



A Case Study on Lebanon's National Strategy for Forest Fire Management

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List of acronyms

AFDC	Association for Forestry, Development & Conservation
FAO	Food and Agriculture Organization
IUCN	International Union for Conservation of Nature
ISF	Internal Security Forces
LAF	Lebanese Army Forces
MoA	Ministry of Agriculture
MoE	Ministry of Environment
Mol	Ministry of Interior and Municipalities
MoD	Ministry of Defense

Executive Summary

The case study on Lebanon's forest fire policy aims to trace the policy-formulation process which led to the National Strategy for Forest Fire Management. The policy represents a successful example of a civil society organization, namely a non-governmental organization (NGO) specialized in reforestation activities, influencing policy-making through research and advocacy. The mandate of forest fires falls under the jurisdiction of a number of institutions; hence, the development of the policy characterized a fruitful collaboration between various actors.

The study looked at the role of the key stakeholders and the NGO's influence. It touched upon the implementation of the policy. The study was conducted by the Issam Fares Institute (IFI) and spanned over the course of three months. Data was collected in two phases through the review of relevant documents, and elite interviews with primary policy-makers, including officials of the Ministries of Environment, Agriculture, Interior and Defense. The study found that the policy-formulation process was achieved by the forestry association's strong lobbying efforts and its grasp of an entry point into policy-making. Collaboration between a wide range of stakeholder from the public and private sectors led to the successful adoption of a new forest fire policy in Lebanon. The implementation of the policy remains an unresolved issue. The study raises questions for further research on the issues of the influence of research on policy-making, particularly moving forward with implementation.

1. Introduction

Policy-making in the Arab world is an intricate and complex process, which puts into play various actors, in a non-linear policy-making process. To study this process through an in-depth scientific approach, the Issam Fares Institute (IFI) has developed a program focusing on Research, Advocacy, and Public Policy-Making (RAPP) in the Arab world. As part of the RAPP program, IFI has initiated a series of case studies tracing back policy in a number of sectors, such as the environment, the health and the education sectors.

Among the policy-tracing projects that IFI has undertaken is a study that maps the national policy on the management of forest fires in Lebanon. In the past few years, forest fires have been increasingly present in Mount Lebanon. They caused considerable environmental damage and had a profound impact on the economy of the affected area. National forestry laws have been shared between various government institutions with overlap and inter crossed jurisdictions. To remedy the situation and strengthen its role in tackling forest fires, the Lebanese government passed the *National Strategy for Forest Fire Management* in May 2009. This strategy was put forth through the collaboration between relevant ministries and civil society actors. Among the most prominent civil society actors in this process was the Association for Forestry, Development and Conservation (AFDC), a non-governmental organization specialized in reforestation activities, with the aim of influencing policy-making through research and advocacy.

In order to map the process of collaboration that led to the adoption of a new national policy on forest fire management in Lebanon, the study addressed the following research questions:

- a. What was the process of developing the *National Strategy for Forest Fire Management* in Lebanon?
- b. How did AFDC's research and advocacy efforts influence the development of the Lebanese national forestry strategy?
- c. How was the Lebanese national forest fire strategy implemented?

2. Policy Development: Local Context

Stakeholders

There are a number of stakeholders that influence any policy that is deliberated. Within the framework of the forest fire policy in Lebanon, the following stakeholders had an impact in the decision making process: the Ministry of Agriculture (MoA), the Ministry of Environment (MoE), the Ministry of Interior and Municipalities (MoI)–Civil Defense and Internal Security Forces (ISF), Ministry of Defense (MoD) – Lebanese Army Forces (LAF) Ministry of Defense (MoD) – Lebanese Army Forces (LAF), and AFDC.

Forest fire prevention falls within the jurisdiction of a number of institutions. However, pre-strategy, the core of the mandate was with the Ministry of Agriculture. According to a 2009 USAID report on “Lebanon's Forest & Biodiversity Conservation Assessment”:

“Legislation on forests is tackled in the Forest Code of 1949 and the Law on Forest Protection, Law 85 of 1991 then amended by parliament in 1996. The law of 1949 regulates forest activities including pruning, thinning and charcoal making, while the laws of 1991 and 1996 imposed severe restrictions on forest activities and a total ban on harvesting resinous trees. The law of 1949 recognizes three types of forests based on land ownership (private, municipal and state) and continues to provide the basis for the management of forests by the Ministry of Agriculture.”

The MoA is in charge of managing Lebanese forests, which it does through its numerous forest centers and forest guards. The forest guards are expected to enforce forests legislation and protect forests from offenders. The USAID report points out that the forest guards are “underpaid and underequipped (earning about 430\$/month plus benefits)”, which may present a problem to enforcing these laws. As for the MoE, it is in charge of the budget allocated for reforestation but does not hold a mandate for reforestation. Furthermore, the MOE is the chair of the National Technical Committee. The MoI emphasizes law enforcement and regulation. Civil defense is equipped to fight forest fires, but it relies on volunteers to perform the task, even though the ISF is obliged to attend to all disasters and perform investigations. The MoD assists the Civil Defense through its air force and ground troops; fighting forest fires is not within the MoD's mandate and its members are not trained to fight forest fires. Finally, the AFDC has been the only local NGO specialized in addressing issues that pertain to forest fires since 1992. The founders of the organization were forest guards themselves. This environmental group often conducts research on forest fires and reforestation issues. It developed strong relations with other institutions and regularly conducts training sessions for forest fire fighting with the Civil Defense and the Lebanese Army Forces.

Context of the strategy

Lebanon's forests suffer from degradation, climate change and poor management. Over the past decade, fires began destroying one of Lebanon's most important natural resources due to dry weather conditions and agricultural malpractices. In late 2007, a particular incident occurred, destroying more than 2,000 hectares of land in just a few days. Devastating forest fires raged across Mount Lebanon, burning as many trees as the total amount burnt during Lebanon's civil war. This crisis shed light on the problem of poor forest fire management, which led the government to take emergency steps.

Development of the strategy

As a response to the devastating forest fires, Fouad Saniora, Prime Minister at the time, as well as President of the Council of Ministers, formed and chaired an inter-ministerial

committee. Through Decision Number 119/2007 issued on June 11, 2007, the committee was comprised of four core ministries: MoD, MoI, the MoA and the MoE. The committee enjoyed decision-making power and was tasked to follow-up with forest fire prevention activities.

Additionally, the Council of Ministers formed the National Executive and Technical Forest Fire Prevention and Forest Restoration Committee, through Decision Number 118/2007 on June 11, 2007. This committee was larger and more technical than the inter-ministerial committee. It was chaired by the Ministry of Environment. It included representatives from all institutions involved in forest fire management, namely forestry experts from the MoA and the MoE, the MoD and the LAF, the Ministry of Interior and Municipalities, Higher Relief Council (HRC), Council for Development and Reconstruction (CDR), the Office of the Prime Minister, and AFDC.

Four working groups emerged from this committee to address the following priorities: securing equipment to combat forest fires; establishing a central unit for fire control; enhancing training and capacity-building; and developing a national strategy. The Council of Ministers approved a Memorandum of Understanding (Decision Number 138 on October 27, 2007), between the MoE and AFDC to develop and implement a national strategy.

Over the course of 2008, AFDC worked on drafting the strategy through a series of participatory workshops with public and private actors. The first workshop brought together representatives from the MoE, MoA and CDR, the local NGO Al Shouf Cedar Society, as well as international forestry experts from the International Union for Conservation of Nature (IUCN), Empresa de Transformacion Agraria (TRAGSA), Aristotle University of Thessaloniki in Greece, and the University of Trieste in Italy. The partnership was mainly funded by the European Union (EU) project, "*Towards Developing and Implementing a National Strategy for Forest Fire Management in Lebanon*". Working in collaboration with the IUCN, AFDC and the MoE eventually released a strategy in March 2009. It was approved by the Council of Ministers in May 2009.

The Strategy

The overarching aim of the policy is to reduce the intensity and frequency of forest fires. The strategy is based on five pillars within "a risk-management framework", also known as the five 'Rs' (Strategy, p. 5):

- a) Research, information and analysis: creating a common database on occurring forest fires;
- b) Risk modification: strengthening prevention to reduce risk through constant maintenance of communal lands and heightened awareness by local communities;

- c) Readiness: increased capacity to fight fire through adequate equipment, early intervention and improved infrastructure;
- d) Response to fires, including coordinated interventions among all parties;
- e) Recovery: enabling restoration and reforestation after fires.

3. Methodology

This study is a descriptive study that aims to trace the policy-making process of the national forest fire strategy in Lebanon through mapping the research and advocacy approaches used by a local NGO. Data used for this purpose includes relevant official documents and interviews conducted with key government officials. An initial literature review was also conducted. Furthermore, online documentation was examined which, in addition to the literature review, provided a platform for the elite interviews that followed. These documents included reports on Lebanon's forests, documents from the workshops preceding the strategy, research published by AFDC, the strategy itself and newspaper articles. Interviews were documented using field notes.

Interviews with stakeholders were pivotal to retrieving information about the policy formulation process. The main informant was Sawsan Bou Fakdreddine, the Director of AFDC, who provided the names and contacts of the key policy-makers who participated in the decision making. In May 2011, interviews were conducted with Sawsan Bou Fakdreddine; Dr. George Mitri, Director of the Biodiversity Program at Balamand and former project coordinator at AFDC; and Fady Asmar, a forestry consultant to the Food and Agriculture Organization (FAO). A couple months later, another set of interviews were conducted with George Abou Moussa, Director of Forest Fire Operations at the Civil Defense; Hassan Bachrouch, Colonel in the Lebanese Army Forces; Moussa Karnib, Colonel with the ISF; Michel Bassil, consultant to the FAO; Lara Samaha, Head of the Department of Conservation of Natural Wealth at the MoE; and Zeina Tamim, Head of the Department of Forests at the MoA.

4. Findings

AFDC Lobbying Power

AFDC'S strong influence on the development of the strategy stems from three (main?) factors: seizing a window of opportunity, developing a common language regarding the problem, and framing research in a policy friendly language.

For the past 10 years, AFDC had been collecting data on every fire in Lebanon; its causes, location and consequences. The organization created forest fire risk maps, classifying areas from low to high risk, and carried out regular advocacy work in raising awareness.

Despite these efforts by AFDC, forest fire management remained an item of low importance on the national agenda. In 2007, however, the intensity of the forest fires that occurred in October raised concerns among policy-makers and civil society members. AFDC took advantage of this attention as an entry point into policy-making. The Director of AFDC, Ms. Bou Fakhreddine, highlights this window of opportunity by explaining that:

“Forest fires were suddenly a hot topic, and we didn't want to lose the momentum.”

Ms. Bou Fakhreddine further explains,

“The Prime Minister at the time, Mr. Fouad Saniora, called for an emergency meeting, in which AFDC and the Ministry of Environment were the only actors readily available and prepared with data.”

AFDC presented its risk-mapping analysis, representing forests at risk in 2005 and compared it with the areas affected in 2007. Eighty-three percent of the forest fires occurred in the identified high-risk areas. With this information in hand, and due to the pressing nature of the situation, Mr. Saniora quickly passed a decree forming the inter-ministerial committee.

During committee meetings and workshops, one of the tactics of AFDC, was to effectively reformulate scientific research into policy memos. According to Ms. Bou Fakhreddine, policy-makers do not have time to read extensive reports, so it was necessary to present the main findings of their research in short policy memos. This is reminiscent of policy-making in other countries, where lobbying groups frame information differently according to the audience.

It was equally important to create a common understanding of the problem amongst the different parties. As explained above, forest fire management and jurisdiction lies within a mosaic of actors, each with its own vested interests. According to AFDC, the ministries understood forest fire management as a response to fires only, whereas AFDC added the elements of research, reducing risk, increasing readiness, and reforestation. Ms. Bou Fakhreddine notes that:

“It took almost three months to form a common language about the essence of the problem.”

Fragile implementation

Most interviewees agree that while the strategy was an initial success, its implementation remains weak. Each institution complains of a lack of human and financial resources. The policy did not solve the problem of overlapping duties between

the ministries. The roles of the MoA and the MoE remain intertwined: the MoA is the guardian of the forest law while the MoE allocates a budget for reforestation and appoints a chair of the National Technical Committee. The representative from the MoA explains:

“The strategy did not add any new responsibilities to our ministry, forest fires were already under our mandate, but, the Ministry of Environment is interfering in our work.”

Interviews with senior officials also showed that tension remains between the ISF and the LAF. A colonel from the army voiced his frustration:

“Every time there is an incident, the Civil Defense directly calls the LAF to suppress it. But they are not supposed to. The Civil Defense is supposed to try and fight the fire single-handedly, and contact us if they are not able to”.

Moreover, the policy presents the Ministry of Interior and Municipalities as the body responsible for coordinating all institutions. Unfortunately, the MoI still has not fully taken on this role. One of the administrative requirements highlighted in the strategy is to:

“enable and activate the role of the advisory committee which is indicated in the regulation law of the Civil Defense and precisely, article 10 of the decree 1967/50 which proposes establishing this committee chaired by the Ministry of Interior in order to continue the work that has been previously conducted by the National Executive and Technical Committee on forest fire prevention.”

In order to remedy the lack of coordination between the parties, the strategy proposes the creation of a Common Operations Room (COR). The vision behind COR is to coordinate efforts of all parties involved in addressing issues pertaining to the management of forest fires in Lebanon, by avoiding duplication of work and promoting efficiency in emergency situations. COR is also designed to manage a database of information and a hotline. COR falls under the supervision of the Civil Defense, with the cooperation of the Army, the MoE, the MoI and AFDC. However, today, two years after the passing of the strategy, COR is still not operational. Many of the stakeholders interviewed attribute this to a conflict of power between the various institutions. Furthermore, the interviewees agree that there is a lack of human and financial resources. There is general consensus that more funding is needed to fully implement the strategy.

5. Conclusions and Recommendations

It may be argued that the forest fire policy is a successful and collaborative effort between a wide range of public and private actors. Optimizing the timing, a civil society organization (namely the AFDC) was able to disseminate its research and

findings, lobby for a response from the government, and lead the development of the policy. AFDC, along with the Ministry of Environment, rallied other concerned ministries, as well as local and international forestry experts to agree on the significance of the forest protection problem and design a policy encompassing all aspects of the problem. Translating the policy into law may be considered a success by some. However, others argue that the implementation of the policy has been lax and ambiguous. The nature of the relationship among the stakeholders is competitive rather than cooperative, as the strategy has not entirely clarified the responsibilities and prerogatives of each party in regards to forest fire management. This ambiguity led to overlapping administrative duties, duplication of work, and overall inefficiency, evidenced in the non-operational and ineffective Control Operations Room. Stakeholders also blame the inadequate implementation of the strategy on the lack of funding from the government and from international donors. This raises questions regarding government funding, namely, what percentage of the national budget is allocated to forest fire management, and how is it distributed among the key ministries?

One of the limitations of this study is the broad scope of analysis. On the one hand, the case study traces the policy-making process; and on the other, it highlights the implementation and evaluation phases of the policy. This may have resulted because the interviewees were keen to discuss the challenges within their current administrations in the hope of reaching the ears of senior officials, rather than past actions that were under investigation as part of the policy-making process.

In order to better understand how the policy decision was made, it is recommended to investigate further each institution's role in addressing forest fire management prior the strategy. Among the issues to be considered are the legal jurisdictions of each stakeholder before the strategy, and how were institutional mandates altered by the strategy? This may be accomplished by studying the forestry laws in place prior to the strategy, the administrative changes enforced by the strategy, and the present working relationship between the relevant institutions. Furthermore, it is also be critical to gain a better understanding of the research AFDC conducted and presented in order to better understand how research influenced the decision-making process. For example, it is helpful to understand what AFDC's research consisted of, apart from the forest fire maps, and how did the NGO present its findings to policy-makers? It may be true that the AFDC's efforts yielded positive results in advocating and pushing the government to take action towards addressing the management of forest fires in Lebanon; however, it remains to be determined how successful they are when the next forest fire comes along.

Appendix

Table 1 List of participants and their affiliations²

Participant	Position	Affiliation
George Abou Moussa	Director of Forest Fire Operations	Civil Defense
Hassan Bachrouh	colonel	LAF
Michel Bassil	Consultant	FOA
Moussa Karnib	Colonel	ISF
Georges Mitri	Program coordinator	AFDC
Lara Samaha	Head of Department of Conservation of Natural Wealth	MoE
Zeina Tamim	Head of Department of Forests	MoA
Sawsan Bou Fakhreddine	Director	AFDC
Fadi Asmar	Consultant	FOA

² Participants are listed in alphabetical order of family name.

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