somalia's southern and northern wind patterns are comparable. South-west monsoon winds are greatest (June to August). In May and June, wind speeds gradually increase in the northwest as the ITF moves north. September and October saw a drop when the ITF heads south. The winds in the north (Hargeisa, Berbera, and Iscusiban) are stronger than in the south (Mogadishu, Luuq, and Kismayo) during Haggai season. Average wind speeds are lowest in April and October/November, coinciding with the rainy seasons (Gu and Deyr).(Muchiri P.W. 2007:34). The spatial distribution of the atmospheric humidity (figure 3.8) divides the country into three distinctive zones, namely: and the general pattern of wind speed in Somalia is shown in Figure 3.9

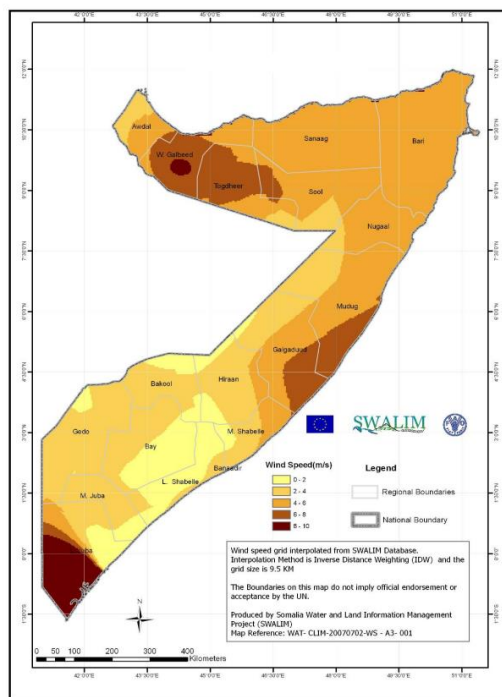


Figure 3.8: Wind speed distribution in Somalia (Muchiri P.W., 2007)

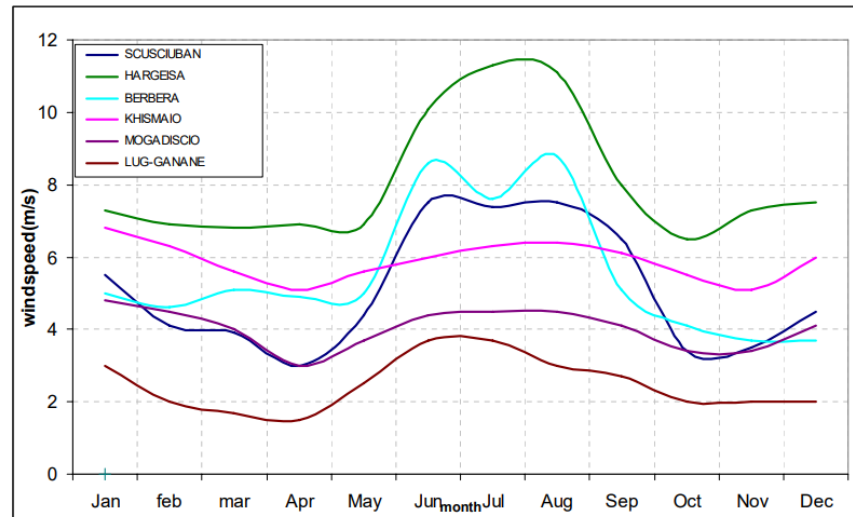


Figure 3.9: Wind speed at selected stations(Muchiri P.W., 2007)

3.7 GEOGRAPHY & TOPOGRAPHY

Somalia is in the Horn of Africa's easternmost point, bordered by the Indian Ocean, the Gulf of Aden, Djibouti, Kenya, and Ethiopia (Mukhtar, 2003:1). Somalia occupies 637,540 km² of the Greater Horn of Africa. Somalia's 3,025-km coastline stretches from the Gulf of Aden in the north to the Indian Ocean in the east and south. The country is 1,550 km from north to south and 1,095 km from west to east. (NAPA 2013:13).

Somalia is mostly dry plateaus, plains, and hills. (NAPA, 2013:14). The Magnyafulka escarpment in the south and the Golis range in the north reach 1,800–2,100 meters and occasionally 4,000 meters. (Mukhtar, 2003). Arid and Semi-Arid Lands (ASALs) make up more than 80% of Somalia's landmass and are prone to harsh weather, including high mean surface temperatures, extended drought, irregular rainfall, and strong winds. (NAPA 2013:14).

In Somalia's extreme north, hills and low mountains exceed 8,000 feet (2,440 meters) Northern plateaus reach 900 to 2,100 meters (3,000 and 7,000 feet). Mount Shimbiris is 2,450 meters high (8,000 feet). Northeast, a dry, fragmented plateau reaches 2,450 meters (8,000 feet) (Hadden 2007:11).

46 to 56% of Somalia's land is permanent pasture, according to estimates. 14% of land is forest. About 13% of the land is suitable for cultivation, although most of it needs wells and transportation. The remaining acreage is unprofitable. In the highlands around Hargeysa, significant rainfall has boosted the organic content of the sandy calcareous soil, which supports dry farming. South of Hargeysa, the Haud's red

calcareous soils continue into Ethiopia's Ogaden. This soil has camel-friendly vegetation. The Mudug Plain east of the Haud supports a pastoral economy. Between the Jubba and Shabeelle rivers are reddish to dark clays, alluvial deposits, and fine black soil. Plantation agriculture and subsistence agro-pastoralism (Hadden 2007:14).

The country can be divided into five distinct physio-geographical zones differentiated by topography:

- The Northern Coastal Plains;
- The Golis Mountain Range and Plateaus in the north;
- The Central Coastal Plains with a wide sand dune system;
- The Broad Limestone-Sandstone Plateau of Central and Southern Somalia;
- The Flood Plains of the Jubba and Shabelle rivers in the south (ASCLME 2012:1).

3.8 POPULATION

Somalis lack complete population, social, and economic data. The most recent data is from a 1975 census that revealed only limited results; the 1985 and 1986 census figures were not published. Development agencies have tried numerous times since then to compile solid data on the population's quantity, distribution, and social and economic aspects, but they have gotten little financing and recognition (PESS 2014:20).

Civil war destroyed statistical infrastructure and processes, and the lengthy violence that followed hindered collection, compilation, and dissemination of key statistics. Somali authorities, humanitarian and development agencies needed reliable statistics for effective and informed decision-making, establishing statistical benchmarks, measuring and monitoring social and economic progress, and accurate reporting on development outcomes at local, national, and international levels. Somalis haven't been included in global Common Country Assessments for years. There was no dependable way to obtain even basic population data across the country. Somali authorities have relied on publishing, research report, and online data. Lack of trustworthy data has impeded development planning and humanitarian initiatives, hurting Somalis in need. It hindered the country's move from humanitarian to long-term sustainable development. (PESS 2014:26).figure 3.10 shows the estimate of Somali population in 2014.

POPULATION	Number	Percentage
Estimated Population	12,316,895	
Urban	5,216,392	42.4
Rural	2,806,787	22.8
Nomadic	3,186,965	25.9
IDPs	1,106,751	9.0
POPULATION DISTRIBUTION		
Male	6,244,765	50.7
Female	6,072,130	49.3
Urban - Male	2,598,926	49.8
Urban - Female	2,617,466	50.2
Rural - Male	1,439,176	51.3
Rural - Female	1,367,611	48.7
Nomadic - Male	1,663,775	52.2
Nomadic - Female	1,523,190	47.8
IDPs - Male	542,888	49.1
IDPs - Female	563,863	50.9

Figure 3.10: Somali Populations estimates (PESS, 2014)

According to the results of the PESS and using data that have not been adjusted for inflation, the total number of people living in Somalia is projected to be 12.3 million, with slightly more males (6.2 million) than females (6.1 million). These numbers are going to be utilized later on for further investigation. In comparison to the population of 4,089,203 that was recorded in the census taken in 1975, these data demonstrate a significant rise in population (Ministry of Planning, Central Statistical Department, 1984). The population is young, with more than half of the population (57.7 percent) aged less than 20 years and three quarters of the population (75.1 percent) aged below 30 years. 21.4 percent of the population is made up of young adults aged 15 to 24, while just 2.0 percent is made up of senior citizens (those aged 65 and more). The fact that slightly more than half of the population is of working age (53 percent), or between the ages of 15 and 64 years old, highlights the necessity of employment development. There are exactly half as many women who are of reproductive age as there are total females in the population (15-49 years). This has repercussions for the country's projected birth rates in the future. The Somali population brake down is shown figure 3.11 and in figure 3.12 shows Somalia's Urban, rural, nomadic and IDPs populations by region (UNFPA 2016:14).

AGE DISTRIBUTION	Male		Female	
Age groups in years	Number	Percentage	Number	Percentage
0 – 4	815,629	13.1	864,734	14.2
5 – 9	1,085,531	17.4	1,022,833	16.8
10 – 14	980,123	15.7	852,642	14.0
15 – 64	3,219,425	51.4	3,226,432	53.1
65 +	144,056	2.3	105,490	1.7

HOUSEHOLDS	Number	Percentage
Estimated households:	2,076,677	
Urban	782,354	38.6
Rural	482,674	23.8
Nomadic	465,718	22.9
IDPs	298,493	14.7

MEAN AND MEDIAN AGES						
	Male		Female		Total	
	Mean	Median	Mean	Median	Mean	Median
Nomadic	21	17	20	17	21	17
Rural	20	15	19	16	20	16
Urban	21	17	21	18	21	17
IDPs	19	13	18	14	18	13

Figure 3.11: Somali Populations brake down in by urban and rural (PESS, 2014)

Table 2.1: Urban, rural, nomadic and IDPs population by region

Region	Urban	Rural	Nomads	IDPs *	Total
Awdal	287,821	143,743	233,709	7,990	673,263
Woqooyi Galbeed	802,740	138,912	255,761	44,590	1,242,003
Togdheer	483,724	57,356	154,523	25,760	721,363
Sool	120,993	13,983	187,632	4,820	327,428
Sanaag	159,717	30,804	352,692	910	544,123
Bari	471,785	65,483	133,234	49,010	719,512
Nugaal	138,929	31,047	213,227	9,495	392,698
Mudug	381,493	79,752	185,736	70,882	717,863
Galgaduud	183,553	52,089	214,024	119,768	569,434
Hiraan	81,379	135,537	252,609	51,160	520,685
Middle Shabelle	114,348	249,326	100,402	51,960	516,036
Banadir	1,280,939			369,288	1,650,227
Lower Shabelle	215,752	723,682	159,815	102,970	1,202,219
Bay	93,046	463,330	195,986	39,820	792,182
Bakool	61,928	134,050	147,248	24,000	367,226
Gedo	109,142	177,742	144,793	76,728	508,405
Middle Juba	56,242	148,439	131,240	27,000	362,921
Lower Juba	172,861	161,512	124,334	30,600	489,307
All Regions	5,216,392	2,806,787	3,186,965	1,106,751	12,316,895

Figure 3.12: Urban, rural, nomadic and IDPs populations by region (PESS, 2014)

3.9 ECONOMY

Somalia is currently recovering from the legacy of two and a half decades of cycles of violent conflict, fragile conditions, and a lack of institutional governance structures that are globally recognized. Continued violence and a lack of unified government have led to extensive internal migration, terrible living conditions, and acute vulnerability to famine, disease, and high death rates. These factors have all played a role in the current state of the country. (ESMF 2018:10).

The vast majority of Somalis in today's society are vulnerable and live in abject poverty. 2.3 million people are on the verge of food insecurity, and 1.1 million people are displaced within their own country. It is estimated that 73% of people live in poverty, with 43% living in extreme poverty, and a high concentration of poor people living in settlements of IDPs (Internally Displaced Persons) (IDPs). The GDP is predicted to be \$288 per person in the United States. A significant number of people have relied heavily on humanitarian assistance over the past several decades, yet this assistance cannot, on its own, offer the stable incomes that are required to alleviate poverty. To achieve this, Somalia need stability and investments in legitimate

institutions that are able to support the delivery of basic services, the financing of infrastructure, and inclusive growth(ESMF 2018:10).

Somalis must overcome two decades of conflict and fragility to prosper, but progress is being made. Since 1991, when Siad Barre's dictatorship fell, Somalia has witnessed cycles of conflict and fragility that have fractured the country, damaged legitimate institutions, and caused widespread vulnerability. The new government in 2012 inherited a disordered economy with high poverty and inequality, a youth bulge, high unemployment, and massive infrastructure shortages. The Federal Government of Somalia (FGS) has begun structural, legislative, and institutional reforms amid political progress and ongoing instability. Economy is responding: Somalis coming from overseas to invest, stores expanding, property market booming (WBG 2015).

Somalia's 10.5 million people rely on agriculture for economic growth and development. The UN estimated Somalia's 2004 economy at US\$ 1984 million. Somalia's GDP fell 2008-2011. Somalia's 2013 GDP was \$1398 million. In 2014, the economy's GDP was 1374 million dollars. Between 2004 and 2014, OIC and LDC GDP grew significantly. The OIC's 2014 GDP was US\$ 6954 billion, 2.8 times its 2004 value. The LDC group's GDP was \$964 billion in 2014, 3.4 times its 2004 value.(SESRIC 2016:19).

Political divisions drive Somalia's economy. Local and readily protected activity keeps the economy going. Livestock accounts for around 40% of GDP and 65% of export revenues, although Saudi Arabia's ban on Somali livestock due to Rift Valley Fever has hurt the economy. Nomads and semi-nomads rely on cattle for their livelihood. Bananas, sorghum, corn, coconuts, rice, sugarcane, mangoes, sesame seeds, beans, cattle, sheep, goats, and fish among Somalia's agricultural products. Somalia exports livestock, hides, fish, charcoal, and bananas and imports sugar, sorghum, corn, qat, and machined goods. Sugar refining, textiles, and wireless communication are Somalia's light industries. The modest agricultural-based industrial sector has been plundered and sold as scrap metal. (Hadden 2007:19).

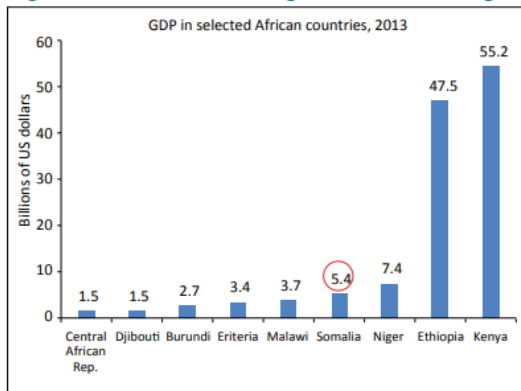
Somalia's 2013 GDP was \$5.4 billion. Somalia's GDP is larger than those of CAR, Djibouti, Burundi, Eritrea, and Malawi. Somalia's economy ranks 16th out of 46 Sub-Saharan African countries (figure 3.13). Somalia is the world's fifth poorest country, with a per capita GDP of \$435. (after Malawi, Burundi, the Central African Republic, and Niger) as shown in (figure 3.13) Due to remittances, Somalia's per capita income is 20–40% more than GDP per capita (used to measure GDP per capita). World

Bank estimates Somaliland's 2012 GDP at \$1.6 billion. Puntland's 2010 GDP was estimated at \$1.3 billion(WBG 2015:8).

Private spending and imports dominate Somalia's GDP. Food and beverages accounted for 60% of Somalia's nominal GDP in 2014, supported by remittances. Nonfood goods (cleaning products, pharmaceuticals, paper, office supplies, and other nondurables) made up 34% of total consumption. Only 8% of GDP was net investments. Exports were 14% of GDP, while imports were over 65% (figure 3.13). Remittances and international aid financed the massive trade deficit. (WBG 2015:8).

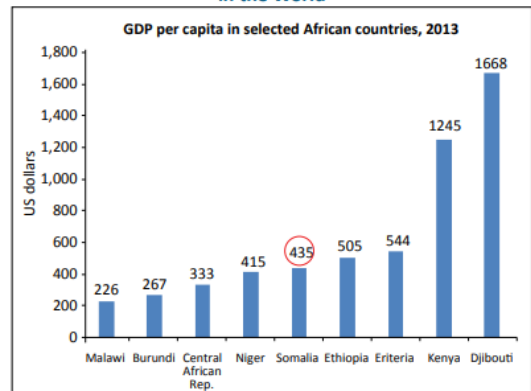
In the prewar period, consumption accounted for 98% of GDP on average between 1985 and 1990. In Somaliland and Puntland, household consumption accounts for 130 and 112% of GDP, respectively, while government spending contributes for 6% and 8%. Net exports diminish Somaliland's GDP by 45% and Puntland's by 22%. (Figure 3.14). Somaliland (10% of GDP) invested more than Puntland (2 percent of GDP).

Figure 3.1: Somalia's GDP amongst the lowest in the region



Source: World Development Indicators 2015 and World Bank and IMF staff estimates 2014.

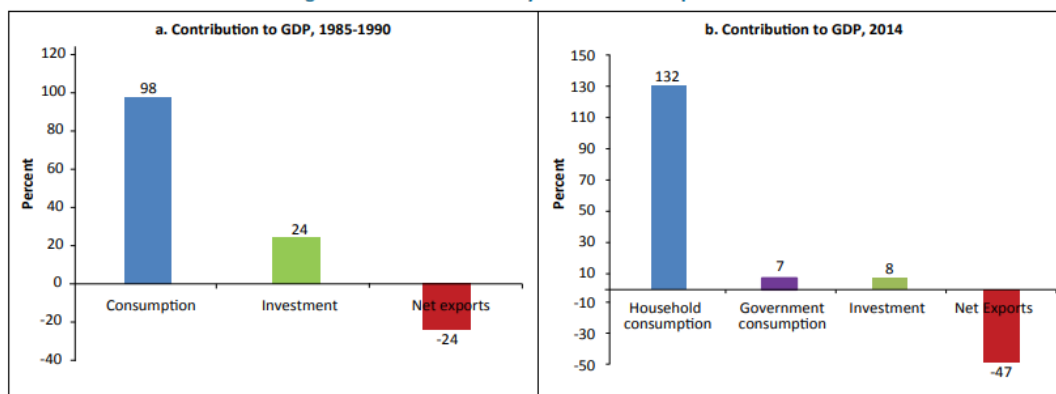
Figure 3.2: Somalia's GDP per capita is the 5th lowest in the World



Source: World Development Indicators 2015 and World Bank and IMF staff estimates 2014.

Figure 3.13: Somali's GDP (WBG, 2015)

Figure 3.3: Somalia economy remains consumption driven

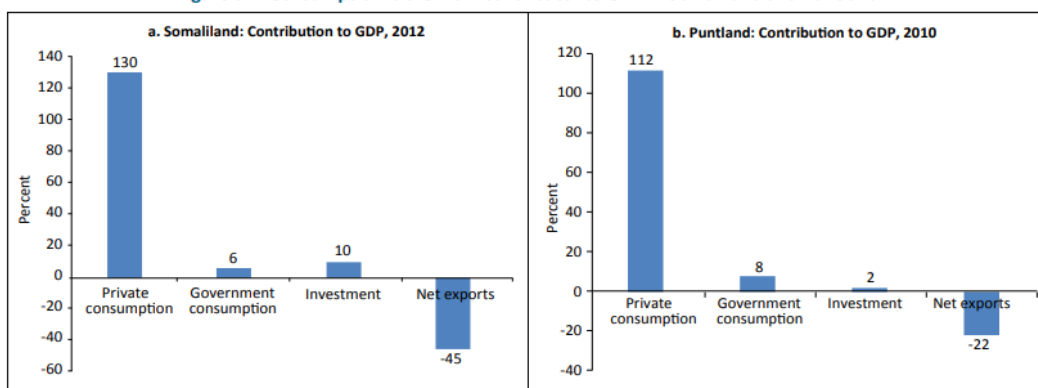


Source: World Development Indicators 2015 and World Bank staff estimates 2014.

Figure 3.14: Somali Economy (WBG, 2015)

The private sector survived the war. Somali entrepreneurs thrived in a regulation-free environment despite droughts and civil strife. In the 1970s and 1980s, the public sector provided most of the minor industrial sector's output and many services; during the conflict, private sector economic activity developed, especially in financial, transport, and telecommunication sectors.

Figure 3.4: Consumption is the main contributor to GDP in Somaliland and Puntland



Source: World Bank estimates 2013 and Puntland Ministry of Planning and International Cooperation

Figure 3.15: Somali Consumption is the main contributor to GDP (WBG, 2015)

Government spending as a share of GDP has increased with political stability. In 2012, the FGS contributed 1% of GDP. This share is growing: Federal spending rose from \$35.1 million in 2012 to \$117.4 million in 2013 (234%) and \$151.1 million in 2014. This growth was driven by wages and goods and services. Somaliland's revenue rose from \$84 million in 2011 to \$114 million in 2014 and is expected to reach \$152 million in 2015. Puntland's 2013 spending rose from \$52.7 million to \$62.0

million. As more areas of Somalia come under government control, business is booming.

3.10 MOGADISHU

Mogadishu is the capital city of Somalia and its located in the southern part of Somalia as shown in figure 3.16, it's also the most populated and biggest city in the country. Locally Mogadishu is known as Hamar. And it's in the Banadir region located on the shore of the Indian Ocean. Banadir gets its name from the Banadiri family clans. The estimated population that lives in Mogadishu is around 2.5 million. Mogadishu has 17 districts. The city is also sitting the central federal governments and all governmental offices as well as international embassies are located in Mogadishu.

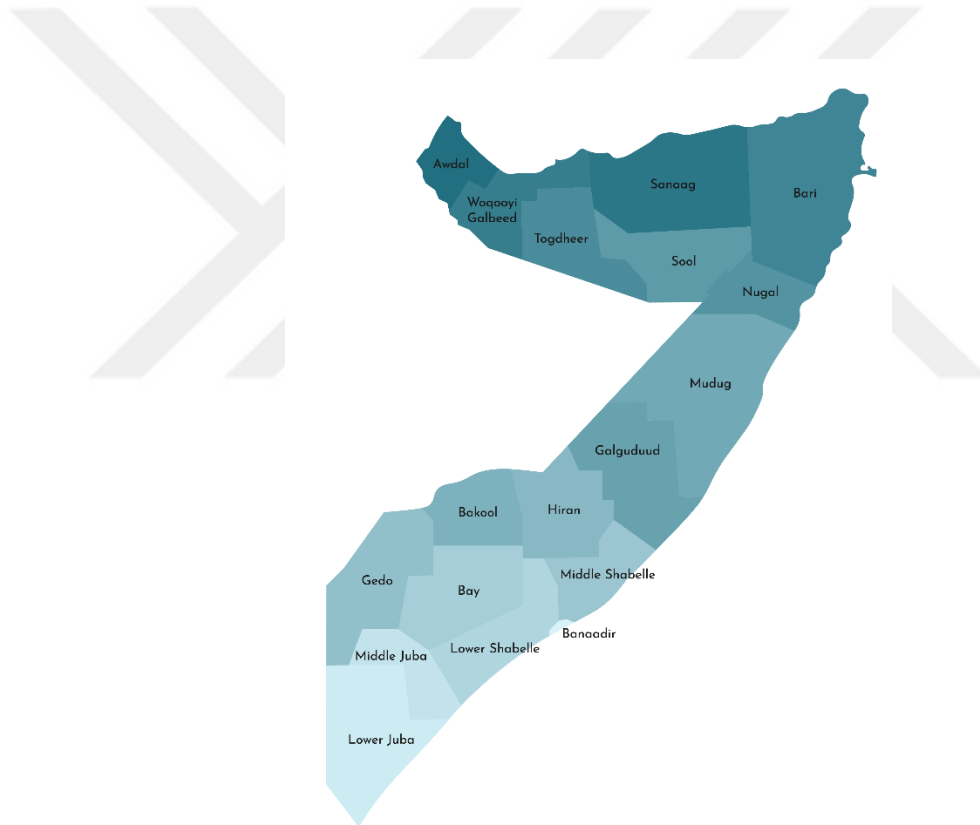


Figure 3.16: Map of Somalia with all regions and Banadir (Mogadishu) the municipal city. (Somalia Maps & Facts, n.d.)

It is very simple to overlook the fact that Mogadishu is a very old city. It is believed that the Arba-Rukun Mosque, also known as the Mosque of the Four Pillars (figure 3.17), dates back to the year 1269 AD. When the Arab explorer Ibn-Battouta visited the prosperous port in the fourteenth century, he was allegedly greeted with great hospitality, including a feast of camel meat, flourishes of expensive silk, and a tribute of trumpets. Mogadishu rose to prominence as the country's most important

metropolis in the eighteenth and nineteenth centuries. Mogadishu, Merca, and Baraawe were all significant coastal towns along the Somali coast throughout the medieval period(Metz 1992:8). It is not known where they originated; but, by the fourteenth century, visitors were referring to the three cities an increasing amount as significant urban centers of scholarship and ease. Mogadishu, which is the largest and most opulent, dates back to at least the ninth century, when Persian and Arabian immigrants intermarried with parts of Somali culture to develop a distinctive hybrid culture. It is not known where the name Mogadishu came from or what it means. Some people translate it as a Somali variant of the Arabic phrase "maqad shah," which means "imperial seat of the shah." This gives the impression that Persians played a part in the foundation of the city. Some people believe that it is a Somali mispronunciation of the Swahili phrase "mwyu wa," which means "final northern city," which raises the idea that it is the most northern of the chain of Swahili city-states that are located along the East African coast(Metz 1992:8).

Mogadishu was at the height of its prosperity when the famous Arab traveler Ibn Batuta arrived on the Somali coast in the year 1331. This is true regardless of where the city first emerged. Ibn Batuta calls "Maqdashu" "an exceptionally enormous city" and says that it was filled with merchants who shipped the high-quality cloth that was produced in the city to Egypt and other places(Metz, 1992:9). In later years, the Sultan of Zanzibar would construct a palace in Mogadishu, and then, in 1904, he would lease the city to the Italians.



Figure 3.17: Arba'a Rukun Mosque the fourth oldest mosque in Africa (Anele, 2021)

Under Italian administration, Mogadishu was adorned with fluted houses, a large church, and avenues of palm trees; whitewashed walls reflected the sunshine in the 'pearl of the Indian Ocean' After Italy's loss in World War II, its impact on Somalia's capital architecture remained. Even after Siyad Barre's 1969 revolution, the city's beaches attracted African and European tourists(Schulman & Rader 2012).

By the time the twentieth century came to a close, the concept of Mogadishu as a place to spend one's vacation would be inconceivable. Mogadishu, along with the rest of Somalia's major cities, was devastated by the fighting that broke out in the late 1980s. At that time, anti-government resistance erupted into internecine violence, which then spiraled into civil war. This legacy, which consists of potholed streets, bullet-scarred facades, and buildings that have been gutted, is the image that remains of Mogadishu. The conflict caused an unbelievable amount of destruction and deterioration, which is still shocking today(Schulman & Rader 2012). After the government took control of the city in 2011 there as has been much improvement the re-construction of the city figure 3.18 & 3.19 shows the development the city made during the last decade. High rise apartments have changed the cityscape of Mogadishu.



Figure 3.18: Mogadishu Picture showing newly built apartment and commercial buildings. (Staff, 2021)



Figure 3.19: Mogadishu picture showing new apartments (Somalia Sets 31 August Deadline for Operators to Register, or Close down | Capacity Media, 2021)

3.11 CONSTRUCTION AND HOUSING INDUSTRY

Al-Shabab, the terrorist group that had occupied Mogadishu, was finally dislodged from the capital in 2011 and the Federal Government of Somalia (FGS) was able to retake control of much of the country. Thus, the most affected city was the capital city Mogadishu. Where old and historical buildings of the ancient Islamic architecture the Italian buildings were destroyed (Figure 3.20).



Figure 3.20: (MOGADISHU, SOMALIA: View of Mogadishu, Mogadishu Is the Capital City of Somalia Stock Photo, n.d.)

Because of the civil war that almost lasted for 30 years Mogadishu lost most of its old and famous architecture. Thus, it was inevitable to start from the beginning. Residential houses were damaged, lives of thousands of people were lost, property was damaged and the most learned and well-trained engineers, architects, and contractors left the country for fear of their safety.

During the civil war the construction industry was primarily in the hands of the private companies. Individuals were hiring private companies for helping them construct their houses. Individuals are leading the reconstruction boom. Private “entrepreneurship has long been a force multiplier in Somalia.” After Al-Shabaab withdrew from Mogadishu “in 2011, private business continued to operate in the city. These businesses continued to provide transport and protection services to the international aid community, develop a nationwide mobile phone network, manage the hawala money transfer system, and keep the trade flows of khat, livestock, sugar, and charcoal moving” (Schulman & Rader 2012). In this time wealthy people were buying lands and newer buildings were built for them and the city's construction boomed (Figure 3.21). According to the UK's home office report “Mogadishu makes it to the second fastest growing city in the world, with a 4% annual rate of urbanization growth... ‘... the city's housing development is not catering to its largest potential customer base: the poor. New buildings are completely out of financial reach for most of Mogadishu's inhabitants: the cheapest newly built type of house in 2018 cost an estimated US\$70,000 [just under £56,000] – unaffordable to almost all of Somalia's population” (Home Office 2019). “These exorbitant prices are partly due to the value

of land, Mogadishu's scarcest resource, skyrocketing in the last decade. This rules out formal home ownership for the majority of Mogadishu's population"(Home Office 2019).



Figure 3.21: (Somalia Housing Boom as Mogadishu Emerges from Ashes of War | Al Arabiya English, 2016)

3.12 HOUSING SHORTAGE AND PROBLEMS

There are an estimated 850,000 Internally Displaced People (IDPs) in the city living in around 800 informal sites and settlements on the outskirts as well as within the urban center. 350,000 Somalis fled their homes in 2019 owing to conflict, insecurity, and drought (and related lack of livelihoods). Riverine flooding and rapid flooding displaced 416,000 more that year. Mogadishu is a refuge for refugees fleeing conflict and disasters. Over 100,000 people were recorded coming in Mogadishu in 2019, mostly because to fighting and insecurity in Lower Shabelle (94,000). In 2018, 173,000 people left Lower Shabelle and 17,000 evacuated Middle Shabelle to Mogadishu. More than 230,000 people were forcibly evicted from informal IDP sites and settlements in 2019. (compared to 314,000 in the previous year). When landowners seek to develop or sell their land, they often violently evict informal site occupants.(UNHCR 2020).

Access to suitable housing is a concern in Somalia due to increased urbanization and IDPs finding refuge in urban areas, according to the Centre for Affordable Housing Finance in Africa (CAHF). 14.7 percent of Somalia's households are IDPs living in informal settlements or camps, according to the National

Development Plan 2017-2019. 85% live in slums or damaged houses. Most informal housing lacks electricity, water, and sanitation.(Home Office 2019).

Because of the city's high population density and resulting scarcity of property, Mogadishu's rents and land prices have risen. In Mogadishu, a 25-square-meter stone/concrete one-room house costs between USD 50 and \$100 a month to rent. Depending on the area, a house with three to five bedrooms rents for about USD 350-600 per month. Depending on the location of the construction, a corrugated iron sheet made out of box profile costs around USD 140 per month(UNHCR 2020).

In informal settlements, people generally make their own homes out of waste materials. In some instances, these materials can include wood, plastic sheets, and even corrugated metal sheets. This is the most common option for having a roof over one's head. However, even the construction of these homes demands funds, which the vast majority of people lack. In Mogadishu, housing possibilities are primarily determined by one's wealth, making housing the most unequal class barrier. Individuals who cannot afford the purchase of property or the payment of rent are vulnerable since they would have limited options and would likely be compelled to find shelter in the city's informal settlements or poorer parts of the city.(Home Office 2019).

3.13 HOUSING TYPES THROUGHOUT THE COUNTRY

3.13.1 Aqal (Akal) Somali / Nomadic Hut

The Aqal is a portable shelter in the shape of a dome that is made from wood poles and covered with skins, woven fiber mats, or occasionally fabric or tin (figure 3.22). It is constructed such that it may be collapsed into a smaller size. The aqal is built with materials that are easily accessible in the neighborhood where it is located. It is not difficult to disassemble or reassemble after being taken apart. Once a new camp has been built, the female members of the family will take the aqal to the new location on the back of a camel and put it up there. On a more temporary basis, it is common knowledge that nomads will build traditional huts that are comparable to this one. The colorful appearance of these cottages is the result of their use of a wide array of building materials (figure 3.23).



Figure 3.22: Somali traditional hut Aqal (Nomadic Houses, n.d.)



Figure 3.23: Interior and exterior pictures of the Aqal. Colorful interiors with different materials (Nomadic Houses, n.d.).

The aqal house is one of the oldest types of nomadic housing in Somalia, these days it's mostly found in rural areas of Somalia. Rural Somalis are usually known as pastoral nomads. They transport their dwelling as they move from place to place. The dwellings are reputedly reused and the components are passed from generation to generation. Somali women employ native plants and animals for arm etchers, clinching, serializing, dying, and house construction (Figure 3.24).



Figure 3.24: The nomadic hut is, in its entirety, a result of female ingenuity and collective effort.’ Photograph: Alamy (Mire, 2015).

3.13.2 Buul

IDPs and other residents of Mogadishu who are unable to participate in the city's regular housing market often find themselves with no choice but to live in this form of dwelling. The cost of rent is approximately \$13 on a monthly basis on average. The majority of buuls (Figure 3.25) are situated on the city's outskirts as a result of the ever-increasing cost of housing and the prohibitively expensive cost of land in the city proper. Some internally displaced people who belong to one of the main clans have also been known to reside (squat) in buildings that are held by the government. However, expelling them could result in political instability because it might be seen as a challenge to one of the tribes in the area.(Kamau et al. 2019).



Figure 3.25: Buul usually made of plastic sheets and sticks (source Somali National Tv facebook page)

3.13.3 Muddul traditional somali house

Mudduls are round shelters made from poles, brush, or vines, plastered with mud, dung, and ashes, and capped with a cone-shaped thatched roof (Figure 3.26). Farmers built it long-term. Most African countries do this. It uses local resources.



Figure 3.26: Somali and African traditional house Muddul (Sarara Wayne, n.d.)

This type of housing is usually found in the rural areas or in the countryside (Figure 3.27). Mudduls are commonly found in most African countries although the material used to build it might be different depending on the location that is made but still it's an African traditional house.



Figure 3.27: Rural muddul huts (Sarara Wayne, n.d.)

3.13.4 Corrugated iron sheet house (Ba'awayne)

Typically, home to inhabitants that fall into the lower income bracket as well as those in the lower middle class. In spite of the quality of these services, the reported monthly average cost is \$140. Within the city itself, in addition to areas on the city's outskirts where land is somewhat more readily available for new developments. In spite of the poor quality of the homes, the exorbitant prices at which they are offered put them out of reach for city residents with lesser incomes.(Kamau et al. 2019).

These types of houses are usually built in the plots that the owners have, because they are much more economical than the villas which are made of stones and bricks. Usually the Ba'awaynes are made from corrugated iron sheet (figure 3.28). Because of the iron sheet absorbs heat the inside of the house is covered with wood so that it can decrease the heat. In order for the house to be safe the foundation is made of mud and stone. The Ba'awayne houses are decorated with different paints in the exteriors they usually colorful (Figure 3.29).



Figure 3.28: House made of corrugated iron sheet (ba'awayne) in the outskirts of mogadishu source from suuqfudud (Facebook Gal | Facebook-Ga, n.d.)



Figure 3.29: House made of corrugated iron sheet (ba'aweyne) in the outskirts of mogadishu (Dhulkoob - Powerful Residence Real Estate, n.d.)

3.13.5 The city villas

Villas are one of the old buildings in Somali especially in Mogadishu. Villas existed before the civil war and they are usually built in plots of lands in the city. First, we need to understand the plot sizes available in Mogadishu as shown in (table 3.1).

Table 3.1: Mogadishu Plot Types and area in meter squares.

	Plot types (names)	Area	Total area
1.	Nus boos (half plot)	20 meter x 10 meter	200 msq
2.	Boos (full plot)	20 meter x 20 meter	400 msq
3.	Labo boos (2 plots)	20 meter x 40 meter	800 msq
4.		15 meter x 20 meter	300 msq
5.		12 meter x 12 meter	144 msq
6.		13 meter x 13 meter	169 msq

In the table above, those are the most typical plot sizes that are found in Mogadishu. The larger plots exist in the city center but are already occupied. Smaller plot sizes are usually found in the old parts of Mogadishu around the lido beach where plot sizes are 12-meter x 12 meter. The villas are designed and constructed locally by private construction companies. They are found in every part of the city and used by families of different sizes. Villas can be rented or you can find them available for sale.

The villas are made of bricks which are made locally. Or in some parts of Somalia you can find villas which are made from stones from the foundation to the

walls (figure 3.31). The roofs are made of corrugated iron sheet. From the exterior villas are finished with tiles on the exterior walls, while some are usually painted with different colors.

Floor layout of villas varies depending on the plot area of the site. Usually most villas consist of bedrooms, master bedroom, kitchen, living and dining room (which are open to each other or they are the same room Somalis usually don't use separate dining room), toilets, separate room (which can be accessed outside or which can be used as shop or some rented to students or solo person), and veranda (figure 3.30).

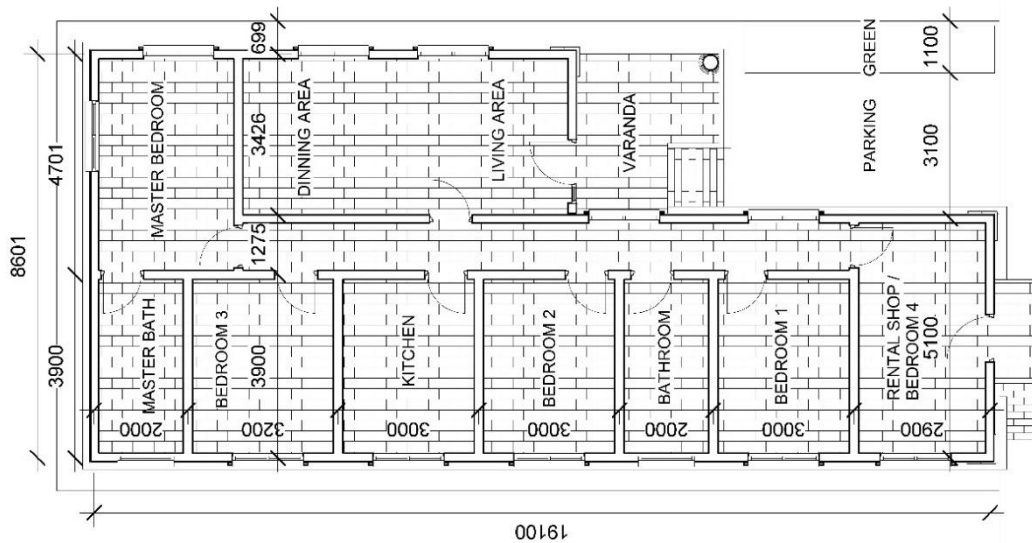


Figure 3.30: Floor Plan of villa sitting area of 10x20 (nus boos) in Mogadishu (source from the owner)



Figure 3.31: Villa in Mogadishu (source E-weydii Online market-Facebook)

3.13.6 Apartments

This study focuses deeply in the designs of apartments in Somalia, before the civil war started there were far and few apartments in Mogadishu which were built by the government. But after the civil war and especially after 2011 there are more new apartments in Mogadishu before and this increase has changed the cityscape of the city.

As of the sizes of apartments it depends on the plot size usually apartments use the same sizes as of villas plots. They can 10-meter 20 meter to all the way to 40-meter x 40 meter. And usually apartments differ in terms of number of floors (figure 3.32) shows safari apartment in Mogadishu. They comprise of minimum 2 floor and the maximum are decided by the finances of the owner (figure 3.33) shows sunshine apartment which is one of the new apartment's buildings in Mogadishu. We will be looking more of the apartments in later sections of this chapter.



Figure 3.32: Safari apartments Mogadishu Somalia (File:Safari Apartments Mogadishu Somalia.Jpg - Wikipedia, 2015)



Figure 3.33: MOGADISHU | Sunrise Apartments | Under construction (MOGADISHU | Sunrise Apartments | U/C | SkyscraperCity Forum, 2008)

3.14 THE SOMALI CULTURE

Somalis are Cushitic-speakers linguistically and culturally (figure 3.34). Somali belongs to the lowland Eastern Cushitic language family, which is part of the Afro Asiatic stock. It is spoken in Ethiopia, Eritrea, Somalia, Djibouti, Kenya, and Sudan.(Lewis, 2008)(Putman & Noor 1993:21).

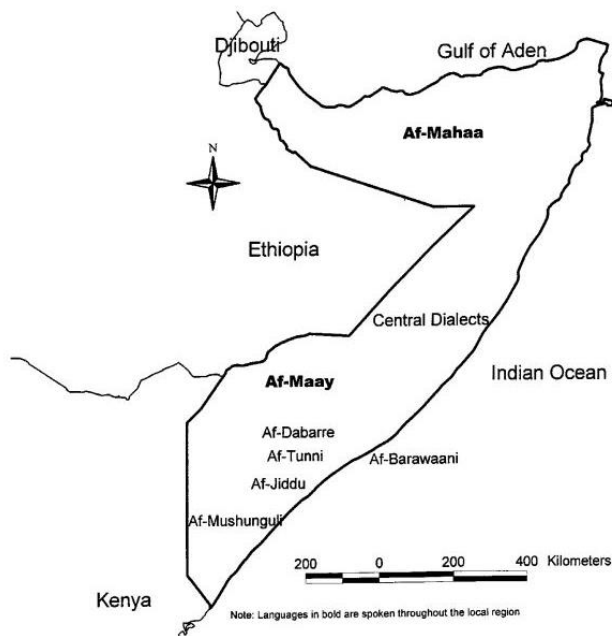


Figure 3.34: Language distribution map of Somalia (Mukhtar, 2003)

Somalis speak Somali. Arabic is also widely spoken, and those who have received formal education are typically also fluent in either English or Italian. There is a possibility that Swahili is spoken in the coastal districts that are close to Kenya.

The standard dialect, which is spoken by the majority of Somalis, and the Digil/Raxanweyn dialect, which is spoken mostly in the inter riverine areas of the south, are the two most common varieties of Somali. Despite the fact that the Digil/Raxanweyn dialect spoken in the south is nearly as dissimilar to standard Somali as French is to Italian, the majority of people who speak the Digil/Raxanweyn dialect are conversant in standard Somali. As a result, language creates a route for communication between people who are separated by thousands of kilometers.(Putman & Noor 1993:21).

The vast majority of Somalis come from a cultural background that is primarily pastoral and nomadic. They are known for their skill at herding camels, sheep, goats, and even cattle in areas where the climate is favorable. Even though many people today live in metropolitan places at least part of the time, approximately sixty to seventy percent of the population is nomadic or has some relationship with the nomadic lifestyle. The majority of those who are left are farmers and also keep animals. Commerce and fishing have traditionally been a source of income for a significantly smaller fraction of the population, the majority of whom live in urban coastal areas. (Lewis 2008:3).

The clan system, which is comprised of ancestral groupings such as the Reewin, Hawiye, Darood, and Issaq, is the predominant form of social structure. All of them trace their Arab descent directly back to the Hashimite family of the Prophet Muhammad, and as a result, they adhere to the religion that their forebears did, which is Islam.(Mukhtar 2003:2).

3.15 FAMILY

The Somali culture has a long history of polygyny, with men typically having up to four wives at any given time. This practice is permitted under Islamic law. In general, a man's age is correlated with the number of wives he has, with greater age typically being connected with more spouses. The actual prevalence of polygyny is highly variable; however, it is safe to assume that the majority of men in pastoral nomad societies, as well as in southern Digil and Rahanweyn, have had at least two wives at some point in their lives; moreover, wealthy and successful men frequently have had four wives throughout their lives. The institution of marriage is notoriously unstable, with a high rate of divorce; as a result, the number of marriages that the

typical man will enter into during the course of his lifetime is typically significantly higher than what is suggested by these assertions (Lewis 2008:3).

A substantially higher proportion of the male population will have entered into at least six marriages by the time they pass away; others will have entered into many more marriages than this. The major goal of marriage is to create offspring, particularly male heirs who will strengthen and honor a father's lineage and enhance the father's reputation and prestige. This goal of marriage is the primary reason why people get married. Its common knowledge that Somali families have a lot of members; typically, families have anywhere from 5 to as many as 20 people in them. The member of the family will typically reside in the same home. Especially in the city of Mogadishu, which is the capital. Mogadishu is the location of the majority of the country's educational institutions, including schools and colleges. The majority of the time, parents who have relatives living in Mogadishu will send their children to the city so that they can attend school and look for work there. Each wife and her children form their own independent socioeconomic unit inside the polygynous pastoralist household. This unit has its own residence and a small stock of livestock (sheep and goats). However, in the case of Mogadishu, wives continue to reside in their husbands' homes. However, there are typically several members in each family, and they reside in villas(Lewis 2008:12).

3.16 LIVELIHOOD OF THE FAMILIES (ECONOMIC SITUATION)

Although the thesis focuses on the livelihood of those who live in the capital city Mogadishu, we should also look at the general livelihood of the wider Somali population. The Somali economy is known for its agricultural sector, livestock export and fishery.

When it comes to Mogadishu it's the center of trade and commerce of Somalia and the epicenter of violent conflict that has affected the country in the past 15 years. In Mogadishu the business class has taken over utilities, health services, the education sector, telecommunication networks and 'public' transport. A weak adherence to the notion of 'public goods', the functioning of the Somali non-state administrations and the 'free market' model of Dubai are all elements in a discussion about the role of the business class in a re-emerging Somalia. Today there is greater awareness among Somalis of the role the private sector could play in a more stable setting in enabling Somalis to enjoy economic prosperity. Many basic social services, such as education

and health provision, have been provided on a cost-recovery basis by the private sector(Webersik 2006).

3.17 EXISTING APARTMENT TYPOLOGY IN MOGADISHU

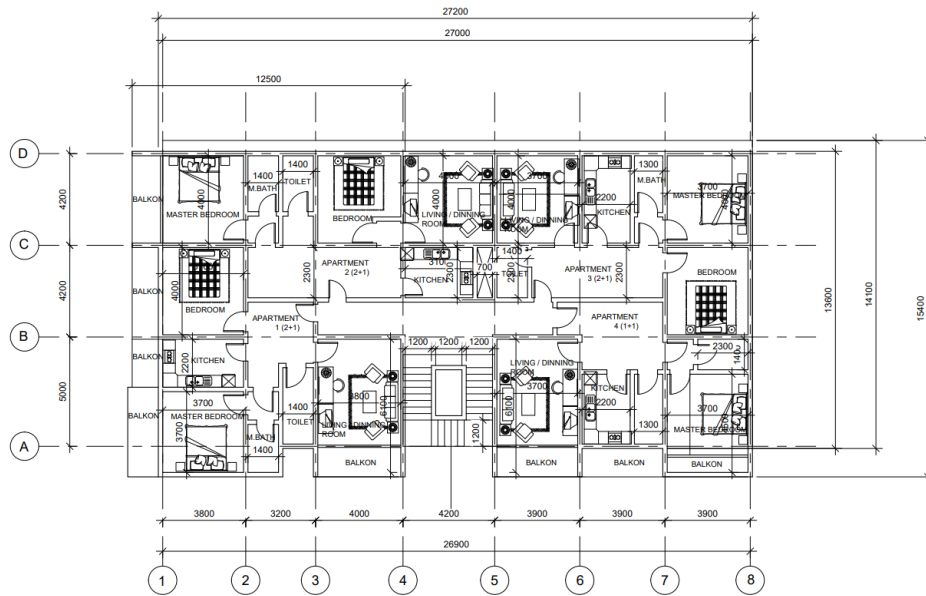
In this section of the study we will be looking at the existing apartment typologies in Mogadishu. In this case existing built apartments will be analyzed and studies. For this section we have picked 4 different apartment typologies. The first one will be newly built apartment; the second apartment will be an old apartment that was renovated in terms of its functionality and its aesthetics. The third apartment will be a new apartment under construction in Mogadishu.

3.17.1 Apartment 1

Project information

This project is designed by Hayirdesigns and constructed by Handasa engineering, the project location is Mogadishu, Somalia. The apartment consists of G+3+terrace. the plot area that the apartment sits on is 15-meter x 27 meter = 405 msq. In general Somalia does not have a construction law currently after the civil war started there was always a dispute in site borders with in the neighboring site owners. In order to solve this the community decided that whenever someone wants to build a new building on his/her site they should make a setback of 1 meter from neighboring sites, in this why there is a 2-meter gab between the neighboring buildings.

For this project the ground floor is used as storage and usually in Mogadishu most apartments their ground floor is used for rental storage spaces, so that business men can use those spaces to store their goods before they sell them. The ground floor also has spaces for entrance for the vertical circulation (stair & elevator). The first, second and third floor are all used for apartment units, these units include 1+1 and 2+1 apartment types. And finally, the terrace is open (figure 3.35) (table 3.2).



Typical Floor Plan

Figure 3.35: Floor Plan of apartment 1 (source owner)

Table 3.2: Apartment 1 specification and functional layout on each floor. (Source from Owner)

G+3+Terrace		
Ground floor	Storage area	
	Vertical circulation	
First, second & third floor	1-unit apartment (1+1)	1 bedroom with separate toilet
		1 kitchen
		1 toilet
		1 Living & dining room
		2 balconies (1 in the kitchen) (1 in the living room)
First, second & third floor	3-unit apartments (2+1)	1 bedroom with separate toilet
		1 bedroom without toilet
		1 kitchen
		1 toilet
		1 Living & dining room
		3 balconies for unit 1 1 balcony for unit 2 0 balcony for unit 3
Terrace	Open terrace	



Figure 3.36: Front view of apartment 1 (source owner)



Figure 3.37: Side bird eye perspective view of apartment 1 (source owner)



Figure 3.38: Front bird eye perspective view of apartment 1 (source owner)

3.17.2 Apartment 2

Project information

The second apartment is located at Labo Dhagax district in Mogadishu, Somalia. It was an old building but was renovated recently. The apartment consists of G+4+terrace. the plot area that the apartment sits on is 13-meter x 13 meter = 169 msq. Before the renovation of the apartments it used to be G+2+Terrace. and the floor was changed to accommodate the needs of the client. This apartment is a perfect example of design satisfaction & needs plus it covers layout modification or the design in order to accommodate new functions into the design. as the construction of new rooms or the removal of whole housing units (Popkin et al. 2012). As new apartments are built in Mogadishu old apartments are trying to stay in the market and the owner usually modify the designs especially the layout of the building and also change the exterior view or the facade of the apartment. Housing satisfaction, needs and layout modification are all covered in chapter 2 of this study.

The ground floor is used as a rental shop as we have seen in the first example usually in Mogadishu most apartments their ground floor is used for rental storage spaces, so that business man can use those spaces to store their goods before they sell them. With the first example in mind almost all of apartments in Mogadishu the ground floor is usually used for 3 purpose. Apart from the rental shops the ground floor has the area for vertical circulation (stair & elevator). The first, second, third and fourth floor are all used for apartment units, these units include 1+1 and 2+1 apartment types. And finally, the terrace is open (table 3.3) (figure 3.40).



Figure 3.39: Apartment before renovation (source owner)

Table 3.3: Apartment 2 specification and functional layout on each floor. (Source from Owner)

G+3+Terrace		
Ground floor	Shops	
	Vertical circulation	
First, second, third & fourth floor	1-unit apartment (1+1)	1 master bedroom with separate toilet
		1 kitchen
		1 toilet
		1 Living & dining room
First, second, third & fourth floor	1-unit apartments (2+1)	1 master bedroom with separate toilet& with balcony
		1 bedroom with balcony
		1 kitchen with balcony
		1 toilet
		1 Living & dining room with balcony
Terrace	Open terrace	

As shown in the figure 3.39 before the renovation the apartment was G+2 building and on each floor, there were 2 units. The two units were both 2+1 types. Before the renovation the kitchen in the 2+1 had its window located in the corridor. And the rooms were smaller in size. Somalis tend to prefer larger rooms. In the renovated part the apartment was changed from G+2 to G+4 (figure 3.40), and the units were changed to one 2+1 unit and one 1+1 unit. The layout of the rooms were modified and changed to meet the needs and satisfaction of the client.

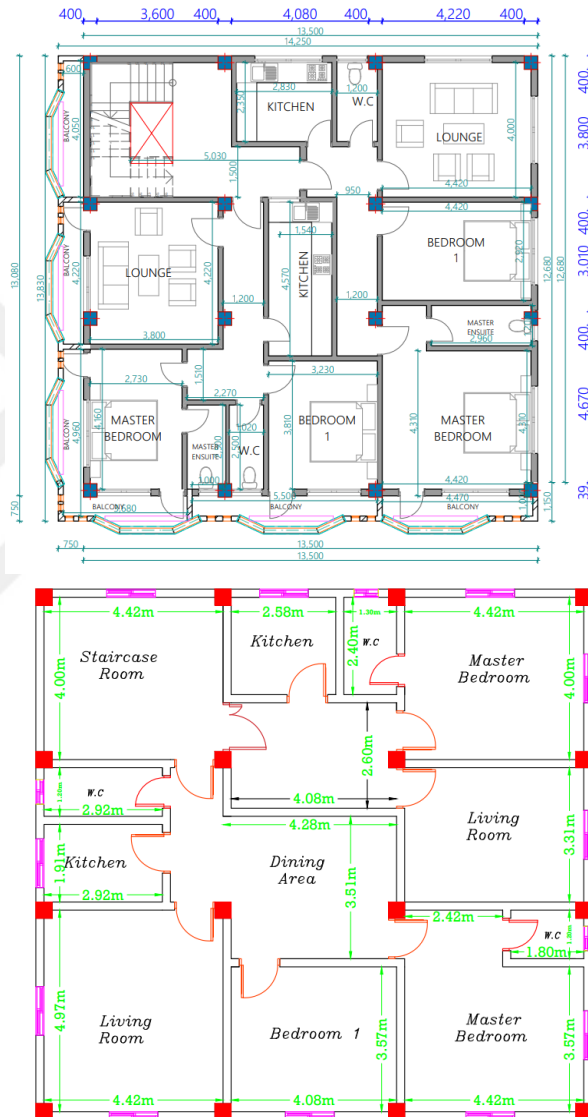


Figure 3.40: Top before renovation and bottom after renovations the renovation includes layout transformation and modification (source owner)



Figure 3.41: Renovated apartment (source owner)

3.17.3 Apartment 3

Project Information

This project is designed by Hayirdesigns and constructed by Handasa engineering, the project location is Mogadishu, Somalia. The apartment consists of G+3+terrace. the plot area that the apartment sits on is 13-meter x 13 meter = 169 msq. The ground floor will be used for shops and vertical circulation. While the consecutive floors will be 2 units each floor with 2+1 unit. And the terrace will be open (table 3.4) (figure 3.42) (figure 3.43).

Table 3.4 Apartment specification and functional layout on each floor. (Source from Owner)

G+3+Terrace		
Ground floor	Shops	
	Vertical circulation	
First, second & third floor	2-unit apartment (2+1)	1 master bedroom with separate toilet
		1 kitchen
		1 toilet
		1 Living & dining room with balcony
Terrace	Open terrace	

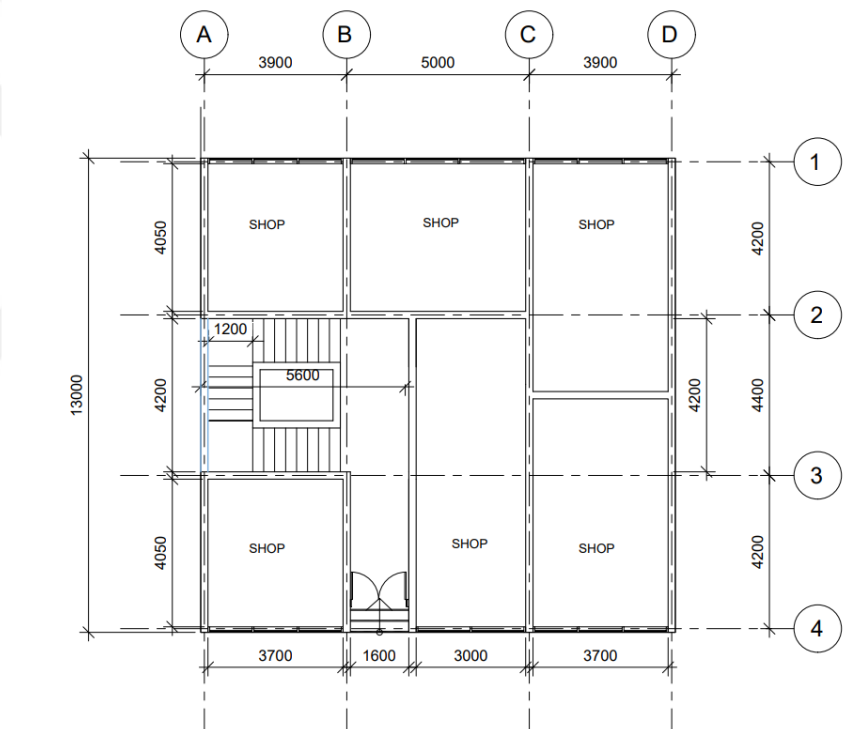


Figure 3.42: Ground Floor of apartment with shops and the vertical circulation (source owner)

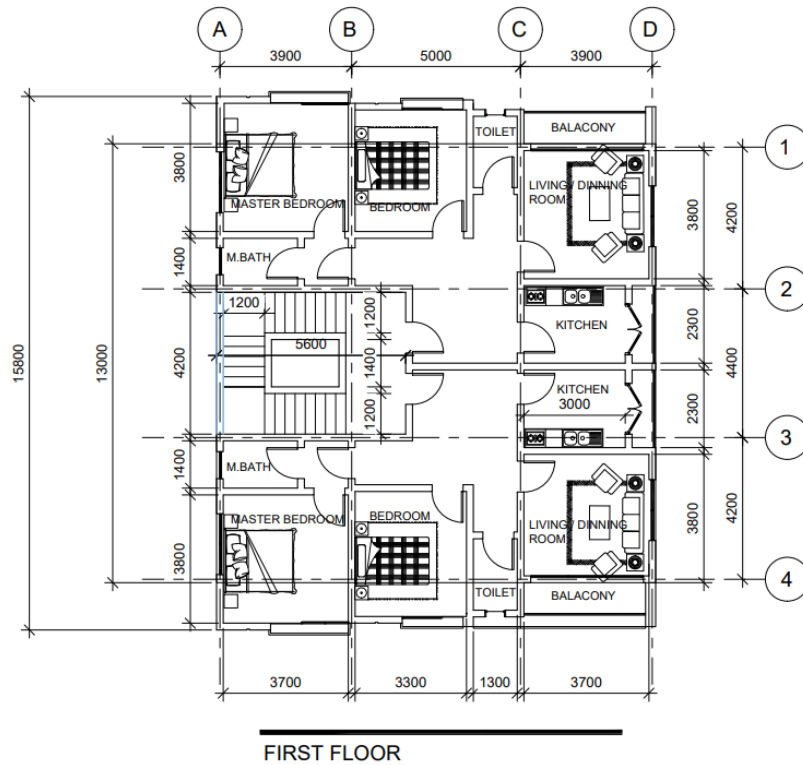


Figure 3.43: First Floor of apartment with 2 units of 2+1 each that are the same size and the vertical circulation (source owner)

This apartment is a new project currently under construction (figure 3.44) (figure 3.45). As like the previous project the ground floor is for rental shops and the subsequent floors are used for apartment units.



Figure 3.44: 3D perspective of the apartment from the front view (source owner)



Figure 3.45: 3D perspective of the apartment from the front view (source owner)

3.18 CONCLUSIVE REMARKS ABOUT CHAPTER 3

In this chapter, an overall of study of Somalia and Mogadishu was discussed. In order to support the literature on the second chapter, this section gave more details on Somalia as a nation and people, their culture, their social life structure including the clan system, their family organization and way of life. In site information on political situation, climate, economy and population was given. The chapter also focused on Mogadishu, and most importantly Somalia's housing types where discussed. And the chapter concluded with 3 apartment case studies in Mogadishu. the overall study in the chapter gives support to the methodology and questionnaire part. As in this chapter Somalis way of living and housing types were discussed. the questionnaires in chapter 4 were derived from chapter 3 on how Somalis live and their cultural way of life, which is deeply rooted with the Islamic way of living. The following chapter 4 discusses the investigation on user evaluation of housing in Mogadishu and the methods used for the study.

CHAPTER 4

INVESTIGATION ON USER SATISFACTION OF HOUSING OF MOGADISHU AND METHOD OF THE STUDY

I the researcher of this study used to live in Mogadishu, before starting my master's degree at Cankaya university. And still my relatives live in Mogadishu. The comments and explanations that I give in the results section are the things that I experienced or have experience of.

4.1 HYPOTHESES

Hypothesis 1. As Mogadishu is recovering from the civil war the increase of apartments in the city might satisfy the participants and show a sign progress in the city.

Hypothesis 2. Due to Somalia families being large number in size they might prefer apartments with a more number of rooms like 4+1 and 3+1 units.

Hypothesis 3. Residents in Mogadishu might prefer or satisfied living in villas over apartments.

Hypothesis 4. Somali's are practicing Muslims, they would prefer or satisfied to have separate living rooms for both male and female.

Hypothesis 5. A separate dining room might not be required by most participants.

The questionnaire prepared for this investigation is located in Appendix A of this report.

4.2 METHOD OF SURVEY AND QUESTIONNAIRE

In this chapter, the case study conducted in this research is previewed. Both primary and secondary sources of data were used to create the data for this study. The distribution of a questionnaire served as the primary method of gathering data. Secondary data came from publications like books, thesis, journals, and internet resources. The research was carried out in the form of a questionnaire, considering the

advantages of this technique in collecting opinion/attitude towards products or services, especially when the research involved a large sample size. Questionnaire is also cost-effective and familiar to most people. The research was carried out through only residents of Mogadishu, other cities in Somalia were not included.

I prepared questionnaires that were prepared and presented on google forms. The questionnaires were divided into 3 sections. The first section of the questionnaires focused on personal information and they consisted of 5 questions. Names and detailed information of the participants were not asked. Personal information on age, gender, education level, profession and job were asked. The second part of the questionnaires focused on where and how the participants lived in their day to day lives. This will help us find how Somalis live especially those who live in Mogadishu. The second part has the most number of questions which are 18. All the questions in this section were choice selection questions according to Likert scale. Which had 3 or 5 options depending on the question.

The third and final part of the questionnaires has 13 questions in total with 2 open ended question so that participants can share their thoughts and ideas on the subject of the research. This section had 9 question which had a point Likert scale options, these include Strongly disagree, Disagree, Neutral, Agree, Strongly Agree, Terrible, not good, Neutral, Good, Excellent, very uncomfortable, not comfortable, Neutral, Comfortable, very comfortable, Never, Rarely, Sometimes, Always, Often, not important at all, slightly important, do not know, Important, Very important.

The final part mainly focuses on questions regarding what and what participants think towards the increased number of apartments in Mogadishu. In total the overall of a question answered by each participant are 36 questions.

4.3 PARTICIPANTS AND SAMPLING

The survey respondents were selected by randomly. After preparing the questionnaires, the survey was carried out by Google forms on the internet. The participants then received the links of the google form in order to give their answers. For this research I used a sampling strategy known as the snowball method Research participants are asked to assist researchers in the identification of other possible subjects as part of the snowball sampling recruiting technique. This form of sampling is utilized in situations in which the attributes that samples must exhibit are hard to come by and uncommon. In this particular form of sampling, primary data sources are

asked to suggest another primary data source that may be utilized in the investigation. The snowball sampling approach, to put it another way, relies on referrals from the first participants in order to create additional subjects. As a result, in order to implement this sampling approach, it is necessary to recruit members of the sample group through the use of chain referral. In this case the first participants who receive the link share it and recruit other participants in this way the questionnaires researchers a lot of participants in short period of time and this method is also safe for the researcher because in Somalia especially Mogadishu there are safety issues. The questionnaires were administered on 156 random respondents.

4.3 RESULTS

4.3.1 Questionnaires' Part 1 Personal information

Jinsiga

156 responses

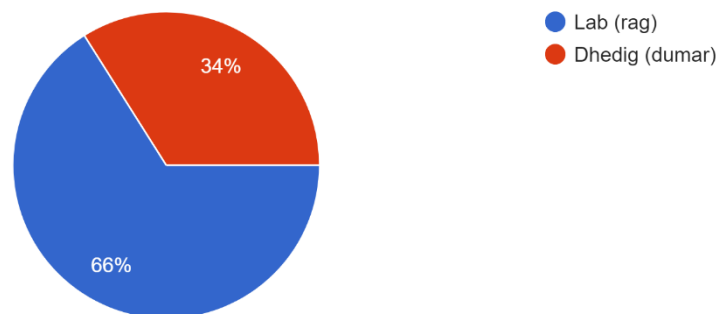


Figure 4.1: Gender of the participants (Blue=Male or Red=Female)

In the first part of the questionnaire A total of 156 participants have filled the questionnaire as shown in Figure 4.1 this part of the questionnaires mainly focused on the personal information of the participants and consisted of 5 questions. 34% (53 participants) were female while 66% (103 participants) were male.

Da'daada (imisa jir ayee u dhaxeesa da'daada?)
156 responses

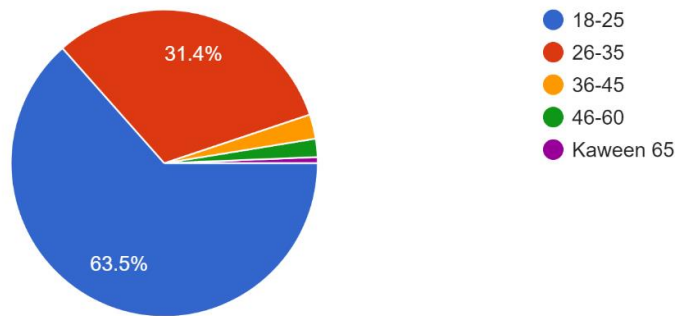


Figure 4.2: Age of the participants (Blue=18-25. Red=26-35, Yellow=36-45, Green=46-60 & Purple=over 65)

The participants were also requested to indicate their age category, as shown in Figure 4.2. The majority of the participants are between the ages of 18 and 25. That is 63.5% (99 participants) of the total participants. 31.4 (49 participants) are aged between 26-35 while complaining the two they total 94.9 and According to most politicians of Somalia they always refer as the Somali population is dominated by the youth or in other words those aged between 18-35. The rest of the participants 2.6% (4 participant) were aged between 36-45, 1.9% (3 participants) were aged between 46-60 while 0.6 (1 participant) was aged over 60.

Heerkaaga Aqoontada
156 responses

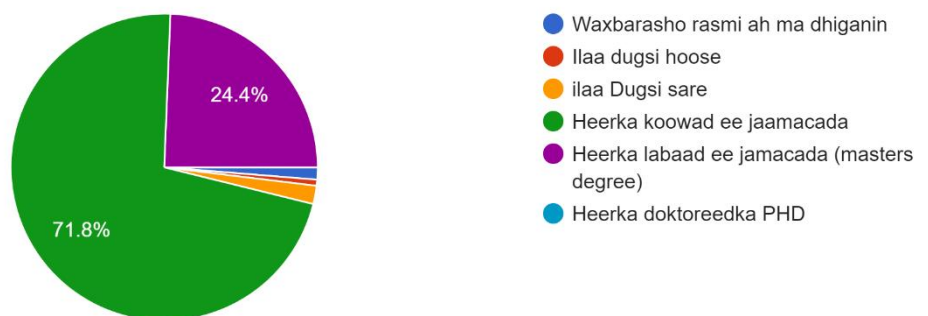


Figure 4.3: Education level of the participants (Blue=no formal education. Red=middle school, Yellow=high-school, Green=university, Purple=masters, Light Blue=PHD)

Next the participants were asked about their education level. majority of the participants have a bachelor's degree this could mean that some of them might still

be students. This sums up to 71.8 % (112 participants). next 24.4% (38 participants) have master’s degree this can also mean that they are either students or they have master’s degree. 1.9% (3 participants) were high school level while.6% (1 participant) level was middle school (elementary level) and finally 1.3% (2 participants) did not have any formal education.

Xirfaddaada (ama aqqontaada, waxii aad baratay)

156 responses

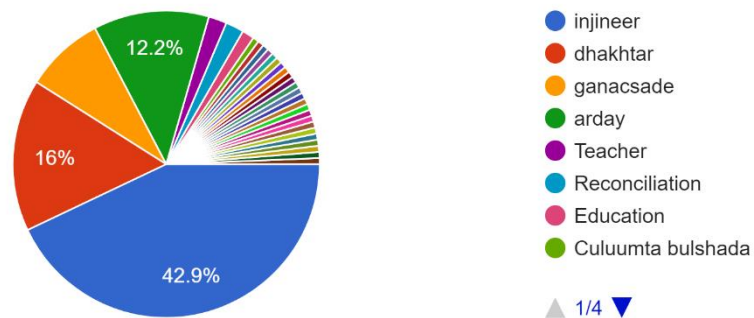


Figure 4.4: Professions of the participants (Blue=Engineering fields, Red=Doctor, Yellow=Business person, Green=Student, Purple=Teacher.)

Then the participants were asked about their Professions, this helped to differentiate the students from the professional. For this question there were some choices that were provided and a space where professional can give responses on different professions as shown in 4.4. The majority of the respondents were engineers (i.e. different fields of engineering) that was 42.9% (67 participants), next to that was doctors which were 16% (25 participants), 12.2% (19 participants) were students, 8.3% (13 participants) were business person. And the remaining 20.6% (32 participants) came from different and mixed professions.

Finally, the participants were asked about their current job or what their job is currently although these questions were open ended but the majority of the participants were students.

4.3.2 Questionaries' Part 2 daily life of participants

Halkee ku nooshahay? ama guri nooce dagantahay

157 responses



Figure 4.5: Where participants live (Blue=Apartment, Red=Villa, rest of the color are part of the villa group)

In the second part of the questionaries' the participants where asked questions regarding their daily lives. This section focused only on where and how participants live. the section consisted of 18 questions. The first question, participants were asked whether they live in an apartment building (unit) or in residential villa as shown in Figure 4.5. The villas included all owned or self-enclosed houses these houses included the ones that were mentioned in chapter 3 about the housing types throughout the country. The majority of the participants live in villas 73.2% (115 participants) while 26.8% (42 participants) live in apartments.

Imisa qof ayaa hadda ku nool guriga aad dagantahay?

157 responses

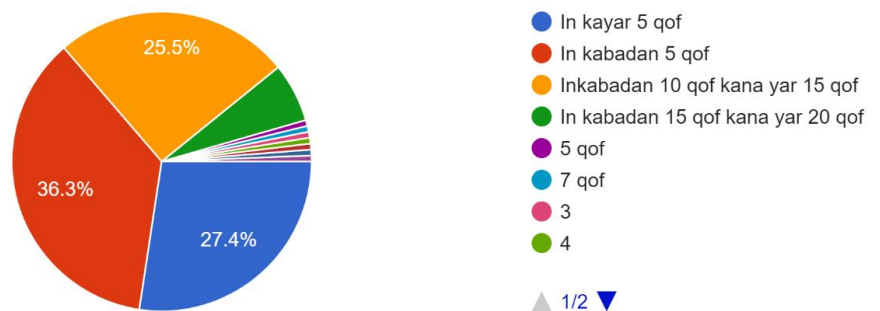


Figure 4.6: The number of people that live in the house (Blue= Less than 5 Person, Red=Greater than 5 person, Yellow= more than 10 but less than 15, Green= More than 15 but less than 20, the answers of the remaining colors are part of the previous colors)

The participants were asked about the number of people that live in their apartment or house right now as shown in figure 4.6. Somalis are known to be large in family sizes this is usually due to Islamic religion and the effects of the civil war, families are usually extended. The majority of the participants 36.9% (58 participants) said that they live in house that has more than 5 people. Surprisingly 30.4 (48 participants) lived in houses which have less than 5 people. While 25.5% (40 participants) houses lived in houses where more than 10 people but less than 15 people lived. And 6.4% (10 participants) lived in houses where more than 15 people but less than 20 people lived. And finally, 0.6% (1 participant) lived in house where more than 20 people lived.

Immisa qolal(qolalka jiiifka, fadhiga,qolka cuntada) iyo jiko,musqul ayaa gurigaagu kakoobanyahay. (dhamaan qolalka dhan oo isku darsan tiradooda)
157 responses

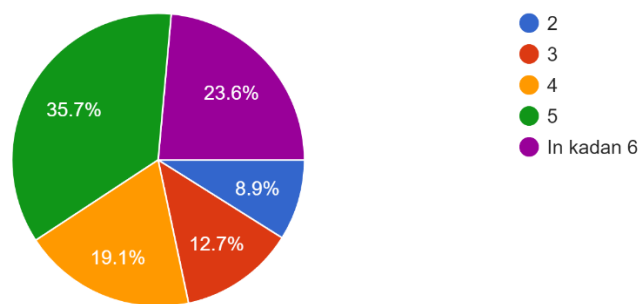


Figure 4.7: The number of rooms participant live (Blue=2 rooms, Red=3 rooms, Yellow=4 rooms, Green= 5 rooms, Purple=greater than 5 rooms)

Then the participants were asked, how many rooms and utilities does their homes have. This included utility rooms as well as other rooms as shown in figure 4.7. the majority of the participants 35.7% (56 participants) live in houses that consist of 5 rooms. While 23.6% (37 participants) live in houses that consist of more than 6 rooms. 19.1% (30 participants) said they lived in houses that consist of 4 rooms. 12.7% (20 participants) said they lived in 3 room houses while the rest 8.9% (14 participants) said that they lived in 2 room houses. From the answers of the participants as mentioned in chapter 3 it shows that Somali families are usually large in numbers and they tend to prefer living in houses with many rooms.

Sidee ama qaabke wax u cuntaa?

158 responses

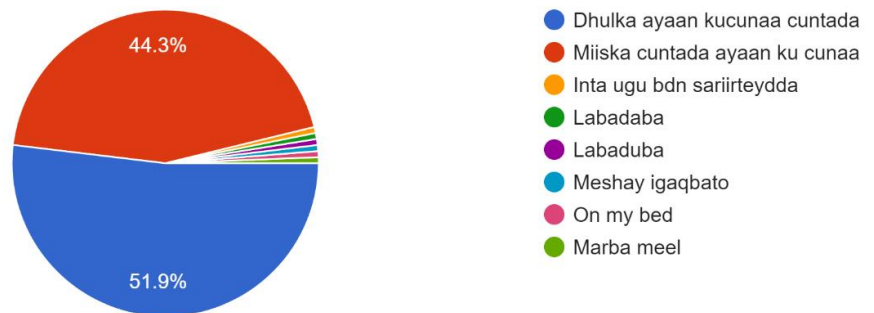


Figure 4.8: How participants eat their food (Blue= Eat on Floor, Red=Eat at table, rest of the indicate either way or other answers)

Then the participants were asked how/where they eat food as shown in figure 4.8. This question was helpful to find out whether participants would prefer eating in separate areas of the house. As was expected the majority of the participants that is 51.9% (82 participants) said that they eat while sitting on the ground (floor). 44.3 % (70 participants) said that they eat on the dining table. While the rest was divided between those who eat both on the ground and the dining table, some said that wherever they want, while some said they eat on the bed these were very small in percentage.

halkee ayaa cuntada ku cuntaa?

158 responses



Figure 4.9: Where participants eat their food (Blue=Kitchen, Red=Living room, Yellow=Dining room, Green=Veranda, the rest of the mentioned different rooms including the bedrooms but are less than 1 percent each)

Then the participants were asked where they eat / prefer to eat in their house. as shown in figure 4.9. This was to find out whether participants just use the living,

dining room or the kitchen for eating. The majority of the participants 40.5% (64 participants) said that they eat in the veranda as mentioned in chapter 3 Mogadishu’s weather is mostly hot throughout the year, because of the weather participants might have preferred to eat in the veranda. 28.5% (45 participants) said they eat in the living room. 12.7% (20 participants) said that they eat in the kitchen. And 11.4% (18 participants) eat in separate dining room. While the rest mentioned different rooms including the bedrooms.

Imisa jeer ayaa maalintii cuntada cuntaa?
158 responses

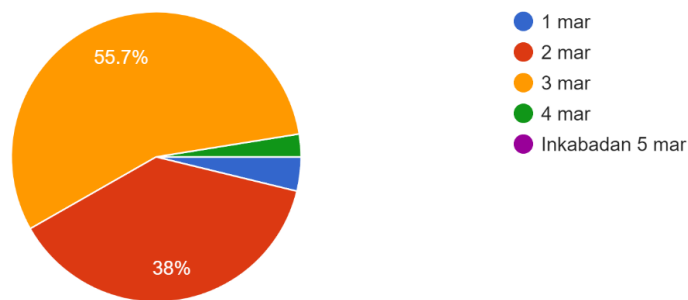


Figure 4.10: Number of times participants eat per day. (Blue= 1 time, Red=2 times, Yellow=3 times, Green= 4 times, Purple=more than 5 times)

Next the participants were asked, how many times a day they eat as shown in figure 4.10. as usual and expected most of the participants 55.7% (88 participants) said they eat 3 times. 38% (60 participants) said they eat 2 times a day. While 3.8% (6 participants) said they eat once a day and 2.5% (4 participants) said they eat 4 times.

qoys ahaan maa wax u cuntaan mise si gooni gooni ah? (qofwalbo markuu baahdo ayuu gooni ucunaa)
158 responses

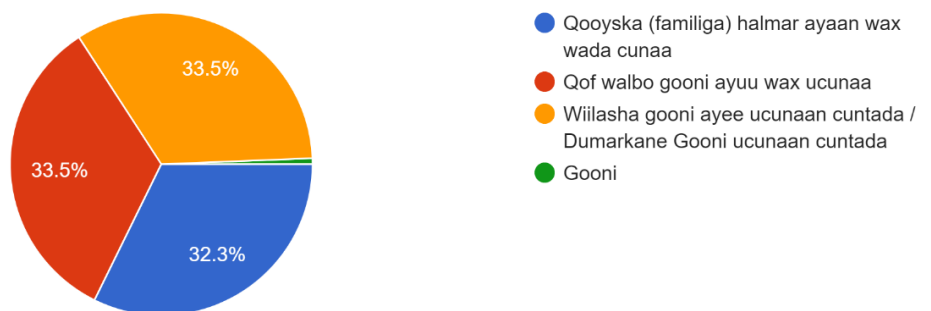


Figure 4.11: How they eat. (Blue= as family, the whole family eats together, Red= separately, each individual eats, Yellow=Males eat separately so as females)

The participants were asked whether they eat as a family or you separately? As shown in figure 4.11 the answers with this question would help as identify and get solutions to future apartment, buildings whether to have a separate and bigger dining room. 32.3% (participants) said the whole family eats together. 33.5% (53 participants) said every one eats separately and the same 33.5% (53 participants) said female eat together while males eat together too. This is basically influenced by the Islamic religion.

Qol ugaar ah cuntada maleedihiin?

158 responses



Figure 4.12: If participants have separate dining area (Blue=Yes, Red=No)

The participants were asked whether they have separate dining area (room) in their house as shown in figure 4.12. as expected most of the participants lived in residential villas and basically in residential villas in Mogadishu there are no separate rooms for dining. 73.4% (116 participants) said they don't have separate room for dining. While 24.7% (39 participants) said they have a separate room for dining. The remaining small number chose other.

Qaabkee u qaabishaan martida, qol fadhi oo gaar u ah marti soo dhaweenta maleedihiin?
158 responses

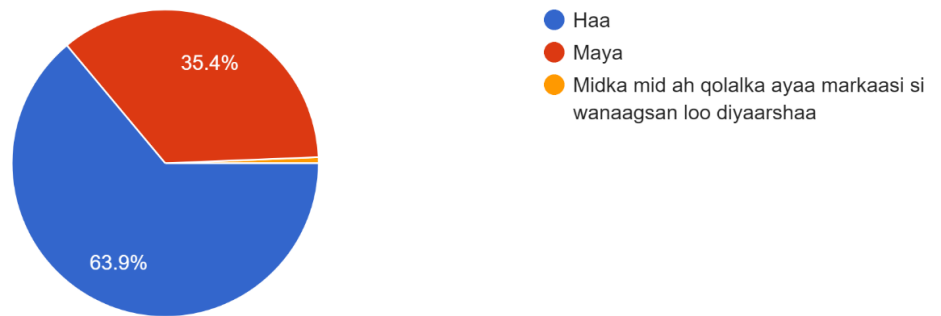


Figure 4.13: How participants accept guests & whether they have separate room for accepting guest apart from the Livingroom. (Blue=Yes, Red=No)

Then the participants were asked how they accept guests and if they have separate room for accepting guests as shown in figure 4.13. majority of the participants responded that they have separate room for accepting guests, in total 63.9% (101 participants). while the rest of the participants 35.4% (56 participants) responded that they did not have separate room for accepting guests.

Maxaad ku qabataan qolka fadhiga?
158 responses



Figure 4.14: What participants use for living rooms. (Blue= watch tv, Red= Have family time, Yellow= for eating, Green= for resting, the rest of the colors are part other use.)

The participants were asked on what they do or use the living room for. as shown in figure 4.14. 38.6% (61 participants) said that they use it for watching tv and entertainment purposes. 29.7% (47 participants) said they use it to have family time. 20.3% (32 participants) responded that they use the living room for resting. While 2.5% (4 participants) responded that they use it for eating. The rest chose for other uses.

Ma leedihiin qol fadhi oo gaar (gooni) u ah dumarka iyo mid gaar (gooni) u ah ragga?
 158 responses

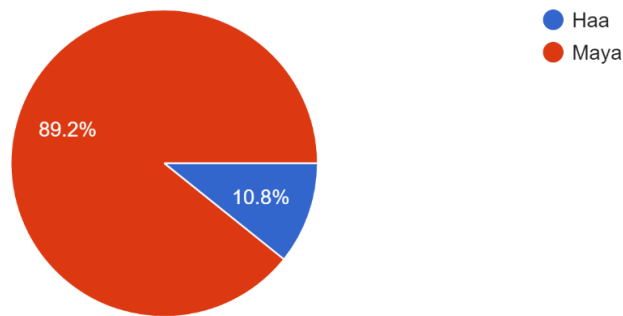


Figure 4.15: If they have separate living rooms for female and males. (Blue=Yes, Red=No)

Then the participants were asked if they have separate living rooms for both female and male as shown in figure 4.15. majority of the participants 89.2% (141 participants) responded that they don't have separate living rooms for the genders. While the remaining 10.8% (17 participants) replied that they have separate living rooms for each gender.

Badanaa imisa ama meeqo qof ayaa fadhiisata qolka fadhiga
 158 responses

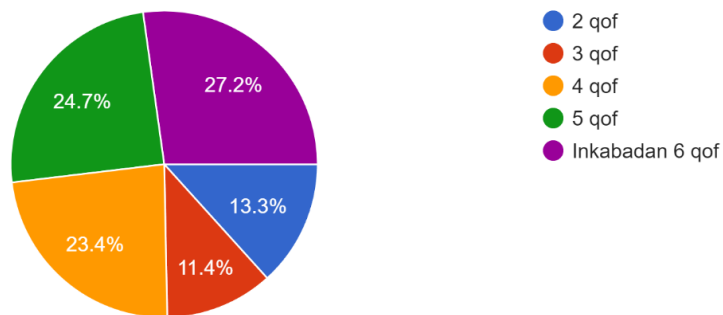


Figure 4.16: Number of persons that sit in the living room (Blue=2 person, Red=3 Person, Yellow=4 person, Green=5-person, Purple More than 6 person)

Next the participants were asked, how many people sit in the living room. as shown in figure 4.16. the answers were 27.2% (47 participants) responded that more than 6 people sit in the living room. 24.7% (39 participants) responded that 5 people sit in the living room. 23.4% (37 participants) responded that 4 people sit in the living room. While 13.3% (21 participants) said that only 2 people sit in the living room. And finally, 11.4% (18 participants) replied that 3 people sit the living room.

Carruurtu ma ku ciyaaraan (qolka fadhiga) mana la fadhiistaan dadka waaweyn waliba marka lajoogo qolka fadhiga?

158 responses

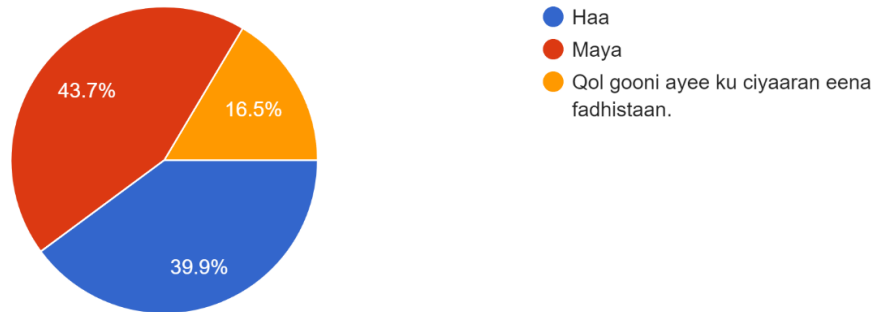


Figure 4.17: Whether children play and sit with the adults in the living room (Blue= yes, Red=no, Yellow=Children have separate room for playing)

The participants were asked whether children play and sit with the adults in the living room. as shown in figure 4.17. the results showed that 43.7% (69 participants) responded that children don't sit and play in the living room with the adults. While 39.9% (63 participants) responded that children sit and play in the living room with adults. And 16.5% (26 participants) responded that children have separate room for sitting and playing.

Majiraan marti badan oo marmarka qaarkood idiin imaato, ugu badnaan waa imisa qof martidaas?

158 responses

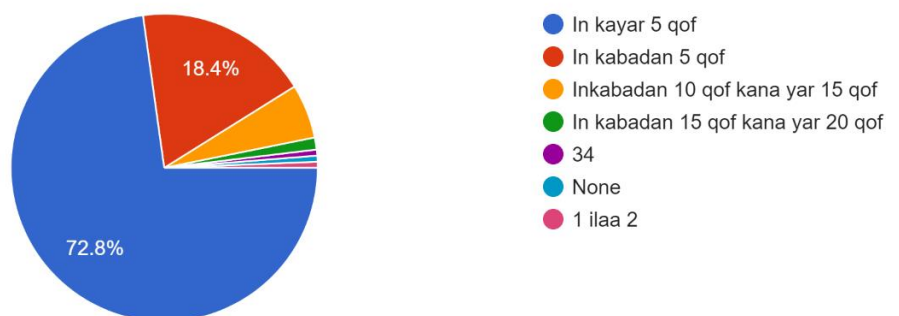


Figure 4.18: Number of guests that come occasionally and how many. (Blue=less than 5 guest, Red=more than 5 guests, Yellow= more than 10 guests but less than 15, the rest other)

Then the participants were asked whether they have big group of guests occasionally, and their maximum number. As shown in figure 4.18 and majority of the participants 72.8% (115 participants) responded that they occasionally have less than 5 people as guests. While 18.4% (29 participants) replied that they occasionally

have more than 5 people as guests. And 5.7% (9 participants) replied that they occasionally have more than 10 people but less than 15 people as guests.

Qaabkee useexataan?
158 responses

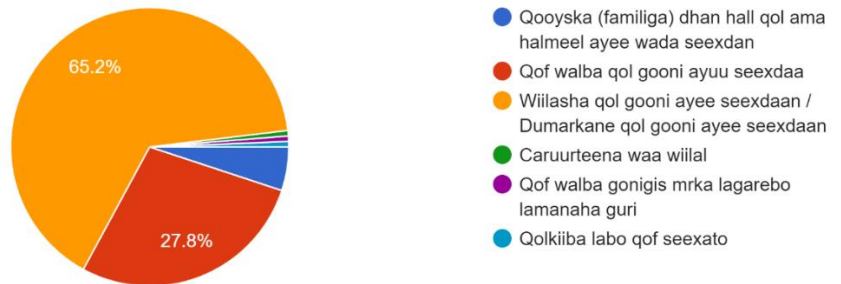


Figure 4.19: How participants sleep. (Blue= as family, the whole family sleeps together, Red= separately, each individual (one room for each person), Yellow=Males sleep separately so as females, the rest are other)

Next the participants were asked how they sleep. And as shown in figure 4.19 majority of the participants 65.2 (103 participants) replied that males sleep in separate room while females sleep in separate room too. 27.8% (44 participants) responded that each person sleeps separately. While 5.1% (8 participants) responded that the whole family sleeps in one room.

Halkee ku kaydisaan alaabta? (alaabta waxee noqon kartaa adeega, iyo waxii kale oo aan maalin walbo la isticmaalin)

158 responses

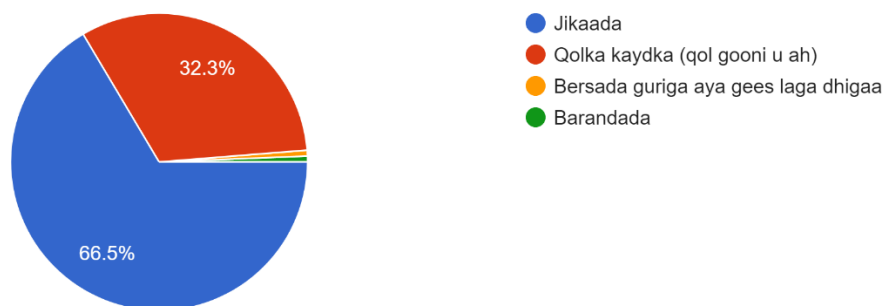


Figure 4.20: Where participants store the storage. (Blue=Kitchen, Red=Store room, the rest other)

Then the participants were asked where they store the storage. As shown in figure 4.20 majority of the participants 66.5% (105 participants) responded that they

store their storage in the kitchen. While 32.3% (51 participants) replied that they have a separate room for storage.

Maxaa u isticmaashaan barandada ama balakoonka (balakoonka waa qofkii dagan dabaq abartimanti ah)?

158 responses



Figure 4.21: What participants use verandas/balconies for (Blue= to get fresh air, Red= Have family time, Yellow= for eating, Green= for resting, the rest other)

The participants were then asked what they use the veranda or balconies for. Especially balconies were mentioned for those who live in apartments. As shown in figure 4.21, 48.1% (76 participants) responded that they use it to get fresh air. While 15.2% (24 participants) replied that they use verandas/balconies for resting. 14.6% (23 participants) responded that they use it for eating. And 9.5% (15 participants) responded that they use it for having family time. The remaining small percent responded other uses.

Qolkee inta badan waqtigaaga ku qaadataa?

158 responses

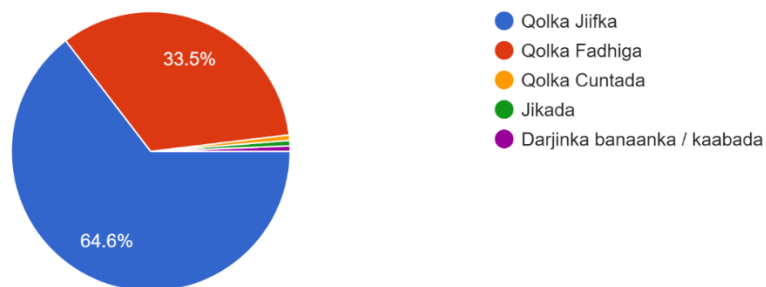


Figure 4.22: Where participants spend most of their time. (Blue=Bedroom, Red=Living room)

For the final question in this section, the participants were asked in which room do they spend most of their time. As shown figure 4.22 majority of the participants 64.6% (102 participants) replied that they spend most of their time in the bedroom.

While 33.5% (53 participants) replied that they spend most of their time in the living room. And the rest were divided between the kitchen, dining room and yard.

4.3.3 Questionnaires’ Part 3 what participants think about the increase of apartment buildings in Mogadishu.

The last part of the questionnaires focused on the thoughts of the participants regarding the increasing number of apartments in Mogadishu. In this section the questionnaire was divided into two sections. In the first section the participants were given to choose between different options in Likert scale. Strongly disagree, Disagree, Neutral, Agree, Strongly Agree, Terrible, not good, Neutral, Good, Excellent, very uncomfortable, not comfortable, Neutral, Comfortable, very comfortable, Never, Rarely, Sometimes, Always, Often, not important at all, slightly important, do not know, Important, Very important.

Guryaha dabaqyada ah ee ku soo badanaayo (ama ka dhisan hada) magaalada Muqdisho ma yihiin kuwo ixtiraansan ama waafaqsan hab-nololeedka Soomaalida?

158 responses



Figure 4.23: Feeling of participants on if the apartments respect the Somali way of living. (Blue=Strongly disagree, Red=Agree, Yellow=Neutral, Green=Disagree, Purple=Strongly disagree)

The participants were first asked on whether if the apartment buildings in Mogadishu respect the Somali way of living. As shown in figure 4.23 the participants were given to choose 5 options of Strongly disagree, Disagree, Neutral, Agree, Strongly Agree. 34.8% (55 participants) chose that they strongly agree with it. 17.7% (28 participants) responded they just agree with it. While 27.2% (43) neither agreed nor disagreed. 17.7% (28 participants) disagreed with it and 2.5% (4 participants) strongly disagreed.

Sideed u aragtaa (fikirkaaga ku aadan waa sidee) in ee magalada muqdisho aad ugu soo kordhan dabaqyada abaartimantiska ah?

158 responses

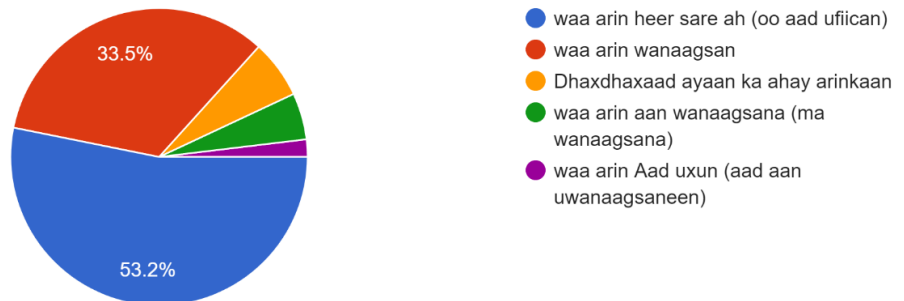


Figure 4.24: Feeling of participants towards the increase of apartments in Mogadishu (Blue=Excellent, Red=Good, Yellow=Neutral, Green=Not good, Purple=Terrible)

Then the participants were asked on their feeling regarding on the increase of apartment buildings in Mogadishu. As shown in figure 4.24 the participants were given 5 choices Terrible, not good, Neutral, Good, Excellent. 53.2 (84 participants) responded that it is excellent. 33.5% (53 participants) responded that it is good. While 6.3% (10 participants) replied us neutral. 5.1% (8 participants) replied as not good. While the remaining 1.9% (3 participants) responded as terrible. This shows that most of the participants see the idea of having apartments in the city of Mogadishu as sign of progress which the city made.

Sidee u aragtaa (ama kulatahay) qanaacada noalsha abaartimantiska marka lala bar bar dhigo guryaha filooyinka?

158 responses

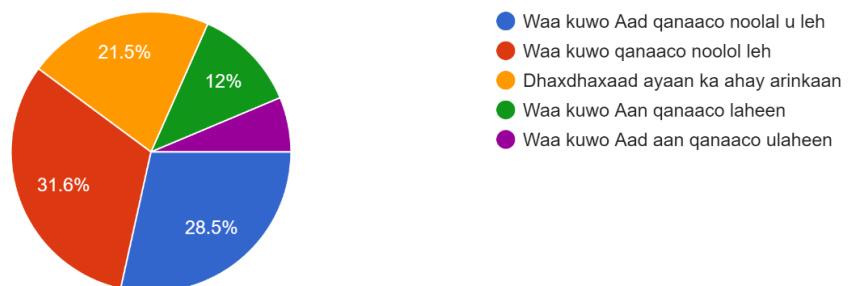


Figure 4.25: Comfort of apartments compared with residential villas (Blue=Very comfortable, Red= Comfortable, Yellow=neutral, Green=Not comfortable, Purple= Very uncomfortable)

Next the participants were asked on the living comfort of apartments compared to residential villas. As shown in figure 4.25 the participants were given to choose 5 options of very uncomfortable, not comfortable, Neutral, Comfortable, very comfortable. 28.5% (45 participants) responded that they are very comfortable when compared with residential villas. 31.6% (participants) responded that they are comfortable. While 21.5% (34 participants) responded neutral. 12% (19 participants) responded that they are not comfortable when compared with residential villas. And the remaining 6.3% (10 participants) responded very uncomfortable.

Ma ka door bidaysaa (maka dooraneesaa) inaad ku noolaato dabaqyada abaartimantiska lala bar bar dhigo guryaha filooyinka?

158 responses

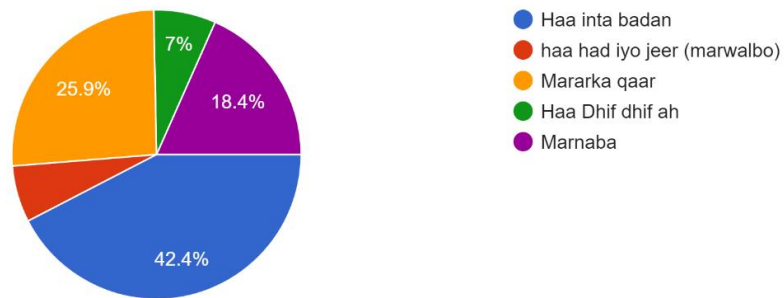


Figure 4.26: Choosing apartments over residential villas (Blue=often, Red=always, Yellow=sometimes, Green=rarely, Purple=never)

Then the participants were asked whether they would prefer living in apartments over villas. As shown in figure 4.26 the participants were given to choose 5 options of Never, Rarely, Sometimes, Always, Often. 42.4% (67 participants) responded that they would often chose to live in apartments over residential villas. 6.3% (10 participants) responded as always. While 25.9% (41 participants) responded neutral. 7% (11 participants) responded as sometimes they would choose. The remaining 18.4% (29 participants) responded that they would never chose living in apartments over residential villas. As high percentage chose to live in apartments the influence could be that life in apartments in Mogadishu is new thing and most of the population used to live in villas. Living in apartment could be a new experience. the participants could also be influenced by the safety issue of villas too.

Muhiim makuu yihiin tirada qolalka oo uu abaartimanti ka koobanyahay. (inta qol uu ka koobanyahay sida labo qol, sadax qol iwm).

158 responses

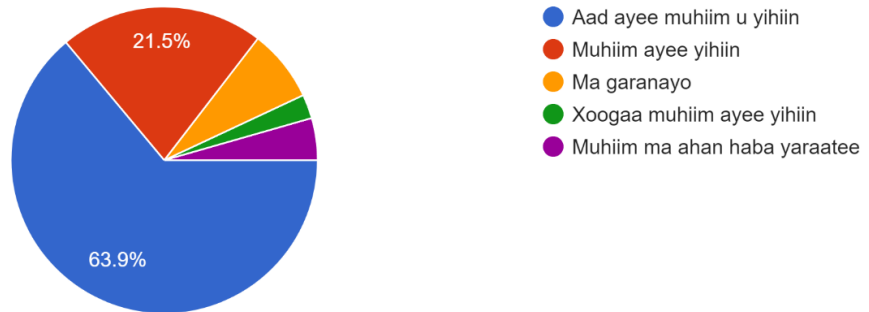


Figure 4.27: Importance of room numbers. (Blue=very important, Red= important, Yellow= do not know, Green=slightly important, Purple= not important at all)

The participants were asked whether the number of rooms in apartment unit were important to them. As shown in figure 4.27 the participants were given to choose 5 options of not important at all, slightly important, do not know, Important, Very important. Interestingly majority of the participants 63.9% (101 participants) responded as very important. While 21.5% (34 participants) responded as important. While 7.6% (12 participants) responded as do not know. And 2.5% (4 participants) responded as slightly important and the remaining 4.4% (7 participants) responded as not important at all. As mentioned in chapter 3 Somali families are usually large in number. That is why room numbers are very important for big families.

Cabbirrada qolalka ee abaartimantiyada miyay muhiim kuu yihiin? (sida qolka in uu yahay 4 mitir iyo 4 mitir iyo waxii lamidka ah)

158 responses

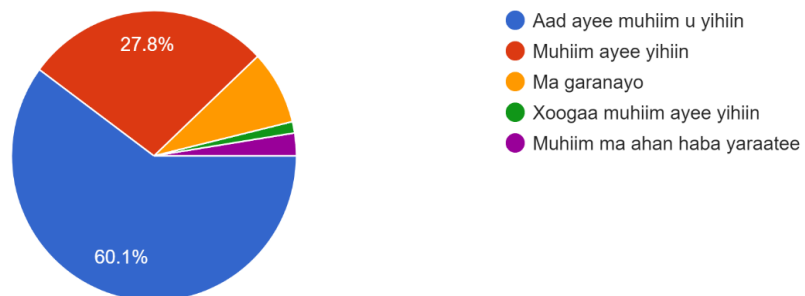


Figure 4.28: Importance of room sizes. (Blue=very important, Red= important, Yellow= do not know, Green=slightly important, Purple= not important at all)

Then the participants were asked whether room sizes in apartment units were important to them. As shown in figure 4.28 the participants were given to choose 5 options of not important at all, slightly important, do not know, Important, Very important. Again, majority of the participants 60.1% (95 participants) responded that room sizes were very important to them. 27.8% (44 participants) responded as important. While 8.2% (13 participants) replied as do not know. 1.3% (2 participants) responded as slightly important. And the remaining 2.5% (4 participants) responded as not important all.

Dabaqyada abaartimantiyada ee baalakoonka leh miyay muhiim kuu yihiin? (baalakonka waa sida baranda oo kale, waxaana loo sameeya dabaqyada abaartimantiyada)

158 responses

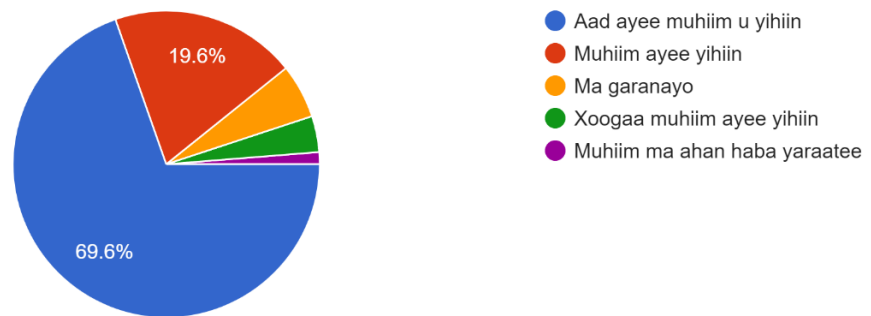


Figure 4.29: Importance of balconies. (Blue=very important, Red= important, Yellow= do not know, Green=slightly important, Purple= not important at all)

The participants were asked whether apartments with balconies were important to them. As shown in figure 4.29 the participants were given to choose 5 options of not important at all, slightly important, do not know, Important, Very important. Majority of the participants 69.6 (110 participants) responded balconies to be very important to them. 19.6% (31 participants) responded as important. While 5.7% (9 participants) responded as don't know. 3.8% (6 participants) replied as slightly important and the remaining 1.3% (2 participants) responded as not important at all.

Sida ay isku xig xigan qolalka abaartimantiska muhiim miyeey kuuyihiin? (tusale: qolka fadhiga iyo jikada in ee isku xigan ama isku dhaganyihiin iwm)

158 responses

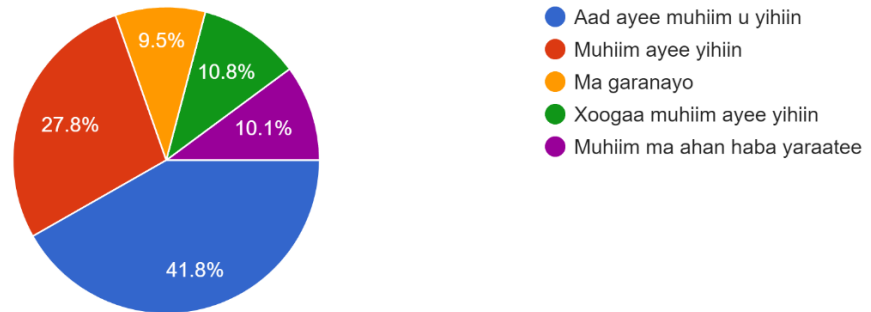


Figure 4.30: Importance of functional arrangement. (Blue=very important, Red= important, Yellow= do not know, Green=slightly important, Purple= not important at all)

Next the participants were asked whether functional arrangement of apartment units were important to them. As shown in figure 4.30 the participants were given to choose 5 options of not important at all, slightly important, do not know, Important, Very important. 41.8% (66 participants) responded that functional arrangements are very important to them. 27.8% (44 participants) responded that they are important. While 9.5% (15 participants) responded as don't know. 10.8% (17 participants) responded as slightly important. And the remaining 10.1% (16 participants) responded as functional arrangements is not important at all.

Ma aaminsantahay in aad u kororka dabaqyada abaartimantiska ah ee magaalada Muqdisho ay saameyn ku yeelaanayaan hab nololeedka bulshada Soomaaliyeed?

158 responses

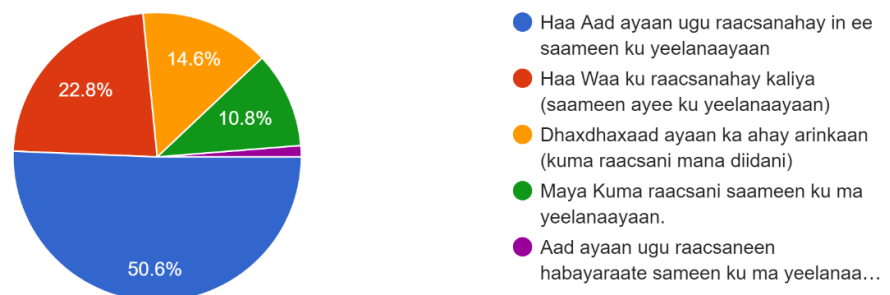


Figure 4.31: Effects of apartments on the how Somalis live. (Blue=Strongly disagree, Red=Agree, Yellow=Neutral, Green=Disagree, Purple=Strongly disagree)

Then the participants were asked whether they believe the increase of apartment buildings in Mogadishu affect the cultural way of living of Somali societies. As shown in figure 4.29 the participants were given to choose 5 options of Strongly disagree, Disagree, Neutral, Agree, Strongly Agree. Interestingly the majority of the participants 50.6% (80 participants) responded that they strongly agree to the question. 22.8% (36 participants) responded that they agree with it. While 14.6% (23 participants) responded as neutral. 10.8% (17 participants) responded that they disagree with the question and the remaining 1.3% (2 participants) responded as strongly disagree.

Miyaad isleedahay inaad guri dabaq (abaartimanti) ah u guurto mustaqbalka dhow? Gurigeed baad rabtaa inaad ku noolaato? (studio, 1+1, 2+1, 3+1, 4+1)?

158 responses

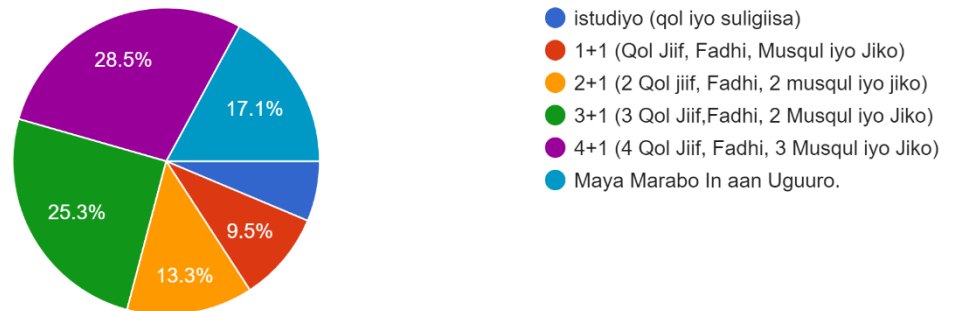


Figure 4.32: Apartment unit type preference. (Blue= Studio, Red= 1+1, Yellow= 2+1, Green=3+1, Purple=4+1, Light Blue= am not planning to move to apartment)

Then the participants were asked if they are thinking of moving to apartment in the close future. And if that happens what apartment unit would they want to live in (studio, 1+1, 2+1, 3+1, 4+1). As shown in figure 4.30. 28.5% (45 participants) responded that they would move to 4+1 type apartments. 25.3% (40 participants) responded that they would move to 3+1 type apartments. While 17.1% (27 participants) responded that they would not move and would stay. 13.3% (21 participants) responded that they would move to 2+1 type units. 9.5% (15 participants) responded that they would move to 1+1 type units. And the remaining 6.3% (10 participants) responded that they would move to studio type unit.

Dabaqyada abaartimantiska ah ee mustaqbalka la dhisi doono qol nooce jeclaan laheed in lagu soo kordhiyo? (qolkaas oo ay hada laheen abaartimantisyada badankood)

158 responses



Figure 4.33: What room to add in future apartment buildings. (Blue=Store, Red=Laundry, Yellow= Separate living room, for men & female, Green=Children's playing room. Rest other)

Then the participants were asked what room (space) would they want it to be added in future apartment buildings in Mogadishu. As shown in figure 4.31 27.8% (44 participants) suggested that Children's playing rom should be added in future apartment designs in Mogadishu. 27.2% (43 participants) responded that storage room should be added. While 19.6% (31 participants) responded that separate living rooms for both male and females should be added. Another 19.6% (31 participants) responded that laundry room should be added. The remaining participants responded by choosing other and suggested that Sports Room, prayer room, walk in closet for master bedroom, and library room.

4.4 CONCLUSIVE REMARKS ABOUT CHAPTER 4

In this chapter the investigation of user evaluation of housing in Mogadishu was analyzed as well as the method of the study, including the survey questionnaires, number of the participants, and the snowball method were discussed and the results of the questionnaires were summarized. The following next chapter discusses the findings and discussions.

CHAPTER 5

FINDINGS & DISCUSSION

Somalia is recovering from long years of internal civil war, since 2011 there has been huge investment on housing including villas and apartments. Because of this investment the urban scape of Mogadishu is changing rapidly. In this study, the participants were asked towards their feeling (satisfaction) on the increase of apartment buildings in city. 53.2 (84 participants) responded that it is excellent. 33.5% (53 participants) responded that it is good. In total 86.7% of the participants showed their satisfaction on the increase of apartments in the city of Mogadishu. The result supports “Hypothesis 1. As Mogadishu is recovering from the civil war the increase of apartments in the city might satisfy the participants and show a sign of progress in the city.” proves that hypothesis is right. Another prove of this is that 34.8% (55 participants) chose that they strongly agree that apartments in Mogadishu respect the Somali way of living. While 17.7% (28 participants) responded that they just agree with it. When combined its 52.5% and 27.2% (43) neither agreed nor dis agreed the matter, this shows how the participants are satisfied with the apartments in the city. But when the participants were asked on whether apartments will have effects in the future on how Somalis live (lifestyle of the Somali people). 50.6% (80 participants) responded that they strongly agree to the question. 22.8% (36 participants) responded that they agree with it. In total that is 73.4% believe that apartments will have effect on the livelihood of the Somali people in the future. It means that in the future as more and more Somalis move to apartment buildings their lifestyle may change.

Somali families are usually large in size. As stated by Lewis (2008) its common knowledge that Somali families have a lot of members; typically, families have anywhere from 5 to as many as 20 people in them. The members of the family will typically reside in the same home. This in return is supported by the answers of participants when they were asked on the number of people that live in their houses. The majority of the participants 36.9% (58 participants) said that they lived in house

that has more than 5 people. While 25.5% (40 participants) lived in houses were more than 10 but less than 15 people lived. Schools and colleges are mostly located in Mogadishu. Parents with relatives in Mogadishu bring their children there to attend school and work. Due to the families being large in size the participants were asked if they plan to move to an apartment in the close future, and What apartment unit do they want to live. In this way we can find whether the family sizes and the apartment size/number of rooms are related. 28.5% (45 participants) responded that they would move to 4+1 type apartments. 25.3% (40 participants) responded that they would move to 3+1 type apartments. Combining the two in total that is 53% of the participants would prefer either 4+1 or 3+1 apartment units. This supports “Hypothesis 2. Due to Somalia families being large number in size they might prefer apartments with a greater number of rooms like 4+1 and 3+1 units.” And it proves that hypothesis 2 is right. Hypothesis 2 is also supported by the answers to the questions were the participants were asked on the number of rooms that they currently live including utilities and also if the number of rooms in apartment unit are important to the participants when choosing apartment unit. 35.7% (56 participants) live in houses that consist of 5 rooms. While 23.6% (37 participants) live in houses that consist of more than 6 rooms. In the second question majority of the participants 63.9% (101 participants) responded that number of rooms of the apartment unit were very important. Summing up all together it proves that hypothesis 2 is right, family size, number of rooms, and apartment size are related.

Although When choosing apartments, the unit whether (studio, 1+1, 2+1, 3+1, 4+1) is not the only factor or preference. room arrangements are considered to be important too. 41.8% (66 participants) responded that functional arrangements are very important to them. 27.8% (44 participants) responded that they are important. Room sizes are also considered to be important 60.1% (95 participants) responded that room sizes were very important to them for choosing an apartment unit. 27.8% (44 participants) responded as important. Balconies are also important factor in choosing an apartment. 69.6% (110 participants) responded as balconies are very important to them. 19.6% (31 participants) responded as important. With the current existing apartments in Mogadishu participants main factors (preference) on choosing an apartment unit are; unit size (4+1,3+1) are preferred, number of rooms, room arrangements, room sizes, and balcony. Although the existing apartments do not fulfil all the needs of the participants. When the participants were asked what room (space)

would they want to be added in future apartment buildings. 27.8% (44 participants) suggested that Children's playing room should be added in future apartment designs. 27.2% (43 participants) responded that storage room should be added. While 19.6% (31 participants) responded that separate living rooms for both male and females should be added. Another 19.6% (31 participants) responded that laundry room should be added. These could be factors too, in the future for residents in choosing an apartment unit.

As the city of Mogadishu is growing. The housing needs also increases. This increase is also proved by a report released by UNCHR (2020) states that there are an estimated 850,000 Internally Displaced People (IDPs) in the city. And the estimated population that live in Mogadishu are about 1.6 million. In this study housing is divided in two categories. Villas (villas, Ba'aweyne houses and etc.) or Apartments. 63.7% of the participants live in villas (villas, Ba'aweyne houses and etc.) while the remaining 27.3 participants live in apartments. although the number of participants that live in villas is much larger than those who live in apartment. The participants where asked if they prefer living in apartments over residential villas. 42.4% (67 participants) responded that they would often chose to live in apartments over villas. 6.3% (10 participants) responded as always. While 25.9% (41 participants) responded neutral. the participants were then asked about the comfort/satisfaction of apartments compared to villas. 28.5% (45 participants) responded that they are very comfortable when compared with villas. 31.6% (participants) responded that they are comfortable. While 21.5% (34 participants) responded neutral. summing up the results "Hypothesis 3. Residents in Mogadishu might prefer or are satisfied living in villas over apartments." prove that hypothesis 3 is wrong although the fact that 63.7% of the participants live in villas, they prefer living in apartments and believe that the living comfort of apartments is very comfortable compared to the villas.

The Somalis are firmly attached to Islam (Lewis, 2008). In a question the participants where asked whether they have separate living rooms for male and females. majority of the participants 89.2% (141 participants) replied that they don't have separate living rooms for male and females at the moment and in another question the participants were asked what room (space) would they prefer to be added in future apartments designs. 19.6% (31 participants) responded that separate living rooms for both male and females should be added. This does not support "Hypothesis 4. Somalis are practicing Muslims, they would prefer or satisfied to have separate living rooms

for both male and female.” And proves that majority of the participants don’t see it as important. Rather they would prefer other functions (rooms) as more important.

In the second part of the questionnaires the participants daily live were analyzed. The analysis includes: how they live, eat, and etc. the results showed that 73.4% (116 participants) responded that they don’t have separate room for dining. 55.7% (88 participants) responded that they eat 3 times a day. 51.9% (82 participants) responded that they eat while sitting on the ground (on the floor). 44.3 % (70 participants) responded that they eat on the dining table (i.e. this is not referred as separate dining room). As we have seen in the case studies of apartments in Mogadishu usually in the designs, living room & dining area are in the same room. the size of the room is larger than the other rooms, so that it can accommodate both the living area as well as the dining area. This is the same in villas too. living and dining are in the same room. In the results 28.5% (45 participants) responded that they eat in the living room. while 73.4% of the participants responded that they don’t have separate dining room. And 32.3% (participants) responded that the whole family eats together. 33.5% (53 participants) responded that everyone eats separately and the same number 33.5% (53 participants) responded that females eat together while males eat together too. Although the results don’t support “Hypothesis 5. A separate dining room might not be required by most participants.” Or prove hypothesis 5 is right. But it can be suggested that in future apartment design consideration of having separate room for dinning might be a good idea.

CHAPTER 6

CONCLUSION

Housing is one the basic needs for human beings, housing is affected by tradition, local cultures, the way societies live, material, weather and etc. For designers and architects to come up with a design that suits the society they have to consider traditions, socio-cultural norms, the way societies live, society's identity, religious beliefs, the structure of the family and clan, social organization. Chapter 2 gave a short study on the principal aspects to be questioned to the sample people. Family size, age and gender distribution, economic conditions, their daily life, size of the houses, their layout, social status, in other words family's social relations and their social attributes are important aspects to be inquired in the questionnaire. The third chapter gave more detail on Somalia as a nation and people, their culture, their social life structure including the clan system, their family organization and way of life. Insite information on political situation, climate, economy and population was given. The chapter also focused on Mogadishu, and most importantly Somalia's housing types where discussed. And the chapter concluded with 3 apartment case studies in Mogadishu. in chapter four the investigation of user satisfaction of housing in Mogadishu was analyzed as well as the method of the study, including the survey questionnaires, number of the participants, and the snowball method were discussed and the results of the questionnaires were summarized. 156 participants participated in the study. The participants main factors (preference) for choosing an apartment unit were; larger unit sizes (4+1,3+1) are preferred, number of rooms, room arrangements, room sizes, and balcony. These factors are related with the family sizes being large in size as much as between 5 to 20 and they reside in the same house. And in the future more factors could affect the chose too such as, children 's playing room, storage, laundry and other amenities. The investigation also proved that participation were satisfied with increase of apartment buildings in Mogadishu. But the participants believe that the increase of

apartments will have effect or impact on the livelihood or day to day live of the Somali people.

On the other hand, majority of the participants live in a villa, but yet agreed that living in apartment was more comfortable and satisfactory compared to living in villas. Majority of the participants also preferred living in apartment over villas. Even though they might not have experience of living in an apartment building. In the future apartment designs in Mogadishu, should respect the livelihood of the societies, if the local societies values and livelihood are not respected as mentioned in chapter 2 layout transformation and layout modification might occur and residents could be forced to change the layout of the apartment units. In order to satisfy their needs.

It would be better to replicate this study in other big cities of Somalia, and understand the user satisfaction on apartment buildings. There are no studies that focus on Somalia's housing types throughout the country, it's important to have these studies in order to have a deep understand on how the Somali societies live in different types of housing. The same study can be done in villas, and find the user satisfaction in villas. Although 156 participants participated in this study, the study can be done in a bigger and larger scale. Majority of the participants in the study were educated and were in the ages between 18-35. A more conclusive study could be done in the future that includes the uneducated, as well as groups of people aged above 45. More men participated in the study compared to females, and more residents in villa participated in the study compared to those who live in apartments. future studies could be done on this subject while maintaining equal proportions of male and females, and the residents of villas and apartments.

REFERENCES

- [1] ABED, A., OBEIDAT, B., & GHARAIBEH, I. (2022). The impact of socio-cultural factors on the transformation of house layout: a case of public housing - Zebdeh-Farkouh, in Jordan. *Journal of Asian Architecture and Building Engineering*. <https://doi.org/10.1080/13467581.2022.2074021>
- [2] AL-MOHANNADI, A. S., FURLAN, R., & MAJOR, M. D. (2019). *Socio-Cultural Factors Shaping the Spatial Form of Traditional and Contemporary Housing In Qatar: A comparative analysis based on Space Syntax Housing and Building-level Research View project Sustainable Urbanism View project SOCIO-CULTURAL FACTORS SHAPING THE SPATIAL FORM OF TRADITIONALAND CONTEMPORARY HOUSING IN QATAR: A comparative analysis based on space syntax*. <https://www.researchgate.net/publication/335227606>
- [3] AMÉRIGO, M., & ARAGONÉS, J. I. (1990). Residential satisfaction in council housing. *Journal of Environmental Psychology*, 10(4), 313–325. [https://doi.org/10.1016/S0272-4944\(05\)80031-3](https://doi.org/10.1016/S0272-4944(05)80031-3)
- [4] ASCLME. (2012). *National Marine Ecosystem Diagnostic Analysis (MEDA) Agulhas and Somali Current Large Marine Ecosystems (ASCLME) Project ASCLME Agulhas and Somali Current Large Marine Ecosystems Project*. www.undp.org
- [5] AVOGO, F. A., WEDAM, E. A., & OPOKU, S. M. (2017). Housing transformation and livelihood outcomes in Accra, Ghana. *Cities*, 68, 92–103. <https://doi.org/10.1016/j.cities.2017.05.009>
- [6] BODUR, A., & KESKIN, K. (2021). *HOUSING SATISFACTION VIA POST OCCUPANCY EVALUATION: A CASE STUDY IN SAMSUN * KULLANIM SONRASI DEĞERLENDİRME İLE KONUT MEMNUNİYETİ: SAMSUN'DA BİR ARAŞTIRMA*.

- [7] EKLÖW, KAROLINA, & KRAMPE, FLORIAN. (2019). *CLIMATE-RELATED SECURITY RISKS AND PEACEBUILDING IN SOMALIA*.
www.sipri.org
- [8] ESMF. (2018). *SOMALI URBAN RESILIENCE PROJECT Environmental & Social Management Framework*.
- [9] HADDEN, R. L. (2007). *The Geology of Somalia: a Selected Bibliography of Somalian Geology, Geography and Earth Science*. AD. www.agiweb.org
- [10] Home Office. (2019). *Country Policy and Information Note Somalia: Majority clans and minority groups in south and central Somalia*.
- [11] ISSA-SALWE, A. M. (1996). *The Collapse of The Somali State: The Impact of the Colonial Legacy* _____.
- [12] JOAKIM, G. (2006). *The predicament of the 'Oday' **.
- [13] KAMAU, C., BONNET, C., MOHAMOUD, M. A., & BRYLD, E. (2019). *Accessing land and shelter in Mogadishu: a city governed by an uneven mix of formal and informal practices Shelter provision in East African Cities: Understanding Transformative Politics for Inclusive Cities: City Briefing*.
<http://pubs.iied.org/10868IIED>
www.iied.org
www.facebook.com/theIIE
Dwww.iied.org
- [14] KARSTEN, L. (2007). Housing as a way of life: Towards an understanding of middle-class families' preference for an urban residential location. *Housing Studies*, 22(1), 83–98. <https://doi.org/10.1080/02673030601024630>
- [15] KELEŞ, Ş. (2020). FACTORS AFFECTING INDIVIDUAL HOUSING SATISFACTION: AN ANALYSIS OF A STRUCTURAL EQUALITY MODELING. In *International European Journal of Managerial Research Dergisi (EUJMR) European Journal of Managerial Research Dergisi* (Vol. 169).
- [16] KHAYRE, A. A. M. (2017). Somalia: An Overview of the Historical and Current Situation. *SSRN Electronic Journal*.
<https://doi.org/10.2139/ssrn.2771125>
- [17] LEWIS, I. M. (1988). *A Modern History of the Somali: Nation and State in the Horn of Africa*.
- [18] LEWIS, I. M. (2008). *Understanding Somalia and Somaliland: Culture, History, Society*.

http://books.google.co.uk/books/about/Understanding_Somalia_and_Somalil_and.html?id=vcnbKdUJ2poC&pgis=1

- [19] METZ, H. C. (1992). *Somalia a country study*.
- [20] MØLLER, B. 1953-. (2009). *The Somali conflict : the role of external actor*. Universitäts- und Landesbibliothek Sachsen-Anhalt.
- [21] MUCHIRI, P.W. (2007). *Climate of Somalia*.
- [22] MUKHTAR, M. H. (2003). Historical dictionary of Somalia. In *Choice Reviews Online* (Vol. 41, Issue 02). <https://doi.org/10.5860/choice.41-0697>
- [23] NAPA. (2013). *FEDERAL REPUBLIC OF SOMALIA MINISTRY OF NATIONAL RESOURCES NATIONAL ADAPTATION PROGRAMME OF ACTION ON CLIMATE CHANGE (NAPA)*.
- [24] OMAR, M. O. (2001). *THE SCRAMBLE IN THE HORN OF AFRICA*. 634.
- [25] PESS. (2014). *POPULATION ESTIMATION SURVEY 2014 SOMALIA Federal Republic of Somalia FOR THE 18 PRE-WAR REGIONS OF*.
- [26] PUTMAN, D. B., & Noor, M. C. (1993). *The Somalis: Their History and Culture*.
- [27] RAPOPORT, A. (1969). *House Form and Culture*.
- [28] SARIP, A. G., & LEE, Y. F. (2015). *Exploring the Perception of Lifestyle Housing Development in Malaysia*.
- [29] SCHULMAN, S., & RADER, A. C. (2012). Mogadishu. *RUSI Journal*, 157(4), 28–40. <https://doi.org/10.1080/03071847.2012.714189>
- [30] SESRIC. (2016). *SOMALIA: OVERVIEW OF SOCIO-ECONOMIC DEVELOPMENT*. www.sesric.org
- [31] AMIRYAR, M. R., & ASANO, J. (2022). *A Study on Transformation of Housing Typology and Its Environmental and Social Effects on the Living Conditions of Residents in Planned Residential Neighborhoods of Kabul City*. <https://doi.org/10.3390/vurbansci6030045>
- [32] UNHCR. (2020). *UNHCR_AreaReturnBrochure_Mogadishu_*.
- [33] UNFPA. (2016). *Population Composition and Demographic Characteristics of the Somali People Looking towards a Brighter Tomorrow*. www.unfpa.org
- [34] WBG. (2015). *Transition amid Risks with a Special Focus on Intergovernmental Fiscal Relations*.
- [35] WEBERSIK, C. (2006). Mogadishu: An economy without a state. *Third World Quarterly*, 27(8), 1463–1480. <https://doi.org/10.1080/01436590601027297>

- [36] WEBERSIK, C., Hansen, S. J., & EGAL, A. (2018). *Somalia: A Political Economy Analysis*. www.nupi.no
- [37] WORLD BANK GROUP. (2019). *DOMESTIC RESOURCE MOBILIZATION IN SOMALIA*.
- [38] FRANCESCATO, G. (1998). Residential Satisfaction. Encyclopedia of Housing. W.V Vliet (Ed.)(s. 484-486). içinde London: Sage.
- [39] KELLEKÇI, Ö., & BERKÖZ, L. (2010). The factors that increase dwelling and environmental quality satisfaction. *ITU Journal/a*, 5(2).
- [40] GALSTER, C., HESSER, G., & GARRY, W. (1981). Residential Satisfaction. *Environment And Behavior*, 13(6), 735-758.
- [41] LU, M. (1999). Determinants Of Residential Satisfaction: Ordered Logit Vs Regression Model. *Growth and Change*, 30(2), 264-276.
- [42] GALSTER, C. (1987). Identifying the Correlates of Dwelling Satisfaction: An Empirical Critique. *Environment and Behavior*, 19, 539-568.
- [43] ADUWO, E. B., IBEM, E. O., & OPOKO, A. P. (2013). Residents' transformation of dwelling units in public housing estates in Lagos, Nigeria: Implications for policy and practice. *International Journal of Educational Research*, 1(4) (April 2013).
- [44] TIPPLE, A. G. (1991). Self help transformation of low cost housing. An introductory study by the Centre for Architectural Research and Development Overseas (CARDO). UK: University of Newcastle-upon-Tyne.
- [45] POPKIN, S. J., RICH, M. J., HENDEY, L., HAYES, C., PARILLA, J., & GALSTER, G. (2012). Public housing transformation and crime - Making the case for responsible relocation. *Cityscape*, 14(3), 137-160.
- [46] TIPPLE, A. G. (2000). *Extending themselves. User-initiated transformation of government-built housing in developing countries*. Liverpool University Press.
- [47] TECK-HONG, T. (2011). Housing Satisfaction in Medium-and High-Cost Housing: The Case of Greater Kuala Lumpur, Malaysia. *Habitat International*, 35(3), 1-9.
- [48] RAPOPORT, Amos. 1998. "Using "culture" in housing design." *Housing and society* 25 (1-2):1-20.
- [49] SALAMA, Rafik Khalil. 1996. "User transformation of government housing projects: Case study, Egypt."

- [50] RAPOPORT, Amos. 1969. "House form and Cultua." London-University College: New Delhi: Prentice-hall of India Private Ltd:73.
- [51] MALLETT, Shelley. (2004). Understanding Home: A Critical Review of the Literature. *The Sociological Review*, 52(1), 62-89. doi: <https://doi.org/10.1111%2Fj.1467-954X.2004.00442.x>
- [52] Somalia Maps & Facts. (n.d.). <https://www.worldatlas.com/maps/somalia> Access Date: 16.08.22
- [53] Nomadic Houses. (n.d.). The Somali Museum of Minnesota; <http://www.somalimuseum.org/nomadic-houses.html> Access Date: 10.08.22
- [54] Somalia sets 31 August deadline for operators to register, or close down | Capacity Media. <https://www.capacitymedia.com/article/29otdhk3j2ycxum4v5pmo/news/somalia-sets-31-august-deadline-for-operators-to-register-or-close-down> Access Date: 18.08.22
- [55] ANELE, U. (2021, October 7). Top 10 Oldest Mosques in Africa - TalkAfricana. <https://talkafricana.com/top-10-oldest-mosques-in-africa/> Access Date: 16.08.22
- [56] Somaliland | historical region, Africa. (n.d.). Encyclopedia Britannica; <https://www.britannica.com/place/Somaliland> Access Date: 10.08.22
- [57] SAMAKIE, A. (n.d.). Arba'a Rukun Mosque | Archiqoo. Arba'a Rukun Mosque | Archiqoo. https://archiqoo.com/locations/four_rukun_mosque.php Access Date: 08.08.22
- [58] An NYC Grandparent Renovation Story: Access, Style & Space | Sweeten. <https://sweeten.com/sweeten-renovations/entire-home-renovations/brooklyn-grandparents-renovate-kensington/> Access Date: 10.08.22
- [59] Ne_On Apartment / NestSpace Design | ArchDaily. (2020, March 23). https://www.archdaily.com/935864/ne-on-netspace-design?ad_medium=gallery Access Date: 10.08.22
- [60] STAFF, H. (2021, July 2). Khasaare kala duwan oo ka dhashay Qarax ka dhacay Muqdisho - Horseed Media. <https://horseedmedia.net/khasaare-kala-duwan-oo-ka-dhashay-qarax-ka-dhacay-muqdisho-354470> Access Date: 10.08.22

- [61] SARARA Wayne. (n.d.). Sarara Wayne;
http://www.allceegaag.com/fiinyarebackup/war2006/sarara_wayne.htm
 Access Date: 10.08.22
- [62] Dhulkoob - Powerful Residence Real Estate. (n.d.). Dhulkoob - Powerful
 Residence Real Estate;
<https://dhulkoob.com/property/view/620a5cfdfe9ba0c108cb3dc4> Access
 Date: 10.08.22
- [63] Facebook gal | Facebook-ga. (n.d.). Facebook;
https://m.facebook.com/Suuqfudud/posts/1725589101081139?locale2=so_S
 O Access Date: 10.08.22
- [64] File:Safari apartments mogadishu Somalia.jpg - Wikipedia. (2015, August 12).
[https://en.m.wikipedia.org/wiki/File:Safari_apartments_mogadishu_Somalia.j](https://en.m.wikipedia.org/wiki/File:Safari_apartments_mogadishu_Somalia.jpg)
 pg Access Date: 10.08.22
- [65] MOGADISHU | Sunrise Apartments | U/C | SkyscraperCity Forum. (2008,
 October 6). [https://www.skyscrapercity.com/threads/mogadishu-sunrise-](https://www.skyscrapercity.com/threads/mogadishu-sunrise-apartments-u-c.2132864/)
[apartments-u-c.2132864/](https://www.skyscrapercity.com/threads/mogadishu-sunrise-apartments-u-c.2132864/) Access Date: 08.08.22
- [66] Somalia housing boom as Mogadishu emerges from ashes of war | Al Arabiya
 English. (2016, January 2).
[https://english.alarabiya.net/features/2016/01/03/Somalia-housing-boom-as-](https://english.alarabiya.net/features/2016/01/03/Somalia-housing-boom-as-Mogadishu-emerges-from-ashes-of-war)
[Mogadishu-emerges-from-ashes-of-war](https://english.alarabiya.net/features/2016/01/03/Somalia-housing-boom-as-Mogadishu-emerges-from-ashes-of-war) Access Date: 08.08.22
- [67] MIRE, S. (2015, September 13). Beautiful Somali buildings are rising up in a
 former war zone. It gives me hope | Sada Mire.
[https://www.theguardian.com/commentisfree/2015/sep/13/somali-buildings-](https://www.theguardian.com/commentisfree/2015/sep/13/somali-buildings-nomadic-huts-somalia-heritage)
[nomadic-huts-somalia-heritage](https://www.theguardian.com/commentisfree/2015/sep/13/somali-buildings-nomadic-huts-somalia-heritage) Access Date: 20.09.22
- [68] MOGADISHU, SOMALIA : View of Mogadishu, Mogadishu is the capital
 city of Somalia Stock Photo. (n.d.). Adobe Stock.
[https://stock.adobe.com/tr/images/mogadishu-somalia-view-of-mogadishu-](https://stock.adobe.com/tr/images/mogadishu-somalia-view-of-mogadishu-mogadishu-is-the-capital-city-of-somalia/340311742)
[mogadishu-is-the-capital-city-of-somalia/340311742](https://stock.adobe.com/tr/images/mogadishu-somalia-view-of-mogadishu-mogadishu-is-the-capital-city-of-somalia/340311742) Access Date: 20.09.22

APPENDIX A
(QUESTIONNAIRE TEMPLATE)

**SOCIO-CULTURAL FACTORS AFFECTING HOUSE LAYOUT
FORMATION IN SOMALIA: INVESTIGATION OF USER EVALUATION
OF VILLA AND APARTMENT DESIGNS IN MOGADISHU**

The purpose/aim

The aim of this research is to analyze the socio-cultural factors affecting housing in Somalia: by investigating the user satisfaction of villas and apartment design in Mogadishu.

During the last decade or so, there has been a rapid increase in the development and construction of residential villas and modern apartments in Mogadishu. Even though these apartments are designed and constructed by foreign companies, the designs of these apartments do not solve the socio-cultural ways of livelihood, lifestyle (manner of life) of the Somali people.

The aim of the research questionnaires is to find out whether residents in Mogadishu are satisfied with the designs of villas and modern apartments in Mogadishu.

Please answer yourself on behalf of your family or please ask your family's mother to reply the questions

Graduate school of natural science – master of interior architecture

The results of this study will be used for my thesis.

Survey questionnaire

which city do you live:

Mogadishu

Other city (please specify)

Age:

18-25

26-35

36-45

46-60

65 above

Gender:

Female

Male

Education level: No formal education High-school University Masters Doctorate/PHD

Profession: Architect Civil engineer Contractor Student Other
(please specify)

Job: _____ (please specify) _____

Research questions part 1

A. Please explain your daily life now.

1. Where do you live?

Apartment Villa none of them please specify

2. How many rooms and utilities does your home have?

2 3 4 5 more than 6
(please specify)

3. How many people live in the house/apartment right now

- i. Less than 5,
- ii. more than 5,
- iii. more than 10 but less than 15,
- iv. More than 15 but less than 20
- v. More than 20 please specify

4. How do you eat,
- i. On Floor,
 - ii. by the table,
 - iii. in separate dining room,
 - iv. in living room,
 - v. in kitchen,

5. How you cook
- i. in the kitchen,
 - ii. On the yard (veranda),
 - iii. separate area please specify

6. how many times do you eat daily,

- (please 1 2 3 4 more than 5 specify)

7. is it formal dining or leisurely?

- yes, no I don't know

8. do you eat as a family or you separately? (who feels hungry eats not together)

- i. as family, the whole family
- ii. separately, each individual
- iii. males eat separately,
- iv. females eat separately,
- v. Other please specify,

9. How do you sit and accept guests /living room (?) Do you have a separate room for this purpose?

yes,

no

other please specify

10. What do you do in living the room?

i. watch tv,

ii. Have family time,

iii. for eating,

iv. for resting,

v. Other please specify,

11. Do you have separate women's and men's living room?

yes,

no

12. Usually how many persons sit in the living room

2

3

4

5

more than 6

specify)

(please

13. Do children play and sit with the adults in the living room?

yes,

no

separate area please specify

14. Do you have big group of guests occasionally, maximum how many?

- i. Less than 5,
- ii. more than 5,
- iii. more than 10 but less than 15,
- iv. More than 15 but less than 20
- v. More than 20 please specify

15. How you sleep

- i. as family, the whole family
- ii. separately, each individual
(one room for each person)
- iii. males sleep separately,
(brothers sleep same room)
- iv. females sleep separately,
(brothers sleep same room)
- v. Other please specify,

16. How do you store- storage?

- i. in the kitchen,
- ii. in the storage room,
- iii. Other area please specify

17. What do use the Balconies for?

- i. to get fresh air,
- ii. Have family time,
- iii. for eating,
- iv. for resting,
- v. Other please specify,

B. Research questions part 3 (open ended questions)

1. Do apartment buildings in Mogadishu respect the Somali way of living?

Strongly disagree Dis agree Neutral Agree Strongly Agree

2. What is your opinion on the increase of apartment buildings in Mogadishu?

Terrible Not good Neutral Good Excellent

3. How is the living comfort of apartments compared to residential villas?

Very uncomfortable Not comfortable Neutral Comfortable Very comfortable

4. Do you prefer living in apartments over residential villas?

Never Rarely Sometimes Always Often

5. Are the number of rooms in apartment unit important to you?

Not important at all slightly important Do not know Important Very important

6. Are apartments with balconies important to you?

Not important at all slightly important Do not know Important Very important

important

7. Are room sizes in apartment units important?

Not important at all slightly important Do not know Important
Very

important

8. Are functional arrangement of apartment buildings important to you?

Not important at all slightly important Do not know Important
Very

im
portant

Research questions part 3

1. Do you believe that the increase of apartment buildings in Mogadishu affect the cultural way of living of Somali societies?

Strongly disagree Dis agree Neutral Agree Strongly
Agree

2. Do you prefer to move in an apartment in the close future? What apartment unit do you want live? (studio, 1+1, 2+1, 3+1, 4+1)

- i. Studio,
- ii. 1+1,
- iii. 2+1,
- iv. 3+1
- v. 4+1

vi. Other please specify

3. Which room do you spend most of the time?

- i. Bedroom,
- ii. Living room,
- iii. Dining room,
- iv. kitchen
- v. Other please specify

4. Which room (space) would you want to be added in future apartment buildings in Mogadishu?

- i. Storage,
- ii. Laundry,
- iii. Separate living room,
for men & female
- iv. Children's playing rom
- v. Other please specify

5. what do you suggest in order to improve the quality of apartment building in Mogadishu (in terms of living and interior spaces)?

_____.

6. Any final thoughts and suggestions?

Note: these questions will be translated into Somali language. Thank you very much

