

**LEBANESE AMERICAN UNIVERSITY**

Implementing Sustainable Development in Postwar  
Lebanon: Imagination or Reality?  
A study on the 15th UN SDG: Life on Land- Lebanon Case

By

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A thesis

Submitted in partial fulfillment of the requirements for the degree of Master of Arts in  
International Affairs

School of Arts and Sciences  
November 2022

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# **ACKNOWLEDGMENT**

I would like to acknowledge and thank my advisor Dr. Sami E. Baroudi who helped me during the whole process. His guidance and advice were extremely effective through all the stages of this thesis. I would also like to thank my committee members Dr. Joseph Helou and Dr. Latife Reda for their support. Finally, I would like to thank my parents who encouraged me throughout this entire journey.

Implementing Sustainable Development in Postwar Lebanon:  
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**ABSTRACT**

Sustainable development has been a topic of global interest for the past few decades. In 2015, the United Nations launched 17 Sustainable Development Goals (SDGs) in order to improve the quality of life of this generation and future generations. Particularly, SDG 15 titled “Life on Land” calls on member states to preserve biodiversity and protect the environment. Developed countries are finding it easier to achieve this goal, while developing countries are mostly prioritizing other challenges. Lebanon, a developing country that is politically and religiously divided, has been grappling with many internal and external conflicts resulting from its 15-year civil war that ended back in 1990. To answer the key question of the extent to which Lebanon was able to effectively pursue sustainable development, specifically SDG15, this thesis examines the work of the two entities responsible for the attainment of SDG15 which are the Ministry of Environment and local environmental groups in Lebanon. The Ministry of Environment and environmental groups have been working on protecting biodiversity and providing reforestation techniques to farmers in the country which is in line with sustainable development. However, they have both fallen behind in critical areas such as stopping land excavation (for quarrying stones) and building dams without due consideration to

their effectiveness and environmental consequences. The thesis contends that the close relationship between the political and business elites and insufficient governmental accountability were behind these failures. Despite these structural obstacles, the Ministry of the Environment and environmental groups have been able to make some progress towards meeting SDG 15.

**Keywords:** Environment, Biodiversity, Reforestation, Sustainable Development, United Nations, Post-War Lebanon.



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## LIST OF ABBREVIATIONS

MDG.....	Millennium Development Goals
MOE.....	Ministry of Environment
NGO.....	Non-Governmental Organization
ENGO.....	Environmental Non-Governmental Organization
SDG.....	Sustainable Development Goal
UNDP.....	United Nations Development Programme
UN.....	United Nations

# **CHAPTER ONE**

## **INTRODUCTION**

As sustainable practices are becoming increasingly encouraged on a global level, the United Nations (UN) launched a list of sustainable development goals (SDGs) to be achieved by all countries by 2030 (Persaud & Dagher, 2021). A number of states are attempting to initiate or implement policies that correspond with the UN's SDGs. The case of Lebanon in particular is interesting to examine as it has been going through multiple challenges, specifically after the civil war. Accordingly, the proposed study aims to investigate whether Lebanon has been working on attaining sustainable development, particularly SDG15 titled "Life on Land". The following sources will be used, the Lebanese Ministry of Environment and environmental Non-Governmental Organizations (NGOs) in Lebanon, in order to understand the strategies being implemented to achieve SDG15 in Lebanon. This chapter introduces the topic and the research question, the main purpose of the study, the methodology, and aims to provide a plausible answer to the research question.

### **1.1 Topic Summary**

#### **1.1.1 Overview**

Most states around the world have one common concern: avoiding a civil war as its effects are prolonged and cause significant domestic damage. Lebanon is a perfect example since the fifteen-year internal conflict from 1975 to 1990 led to an apparent increase in its corruption levels in various sectors. The country is known for its sectarian

politics, which explains why most sectarian leaders were able to maintain their political power in the country and manage main public and private sectors (Clark and Salloukh, 2013). Furthermore, after the civil war, the state and administrative entities largely ignored environmental issues and focused their attention on improving the country's dismal economic situation (Awdeh et.al, 2019). As a result, the political elites chose economic rebuilding while ignoring the long-term quality of life of local populations, a strategy that has helped them stay in power in the post-civil war era and maintain control over multiple decision-making venues including major reconstruction projects in important areas and sectors across Lebanon (Masri, 2007).

Moreover, the above can be explained by the fact that a great number of development projects in Lebanon acquire the support of political figures as key investors who use their influence to acquire economic and financial favors for their mostly own politico-sectarian followers. Yet despite the presence of corruption in Lebanon's economic development, many political entities still incorporate pro-environmental procedures in their projects regardless of their personal gains (Lubell et.al, 2009). Nevertheless, taking things from an aggregate perspective, sustainable development in Lebanon has been largely undermined since investors, especially political elites, want to focus solely on economic benefits and political power rather than on achieving genuine sustainable environmental improvements (Tierney, 2016).

Based on the above information and the vision set out for this paper, it is important to ask the following question: What is sustainable development?

### **1.1.2 Sustainable Development: Definition and Background Information**

Sustainability is defined as attaining certain needs without negatively impacting the ability of future generations to access vital resources. Accordingly, sustainable

development encourages progress that targets current needs without compromising future ones (Chen et.al, 2015). Sustainability is divided into multiple categories that are centered around environmental, social, and economic scopes. The multiple categories include economic development, environmental protection, technological innovations, and social development (Joung et.al, 2012). When these categories are targeted, sustainability should be ensured, whether on a state or industrial level. Achieving a sustainable future has been currently a global topic of interest as it is essential to guarantee that the needs of upcoming generations can be properly secured. The advantages of sustainable development can be classified into three sections: having a better quality of life, improving the global environmental status and enhancing the international and domestic economic standing (Dube et.al, 2021).

A good quality of life is equal to life satisfaction (Sirgy, 2021). With an increase in sustainable practices, a good quality of life is passed on from generation to generation. Environmental sustainability is important especially with the increased use of natural and human-made resources. It safeguards the preservation of available resources and reduces environmental issues. Conserving fossil fuel is another major topic of concern especially with the current tensions between different countries. These conflicts are mostly centered around the availability of fossil fuel and who has control over it (Abdulai et.al, 2019). Preserving fossil fuel, a direct result of sustainable development, helps achieve global economic sustainability. The vitality of practicing sustainable development has pushed the United Nations into launching its 2030 visions for Sustainable Development Goals in 2015. The UN envisions a list of 17 goals to be implemented worldwide by 2030 in order to attain a sustainable future.

“Life on Land”, the 15th UN Sustainable Development Goal, tackles the importance of humans preserving biodiversity and recognizing their coexistence with other species that call Earth their home. To accomplish at least the majority of the sustainable development objectives before 2030, a number of states have included targeted goals for sustainable development in their agendas (Schulze et.al, 2021). Most Western European countries have incorporated sustainable development into their systems, such as Denmark, Spain, and Finland. Where does Lebanon stand when it comes to attaining SDG15?

### **1.1.3 Lebanon and SDG15**

Nearly 30 years after the end of the Lebanese civil war, the nation is still far from meeting the UN sustainable development goals; instead, reconstruction plans called for demolishing structures, displacing residents, and marginalizing numerous communities (Tierney, 2016). The state largely disregarded the need to create open space reserves, revitalize public properties, and give environmental issues top priority after the civil war. In fact, Lebanese environmental activists began collaborating on various initiatives to guarantee the preservation of green spaces and raise awareness of the adoption of sustainable development practices (Nagel. & Staeheli, 2016). Environmental organizations have seen their influence increase in Lebanon resulting in the Ministry of Environment being put under pressure to collaborate with them on initiatives to protect the nation’s ecosystem (Lubell et.al, 2009). Similarly, numerous Middle Eastern nations have faced and still face unresolved conflicts. They either underwent normalization or are still dealing with the aftermaths of the civil war (William, 2016). Corruption is prevalent and Lebanon has clearly been unable to adequately address the consequences of the civil war. Throughout the past two decades, the Lebanese government has primarily prioritized profit-driven initiatives and rehabilitation plans that bring about personal advantages,



largely ignoring the community and the preservation of Lebanon's abundant natural resources (Masri, 2007).

Most residents in Lebanon are concerned about a number of land degradation initiatives, including dam construction and land excavation for construction (Fisk, 2018). Normally, the ministries in charge should conduct appropriate research in order to protect land without depleting natural resources. To make sure that sustainable development principles are used, land excavation and dam construction projects should be thoroughly examined (Mitri et.al, 2019). In Lebanon, mountains are being torn down rapidly for construction purposes. Does the state conduct adequate research before approving these excavation projects? High-rise building construction has increased in Lebanon's capital during the past five years, and materials for these skyscrapers have come from massive mountain excavation (Fisk, 2018). As a result of the state prioritizing profitable projects over the protection of natural resources, Lebanon's landscape is at risk (Geoengineer Organization, 2018). As previously indicated, the United Nations has placed a high priority on addressing land degradation, which is a component of the 15th SDG: Life on Land (Mitri et.al, 2019). Many Lebanese are worried about projects pertaining to building dams and stone quarries in Lebanon because they are concerned about the adverse environmental repercussions.

The Ministry of Environment established laws, particularly Law 216 and Law 444, that focus on protecting Lebanon's rich natural resources (Ahdath wizarat al bi'a, 1993; Himayat al bi'a, 2002). Accordingly, it should ensure in its ministerial agenda that sustainable development is gradually attained, despite the many challenges the country is facing. Moreover, environmental groups in Lebanon should also work individually or in collaboration with the Ministry of Environment in order to provide the best solutions for

protecting the country's ecosystem. Despite the many challenges, have both entities made progress on achieving SDG15?

## **1.2 Research Question and Aim of Study**

### **1.2.1 Research Question**

The proposed study examines the agendas of both the Ministry of Environment and environmental groups in Lebanon. The evaluation of the agendas will concentrate on the extent that the Ministry of Environment and environmental organizations are complying with the United Nation's 15th Sustainable Development Goal titled "Life on Land".

Therefore, the study is directed towards answering the following research question:

How are both the Ministry of Environment and environmental groups working to achieve the 15th UN SDG "Life on Land" in Lebanon?

### **1.2.2 Aim of Study**

The projected study's main purpose is to examine whether the Ministry of Environment and environmental groups in Lebanon are working on their agendas to incorporate the United Nation's "Life on Land" sustainable development goal.

Due to multiple domestic and international challenges, multiple sectors in Lebanon have been struggling to keep up with the demands set out by SDG 15 especially since the end of the country's civil war. However, global issues are arising and the United Nations Sustainable Development Goals should be achieved by most countries in order to attain a

sustainable future by 2030. Shifting the focus to Lebanon and SDG15, projects performed by the Ministry of Environment and local environmental groups are inspected.

The research question will be examined through the literature review presented throughout the study that will give a general understanding of the importance of “Life on Land” before focusing more on the Lebanon case. Both entities responsible for the attainment of “Life on Land”, the Ministry of Environment and environmental groups in Lebanon, will be investigated.

The study’s hypothesis aims to demonstrate that Lebanon's Ministry of Environment and environmental organizations are in fact giving SDG15 enough priority, despite the multiple challenges. The factors that are slowing down the implementation of environmental plans in Lebanon are also underscored throughout the research. This study will provide added value to existing studies on related subjects, as Lebanon’s example shows how extreme challenges faced by a country should not be a reason for neglecting life-changing matters for future generations. The study will also highlight the importance of having both the Ministry and environmental groups helping each other and working in parallel to effectively achieve this goal.

### **1.3 Data Collection**

To properly answer the research question, this study relies on primary and secondary sources. The projects conducted by the Ministry of Environment and environmental groups in Lebanon portray the degree of involvement of both entities when it comes to SDG15 “Life on Land”. Therefore, primary sources obtained from the Lebanese Ministry of Environment’s website, environmental organizations’ websites, and

archived articles from local and international newspapers discussing their respective projects will be used. In addition, supporting the primary sources with secondary sources will lead to a credible path while answering the research question. For example, in order to back the paper's argument, a substantial analysis of the literature on sustainable development practices, specifically those concerning SDG15, will be examined and utilized.

## **1.4 Map of the Thesis**

Finally, the thesis will be divided into five chapters where a better understanding of the agendas of both the Lebanese Ministry of Environment and environmental groups in Lebanon will be presented. These agendas will be compared with the SDG15 goal to better reflect the degree of compliance with that goal.

The chapters that follow will serve as an explanation to SDG15 and whether it is being achieved in Lebanon. This is reflected through the works of the Ministry of Environment and environmental groups. As a result, the second chapter will focus on the UN's 15th SDG, Life on Land. After a thorough explanation about the United Nations Sustainable Development Goals has been presented, the 15<sup>th</sup> SDG will be examined. This chapter will provide the thesis with credible sources which will hopefully aid in backing the stated hypothesis with enough support and evidence. Moreover, in order to compare Lebanon's situation with other countries, examples will be used in order to show and understand how certain countries are incorporating SDG15 into their socio-economic development systems. An overview about Lebanon's historical challenges and where it currently stands is mentioned as well. This chapter will end by introducing the two main entities, the Ministry of Environment and environmental groups, that will be studied to

assess whether “Life on Land” is being addressed sufficiently in Lebanon according to the goals set out by the UN in 2015. The third chapter will discuss the Ministry of Environment’s projects and whether they are compliant with SDG15. Agendas of the previous and current Ministries of Environment will be tackled from year 1990 to date. In addition, the challenges faced by the Lebanese government will be depicted as well as the role of the Ministry of Environment in dam building and mountain excavation projects throughout the country. In order to further the study on environmental groups contribution to sustainable development in Lebanon, the fourth chapter will look at their own efforts that tackle developmental projects throughout Lebanon. Additionally, building dams and stone quarry projects will be examined since they are seen as a challenge when it comes to environmental issues. The fifth and final chapter will reexamine the data presented, specifically the measures taken by the Ministry of Environment and environmental NGOs in Lebanon concerning “Life on Land”. It will conclude the study by presenting its results, limitations, potential solutions and further possible studies into the subject.

## **CHAPTER TWO**

### **UN SDGS AND THEIR IMPORTANCE, FOCUS ON SDG15**

This chapter tackles the importance of the UN Agenda 2030, known as United Nations Sustainable Development Goals. Environmental concerns, specifically climate change, are discussed in details to assess the immediate actions needed to ensure sustainable practices. This chapter is divided into four sections and is aimed at introducing SDG15 titled “Life on Land”, while analyzing its high importance on a global level.

#### **2.1 Importance of SDGs: Environmental Concerns- Climate Change**

Environmental issues have been a major topic of interest throughout the last few decades as the safety of plants, animals, and humans are all affected. Climate change, acid rain, global warming, waste disposal, and pollution are all examples of environmental concerns. These issues have a direct effect on the ecosystem and on biodiversity (Cavicchioli et.al, 2019). Consequently, alarming numbers were shared by the United Nations back in 2015, some pertaining to the increase in air pollution, loss of biodiversity, and increase in deforestation. Surprisingly, the COVID19 pandemic did result in an intensified awareness of environmental issues (Bhat et.al, 2021). A study performed by The Boston Consulting Group (BCG) in July 2020, shows how individuals worldwide became more aware of the seriousness of environmental issues due to the pandemic. In March 2020, individuals all around the world had to adjust their whole lifestyle as the virus spread throughout all nations, harming the health of many people (Bhat et. al, 2021). At least 70% of people were more sensitive to environmental concerns, and they

recognized the relationship between human activity and its direct impact on the environment. Moreover, approximately 75% of individuals claimed that environmental issues are as serious as health issues (Kachaner et.al, 2020). Environmental concerns should thus be tackled on multiple levels, namely at the personal, corporate, national, and global levels. Accordingly, the Boston Consulting Group (BCG) advises big and small businesses to make sure sustainable development practices are present in their employees' daily work routines.

Climate change is a huge environmental problem that has been impacting the environments of most continents. Simply defined, climate change pertains to the change in regular weather; drastically changing the common climate locally, regionally, and globally. These changes are the results of negligent human activities and have serious life-threatening effects. If sustainability is ensured, climate change will be significantly decreased (Lloyd et.al, 2021). Climate change can be greatly reduced by adopting environmentally friendly practices that encourage long-term sustainability. Effects emerging from climate change are numerous and are divided into two categories: primary and secondary effects. Primary effects include droughts, deforestation, wildfires, and desertification; while secondary effects include poverty, hunger, and economic downfalls (Lloyd et.al, 2021). The uncertainty that arises with finding the right solutions to lessen climate change is one of the many challenges that has been slowing down the complete availability of sustainable development globally (Kyte, 2014). The United Nations has been working hard to find viable solutions that can help reduce climate change over the years and ensure sustainability, which has been made clear through The Paris Agreement (Scheidel & Work, 2018). The international treaty, held in Paris at the 2015 United Nations Climate Change Conference, aimed towards achieving fruitful discussions that

lead to reducing global warming and its effects (Warren et.al, 2018). Furthermore, the UN MDGs and SDGs that will be discussed in the next section, prove the direct need for ensuring sustainable development practices are present to save all species. That being stated, biodiversity is at risk due to climate change (Cavicchioli et.al, 2019).

Global warming has impacted many ecosystems which resulted in geographical changes worldwide. This has narrowed the availability of natural resources which in turn poses a serious threat to human society which heavily relies on these resources for survival (Pecl et.al, 2017). Even though human society is at risk due to the loss in biodiversity and changes in the ecosystem, the causes of these issues pertain to none other than human activities lacking sustainability (Doyen, 2017). “The increase in global consumption due to increased human affluence has also been blamed for the environmental challenges facing the world today” (Dube et.al, 2021). Consequently, sustainability is important for a good quality of live as it solves serious global concerns, including environmental issues. This explains why the United Nations has dedicated agendas to achieve sustainable development globally, portrayed in the United Nations Millennium Development Goals (MDGs) followed by the Sustainable Development Goals (SDGs).

## **2.2 From UN MDG to UN SDG**

In 2016, The United Nations launched 17 Sustainable Development Goals (SDGs) to be implemented by all countries by year 2030. These SDGs are successors to the Millennium Development Goals (MDGs) set by the United Nations in the year 2000. Approximately twenty-two years ago, the United Nations issued the Millennium Development Goals (MDG) which include eight goals; each having economic and health guidelines. The MDGs focus on global development through economic innovations (Vandemoortele, 2011). Even though most of these goals have not been met at their



deadline in 2015, global unity was present. Countries joined forces to try their best to achieve these targets. These goals have not been completely achieved due to the expected radical societal changes, however, 189 countries agreed on the United Nations Millennium Development Goals (Zawahri & Weinthal, 2011). The MDGs were mostly fixated on improving lower income groups' quality of life as the eight goals were centered around poverty (Unterhalter & Dorward, 2013). The goals emphasize achieving gender equality, fighting diseases such as HIV, and providing basic education especially for the lower income groups. The United Nations Millennium Summit launched these goals which were agreed upon by several countries in the year 2000 in an effort to achieve these goals by the year 2015 (Vandemoortele, 2011). Some of these countries have reached some if not most of these goals, while others have fallen behind and found themselves at an even worse standing with new problems arising (Vandemoortele et.al, 2014).

In 2015, the United Nations introduced countries to the transitioning phase from Millennium Development Goals to Sustainable Development Goals in the United Nations General Assembly. Millennium Development Goals expanded into Sustainable Development Goals with a larger focus directed towards achieving sustainability on a global level (Rosenbaum, 2015). The United Nations issued 17 UN millennial sustainable development goals (SDGs) projected for the year 2030 that should be met by countries to end poverty, save the planet, and ensure a peaceful and stable environment (Persaud & Dagher, 2021). The UN Sustainable Development Goals were introduced in September 2015 and launched in January 2016 (Vandemoortele, 2011). These goals were launched by the United Nations in collaboration with the World Bank. They are also known as Agenda 2030, as they should be completed by 2030. The United Nations and the World Bank set

the 17 interrelated goals diverted towards achieving one main criterion: achieving a better quality of life for future generations in a sustainable manner.

The UN SDGs should be taken seriously by all countries since achieving most of the goals by 2030 is essential as their effects are expected to be life-changing. The goals should be achieved fifteen years after their launch, which shows a common trend between the Millennium Development Goals and Sustainable Development Goals both having the same duration. The MDGs were supposed to be achieved by 2015 but were not fully achieved which clearly explains the dire need for a more detailed and updated version of these goals portrayed in the SDGs. Needless to say, even though issues such as poverty and hunger are still prevalent, numbers show that the MDGs did in fact encourage countries to reduce such issues; progress has been made and additional improvements are expected by 2030 (Sachs, 2015). An important characteristic of the 17 SDGs is that they are all interrelated and achieving one goal will definitely simplify the achievement of other goals (Odada et. al, 2021).

These goals tackle in detail what every country is expected to achieve by the year 2030 which is needed to unanimously achieve a sustainable future for humanity. They target humanitarian and environmental issues such as ending poverty, ending hunger, reducing water and air pollution, halting climate change, attaining gender equality, providing individuals with affordable and clean energy, and acquiring inclusive civilizations all through transitioning societies from stereotypical and hateful environments to more peaceful ones (Dube et.al, 2021). The United Nations is constantly revising the SDGs to make them more specific, thus easing the process for countries. The United Nations also provided countries with indicators for each goal in 2017, thus facilitating the follow up needed concerning each country's progress (Ivanovic et. al, 2018). Multiple tools are used as well to track the progress being made on each goal per

country and to make the data readable and easily understandable by United Nations personnel. The United Nations is closely monitoring the SDGs' progress by performing constant research to simplify the process of achieving these goals. The SDGs are even more detailed than the MDGs, and target not only the lower income groups, but all income groups as their main focus is reaching a global sustainable life for all future generations. Having proper education, achieving gender equality, protecting cultural and natural heritages, and ensuring clean energy are some of the goals that highlight how these SDGs target a better quality of life for all income groups. The goals, being interrelated, relate back to the advantages of sustainability. Advantages of sustainable development are long-lasting and lifesaving. Sustainability is described as meeting human and economic development goals while avoiding depletion of natural resources, all while preserving a long-term future for future generations (Abdulai, 2019). The majority of the scholarly community and environmental experts describe sustainable development as the use of present resources without negatively affecting any future resources (Batt, 2012). Thus, quality of life is a major element when tackling sustainability.

The phrase "quality of life" is defined as having a comfortable and healthy lifestyle. Having a good quality of life is ideal as it provides safety, mental and physical health, and better living conditions. The reduction of environmental issues such as climate change is extremely important as it ensures a better life for all species. Sustainability leads to economic growth which every country aims to achieve or preserve. What is clear is that all three advantages are interrelated; similar to the 17 sustainable development goals. Accordingly, performing sustainable practices lead to the three mentioned advantages being achieved, as they are all interrelated just as the SDGs. Moreover, sustainability

ensures the preservation of natural resources, achieved through protecting the environment which is present in various SDGs, including SDG15: Life on Land.

### **2.3 SDG15: Life on Land Background and Overview**

Several states have implemented targeted goals for sustainable development in their agendas, goals which need to be reached in order to achieve at least half of the sustainable development objectives before 2030 (Schulze et.al, 2021). For instance, as of 2020, the Spanish government started adapting renewable energy in the country, even though the process has been slow compared to other European countries (de Miguel Ramos & Laurenti, 2020). Needless to say, the state has been focusing more on other sustainable development goals which made them improve their public health system making it one of the top in Europe. Notably, some countries have opted to introduce sustainable development ideas in other ways. One such way is through education, which is present in Portugal. According to Claro & Esteves (2021), the Portuguese government integrated the SDGs in the educational sector, specifically in graduate and undergraduate university courses mostly present in the social sciences, humanities, and natural and environmental sciences curriculums. Particularly, SDG15; “Life on Land”, and SDG 7 “Affordable and Clean Energy” have been given the most importance out of the 17 SDGs (Claro & Esteves, 2021). European countries have been the closest to achieving most SDGs. As of 2017, Sweden has already achieved approximately 85% of the 17 SDGs; and other Scandinavian countries such as Denmark, Norway, and Finland have been close as well (Wackernagel et al., 2017).

For instance, countries in Western Europe have been adopting eco-friendly practices for at least a decade now. The “Green Cities Europe” is an obvious example of the latter. It is a campaign that encompasses at least 13 countries in Europe willing to

achieve a sustainable future (*Green Cities Europe*, 2021). This initiative targets the improvement of the economy, the climate, citizens' health, and it also focuses on the preservation of biodiversity. The mentioned clearly shows how such countries are privileged having minimal state threatening conflicts thus easing the way for eco-friendly projects to take place (Pietta & Tononi, 2021).

Unlike many European countries, other countries are finding it somewhat difficult to incorporate sustainable practices in their systems. Each SDG should be provided equal importance by all countries regardless of the region as the United Nations mentions in detail every goal's advantage whether domestically or globally. As a result, countries should include in their agendas the United Nations Sustainable Development Goals, as the appropriate framework to achieve each is presented by the international organization in order to efficiently work on these targets. The UN launched the 17 SDGs for all countries, with the purpose of achieving sustainable development globally and treating all countries equally. Even though it seems sometimes unrealistic, every country's capacity, existing challenges, and conflicts it might be dealing with should not interfere with the UN SDG goals (Keitumetse et al., 2020).

External challenges indeed affect a country's potential in achieving these goals, however the United Nations strongly states the goals' importance and priority. However, what is easily reachable in one country can be very difficult to attain in another. Most countries in Western Europe are not going through major political unrest, unlike countries in Eastern Europe and the Levant region where many nations are almost constantly facing domestic and foreign conflicts. Unlike most developed countries, developing countries have not been paying enough attention to the importance of sustainable development to

build a better country. Their focus has been shifted towards profitable investments and wasteful infrastructure.

Not all countries are privileged, having to deal with major issues such as wars, violent civil movements, and corruption. Such states mostly prioritize resolving their own conflicts before looking into the United Nations Sustainable Development Goals.

Lebanon is a good example of a country facing a high degree of corruption and continuous conflicts. The fifteen-year internal dispute in the country led to an apparent increase in its corruption levels in various sectors. Lebanon is known for its sectarian politics, which explains why most sectarian leaders were able to maintain their political power in the country and manage main public and private sectors (Clark & Salloukh, 2013). Furthermore, after the civil war, the state and administrative entities mostly ignored environmental issues and switched their attention towards improving the country's dismal economic situation (Awdeh & Hamadi, 2019).

As a result, the political elites chose economic rebuilding while sidelining the long-term quality of life of local populations, which helped them stay in power. They gained control over multiple decision-making processes and managed major reconstruction projects in important areas all over Lebanon (Masri, 2007). Consequently, political figures played a prominent role in reconstruction projects in the country.

Even though many development-based projects in Lebanon include political figures as key investors who mostly benefit their own followers, many still incorporate pro-environmental procedures in their projects regardless of their personal gains (Lubell et.al, 2009). In Lebanon, achieving sustainable development has been challenging since

investors and political elites seek to modify the focus on economic benefits and political power.

Natural resources are a country's core strength because they are vital for the manufacturing of food, raw materials, and fuel, which are all essential constituents needed to produce goods. A country becomes more valuable through its resource richness, leading to foreign interventions and increased exposure to conflicts. Therefore, Lebanon, being a Mediterranean country with a moderate climate, is known for its rich environmental habitat and natural resources (Dada et.al, 2013). Decades later, sustainable development is far from being implemented in the country, causing biodiversity to be at risk. Ghosn and Khoury (2011) linked the limited extent of sustainable development in Lebanon to the political elites' involvement in the reconstruction projects that emerged after the civil war. Looking beyond political bodies, non-governmental organizations initiated environmental projects and awareness campaigns in hopes of greatly increasing sustainable development. As a matter of fact, Lebanese environmental activists started working on separate projects to ensure the preservation of green areas and to spread awareness concerning the implementation of sustainable development (Nagel & Staeheli, 2016). Notably, environmental non-governmental organizations are primarily concerned with preserving and enhancing long-term sustainability. Studies have shown that biodiversity has not been given the needed importance by the state, however, the Ministry of Environment should not be held accountable since there are challenges by other Ministries that are prioritized by the government. "Politicians thus do not respond to demands that could secure fairer representation, transparency, or better provision of public services" (Geha, 2019). Most politicians have worked on initiatives that provided them with quick returns on their investments instead (Masri, 2007). What is expected in order to achieve this goal is to

have a planned agenda by Lebanon's Ministry of Environment that tackles practices and projects related to "Life on Land". In addition, environmental non-governmental organizations should work closely with the Ministry in order to plan an agenda that tackles life on land and reach the targeted goal by 2030.

Have both entities been working on achieving "Life on Land" in post-war Lebanon?

Throughout this chapter, defining climate change and its effects showed the importance of achieving sustainability for future generations. The United Nations launched the United the Millennium Development Goals in 2000 and the Sustainable Development Goals in 2015 in order to ensure that sustainable development is globally achieved. The 15th SDG was subsequently developed with a considerably more in-depth focus, emphasizing the significance of protecting life on land. This chapter stated how developed countries, especially countries in Western Europe, have adopted sustainable practices to achieve "Life on Land", before ending with a focus on Lebanon and whether the Ministry of Environment and environmental groups have acted to ensure sustainable practices are available. Since this study focuses on Life on Land in Lebanon, the following chapter will discuss the government's response to SDG15, specifically the Ministry of Environment, after the civil war, to date. Chapter 4 will then focus on environmental groups in Lebanon and whether their agendas have included practices that aim at achieving SDG15. Mountain excavation and dam construction projects will be discussed in Chapters 3 and 4 to further assess both entities' responses to land degradation in the country.



## **CHAPTER THREE**

### **LEBANON’S MINISTRY OF ENVIRONMENT: COMPLIANCE OR NON-COMPLIANCE WITH SDG15**

This chapter focuses on the role of the Lebanese Ministry of Environment when it was first established after the civil war. The consequences of a civil war have usually long-term effects, especially in a sectarian and politically divided country such as Lebanon. Accordingly, this chapter is divided into three parts. The first part tackles the Lebanese Ministry of Environment’s duties following the war, the second examines its agenda after its restructuring in 2010, and the third discusses the weakening role of the Ministry in protecting the environment and reducing environmental issues. Consequently, the chapter’s main focus is on the Ministry of Environment in Lebanon and its main tasks over the years, highlighting the areas where its agenda complied to the sustainable development goals; specifically, the 15<sup>th</sup> SDG “Life on Land, and where it did not comply.

#### **3.1 The Lebanese Ministry of Environment in the Post-Civil War Era**

Lebanon’s fifteen-year civil war resulted in multiple consequences affecting the country’s infrastructure, environment, economy, and demography. Following a civil war, especially in a country like Lebanon, where sectarianism and political divisions are embedded in the government and the Lebanese community, past conflicts are still unresolved and new conflicts have emerged. Furthermore, after the internal conflict,

environmental degradation was somewhat neglected. Practical solutions regarding sustainable practices have been difficult to achieve especially in a post-war country ruled by corrupt entities (Chaar et al., 2019). Since the year 2000, the United Nations has encouraged countries to pursue economic development while considering sustainability and the use of innovative resources. Developing countries have been mostly faced with difficulties to find the right solutions to environmental issues such as climate change (Olleik et al., 2021). After the civil war, the Lebanese government found it difficult to enact laws and regulations that prioritize environmental safety. Following the Tai'f Agreement, which resulted in a cease-fire in the conflict, the government's top priority was to reconstruct the nation. The Tai'f Accord sought to achieve a stable political environment in the nation as well as the termination of the civil war (*LEBANON: Government Rethinks Reconstruction Programme*, 1990). In the post-civil war era, environmental issues were given little attention as other issues had to be prioritized. As a result, the Ministry of Environment was established two years after the civil war ended.

Lebanon is a country rich with resources and preserving natural resources is essential as these elements are important assets (Darwish et al., 2011). To better understand the government's degree of commitment to providing solutions to environmental degradation, the Ministry of Environment's agendas over the years should be studied as well as its basis of formation.

In 1993, the Ministry of Environment was founded under Law 216/93. The law states that a Ministry of Environment should be established in Lebanon in order to create and implement policies related to environmental concerns. Law 216, implemented in 1993, tackles the creation of the Ministry of Environment and includes 9 articles

explaining the Ministry's tasks and responsibilities such as reducing pollution, preserving biodiversity, and fighting disasters that affect the environment (Ahdath wizarat al bi'a, 1993).

From 1992 to date, the Ministry of Environment's structure has been updated. It is important to state that in 1981, Lebanon had a Ministry in charge of the country's environment. However, Law 216/93, was of dire need to establish the Ministry of Environment and to have a clear list of duties and responsibilities expected to be fulfilled by the Ministry, as environmental concerns were not given that much importance during the civil war. The Ministry back then was faced with a challenging task that involved preserving the country's natural resources, biodiversity, and ecosystems; especially after the damages caused by the fifteen-year conflict. Environmental protection laws were later launched within the next few years, of which Law number 444 tackling environmental protection (Gharios et al., 2021). In 2002, Law number 444 titled "Environmental Protection" was presented by the Assembly of Deputies which served as a great reference for the Ministry of Environment. This law focuses on the preservation of air, land, and sea and its 68 articles provide in details regulations pertaining to the financing of environmental programs and projects, providing environmental assessments, righteously reacting to natural disasters, and preserving biodiversity (Himayat al bi'a, 2002)

As a result, the state began to concentrate on addressing environmental issues in the nation as of 1993, as seen by the development and application of laws preserving the environment. Laws 216 and 444 are considered general laws as they are the basis of the Ministry's foundation, while laws 9,10, and 11 are more specific and are tailored according to different regions in Lebanon. Laws 9, 10, and 11 are focused on areas in

Lebanon that have rich ecosystems such as Tannourine, Alyammuna, and Bint'ail respectively. These locations share one thing; a wealth of natural resources, which is why these laws were enacted to regulate the preservation of such areas legally.

Needless to say, Law number 444 has played an important role in clearly defining the Ministry's purpose. The law entails several articles that tackle the responsibilities of the Ministry of Environment. The main goal of the Environmental Protection Law is to facilitate the Ministry's work and provide them with rules and regulations to be followed when performing tasks. For instance, article 12 states that it is expected from the Ministry of Environment to seek external assistance from local and international experts and to resort to technological innovations when possible. However, the Ministry was faced with difficulties in effectively performing its duties as the country was already dealing with the civil war's consequences. Additionally, proper financial help was not provided by the government. "The MOE has little capacity or power in the area of monitoring and environmental impact assessments, its enforcement powers are non-existent, and its budgetary resources are miniscule" (Kingston, 2001). In 2005, Law 216/93 was amended under a new law, Law 690, in an attempt to reorganize the Ministry. Furthermore, Law 690 was established to restructure and regulate the Ministry of Environment (Tahdid maham wizarat al bi'a wa tanzimiha, 2005). Accordingly, the Ministry is structured into seven different yet interrelated sections in order to better serve the community in an attempt to achieve a better environment and preserve Lebanon's natural resources (*Ministry of Environment Lebanon*, n.d).

Many projects were directly related to "Life on Land" prior to the launching of the United Nations' Sustainable Development Goals and were accomplished in the late 1990's

and early 2000's. For instance, in 2004, the United Nations Environment Programme, the Global Environmental Facility collaborated with the Ministry of Environment to implement the "Development of the National Biosafety Frameworks" project. The project was funded with USD 240,000 and it entailed establishing biodiversity frameworks in the country by developing domestic monitoring measures and organizational systems. Its purpose was also to assist the country in preparing for the implementation of protocols that will aid in the conservation of biodiversity. Approximately a year and a half later, indicators and regulations concerning protecting domestic biodiversity were launched through this project (*Ministry of Environment Lebanon*, n.d).

Additionally, the "Coastal Area Management Programme", having a budget of USD 500,000 was accomplished in 2003, two years after its launch. This programme focused on protecting the Lebanese coastal areas through offering effective environmental management practices, introducing sustainable development practices in coastal areas, and by providing a strategic blueprint for effectively using natural resources along the coastal line (*Ministry of Environment Lebanon*, n.d). Since 1993, the Ministry of Environment has constantly joined forces with the United Nations Development Programme (UNDP). Despite the many challenges Lebanon has been facing and is currently facing, the Ministry, along with the UNDP, has been working effortlessly to achieve a sustainable future and to reduce environmental concerns. As of 1993, approximately 18 Ministers have been in charge of the Ministry of Environment. The previous and current agendas of the Ministry of Environment have been centered around the United Nation's goals concerning sustainable development with an attempt to reduce local environmental crises such as land degradation, deforestation, garbage management, and loss in biodiversity.

When the Ministry was first reorganized, its efforts were less successful since Lebanese environmental legislation established prior to 2010 were more focused on assisting in the Ministry's development than on bringing about significant environmental changes. Even though these laws did help enhance the Ministry's works, substantial results were not recorded until 2010. Consequently, with the establishment of Decree 2275/2009 multiple achievements performed by the Ministry of Environment were recorded (World Bank, 2011). "This decree defines the function and responsibilities of each unit including staff size and qualifications" (World Bank, 2014).

### **3.2 Ministry of Environment Achievements: 2010- Present**

Considerable achievements were accomplished as of 2010 as the Ministry of Environment extended its collaboration with the United Nations Development Programme (UNDP). From 2010 till 2015, the Ministry of Environment, in partnership with the UNDP, divided its main tasks into three categories and based its decision-making practices as per these classifications. The first category was focused on encouraging the use of environmental practices when drafting rules and regulations. The second category was mainly targeted at the government's capability of including global agreements and procedures related to environmental concerns. Finally, the third category was directed towards involving climate change concerns into local dogmas (*MOE/UNDP Partnership: Key Achievements from 2010 to 2015*, n.d).

The Ministry of Environment along with the UNDP has thus prioritized the presence of sustainable development, including a better "Life on Land". Nearly 20 projects were launched in the mentioned five years (*MOE/UNDP Partnership: Key Achievements from 2010 to 2015*, n.d). These projects all had a common objective: improving the environment and achieving sustainable development. During that period, the MDGs had not reached their deadline, and the SDGs were being drafted before their

initial launch at the end of 2015. Consequently, some of these projects were already fully completed prior to the SDG's introduction, while others were extended until after 2015. The UN SDGs were amended multiple times in order to help countries better achieve sustainable development. The Ministry of Environment did in fact dedicate various projects to fight deforestation and preserve biodiversity which are key factors present in the 15<sup>th</sup> SDG "Life on Land" (Mitri et al., 2019). The Ministry of Environment collaborated with the UNDP back in 1997 and obtained funding by the Global Environment Facility for "Lebanon's First Biodiversity Strategy and Action Plan". However, it was not until the end of 2015 that achievements concerning biodiversity were recorded when the second action plan was implemented. Lebanon's first and second biodiversity actions plans highlight the Ministry's compliance with the UN SDGs.

Another relevant project developed by the Ministry and the UNDP involves providing the right reforestation techniques in specific Lebanese villages that are rich with natural resources. This was a challenging task for the Ministry of Environment since innovative reforestation techniques have not been previously tested in Lebanon. The experiments performed in rich resourceful areas such as Arz-Bcharre and the Bekaa valley were successful despite the many challenges. The purpose of these experiments was to encourage planting and vegetation through exponentially decreasing planting costs and to provide innovative techniques that reduce the use of irrigation water consumption and to some extent completely cancel it during the reforestation process. The project resulted in positive results as less costly and more sustainable vegetation techniques were tested. Consequently, both the Ministry of Environment and the UNDP worked on providing simple and economical solutions to encourage reforestation techniques in different areas in Lebanon.

The year 2016 marked two important events: the beginning of Michel Aoun's presidency in Lebanon and the launch of the UN SDGs. Local and international issues have affected the upcoming Ministry back in 2016. With the formation of the new government, additional concerns arose adding to the country's pre-existing troubles (DeQuero-Navarro et al., 2020). "...the start of the Syrian conflict in 2011, which triggered the influx of more than 1.5 million forcibly displaced Syrians into Lebanon, as well as the solid waste crisis of 2015, made this goal difficult to achieve, despite its central importance to the global environmental management in the country" (*Key Partnership Achievements of the Ministry of Environment and the United Nations Development Programme in Lebanon from 2016 to 2020, n.d*). However, such difficulties did not discourage the Ministry of Environment into drafting clear agendas and organizing its departments. The Ministry is currently divided into different departments; each having sub departments (Ministry of Environment, n.d) in order to better achieve its tasks per category.

As previously described, the "Life on Land" goal includes reversing land degradation, fighting deforestation, and protecting the ecosystem and biodiversity. In order to better focus on SDG15, one of the Ministry's categories titled "The Service of Natural Resources" will be of importance. This department focuses on protecting natural resources and the ecosystem. According to the "*Key Partnership Achievements of the Ministry of Environment and the United Nations Development Programme in Lebanon from 2016 to 2020*" report (n.d), only few SDGs are being achieved in Lebanon, while others have not been given the right importance. The Ministry of Environment and the UNDP have worked on projects that aim to achieve the targets under SDG15 titled "Life on Land". For instance, fighting desertification in Lebanon has been prioritized by the Ministry. Two



important projects that have been part of the Ministry’s agenda have been implemented in Qaraoun Village and in mountain landscapes in Lebanon. The “SLMQ- Sustainable Land Management in the Qaraoun Catchment Project” was launched in 2016 as part of the “Land Degradation Neutrality of Mountain Landscapes in Lebanon” project. The project, which has been extended until 2021, developed advanced tools that encourage the sustainable usage of land in Qaraoun village (Mitri et al., 2019).

Accordingly, the below table, comprising of selected projects extracted from the Ministry of Environment’s website, portrays its compliance to SDG15 before and after 2010:

*Table 1. Projects pertaining to the Ministry of Environment*

<b>Project Name</b>	<b>Launch Date</b>	<b>Status</b>
<b>Market Policy and Legislative Development for Mainstreaming the Sustainable Management of Marine and Coastal Ecosystems in Lebanon</b>	1 November 2013	Ongoing
<b>Safeguarding and Restoring Lebanon’s Woodland Resources</b>	1 March 2009	Ongoing
<b>Environmental Fund for Lebanon</b>	7 January 2007	Accomplished

<b>Alleviating Barriers for Quarries Rehabilitation in Lebanon</b>	15 March 2005	Accomplished
<b>Biodiversity Enabling Activity Project</b>	15 October 1997	Accomplished

These projects are all launched and implemented by the Ministry of Environment through funding from international organizations, including the United Nations.

Consequently, such projects highlight how the Ministry in collaboration with the United Nations, has been actively working to ensure sustainable development is present in the country. The Ministry of Environment has been mostly conforming to the United Nations Sustainable Development Goals. The Ministry's agenda entails drafting environmental laws, finding solutions to preserve Lebanon's natural resources, providing serious measures to limit the increase of environmental risks, and adopting extensive measures for the community's welfare.

Contrary to the agenda's well prepared points, the execution phase was not as successful. On 21 July, 2015, protestors took the streets of Beirut as waste management practices were being disregarded by the government. The increase in pollution levels outraged the Lebanese population as their health was at risk (Barnard, 2015). The Ministry of Environment was to blame as one of its main tasks was to ensure the well-being of the community by providing effective waste management practices. Accordingly, the Ministry had to act swiftly in order to solve this issue and focus solely on waste management.

Working on the preservation of biodiversity and the ecosystem was thus neglected at that time.

### **3.3 The Declining Role of the Ministry of Environment**

The mentioned projects and decrees show that the Ministry did in fact prioritize the United Nations Sustainable Development Goals of which “Life on Land”. However, some deviations occurred especially with internal and external encounters affecting decision-making practices. On one hand, reforestation techniques have been presented to local farmers by the Ministry of Environment and the UNDP to economically plant trees and reduce irrigated water use (Haroutunian et al., 2017); while on the other hand, mountain excavation and building dam projects were being executed under the Ministry’s approval. These projects, if not properly assessed by environmental experts, increase land degradation and result in the loss of biodiversity which does not comply with the 15<sup>th</sup> SDG “Life on Land”. Mountain excavation projects have been increasing over the years in Lebanon (Geoengineer.org, 2018). As of 2018, Lebanon’s natural habitat has been destroyed which in turn affected the country’s biodiversity. Building dams, which are licensed by the government, have been highly criticized by the Lebanese population as they are rarely environmentally assessed before its execution. The Bisri Dam project is an important example since it has caused great controversy across the country as most Lebanese citizens were against its implementation.

#### **3.3.1 Controversy: The Bisri Dam**

In 2014, the World Bank approved the Bisri Dam project on the ground that it has passed the Environmental and Social Impact Assessment (ESIA) while coordinating with governmental bodies, civil society actors, the private sector, and members of the

community (World Bank, 2014). The Bisri Dam was drafted on the basis that it will generate good water quality which will benefit the residents of the Greater Beirut area who are faced with water scarcity. The project was drafted with the presence of safety experts where seismic monitoring equipment would be used upon execution and where biodiversity is protected as per the Biodiversity Action Plan (World Bank, 2014). Consequently, the government also approved the Bisri project as it claimed the dam will result in an increase in water resources for the residents of Greater Beirut area (Nemer, 2019). The project has sparked controversy among the Lebanese community especially locals directly affected by this dam, such as residents of Roum village. They claimed the dam will not only lead to geographical changes, but it will also put individuals residing near the dam under serious risks of potential earthquakes as it is being built on a seismogenic fault line (Nemer, 2019).

Moreover, the “Save Bisri” campaign was launched by environmental activists in efforts to stop the project as they claim that there are other efficient solutions that can be found to increasing water supply without damaging the Bisri valley’s ecosystem (Ayoub & Maroun, 2020). Even though the project was drafted taking into consideration environmental assessments and safety measures, seismicity measures were overlooked when it was launched. Experts claim that “positive CFS values and an increase in R show the potential to trigger seismicity” was ignored (Basbous et. al, 2022). The government has failed its people by agreeing to the land degrading project, and the Ministry of Environment should have drafted the project differently.

In 2020, the World Bank stopped funding the project due to the government’s noncompliance with preserving the environment (World Bank, 2020). It also claimed that the Lebanese government did not address concerns about a strategy for ecological restitution as well as plans for the maintenance and operation of the project (Shalal, 2020).

Land degradation and loss in biodiversity are direct factors resulting from the project (World Bank, 2020). By stopping their funding, the World Bank indirectly agreed that this project will negatively impact the living conditions of the residents and will greatly affect the environment. Locals were thus disappointed by their government, specifically the Ministry of Environment.

### **3.3.2 Mountain Excavation Projects**

The Lebanese community has also condemned poorly researched projects that include mountain excavation, generally known as stone quarry projects. For instance, various stone quarry projects in Lebanon have not been regulated for years which has negatively affected the availability of the country's natural resources. Even though Decree 8803 clearly mentions the importance of preserving the environment when implementing stone quarry projects, deforestation and loss in biodiversity were directly affected by such projects (Darwish et. al, 2011). The decree states that prior to the execution phase, potential sites should be well studied to check if they are suitable for mountain excavations without harming the environment and without depleting natural resources (Legislative Decree No.8803 of 7 Oct. 2002, (Leb.)). Even though the Ministry of Environment updated Decree number 8803 in 2009, there has been a lack of regulatory practices by the respective entity for numerous years (Darwish et al., 2011). The Ministry of Environment was to blame as unregulated stone quarries were being implemented. An obvious example that caused outrage to multiple individuals pertains to Ain Dara village. Illegal mountain excavation projects had been performed in the area after the civil war. This resulted in geographical changes which led to the village losing its identity (Trovato et al., n.d.).

Building dams and stone quarry projects should be extremely regulated and well-studied by the Ministry of Environment. The Ministry has indeed been compliant with some of the United Nations Sustainable Development Goals; however, it has not taken the right measures when tackling environmentally threatening projects such as building dams and mountain excavations.

### **3.4 Conclusion**

This chapter provided an overview of the Ministry of Environment's agendas after the civil war to date, focusing on the extent of compliance with the 15<sup>th</sup> United Nations Sustainable Development Goal titled "Life on Land". In the first section, the Ministry's establishment is discussed and the laws and decrees pertaining to its launch are presented to better understand the rules and regulations shaping this entity. A brief discussion about the Ministry's works at that time is presented. During that period, the Ministry was not prioritized as the country was dealing with the aftermath of the fifteen-year civil war.

The second section is then introduced and it mentions the amended law in 2009 that led to the reconstruction of the Ministry where its role was clearly defined. In this section, it is clearer that the Ministry of Environment has started working towards achieving sustainable development in the country, which includes preserving biodiversity and providing tools and less costly planting techniques to encourage reforestation. The Ministry's constant collaboration with the United Nations Development Programme (UNDP) in Lebanon portrays a clearer view on the agenda's conformity to sustainable practices.

The final section comprises of some of the Ministry's decline seen through the stone quarry and building dam projects. The Ministry of Environment is expected to properly assess every project's effect on the quality of life of the local community and on the environment. If not properly reviewed before their execution, stone quarry projects, and building dam projects can result in serious damage to a country's geography and natural resources. Consequently, on one hand, this chapter highlights where the Ministry of Environment complied with the "Life on Land" SDG which was portrayed through the reforestation techniques and studies that enforced the preservation of natural resources and biodiversity. On the other hand, non-compliance with sustainable practices by the Ministry of Environment has been recorded throughout the past couple of years; which has been obvious in unregulated stone quarry and building dam projects. This has caused wide criticism among affected communities and it has grabbed the attention of environmental organizations in the country.

The following chapter will focus on environmental non-governmental organizations (NGOs) in Lebanon, whether they have been complying with achieving the Life on Land Sustainable Development Goal, and if their efforts affected the Ministry of Environment to constantly update its agenda to ensure sustainability.

## **CHAPTER FOUR**

### **ARE ENVIRONMENTAL ORGANIZATIONS IN LEBANON COMPLIANT TO SDG15?**

Chapter three presented an overview of the Ministry of Environment in Lebanon starting from its establishment in 1993 to date. The Ministry's level of conformity to SDG15 was also presented. However, non-compliance with sustainable practices by the Ministry of Environment has been documented throughout the last several years, as evidenced by unregulated stone quarry and dam projects.

This has sparked widespread outrage in the impacted communities and it grabbed the attention of the country's environmental groups. Consequently, the fourth chapter of the study will focus on environmental organizations in Lebanon and their degree of compliance with the United Nation's 15<sup>th</sup> SDG: "Life on Land". The chapter is divided into four sections to better analyze the role of environmental organizations in Lebanon. A global overview on governmental and non-governmental environmental organizations is first presented. Local environmental groups are then introduced in the second section and some relevant projects are presented. Accordingly, the third section focuses on environmental projects in Lebanon that are compliant with SDG15 in order to highlight how environmental groups conform to sustainability. The fourth part discusses where such groups have fallen behind before concluding with a general chapter summary.

#### **4.1 Environmental Groups: A Global Perspective**



Before the civil war, Lebanon had been coping with both foreign interferences and internal instabilities which negatively impacted many sectors, including the environmental sector. Several Lebanese non-governmental organizations (NGOs) have been active in finding solutions to environmental problems ever since the war occurred. The local community and local NGOs have been both inspired and influenced by global environmental movements. As Lebanon was going through its civil war, the world was changing in terms of paying more attention to environmental issues and more specifically environmental sustainability.

“The global environmental movement dates back to the late sixties and early seventies” (Djoundourian, 2009). Environmental organizations are important actors in spreading awareness and taking the right action when it comes to preserving the environment and achieving a sustainable future.

Furthermore, developed countries have been incorporating circular economies to ensure sustainable practices are present. “Circular means that all resources, components and products do not leave production and consumption processes as waste but are maintained as valuable inputs in subsequent processes” (del Rio et.al, 2021). Accordingly, the preservation and continuous use of available resources and the reduction of environmental concerns both shape a country’s economy. Some countries in Europe are implementing circular economies, achieved by the governments’ collaborations with environmental organizations (Wachholz, 2020). Environmental groups highly impact the structuring of policies, even in partial authoritarian countries. Ethiopia is one clear example of the latter as policies have been shaped under the influence of environmental non-governmental organizations (ENGO). Needless to say, in such countries, ENGOs find it quite challenging to impact the formation of policies that ensure the presence of

sustainable practices. Even though such organizations do not have a direct influence on decision making practices, they have indeed been recognized as environmental policymakers (Ayana et.al, 2018).

Additionally, environmental groups do not only impact the public sector. The private sector is also influenced by these groups as multiple businesses are seeking to incorporate sustainable practices in their operational systems. Businesses, especially polluting industries, have been collaborating with environmental organizations and benefiting from their expertise to work in a more sustainable manner (Espinola-Arredondo et.al, 2021). Consequently, environmental groups encourage reforming policies to ensure the presence of sustainable practices in both the public and private sectors.

Greenpeace, a known international environmental group, influenced the reform of policies to include sustainable practices. Greenpeace was launched for different purposes back in the 1970s. It was a movement initiated by Americans and Canadians protesting against nuclear testing (Zelko, 2017). Approximately two decades later, it became one of the biggest environmental non-governmental organizations (ENGOS) operating in over 40 countries and having a strong influence on powerful governmental bodies (Zelko, 2017). Consequently, powerful ENGOS are capable of interfering politically and directly influencing a state's decision-making process (Frenznick, 2019).

Developing countries have been prioritizing environmental concerns. For instance, countries in Western Europe are achieving sustainability through the efforts of local and environmental groups. The European Union is forcing member states to incorporate renewable energy in order to achieve sustainability. Sweden has been working on making

wind power the only energy source in the country through the government and environmental non-governmental organizations' help (Anshelm & Haikola, 2016). Additionally, Spain has been improving its agricultural system to have environmental sustainability in the country. SDG15 "Life on Land" is achieved through the improvement of farmlands; Spain is actively working on the integration of sustainable practices in its farmlands to preserve its ecosystems and biodiversity (Lomba et.al, 2022).

Furthermore, French ENGOs have been highly influential in policy reforms in the European Union (Berny, 2013). Sustainability is a main factor global ENGOs are striving to achieve especially after the launch of the UN SDGs. The preservation of land and the protection of biodiversity are some of the essential targets ENGOs focus on when demanding for the immediate improvement of policies. Consequently, on a global level, most environmental organizations, whether governmental or non-governmental, have been drafting their agendas based on the UN SDGs. In both developed and developing countries, most environmental organizations have influenced governments to improve their policies in order to ensure sustainable practices are present within the state. In Lebanon, international and domestic environmental organizations have been working extensively on finding sustainable solutions to local environmental concerns.

#### **4.2 Lebanon And Environmental Groups: Post-Civil War- Present**

Non-governmental organizations are critical in a country like Lebanon, where past and current conflicts abound due to the country's diverse sectarian and political affiliations. These NGOs each have different agendas, targeting different causes. Organizations working on achieving environmental sustainability in Lebanon have been

increasing throughout the years. Environmental non-governmental organizations constitute a large part of the NGO sector (AbouAssi et.al, 2016). Some vital points tackled by most of these NGOs encompass reducing climate change, preserving natural resources, and fighting against stone quarry and dam building projects that damage the ecosystem.

During the country's reconstruction era (early nineties), environmental movements in Lebanon proliferated. The state was recovering from a civil war in 1990, and environmental threats have grown exponentially as reconstruction projects were prioritized by the state. Rising levels in urbanization have negatively affected the availability of natural resources posing a serious decline in the country's environmental stability (Makdisi, 2012). The latter has alarmed most of the Lebanese population and made them more environmentally conscious. Ecological issues were rapidly increasing, affecting the presence of natural resources.

A direct effect resulting from this reality is the establishment of environmental organizations in the country. Furthermore, international environmental NGOs were also an integral part in fighting against environmental concerns in Lebanon. Greenpeace MENA, established in 1995, is a relevant example. Its works include spreading awareness in the region on various concerns such as climate change, threats on biodiversity, and sustainable use of resources. Other local ENGOs have been quite active since the post-civil war era until now. Needless to say, even during the civil war, environmental movements were present. "Green Line" and "Green Forum" were two prominent domestic environmental groups launched during the war by academics and environmental activists. Their agendas focused on spreading awareness on delicate environmental topics (Kingston, 2001). Deforestation was increasing rapidly due to the civil war. Consequently, finding effective

reforestation techniques has been one of the first projects launched by Green Line. Environmental movements and activists have exponentially grown during the country's reconstruction phase to date (Nagel & Staeheli, 2015). Furthermore, the establishment of the Lebanese Ministry of Environment back in 1993 resulted from the constant pressure of environmental non-governmental organizations (Kingston, 2001). "While at least 24 NGOs were established during the war period, a minimum of 85 new NGOs were registered in post war period" (Djoundourian, 2009).

Local NGOs, licensed by the Ministry, are mostly known for developing projects centered around the preservation of natural reserves such as Arz-Al Shouf reserve in the Shouf area and the Horsh- Ehden reserve in the Zgharta area (Kingston, 2001). However, NGOs were faced with countless challenges, especially at the end of the civil war, since sectarianism and politics were still embedded in the country (Nagel & Staeheli, 2015). After the civil war, dealing with environmental problems in an organized manner and drafting a clear agenda that can easily be applied was a challenging task for national environmental groups. On one hand, numerous non-governmental organizations have been established after the war under a political or sectarian affiliation to help their own communities. On the other hand, non-affiliated NGOs were also established.

Nevertheless, many citizens' main demands are centered around abolishing sectarian and political divisions, reducing gender inequalities, and achieving effective economic development. They believe that there are far more important issues that need to be solved first before focusing on environmental concerns. "Few NGOs, in this respect, are dedicated exclusively to the preservation of nature for its own sake" (Nagel & Staeheli, 2015). These NGOs have been quite effective. Environmental groups backed by Western

agencies have proven to be the most effective ENGOs. For example, after a devastating fire hit the village of Ramlieh, the Association for Forest Development and Conservation (AFDC) was launched with the help of USAID and a reforestation program was developed (Nagel & Staeheli, 2015). Another prominent environmental project funded by a Western agency, specifically USAID, is the Lebanon-Water Project. This initiative was launched in 2015 to enhance water management practices and find sustainable solutions. The project was successful as it resulted in the sustainable use of water resources in rich natural areas in Lebanon (DAI, 2015).

However, not all successful environmental groups are supported by foreign organizations. There are environmental groups that are established by local experts and activists and that receive domestic funding for their projects. For instance, Terre Liban is an environmental NGO founded in 1994 by a group of biology, environment, and soil management experts (Terre Liban, 2022). *Terre Liban* is currently active and has worked on multiple projects and has published fruitful reports. These projects involve the preservation of biodiversity and natural resources in the country. Some initiatives have been centered around certain areas in Lebanon such as the “Save Baabda Forest” project. That being stated, environmental groups in Lebanon have either a national focus, such as raising awareness and developing projects that affect the country as a whole; or a regional focus such as targeting environmental concerns in certain regions in the country and finding the right solutions based on the specific area. After the civil war, there has been an increase in environmental groups focusing on resourceful areas in Lebanon (Nagel & Staeheli, 2015). For instance, most projects aiming at protecting natural reserves in Lebanon have a regional focus. The Shouf Cedar Society tackles environmental matters directly related to forests in Shouf area. In 1994, a few years after the civil war came to an

end, the organization was launched by a group of environmental experts. Shouf Cedar Society aimed at protecting forests in the area by managing these natural reserves (Haddad, 2002). Local non-governmental organizations became powerful after the civil war. Consequently, the United Nations Development Programme (UNDP) developed the Protected Areas Project to protect wildlife in Lebanon. The UNDP targeted specific areas in Lebanon, including the Shouf Cedars area. Each reserve was managed by a national environmental non-governmental organization (Haddad, 2002). These local NGOs mostly collaborate with the UNDP to achieve substantial outcomes.

Moreover, numerous environmental groups targeting different environmental initiatives are needed in a rich resourceful country such as Lebanon. There are approximately fifty active environmental organizations in Lebanon, each tackling a different environmental cause. Even though these organizations have different targets in their agendas, their common objective is centralized around preserving the country's environment.

### **4.3 Lebanon and Environmental Groups: Progress Towards SDG15**

As mentioned in the previous chapters, SDG15 is directed towards promoting the use of sustainable practices to ensure a better life on land. Its mission is to “protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss” (The United Nations, 2022).

“The Association for Forest Development and Conservation” (AFDC) has been directly compliant with the United Nations’ 15<sup>th</sup> SDG “Life on Land”. Its main purpose is to spread awareness on the sustainable use of natural resources for their future preservation. This ENGO has four programs that raise awareness regarding the sustainable use of resources, the importance of finding proper reforestation techniques, and having the right solutions to reduce land degradation. Terre Liban is another example of a local NGO that has an agenda highly conforms with SDG15. Its multiple projects have been directed towards the sustainable use of natural resources, whether land, water, or air. Saving forests from being destroyed for urbanization purposes and protecting the country’s biodiversity is their main focus ([www.terreliban.org](http://www.terreliban.org), 2022). The experts behind this NGO established well-studied projects that aim at achieving sustainable development in Lebanon.

The Lebanese population is surrounded by numerous environmental initiatives that maintain green spaces in numerous villages throughout the nation by safeguarding forests, natural reserves, and biodiversity. In fact, one of the oldest environmental NGOs in Lebanon is called “Society for the Protection of Nature in Lebanon” which focuses on the protection of ecosystems for the preservation of biodiversity. Recently, the organization has partnered with “BirdLife International” to work on projects that help identify the needed environment for bird protection (NGO Daily News, 2013). Furthermore, BirdLife International also joined forces with Difaf, a local environmental group. Difaf in collaboration with BirdLife researched the higher level of the Damour river to study its biodiversity, land, and natural resources; all being main aspects of SDG15. Through this research, the project’s main objective is to understand how the river’s water quality is directly affected by the biodiversity’s quality (Targeted News Service, 2022). The latter encourages the community to work harder on achieving sustainability as every SDG is



interrelated to one another. Similar to one achieving one SDG can affect the other; preserving the river’s biodiversity leads to better water quality.

Protecting natural reserves requires studying all plant species and various animal species that are temporarily and permanently residing in that area. “Life on Land” includes the preservation of land through the protection of biodiversity and reforestation techniques. Accordingly, local environmental groups have been working on achieving targets that constitute the main goals of SDG15 (Nejdawi et.al, 2017).

The table created below includes some notable environmental organizations in Lebanon that work closely with the protection of natural resources, the environment, and biodiversity.

*Table 2. Local Environmental Groups, Clubs, and NGOs Focusing on SDG15*

<b>Group/Club/NGO Name</b>	<b>Launch Date</b>	<b>Sectors/Targets</b>
<b>Al-Shouf Cedars</b>	1996	Shouf biosphere reserve  Villages  Biodiversity  Ecotourism
<b>Animal Encounter</b>	1993	Wildlife preservation
<b>Beatoona</b>	2008	Promotion of virtuous environmental practices and sustainable development across

		Lebanon and the Arab world
<b>Lebanese House Establishment for the Environment (LHEE)</b>	1999	Youth participation in the environmental expansion practices
<b>Society for the Protection of Nature in Lebanon (SPNL)</b>	1983	Protection of Lebanon's:  Nature  Birds  Biodiversity

#### **4.4 The Decline of Environmental Organizations**

Non-governmental organizations face many challenges in Lebanon as many interferences can lead to undesired outcomes. Both local and international ENGOs have at least once not been able to complete their respective projects due to the country's increased instability.

For instance, Greenpeace, has been faced with constant challenges when executing its projects in Lebanon. "Even Greenpeace, whose links outside of Lebanon have given it an autonomy that local NGOs lack, was at best able to describe its successes in Lebanon as tactical" (Kingston, 2001).

Furthermore, the garbage crisis of 2015 showed how environmental organizations are not as powerful as the Lebanese government when it comes to disposal or executing certain environmental initiatives. There had been a huge lack of proper waste management practices in the country and the Ministry of Environment was to blame (Barnard, 2015). However, environmental organizations were also held accountable as they were considered the direct link between the Ministry and Lebanese community.

It is an extremely difficult task for environmental organizations to halt stone quarry and dam building projects in Lebanon that are harmful to the environment. Environmental organizations have been faced with the difficult task of opposing stone quarry and dam construction projects that are supported by influential businesses and developers who are supported by political leaders. The approval of dam construction and mountain excavation projects is heavily influenced by politics. Less environmentally harmful projects are rarely carried out in favor of more profitable ones. Environmental groups, not having strong political connections such as business developers in charge of these projects, are too weak to stand against such power (Zea-Reyes et.al, 2021).

Likewise, as of 2021, pollution rates have been greatly increasing in Lebanon, making it a country with one of the highest levels of air pollution in the Middle East. The fight for a clean environment does not only preserve the country's ecosystem, but it also leads to citizens having better health. Economic downgrade can be alleviated with the presence of sustainable practices. That has not been the case as the Beirut program manager of Green Peace Middle East and North Africa stated that by January 2021, Lebanon recorded the highest rate of air pollution in the region (The Arab Weekly, 2021). Consequently, environmental groups are going through a decline in their achievements as

the country has been going through new challenges as of 2019. Priorities have once again been shifted towards solving other issues in the country. Consequently, environmental concerns were not prioritized by the government.

Environmental groups do not have strong political connections, which is important in Lebanon to achieve certain tasks. For instance, businesses responsible for most stone quarry and dam building projects are being implemented without the right environmental assessments ([www.newsroomnomad.com](http://www.newsroomnomad.com), 2016). Environmental groups are finding it difficult to halt these projects since, unlike the respective businesses, they do not have much access to powerful decision makers, mostly political elites. Consequently, environmental groups are not primarily responsible for their decline. They are limited when it comes to effectively achieving what is in their agendas, especially the UN SDGs. Having powerful connections to political elites is directly linked to implementing projects and achieving successful results (Zea-Reyes et.al, 2021). In a country like Lebanon where connections are vital for an organization to thrive, environmental organizations have limited ability to shape public policy when it impacts the environment.

## **4.5 Conclusion**

The chapter focused on environmental organizations in Lebanon. Several initiatives have contributed to the achievement of “Life on Land”, and some have encouraged the Ministry of Environment to ensure that sustainable practices are domestically attained.

The first part of the chapter introduced global environmental organizations. This section highlighted how environmental organizations, in both developed and developing

countries, have influenced governments to restructure certain policies. Public and private sectors have been encouraged to introduce sustainable practices in their agendas.

The second section tackled environmental groups in Lebanon. Local environmental groups became more prominent after the civil war especially with the launch of the two environmental non-governmental organizations (ENGO) Green Line and Green Forum. These two organizations prioritized restoring land degradation as a consequence of the civil war and worked on spreading awareness on environmental matters. Consequently, they pushed the government and the Lebanese community to work on such concerns. Environmental movements pressured the government to establish the Ministry of Environment. Due to Lebanon's rich nature, national ENGOs had different targets.

The third section of this chapter tackled environmental organizations in Lebanon that have dedicated their mission to achieving Life on Land. Land has been vastly destroyed as a direct consequence of the fifteen-year internal conflict. Needless to say, many organizations have been dedicated to ensuring the presence of reforestation techniques and the preservation of natural reserves which encompasses the protection of biodiversity in these reserves. These projects are directly compliant with SDG15. In a country like Lebanon, where divisive sectarian and political affiliations are embedded in the system, independent environmental organizations have found it quite challenging to make tangible progress towards a sustainable life on land.

Following the 2019 economic crisis, environmental organizations have experienced a huge decline as other concerns were given more priority. Additionally, as of 2021, air pollution has been at its peak and stone quarry and dam building projects without proper

environmental assessments have been ongoing. Section four of this chapter tackled in detail where these organizations have fallen through. They were not powerful enough to face business developers and investors who have direct connections to political elites. The fifth and final section of this chapter will discuss where environmental organizations have failed.

## **CHAPTER FIVE**

### **CONCLUSION**

The final chapter of this study summarizes the main findings and surmises the progress made towards achieving SDG15 in Lebanon through examining the works of the Ministry of Environment and local environmental groups. The main purpose of this chapter is to recapitulate what was presented in order to answer the study's research question: "How are both the Ministry of Environment and environmental groups working to achieve the 15th UN SDG "Life on Land" in Lebanon?"

This study first started by introducing important ideas and providing readers with a general overview about the key concepts covered. Sustainability involves achieving environmental quality which leads to a healthy community. SDG15 tackles environmental issues; specifically, the preservation of biodiversity and reducing deforestation. Through achieving this goal, natural resources will remain available for future generations. Sustainable development can be defined as preserving the use of current resources to ensure its availability for future generations (Chen et.al, 2015). Numerous countries worked on achieving the 17 SDGs. Some countries easily achieved most of them, while other countries are found it more difficult since they were dealing with unresolved issues that needed to be prioritized. Lebanon, known for its biodiversity and diversified forests, is still recovering from its civil war that ended in 1990. Consequences from the civil war are still present, and current issues such as ensuring citizens' basic needs are of utmost priority. The study then focused on the degree of compliance of the Ministry of Environment and environmental groups' agendas towards performing effective actions to

achieve SDG15: “Life on Land”. Every chapter presented certain progressions and regressions towards achieving this goal, with a general overview being presented that tackled how countries worked on achieving SDG15.

After introducing general notions important to the study, the United Nations Sustainable Development Goals were discussed, before focusing on the 15<sup>th</sup> SDG titled “Life on Land. Climate change affected biodiversity and the ecosystem causing the urgent need for sustainable practices (Cavicchioli et.al, 2019). Consequently, in 2015, the United Nations launched 17 sustainable development goals (SDGs) that should be met by 2030 to achieve sustainability for future generations. Even though all SDGs are interrelated, each goal focused on a specific target. This study tackled SDG15: Life on Land, where the focus is on preservation of biodiversity, protecting available natural resources, and ensuring reforestation.

The UN SDGs encouraged countries to develop sustainable development practices to ensure a better future for the next generations. The SDGs tackled essential concerns that should be solved, including the protection of biodiversity and encouraging reforestation as global warming is increasing and threatening the long-term availability of natural resources (Chi-I and Yuh-Yuh Li, 2018).

Many countries viewed the UN SDGs as a warning and took urgent action to achieve sustainable development by the year 2030. Some countries made radical changes to their systems to tackle various goals while others incorporated them indirectly through their educational systems (Aleixo et.al, 2020). However, other countries fell behind on their SDG goals, including “Life on Land”. Many countries dealt with unstable conditions and did not prioritize the UN SDGs since, in their opinion, there are other more important



issues. For instance, Lebanon dealt with numerous challenges that have stemmed as a result of the fifteen-year civil war that ended in 1990. The consequences of the civil war were corruption, abuse of power, and lack of availability of basic needs. One of the challenges Lebanon faced is the lack of basic resources such as the supply of electricity and water.

The study focused on the two entities that are responsible for achieving “Life on Land” in Lebanon. These two entities are the Ministry of Environment and local environmental organizations.

Most of the Ministry of Environment’s agendas after the end of the civil war were examined in this chapter to study the degree of compliance to the preservation of biodiversity and protecting natural resources. It is crucial to preserve Lebanon’s natural resources and biodiversity to ensure a sustainable future (Darwish et.al, 2011). The Ministry of Environment, established in 1992, prioritized environmental concerns in the midst of the war’s consequences. Since its launch, the Ministry was restructured multiple times and different agendas were implemented. Some projects directly targeted SDG15 while other projects focused on different environmental issues.

Throughout the years, the Lebanese Ministry of Environment launched multiple projects that specifically tackle concerns related to the “Life on Land” goal. Several projects focused on providing efficient reforestation techniques and on encouraging the protection of Lebanon’s ecosystem. These projects were successful especially since the Ministry collaborated with the UNDP. The "Development of the National Biosafety Framework" and "Lebanon's First Biodiversity Strategy and Action Plan" were two projects that specifically addressed environmental issues, including the preservation of

biodiversity and promoting reforestation. Both projects demonstrated compliance with the 15th UN SDG, "Life on Land." Furthermore, the laws as part of the Lebanese legal system defined what the Ministry of Environment's agendas should entail in order to protect the country's environment.

However, there were other projects approved by the Ministry of Environment that showed non-conformity with sustainable development. In 2015, waste management practices were not provided by the government which resulted in an increase in the levels of pollution (Barnard, 2015). Protestors swarmed the streets of Beirut, attacking the Ministry of Environment for its neglect. Furthermore, deforestation and loss of biodiversity increased in some areas in Lebanon due to dam building and mountain excavation projects that did not have the necessary environmental assessment before execution (Geoengineer.org, 2018). The Ministry of Environment was to blame as such projects required the government's approval.

Accordingly, the Ministry of Environment was placed in between compliance and non-compliance to SDG15 as some projects contributed to its attainment while other projects went against it. After examining the Ministry's degree of compliance to SDG15, environmental groups in Lebanon were studied.

Globally, environmental organizations were playing an important role in ensuring sustainable development practices were present. Multiple countries already achieved SDG15 through the efforts of environmental organizations. Many local NGOs in Lebanon, such as "Terre Liban", launched projects in villages that have been affected by damaging fires ([www.terreliban.org](http://www.terreliban.org), 2022). Another environmental group worked closely on

achieving targets related to the “Life on Land” goal. “The Association for Forest Development and Conservation”’s agenda entailed preserving Lebanon’s ecosystem. These were some of the examples mentioned in this chapter that portrayed how environmental groups were working closely on achieving SDG15 in Lebanon. Through providing reforestation techniques and preventing the loss of biodiversity, sustainable development was somewhat ensured.

However, environmental groups neglected some projects that were damaging to the environment, which showed non-compliance to SDG15. Deforestation was still present in Lebanon and mountain excavation and dam building projects that were harming Lebanon’s environment were also still occurring. It is true that environmental groups were implementing projects that were helpful to the environment, however, they were disregarding other projects that needed their intervention. They were expected, as environmental groups, to not only launch projects, but to also halt the implementation of projects that were harmful to the environment and to attract the attention of international organizations. It has happened before with the Bisri Dam, when protests caught the attention of the World Bank resulting in it halting the project’s funding (Herbert, 2020). The latter should not have been a one-time thing and should have happened more often to ensure conformity with SDG15.

Nevertheless, it is important to state that environmental groups should not be held 100% accountable when it comes to stopping the implementation of mountain excavation and dam building projects. These projects were backed up by powerful businessmen who have strong connections to politicians and governmental bodies and got the necessary licenses without performing environmental assessments. In this case, environmental

groups were weak and found it difficult to stop these projects. Environmental groups in Lebanon, similar to the Ministry of Environment, were placed between compliance and non-compliance to SDG15; non-compliance being mostly out of their control.

## **5.1 Limitations**

Even though the information presented was enough to examine the degree of compliance of the Ministry of Environment and environmental groups in Lebanon towards achieving SDG15 “Life on Land”, there were some limitations to this study. One essential limitation was the inaccessibility to a detailed agenda of the Ministry of Environment and active environmental groups’ projects. Only outlines were available to the public, however, these outlines were enough to understand what the projects entail and what has been achieved. It was at times difficult to get all the information needed, but through gathering different accomplishments and failures of both entities mentioned in news outlets and previous or current research studies, the research question was answered. Additionally, several entities responsible for pollution and for the deterioration of forests and biodiversity were not easy to reach. These entities entail political figures and powerful businessmen in Lebanon investing in projects that are damaging to the environment.

## **5.2 Concluding Remarks**

Some progress has been made in Lebanon towards achieving the UN SDGs, however, further development is still needed if Lebanon is to even come close to fulfilling them by the year 2030. Business groups in Lebanon complicated the pursuit of the UN SDGs, including SDG15, which was presented in this study under the mountain excavation and dam building projects. Accordingly, politics in post-war Lebanon played a

major role in complicating the pursuit of a rational policy that focused on sustainable development and the well-being of the environment. The political scene in Lebanon is characterized by sectarianism, which in turn makes many tasks difficult to achieve if the right connections are not accessible. Environmental projects should be depoliticized for the well-being of the whole country and its people. The Lebanese system privileged business people who have greater access to powerful governmental bodies which complicated the attainment of sustainable development.

Lebanon emerged from a civil war that caused great damage to the country's environment. In the immediate post-war years (early 1990s), construction plans were put in place by the public and the private sectors which attracted investors. Most of the investments went into reconstruction, construction of new buildings, and infrastructure development. These projects did not factor in the costs to the environment. Furthermore, completely ending environmentally deterring mountain excavation and dam building projects was extremely challenging as businessmen and investors behind these projects are linked to powerful networks in the country. This posed a challenge for the Ministry of Environment and environmental groups in Lebanon as they were certainly aware of the importance of addressing sustainable development, including SDG15. Despite existing challenges, one cannot deny the fact that both entities worked on reducing environmental issues and made some progress towards achieving sustainable development. With the strengthening of civil society and the entry to parliament – in the wake of the 2022 parliamentary – of new educated figures, there is hope that a reformed and empowered Ministry of Environment and environmental groups will be in a better position to pursue an environmental agenda that prioritizes achieving UN SDG 15.

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