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Setting the Water Management Agenda:
A case study on policy response to the environmental impact of the Syrian crisis on Lebanon's water resources

Dissertation submitted by

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MASTER'S IN PUBLIC POLICY

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Signature Page

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Abstract

Water management has become a pressing challenge, specifically in those countries where there is a widening gap between water supply and demand and where the institutional context is operating under 'conditions of ambiguity'. Nonetheless, pressure on a countries' service delivery does not determine governmental response. The aim of this study is to enhance our understanding of agenda-setting in the policy process. By employing Lebanon as a case study, it will be argued that a policy window has opened with the influx of Syrian refugees 2011-2015. Whilst explaining how water management and displacement have become interlinked, it will be argued that the policy agenda in Lebanon's water management has been affected. In addition, this study displays that a policy network has successfully presented Lebanon's exacerbated water challenges under the umbrella of wider debates that propose long-term developmental interventions to improve the countries' water infrastructure. Finally, this study demonstrates new perspectives on developmental interventions and how these can contribute to responding to the needs of both refugees and local community members in the water sector and how this can eventually contribute to resilience-building.

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"I am still learning"
Michelangelo at age 87

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List of Acronyms and Abbreviations

AfD	Alternative für Deutschland
CB	Capacity Building
CPR	Common Property/Pool Resource
CDR	Council for Development and Reconstruction
DRR	Disaster Risk Reduction
EU	European Union
GiZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoL	Government of Lebanon
IDPs	Internally Displaced Persons
IIED	International Institute for Environment and Development
LCRP	Lebanon Crisis Response Plan
LRRD	Linking Relief Rehabilitation Development
NGOs	Non-Governmental Organizations
MDGs	Millennium Development Goals
MoA	Ministry of Agriculture
MoPH	Ministry of Public Health
MoEW	Ministry of Energy and Water
MoE	Ministry of Environment
MSF	Multiple Streams Framework
MS	Multiple Streams
NWSS	National Water Sector Strategy
SDGs	Sustainable Development Goals
SOER	State of Environmental Trends
TSI	Transnational Solutions Initiative
UN	United Nations
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
USAID	United States Agency for International Development
WASH	Water Sanitation Hygiene
WEs	Water Establishments
WSS	Water Supply and Sanitation

Chapter 1: Introduction

Water crises are the most important concern for the coming decade, being one of the most pressing global challenges according to the World Economic Forum in the 2017 Global Risks Report. Water management will become more important as society's water demand for good quality water increases. Water management issues have become more complex with increasing water demand for differing user groups and uses and inadequate measures to address the decline of water quality (Tortajada, Biswas, & Gopalakrishnan, 2005).

It is of importance to study the political processes behind water management to gain a better understanding of agenda-setting to address pressing problems in water infrastructure. There is a lack of empirical studies that have analyzed how governmental agendas can be affected and how decision-making processes within the national government can be influenced by certain critical events. Specifically, a lack of knowledge exists on agenda-setting in the policy process in the developing world. It is in this context, that this study will analyze how such agenda-setting can be affected by certain focusing events.

This study will use Lebanon as a case study to analyze how the setting of the agenda in water management has changed for Lebanon's national government as a response to the Syrian crisis and influx of Syrian refugees from 2011-2015 [see table 1]. First, there is the observation that water management has been an area of concern in Lebanon and the Middle Eastern region for the past decades. Hence, governmental actions have been requested for a long time to apply new management instruments prior to the arrival of Syrian refugees (Shaban, 2016, p.2). Second, we are facing the highest refugee flow since the Second World War -most notably consistent of Syrians that have been displaced by the ongoing Syrian crisis [see annex 1]. In this context, linkages are made between the effects of population growth on a countries' service delivery.

Table 1 Research Question and Agenda

***Research question**: How has the setting of the agenda in water management changed for Lebanon's national government as a response to the humanitarian and developmental crisis caused by an influx of Syrian refugees from 2011-2015?* ***Larger research agenda:** How can agenda-setting in the policy process be affected by certain focusing events, in this case a large-scale humanitarian and development crisis?*

With this study, it will be argued that the influx of Syrian refugees to Lebanon can offer a 'window of opportunity' in line with John Kingdon's 'Multiple Streams Framework' to enhance development and address Lebanon's pre-existent challenges in its water infrastructure (Kingdon, 1995, p.20). The MSF will thereby be applied to a new context, namely Lebanon. Moreover, an academic approach can contribute to the urgent need of developing an approach that consists of more international neighbourly support to local and regional environmental solutions that enhance long-term development in the water sector (King-Okumu, Jaafar, & Archer, 2016).

In the following chapters, I will analyse how agenda-setting is influenced on the national governmental level by the influx of Syrian refugees to Lebanon. In the first section a literature overview of existent research will be provided and this study's main research expectations will be outlined. The literature overview will discuss Kingdon's Multiple Streams Framework (MSF), which will serve as a theoretical framework in this study. Secondly, the research expectations and research methodology will be outlined. Finally, this study's research findings will be discussed in the second section before the discussion and conclusion.

Chapter 2: Water Management and Development: Pre-existent Literature

2.1 Water – Development

This study draws further on four bodies of literature: the policy process, water management water – development, and the displacement – development nexus. These broader concepts contain large amounts of scholarly work, of which only a selection will be used in this thesis. Researchers have been exploring policy needs to overcome gaps between natural water resources and water needs. Access to safe water has become increasingly important over the past decade with water availability in adequate quantity and quality being acknowledged as a condition to sustainable development. Water scarcity, meaning water availability below $500m^3$ per capita per year poses international policy challenges. Research has aimed to contribute to answering pressing questions in the water policy domain (Montalvo, Alerts, 2013).

Water is referred to as a common-pool resource (CPR) and natural resource. The definition of common-pool resources is negotiated. Usage of a CPR subtracts quantities that can limit the benefits of other users of the same resource. Examples of a CPR are forests, lakes, oceans, irrigation systems and groundwater basins. Generally, a CPR is governed, or managed by institutional arrangements that can be defined as private, community or governmental ownership. Ecological challenges and social challenges are centered around CPR management when this excludes specific users (Ostrom, 2017, p.11). This has resulted into important developmental questions, e.g. how these CRP should be more equally managed in the future.

The interconnectedness of water with economic and human development has contributed to recent calls by global institutions that water should be transversally addressed in a cross-sectoral fashion (UNDP, 2006; UN-Water, 2009, 2012). The UN Water Conference in 1977 already agreed that "all peoples, whatever their stage of development and social and economic conditions, have the right to have access to drinking water in quantities equal to their basic needs" (Kundzewicz, 1997, p. 468). International aid in the water sector has gradually increased since the 1980s with the proclamation of an International Drinking Water and Sanitation Supply Decade (1981-1990). The cross-sectoral dimension of water in development interventions was ignored by international and national donor agencies until the

1990s, as support to the water sector focused on the provision of drinking water and sanitation (Conca, 2006).

The need to address the limitations of a sectoral approach to water management was addressed in the United Nations Conference on Environment and Development in Rio de Janeiro in 1992 out of which *Agenda 21* emerged. *Agenda 21* established a non-binding action plan for sustainable development in e.g. the water sector (Cherlet, 2012, p. 114). 'Sustainable development' is an old concept, which is applied to natural resources management to guarantee that the rate of harvesting a resource is smaller than the rate of its renewal (Kundzewicz, 1997, p.468). Also, the adoption of the Millennium Development Goals (MDGs) in 2001 has attributed to attention to aid in the water sector (Cherlet, 2012, p.12). The Sustainable Development Goals (SDGs) were implemented as the successor of the MDGs in 2015 with an intergovernmental agreement that acts as the Post 2015 Development Agenda, stressing the need to ensure access to safe drinking water and to adopt this in water resource management approaches (UN, 2012).

According to Neil Grigg (2005, p.1): "Water resources management controls *water resources systems*, that are combinations of constructed water control facilities and natural, or environmental elements that work together to achieve water management". A constructed water resources system, consisting of structural facilities, provides control of water flow and quality and includes facilities for water supply and wastewater management; for drainage of land and control of floods; and for water control in rivers, reservoirs, and aquifers. Examples include conveyance systems (channels, canals, and pipes), diversion structures, dams and storage facilities, treatment plants, pumping stations and hydroelectric plants, wells, and all appurtenances".

Development aid in the water sector focusses both on water management and water access (Cherlet, 2012, p.23). Indeed, political ecologists highlight how it is often the poorest and subaltern that lack access to safe drinking water, sanitation, and water to productive use and who live in the most environmental disaster prone places (e.g. floods and droughts), making it an important issue to study on the policy-level. It can be argued that rather than bio-physical crises, global water crises are crises of governance and access (UNDP, 2006). This requires further empirical research.

2.2 Displacement – Development

The impact of displacement on water resources has received increased public and policy interest, most notably in development studies. Forced displacement should be distinguished in two categories: refugees and internally displaced persons (IDPs). IDPs are labelled as internally displaced as they do not cross an international border. Refugees can be conceptualized as outside their country of nationality or country of habitual residence due to violence, conflict and well-founded fear of persecution (Christensen & Harild, 2009, p.5).

The 'displacement- development nexus' reviews the interconnectedness of development and displacement at different stages as these concepts are interlinked both during the actual displacement and at the stage prior to this situation, when development related conditions create that displacement emerges (pre-displacement situation) (Christensen & Harild, 2009, p. 11). This study focuses on the actual displacement situation where forced displacement means a loss of land property, jobs, physical assets, social networks and housing, which can result in food insecurity, mortality and morbidity and social marginalization.

The presence of large numbers[1] of IDPs or refugees can result in environmental degradation and an increased pressure on local infrastructure, resources and services. It should be noted that the impact of mass displacement on receiving countries is associated with the economic and political status of refugees in a host country (Christensen and Harild, 2009, p.12). Case studies on this topic indicate that where opportunities are given by host governments –if needed with adequate support – in the form of e.g. rights to work, or access to basic services, displaced people have contributed to the development of local communities. In line with this, Jacobsen (1994, p. 29) contributed that the environmental impact of refugees on CPRs depends on to what extent their accessibility to CPRs is coordinated.

Development can be negatively affected when the need to find 'durable' solutions to IDPs and refugees/returnees is ignored. On-going marginalization can hinder economic and social progress and can evolve into conflicts between host communities and the displaced. Hence, they argue that: "Durable solutions for displaced need to be integrated into [urban] planning

[1] It should be noted that no references are made to what large numbers entail.

for infrastructure and service delivery and mainstreamed into systems of local governance" (Christensen & Harild, 2009, p.12). In this reading, 'durable' solutions entail development interventions that address key barriers to land housing and property (rights), the reestablishment of livelihoods, the delivery of services and accountable and responsive governance.

With the humanitarian - development nexus there is aimed to establish 'sustainable long-term' developmental programmes whilst providing humanitarian assistance (Hinds, 2015, p.1).This perspective is not new and stems from debates in the 1980/90s when the relationship between development aid and humanitarian assistance was reviewed under the umbrella of the relief-development continuum (Haider, 2014). Here, critics point out overlooked structural factors in linear approaches that predate or outlast crises with the development relief approach that looks how immediate needs can be combined with long term solutions (Hinds, 2015, p.3).

The need to link relief, rehabilitation and development (LRRD) is debated since the 1990s. Although, LRRD is no longer used, the idea still exists in discussions on 'Disaster Risk Reduction (DRR)', 'resilience', 'transition', 'comprehensive or integrated approaches' and 'flexibility'. Currently, resilience is mainly used as a conceptual framework in dryland contexts. Recently, the term is used by researchers in the water management sector when referring to the necessity to make service provision more sustainable and equitable. Here, the concept 'water utilities' resilience is increasingly used (Diep, 2017, p.4).

'Resilience' could be used as a joint framework for development cooperation and humanitarian assistance to provide joint context analyses, joint planning, integrated programming and joint needs assessments (Otto and Weingartner, 2013, p.47). Joint country programming with collaborative decision-making at the country level is perceived as a way to move from centrally managed instruments and thematic policy fields and overcoming the separation between the policy worlds of humanitarian and developmental assistance. Critics dismiss this by saying that this is just another term in humanitarian and development aid [see table 2], which is still too broad to serve as a framework that brings these policy fields closer together.

Table 2: **Buzzwords in humanitarian, rehabilitation and development aid**

Box 13 *Lost in labelling?*

Non-exclusive list of concepts, approaches and terms with relevance for LRRD:	
Developmental relief	Transition
Invulnerable development	Recovery
Disaster risk reduction	Early recovery
Disaster prevention	Climate-smart disaster risk management
Disaster resilience	Climate change adaptation
Livelihood resilience	Human security
Resilience	Social protection
Resilience management	

Source: Otto & Weingartner, 2013, p.46

New approaches such as the Transitional Solutions Initiative (TSI) and the Solutions Alliance have placed displacement at the heart of development and recovery strategies through coordination, resource mobilisation, advocacy and capacity-building. The aim of TSI is to include displacement needs on the developmental agenda for sustainable interventions that reach out to both displaced, returnees, and local populations as it is argued under this approach that development challenges can only be addressed by linking relief and development (*Transitional Solutions Initiative UNDP and UNHCR in collaboration with the World Bank,* 2010). 'Capacity-building' (CB) is an important concept here and is considered as a current paradigm in development cooperation. In line with Cherlet (2012, p.89), I will make usage of the concept CB: "As the adoption of a discourse by actors to give meaning to their actions and to achieve organizational legitimacy, rather than as a managerial guiding principle".

Interlinking developmental and humanitarian assistance remains negotiated. Critics focus on the implications of combining approaches that originally have separate mandates. Here, humanitarian aid should provide short-term solutions focussing on external assistance rather than strengthening local capacities, whereas development actors should provide long-term solutions to alleviate poverty and strengthen livelihoods on the long-term. Also, linking humanitarian and development assistance is argued to complicate humanitarian actors' traditional impartial stance. Whereas developmental actors traditionally cooperate with all governmental actors, humanitarian actors' advocate impartiality (Otto & Weingartner, 2013, p.37).

In sum, gaps between natural water resources and water needs and the impact of displacement on water resources have received increased political interest. However, studies have not focused on the policy-making dimension in water management, which is an important facilitating, or complicating factor to improve the water infrastructure in a country. Whilst a large body of literature has focused on studying the question of policy change (or lack thereof) in service delivery, to an even lesser extent empirical studies have been applied to the first part of the policy process that precedes policy change (Cerna, 2013). This gap will be addressed in the following section and it will be argued that Kingdon's (1995) Multiple Streams (MS) form an useful analytical lens to analyse agenda-setting in the water sector.

2.3 Analytical Framework: Multiple Streams Framework

Kingdon's (1995) multiple streams framework (MSF), or multiple streams (MS) is a widely-used lens to enhance our understanding of policy formation (agenda-setting and decision-making) by national governments and will be used as an analytical framework in this study. This framework is both widely used and criticized among scholars on its applicability to other countries, since it is based upon case study examples solely in the United States and is lacking in its perspective on the role of individuals and institutions in the policy process. However, a large body of scholarly work has recently pointed out that although their importance is limited due to individuals, timing and context, institutions do matter in this approach (Weaver and Rockman, 1993; Zahariadis, 2007, p.84). Solely focusing on criticism that indicates the lack of attention for the role of institutions in the MSF, fuels the underestimation of its analytical value. By employing MS in this study, its usefulness is emphasized whilst indicating the role of institutions, timing and context in water management. This contributes to enhancing our understanding of MS as a helpful framework to study agenda-setting.

Kingdon (1995) refers to the *policy agenda* as 'the list of subjects to which government officials and those around them are paying serious attention'. MS perceives the policy process as a continuous process, which includes systems that are constantly evolving, rather than settling into equilibria (Zahariadis, 2007, p.66). The framework explains how policies are made in governments under 'conditions of ambiguity', meaning 'a state having many ways of thinking about the same circumstances or phenomena' (Feldman, 1989, p. 5). In cases, these ways may be incompatible, resulting into stress, vagueness and confusion. This is useful to

analyzing the complex nature of Lebanese policy-making processes. Political processes stand in the way of specifically rapid processes of policy change, and complicate applying different policy models to the Lebanese case (e.g. policy equilibrium model).

According to Kingdon (1995), public policy-making is a set of processes that include: "1) the setting of the agenda 2) the specification of alternatives 3) an authoritative choice among those specified alternatives, and 4) the implementation of the decision". Kingdon (1995) outlines three streams of actors and processes in the policy process: "The problem stream that consists of data on problems and the proponents of various problem definitions; a policy stream involving the proponents of solutions to policy problems; and a politics stream consisting of elections and elected officials" (Sabatier, 2007, p.9). Under the MSF, Kingdon (1995) argues that when these three streams are coupled by policy entrepreneurs, a 'window of opportunity' opens that increases the chance of policy proposals' adaptation. In other words, this window consists of opportunities for advocates of proposals to push their preferred solutions, or to push attention to their special problems' (Kingdon 1995, p.165).

The problem stream consists of conditions that citizens and policy-makers want addressed. Policy-makers become aware of these concerns via indicators (e.g. costs, mortality rates), 'focusing events' and feedback. Nonetheless, awareness does not imply governmental attention. When individuals compare conditions to their own values that describe more ideal states of affairs, when country performances are compared to other countries, when current performances are compared to past policy legacies (feedback) and when subjects are placed under one category rather than another, conditions become defined as problems. These will receive more attention than other conditions. Also, problem recognition can emerge with 'focusing events'. Focusing events direct policy-makers and media attention to evaluative dimensions of problems (Zahariadis, 2007, p. 71-72).

In the policy stream, ideas to improve problematic conditions are addressed in policy proposals. These ideas are derived from policy networks - researchers in think tanks, policy-makers and academics - that have a common concern in a certain policy field. These ideas are often expressed in forums such as conversations, papers and hearings. The technical feasibility and value acceptability of these proposals affect chances of eventual implementation. Finally, factors such as a swing in the national mood, administrative turnover

and pressure group campaigns in the political stream are influential for making certain agenda items more prominent than others (Zahariadis, 2007, p.72-73).

The earlier mentioned usage of a 'window of opportunity' is crucial in this study, as it creates an opportunity for policy entrepreneurs to launch their ideas. It is often a series of windows that produces an opening for change. Kingdon (1995) points out how already existent policy alternatives can be linked to new problem definitions when a window opens. Crises such as environmental emergencies of sea and river floods are exploited with media coverage to raise public awareness and increase political attention to water problem (Meijerink and Huitema, 2010, p.9-16). In addition, they show how even events outside of water management, such as a financial crisis, can contribute to gathering support for the start of the policy process and – possibly- eventual policy change.

Finally, agenda-setting is both about raising an issue on the agenda and about transmitting a preferred story and how an issue can be prevented or mitigated in the future (Stone, 2002). It is crucial to consider the interaction between societal and political actors, whom by explaining policy impacts of crises offer differing frames of interpretation (Nohrstedt & Weible, 2010). In the water sector, several authors indicate how framing is of importance to individuals that seek to push forward their ideas and wish to promote and secure policy change (Meijerink & Huitema, 2010, p.9). In some cases, this involved trying to fit new policy ideas into existing narratives, or appealing these existent narratives to oppose change (Lebel et al., 2006). This is done in the policy network that will be discussed in the next section.

2.4 Policy Network Approach

Policy-making in the water sector takes place in an institutional context that can hinder or facilitate strategies of policy entrepreneurs. Previous research has emphasized how it is crucial for actors to be able to recognize and exploit opportunity structures in these institutional systems. Out of numerous societal concerns, only certain topics end up in the policy-process. This is affected by the attention of policy-makers to certain topics and their selection of suggested solutions in the policy network (Meijerink & Huitema, 2010, p.13). Previous literature that contributed to this argument, indicated how the adoption of certain policy alternatives depends on when policies are made in time (Zahariadis, 2007, p.65). The MS is an useful analytical framework here as it analyses this process behind choice by

looking at three questions: How is attention rationed? How and where is the search for alternatives conducted? How is selection biased?

When looking at these three questions, it is it is inevitable to pay attention to the network in which agenda-setting takes place. A policy network approach will be included in this study to take the role of actors into account. According to Adam and Kriesi (2007, p.146): "Its analytical value lies in the fact that it conceptualizes policy-making as a process involving a *diversity* of actors who are mutually *interdependent".* This approach is not a theory on itself, but relies on other theories and models. This has received criticism by Thatcher (1998, p.407ff) stating that this risks reliance on a list of randomly incorporated factors. Nevertheless, if approaches are linked with care, it is generally argued that this can increase the explanatory power of network approaches (Adam & Kriesi, 2007, p.147). With this study, I seek to provide a more comprehensive understanding of agenda-setting in the policy process by employing a network approach in combination with the MS. Combining these two approaches is useful, since the MS provides an analytical lens to analyze the role of policy entrepreneurs whereas a network approach provides a lens to analyze the wider institutional context in which these actors operate.

The 'policy entrepreneur' is an important actor to push forward certain policy solutions when a 'policy window' opens. Policy entrepreneurs should be distinguished from donor organizations in their strategies to shape policy agendas. Whereas donor organizations shape the policy debate with funding conditions, policy entrepreneurs commonly use four different strategies to affect policy change: 1) The development of new ideas; 2) coalition-building 3) exploitation, manipulation and creation of venues or forums to connect actors; 4) using 'windows of opportunities'; 5) managing networks.

Meijerink and Huitema (2010) provided important empirical evidence to this topic by investigating how policy entrepreneurs operate in the policy-making process in water management with sixteen different case studies. Individual policy entrepreneurs sharing a mutual interest in investing their resources (time, reputation, and/or knowledge) in proposals for policy change can be found anywhere; governmental bureaucracies, political parties, NGOs, or expert communities. However, specific to the technical nature of the water sector, these authors have indicated how experts in the scientific and bureaucratic community play a major role in the policy-making process.

Although, this illustrates the importance of individuals as change agents, similarly the importance of groups to confront status quos should be illustrated. Collective policy entrepreneurship is often found amongst groups of governmental representatives at agencies that connect various levels (e.g. NGOs, research groups) (Huitema and Meijerink, 2010, p.5). In addition, in low-income or middle-income countries international donor organizations such as the World Bank and International Monetary Fund play an important role as policy entrepreneurs in water policy transitions. Financial support comes with funding conditions that can be in line with paradigms such as Integrated Water Resources Management (IWRM). The impact of the Syrian conflict on Lebanon has fuelled the reaching out of governmental actors in the water sector, such as the CDR, to non-governmental actors. One interviewee in the developmental sector stressed here how in turn, the governmental water sector agenda is shaped by pressure group campaigns of international organizations such as the UN and World Bank that provide funding.

Policy-making is embedded in policy domain-specific subsystems that are not controlled by state actors solely. Political processes in these subsystems are characterized by interactions between both private and public actors. The policy network approach is used by various researchers to analyse agenda-setting (Dowding 1995; Klejn 1995). There is no one definition of policy networks as this largely depends on who uses the concept. Nonetheless, in this study, the policy network approach will be generically applied to analyse the patterns of interaction between public and private actors in a policy-specific-subsystem, namely the water sector (Adam & Kriesi, 2007, p.130).

Chapter 3: Research Expectations

Previous studies analysed the impact of displacement on water resources and indicated how 'large scale' displacement can result into environmental degradation due to increased pressures on local infrastructure. In addition, this can result into increased tensions between host communities and refugees. Overlap can be found in the stressed need to find 'durable' solutions for displaced people that are incorporated in countries' infrastructure and service delivery [see section 2.2].

In the literature review it was pointed out how 'durable' solutions should involve developmental interventions that address the delivery of services. Development can be negatively affected when this is ignored. This has fuelled the international political debate on how both humanitarian and developmental assistance can be combined to provide long-term solutions. In line with this, the interconnectedness of water management with developmental issues, which is currently acknowledged as a policy issue, is outlined [see section 2.2].

In this study, I seek to combine the MS and policy network approach to analyse agenda-setting in water management in combination with broader debates on 'responsive' developmental interventions. I expect to find that the influx of Syrian refugees to Lebanon from 2011-2015 and the resulting exacerbated environmental challenges in Lebanon's water sector has attributed to increased governmental and non-governmental attention in the form of humanitarian and developmental assistance. Thereby, I expect that pre-existent water management and water infrastructure issues in Lebanon gained prominence on the governmental agenda. The broader research expectations in this study are:

Expectation 1: Environmental issues related to water infrastructure gain prominence on a governmental agenda as part of increased long-term developmental efforts that aim to address both a humanitarian and developmental crisis caused by an influx of refugees.

Expectation 2: Framing of policy proposals matters for their position on the governmental agenda; by placing pre-existent water issues under the umbrella of broader international humanitarian and developmental agendas, pre-existent environmental challenges to a countries' water sector gain importance and thereby renewed governmental attention.

Chapter 4: Methodology

Lebanon is selected for a case study, being an exceptional water resource rich country in the Middle East, also referred to as being 'un Château d'Eau', in comparison to other regional water resource poor countries. Water resources in Lebanon have not been meeting the national demand, telling us that there is something different going on (Kunigk, 1998/99, p.1). Lebanon is criticized for its lacking water resource management and reforming the water sectors' administrations and institutions had been on the policy agenda since the 1970s.

Since the onset of the Syrian crisis in 2011, Lebanon has seen an increase in its population due to the arrival of a large influx of Syrian refugees. Latest figures of 2016 indicated that 1,011,366 refugees are registered within Lebanon, which is more than a quarter of Lebanon's resident population. This was before Lebanon's governmental instructions stopped registering refugees as of 6 May 2015 (UNHCR, 2016). Hence, this is an estimated number due to measurement problems, specifically with regards to unregistered Syrians. Nonetheless, the United Nations High Commissioner for Refugees' (UNHCR) data is used in this study as it is internationally acknowledged and used for determining humanitarian and developmental support. Moreover, this is in line with environmental assessments that provide indicators on the magnitude of water management challenges in Lebanon. The Ministry of Environment (MoE) has assigned a committee with conducting an environmental assessment on the impact of the Syrian conflict upon Lebanon's environment. This assessment was conducted between May and July 2014 and used the years 2010 and 2011 as base-line years to determine the pre-crisis situation. This document serves as an important source on the pre-existent status of Lebanon's water resources.

This study focuses on the first part of the policy process, namely agenda-setting, rather than implementation to limit its scope. Besides, a lack of data exists on new policies and policy implementation in Lebanon's water management since 2011. This complicates analysis on this topic. I will therefore look at both the processes by which agenda items and alternatives are set and the active participants within and outside of the government, as they are the two main factors behind agenda-setting (Kingdon, 1995). In addition, I will focus on a *specialized* agenda, namely water management. This policy agenda will be analysed by employing Kingdon's MS (1995) as an analytical framework, which – as previously explained – has not been done sufficiently in developmental contexts.

This study focuses on water policies at the national governmental level. However, governance is increasingly perceived at both the national and international level and governance has increasingly become a multi-level and multi-actor process (Pierre and Peters, 2000). Nonetheless, it can be stated that national governments still hold a lot of power by their control over provinces and municipalities, by influencing international organizations' actions with other governments, and by sanctioning outcomes of private governance.

Interpretative qualitative research methods are used as a strategy as this allows for making inferences on a small number of cases. Mainly primary 'open sources' have been consulted. Fourteen interviews have been conducted to provide background information on Lebanon's water sector. Besides primary sources, academic, and non-academic literature (newspapers, data of governmental, and non-governmental organizations) are used as secondary sources. A content analysis is used for interpreting data stemming from these sources.

The year 2011 serves as the base-line situation when a first influx of displaced Syrians arrived in Lebanon. Following this study's research question (see table 1, introduction), the independent and dependent variable can be outlined. The independent variable is the influx of Syrian refugees to Lebanon and the dependent variable is the change to agenda-setting in water management. Given the study's timeframe (2011-2015), it is chosen to focus on one independent variable. Nonetheless, other independent variables have attributed to changes to the setting of the political agenda that will be discussed in section 5.2.

In the following chapters, background information will be given on the base-line situation of Lebanon's water management. Previous policies will be introduced to understand the context of Lebanon's water management against which an influx of Syrian refugees took place from 2011 -2015 [see annex 1] and an overview of the role of different actors in the Lebanese context will be provided. Secondly, the process of problem recognition of the environmental impact on water sources due to the influx of Syrian refugees to Lebanon from 2011-2015 will be analysed. It will be argued that challenges have been framed as a developmental opportunity. In a final third chapter, it will be identified what policy proposals have been formulated as solutions to see how agenda-setting has changed.

Chapter 5: The policy process in practice: agenda-setting in water management

5.1 Lebanon's water management and policies: base-line situation

Lebanon's water sector is challenged by several obstacles that were pre-existent to the influx of Syrian refugees to the country. Lebanon has suffered from several conflicts and periods of drought that have made water management reform of importance since the 1970s (United Nations Development Programme, 2016). Hence, stresses to the availability of natural resources and environmental problems must be seen in the context of pre-existent ecological vulnerability of a country and should not be attributed to displaced communities solely. In many cases refugees have exacerbated rather than created environmental degradation (Jacobsen, 1994, p.8). It is often a crisis such as an influx of refugees that causes increased attention for this ecological vulnerability.

In 2010, Lebanon's renewable water resources were estimated by the Ministry of Energy and Water (MoEW) at 926 m3/capita/year. The rate of withdrawal is high when compared to global standards (averaging 10-30 percent). This is partly caused by practices such as water resource mining. Lebanon had around 21,000 licensed private wells in 2014, and seasonal shortages due to insufficient rain fall in the summer (MoEW, 2010). In sum, the most common identified factors in water shortages are: population and economic growth, rapid urbanization, 'unsustainable' water management practices, climate change and water pollution.

First, population growth increases water demand and drives up the demand for other infrastructural sectors such as energy and housing. Also, the age structure of Lebanon is considered as an additional pressure on water resources, as half of the population was under 29 years old in the third edition of the State of the Environment (SOER) of Lebanon in 2011[2] indicating that even if water consumption rates stay constant, the number of new housing units will increase, which requires more networks and subservient water infrastructure (Tayyar et al., 2011, p.54).

[2] Last numbers of the Central Administration of Statistics stem from before the influx of Syrian refugees to the country and exact statistics remain unclear.

Second, 88% of Lebanon's population lives in urban areas. The majority lives in Greater Beirut Area (GBA), which compromises Beirut (including southern and northern suburbs) and the coastal area of Baabda and Ment. Water supply scarcity in urban areas is exacerbated by poor water infrastructure and water rationing; water provision in summer is about 3 hours daily. Consequently, communities rely on private providers in the form of buying bottled water, gallons, bulk tanker water or private well organizations (Tayyar et al., 2011, p.73). The public debt of Lebanon has complicated the construction, completion and operation of treatment systems and wastewater collection and stopping the flow of untreated effluent into freshwater resources and coastal marine waters (Tayyar et al., 2011, p.54). Water quality is sometimes below water drinking water standards (Khalil, 2014, p.59). In this context, households rely on private water suppliers, which account for 65 percent of their total water expenditures for connected households and 75 percent for unconnected households (World Bank, 2010).

Third, economic development and sectoral growth is a major driver to urbanization. The services sector and to a lesser extent industrial sector' contribution to economic growth increased in Beirut throughout the 20th century (Owen et al., 1998). This growth of the services sector contributed to construction (and reconstruction), tourism and banking and continued throughout the Civil War. Although water consumption has increased in both urban and rural areas in Lebanon, consumption in rural areas still exceeds urbanized areas. The agricultural sector remained the biggest water consumer in Lebanon in 2010.

Fourth, Lebanon is characterized by climatic variability, situated in a semi-arid region with increased temperature and changing rainfall patterns (Shaban, 2016, p.1). Reports highlight the challenges that climate change and inherent global warming pose to Lebanon's water availability. Lebanon's Second National Communication to the UNFCCC addressed climate change in three time frames: 1961-2000, 2025-2044, and 2080-2099. Although negotiated, global warming is expected to affect water resources in available volume and quality and when they will peak annually. Most notably, global warming is expected to affect precipitation in Lebanon. Also, it is predicted that river flow patterns will be affected by global warming in Lebanon due to its effect on the melting of snow at increased speed (Tayyar et al., 2011, p.56).

A more detailed and technical discussion would serve illustrating the interconnectedness of water availability and climate change, but goes beyond the scope of this study. Most studies concluded by 2011 that it is too early to identify changes in precipitation, which is measured by changes in freshwater availability and quality, surface water runoff and groundwater recharge. Nonetheless, policy-makers are urged to respond to the need to enhance water resources to meet water sector demands. Here, adaptability and maintenance is argued to be necessary (Tayyar et al., 2011, p.56).

5.2 The policy network in Lebanon's water sector

Lebanon's institutional framework is embedded in a 'myriad' of ministries, water establishments, public agencies and municipalities that have created overlap in the water sector (Tayyar et al., 2011, p. 212). Stemming from a fieldtrip to Lebanon and a visit to non-governmental and governmental actors, it can be argued that a discrepancy exists between policy proposals and policy practice with regards to Lebanon's water sector. Policy-making processes within public service delivery are still highly politicized and influenced by sectarian and protectionist characteristics of Lebanon as a state. In this section, an overview will be provided of the policy network in Lebanon's water sector to create a basic understanding of the "complex" institutional context in which agenda-setting process takes place.
First, it should be noted that the procedures behind the preparation and publication of laws and regulations by the Lebanese Parliament and Council of Ministers are unclear and inconsistent at times. Legislative and administrative turnover has affected this process as new governments and ministers can shelve previous policies, hinder policies that are still in the making and can restart the policy process with new advisory teams (Shaban, 2016, p.1). The legal framework guiding the policy process in Lebanon's water sector, gives no explicit powers to any public agency, or institution. Ministries such as the Ministry of Energy and Water (MoEW) are operating in a legal context with laws from the 19th and 20th centuries. This negatively affects water management in Lebanon, at times researchers refer here to 'mismanagement'. It is stated that Law 221/2000 and its derivatives are the only clear policy with a legal and regulatory framework until 2010 (Tayyar et al., 2011, p.69- 74). As for 2010, the State of Trends (SOER) indicated that the aim to address the institutional setup in Lebanon's water sector under this law was not felt on the ground yet due to financial, regulatory and administrative obstacles in its implementation.

Main actions undertaken in the water sector by the Government of Lebanon (GoL) include the execution of Law 221 and 241/2000 that established four new water establishments (WEs) and the Litani River Authority and has been considered by some actors as a paradigm shift in the water sector (UNDP, 2013, p.25). The four WEs have been divided into: Beirut, Mount Lebanon, North Lebanon, South Lebanon and Bekaa establishment. These WEs are responsible for: 1) Planning, building and operation; 2) Maintenance of potable and irrigation networks and sewage treatment plants; 3) Guaranteeing the water quality; 4) Overseeing works, studies, operation and maintenance of private service providers; 5) Recommending

water, wastewater and irrigation tariffs. The Litani River Authority in the Bekaa and South Lebanon Water Establishment have been authorized for the operation and development of all water systems that connect to the Litani River and Awali Rivers [see annex 2]. In the south and west Bekaa regions, the Council for the South is involved in the construction of water supply systems. The Central Fund for the Displaced has contributed with funding and is responsible for rehabilitating and building of water supply systems in Chouf, Baabda and Alley villages.

The Ministry of Energy and Water (MoEW) has taken a leadership role in guiding the implementation of the institutional changes by Law 221/2000 and has developed the National Water Sector Strategy (NWSS) which was adopted in March 2012. Both the role of the MoEW and water establishments (WEs) was meant to be clearly defined with Law 221/2000 and its amendments Laws 241 (August 8, 2000) and 337 (14 December 2001). Although, the NWSS mentions that improving the water sector has become a priority for the GoL, one interviewee stressed that there is no prioritization on the ground as such as the government will still need to put these efforts into clear legislation. Several interviewees have indicated that inadequate governmental responses are caused by a lack of willingness to implement policies that improve water infrastructure on the ground and insufficient funding.

Law 221/2000 gave powers to the MoEW to provide policy advice to the Government and formulate policies. Yet, it gives no exclusive agenda-setting powers or responsibilities to the MoEW, or any other public institution. Hence, much of the actions undertaken under the National Water Sector Strategy (NWSS) require coalition-building between various policy sectors and rely for a great deal on dialogue. Cooperation between the MoEW and the Ministry of Environment (MoE) is of importance to policy-making in the water sector as the MoE is responsible for regulating and controlling all activities that impact the environment such as water pollution. Other actors of importance to the national dialogue are: 1) The Ministry of Public Health (MoPH) that monitors drinking water and is responsible for compliance with international, national and local health standards and; 2) the Ministry of Agriculture (MoA) that is responsible for regulating and planning irrigation water projects and their technical supervision (Tayyar et al., 2011, p.71-72).

One interviewee in the governmental sector indicated how the adoption of the NWSS in 2012 (after two years of political discussion) indicated a first step to potentially reducing and

eliminating institutional overlap and inefficiencies in the water sector whilst mainstreaming environmental concerns and incorporating recent initiatives such as the Water Code, MoEW 10-year Plan and the Council for Development and Reconstruction' (CDR) Wastewater Program. The CDR is responsible for financing e.g. the building of water supply systems, preparing national sector plans with the ministries and attracting international funding for water management plans.

Several interviewees indicated that water sector improvements have received attention of foreign and local actors prior to the Syrian crisis. Awareness of the need to enhance Lebanon's water infrastructure was pre-existent to the influx of Syrian refugees from 2011. Governmental actors provided assistance in the form of staff and training, preparing of community projects, and conducting environmental assessments. Also, international actions followed by regional actions have contributed to improving the water sector prior to the Syrian conflict with financial and technical support. This is supported by interviewees in the non-governmental and academic sector, who stated that the government greatly relies on international support in local resource management (Shaban, 2016, p.2). Foreign funding agencies provide most of the funding in the water supply, irrigation and wastewater sectors [see annex 3]. This is often provided and administered by CDR and hereby, the MoPH and MoA have come under the umbrella of the CDR.

Examples of funding agencies that have been mentioned by several interviewees as shaping the policy agenda via funds that aim to improve the water sector, are: The World Bank, the European Investment Fund, the Kuwait Fund and Arabic Economic Development. Specifically, the World Bank, followed by USAID and Deutsche Gesellschaft für Internationale Zusammenarbeit (GiZ) are indicated as having leadership roles in shaping the policy debate and reforms in the water sector since the 1990s. Moreover, actors such as the European Union (EU), GiZ, Alternative für Deutschland (AfD), and USAID have funded policy type projects such as institutional capacity building.

It is stated that these numerous foreign agencies have created fragmentation in an already fragmented water sector by an interviewee in the academic sector. Several actors argue that Lebanon's institutional setup has affected the environmental state of the country. Agencies and academic institutions such as the American University of Beirut (Water Resources Centre) and the Issam Fares Institute in Public Policy play a role in the water sector by

providing data to enhance awareness about these and other type of challenges in Lebanon's water management (Tayyar et al., 2011, p.73). It can be stated that these academic institutions add to the policy stream by providing policy proposals that seek to overcome certain long-standing problems. Also, it can be argued that they are an important voice in expressing societal concerns. Community involvement is argued to be limited due to a lack of venues where public water providers can be held accountable for water quality.

5.3 Problem recognition: the environmental impact of the Syrian conflict on Lebanon's water resources

Lebanon has seen a rapid increase in its population since 2011 with the onset of the Syrian crisis. New problems arose due to the exacerbated challenges to Lebanon's service delivery, causing a development crisis. This required new priority interventions that respond to both the needs of hosting communities and refugees and has triggered prioritizing the Syrian conflict on the Lebanese governmental agenda. Lebanon received support to respond to economic and social challenges resulting from the Syrian conflict. However, it is argued that larger challenges can be found in environmental pressure and that these challenges have been underestimated. Hence, Lebanon's environmental impact assessment of the Syrian crisis aimed to protect Lebanon's natural resources.

Solidarités International conducted a survey on the average daily per capita water consumption of refugees and estimated consumption between 64 and 104 liters. Latest estimates indicated an incremental increase in domestic water demand that corresponded to an increase between 8 and 12 percent of the national water demand by the end of the year 2014 based on 31 May 2014 estimates of the total number of refugees. Nonetheless, precise estimates on the increase in water demand that include the industrial and agricultural sectors remain unavailable due to a lack of data [see annex 4 and 5].

The Bekaa governorate faces the highest incremental increase in demand followed by the North, Beirut, Mount Lebanon and the South [see annex 6]. During an interview with the MoEW it was highlighted that 'very hard water stress' during the summer specifically affects regions like the Bekaa and Akaar. Syrian refugees lack access to safe water and are living in harsh poverty conditions, having no means to buy bottled water. Also, it was indicated how

'the lack of water along with the hot temperatures in 2015 could be a source of tensions and conflicts'.

Humanitarian agencies are expressing their concerns on the increasing consumption of poor water quality due to pre-existent problems with proper sanitation and hygiene, poor cleanliness of reservoirs and inadequate protection from external sources of contamination. Environmental impact assessments seek to outline necessary policy response to improve wastewater treatment, as an incremental increase in wastewater generation national level took place. Currently, only eight percent of wastewater is treated at the national level. A rise in communicable diseases and the emergence of the previously unknown Leishmaniasis disease have been reported and are transmitted between refugees' communities and Lebanese communities (Khalil, 2014, p.67).

Increased water demand due to population growth goes combined with increased water quality threats because of temporary waste management and sanitation measures (Farajalla, Abou Haidar, Chnais, & Modad, 2013, p.4). Moreover, despite best intentions, the provision of more wells, faster extraction of water, and increased informal or expanded refugee settlements with make-shift service arrangements have exacerbated pre-existent environmental pressures. This further threatens community resilience and complicates climate change adaptation, often increasing the vulnerability of already vulnerable communities (King-Okumu et al., 2016, p.7).

Social tensions and poverty are specifically worsening fast in 242 identified vulnerable localities that represent one/sixth of Lebanon, but contain an estimated two million vulnerable people and institutions under high pressure [see annex 7]. Water demand exceeds infrastructural and administrative capacities due to previous under-investment, unreliability and high costs (*Lebanon Crisis Response Plan LCRP (2017-20)*, 2014, p.14). Correspondence with the MoEW supported that 'Lebanon, which has hosted other foreign refugees, is under pressure and that the situation is beyond the capacity to be managed equitably'.

The on-going humanitarian situation in Lebanon fuelled pre-existent long- and short-term environmental concerns on climate variability, water quality, depletion of groundwater tables and water scarcity. Previous research on this issue indicates how rather than a lack of know-how, or innovative technologies a lack of long-term environmental responses increases water

scarcity, pollution and vulnerability to climate change. These indicators correspond with the perspectives of governmental and non-governmental actors in the policy network and have been used to identify the current problem situation. Also, these indicators have been used to create awareness on the situation to gather support for the need for long-term solutions in the water sector.

5.4 The response: knowledge and policy proposals to mitigate the impact of the Syrian crisis on Lebanon's water sector

The Lebanese context has greatly evolved since the beginning of the Syrian conflict, building momentum to counter Lebanon's combined humanitarian, social, environmental and economic shocks. The impact on Lebanese families, institutions and community relationships gained more attention with the fourth year of spillover from Syria's conflict in 2014. Although the NWSS provided a framework for local investments and initiatives to respond to the immediate local needs in the water sector and anticipated deficits. It is argued that it needs mid-term appraisal, as it could not include unforeseen events in the water sector such as the Syrian refugee crisis, budget overruns and a 50-year drought occurrence (El Jisr et al., 2015, p.19).

With the Strategic Environmental Assessment of NWSS in 2014 (NWSS- SEA), unforeseen challenges from the rapid population growth due to the arrival of Syrian refugees have been reviewed. The SEA provides policy recommendations whilst focusing on twelve key issues that address three stakeholder groups: MoEW, MoE, and 'other' agencies with policy responsibilities including e.g. the CDR, the Council of Ministers, WEs, and the MoA [see annex 8]. The MoEW is asked to assess periodically the water and sanitation needs of unserved areas and groups including refugees (El Jisr et al., 2015, p.15-17). Although, the MoEW is keen to promote participation in the water sector and wants to include stakeholders, Okumu et al. (2014, p. 17) state that the ministry has not outlined how they aim to achieve these goals in 2014.

Lebanon's Environmental Assessment of the Syrian conflict states that accelerated growth in the Lebanese population was not expected until 2041. It proposes policy measures and environmental mitigation measures that could be incorporated in the humanitarian response

combined with long-term interventions in order to improve living conditions of both Syrian refugees and Lebanese communities. Besides this report and the SEA, the GoL and the World Bank prepared a 'Lebanon Roadmap of Priority Interventions for Stabilization from the Syrian Conflict' with a more socio-economic analysis of policy recommendations to Lebanon's service delivery (Khalil, 2014, p.20).

One interviewee at Lebanon's MoE summarized that amongst main environmental actions undertaken by the MoE in 2015 was; updating fact sheets under the environmental impact assessment of the Syrian conflict on Lebanon and to include environmental outcomes under the LCRP 2017-2020. The MoEW with the Minisitry of Environment (MoE) co-leading have been the main governmental partners in setting up the Lebanese Crisis Response Plan (LCRP) that seeks to ensure cooperation between multiple actors to ensure stabilization in the country since the influx of Syrian refugees in 2011 (*Lebanon Crisis Response Plan (2017-20)*, 2014).

The LCRP is Lebanon's chapter of the Regional Refugee and Resilience Plan (3RP). Under the most recent 3RP (*Regional Strategic Overview: Regional Refugee & Resilience Plan 2017-2018: In Response to the Syria Crisis*, 2017, p.42): "The overarching goal of the Water Sanitation and Hygiene (WASH) sector in the coming two years is to enhance more sustainable and cost- effective WASH services for the Syrians living in camps/settlements and having more efficient, cost-effective and equity- driven service providers in areas with significant proportion of Syrians living in host communities". With the LCRP, targets have been identified to overcome challenges in the WASH sector. The LCRP identified numbers of displaced Syrians, Lebanese, Palestinian Refugees from Syria (PRS) and from Lebanon (PRL) in permanent settlements in need. Hereby, targets with regards to safe and equitable access to sufficient water quantities for water, cooking and domestic and personal hygiene at public health facilities is monitored at the national level were identified (King-okumu et al., 2016, p.8).

The LCRP (2014, p.13) points out that longstanding socio-economic challenges have become intermingled with the protracted humanitarian crisis in Lebanon. It has thus become crucial to respond to long-term questions on how supply can meet demand in e.g. water, work and schools for all vulnerable groups in Lebanon that are affected by the Syrian conflict. Areas in Lebanon that have a pre-crisis history of weak service delivery for the local population and

where now large numbers of Syrian nationals are registered with UNHCR as refugees have become priorities for area-based support under the LCRP.

The 2013 Stabilization Roadmap supports greater coherence and joint programming. Also, cost-sharing opportunities, public-private partnerships, and support to governmental implementation is being explored. In addition, there is aimed to build upon existing systems and to introduce new initiatives such as the Integrated Financial Tracking System to enhance better planning for investment coordination between international partners, the CDR and Gulf Cooperation Council members (LCRP, 2014, p.30). It can be argued that reports such as LCRP, and Roadmap to Stabilization served as new venues for inter-sectoral cooperation in Lebanon's water sector. Under these, coalition-building between international, national, and local actors aimed to overcome challenges with regards to the impact of the Syrian crisis on the water sector and Lebanon's stabilization. In other words, ideas were suggested in the policy network in the form of policy proposals to improve problematic conditions as identified in the previous section.

Since the humanitarian situation in Lebanon, a discussion emerged on the principles and nature of resilience-building. Here, it is questioned how the government, population, and international humanitarian and development actors can enhance resilience with long-term planning. This should acknowledge exacerbated challenges in the water sector. Specifically, since 2013 international partners have been trying to improve the WASH-sector (King-okumu et al., 2016, p.9). One interviewee in the developmental sector stressed how maintaining the precarious internal balance within the country is of great interest of the international community, since displaced Syrians have no other place to go when increased tensions evolve into conflict in Lebanon. In addition, complementing humanitarian efforts international investments in Lebanon's communities, institutions, and infrastructure further widened in 2014 (*Lebanon Crisis Response Plan LCRP (2017-20)*, 2014, p.9-10).

Donors in the policy network have played an important role in capacity and coalition building in Lebanon's water sector and have thereby shaped the policy agenda. Specifically, the water sector has received extra funding of the World Bank under the umbrella of sustainable development since the Syrian crisis. One interviewee mentioned that even though environmental policies have not been introduced by the government, there is more attention for environmental issues in the governmental agenda. This has become more pertinent

because of the Syrian crisis that thereby acted as a 'focusing event' and attributed to the problem stream as is outlined in Kingdon's (1995) MSF. Indeed, humanitarian agencies and donors are now trying to push through that responses to pre-existed problems are geared to environmental sectors. One interviewee at a global institution indicated here that preserving the environment is not always the main priority in responding to the Syrian refugee situation, but they are trying to seize this momentum by advocating policy reform. It can thus be argued that a 'policy window' has opened.

5.5 Framing of Lebanon's water management issues in humanitarian and developmental context

Lebanon's case is no exception in the 'policy game' that takes place with the framing of policy problems to gain governmental attention. Different frames of interpretation are offered on the impact of the Syrian crisis on Lebanon's water sector. This is supported by Emanuelle Kunigk, 1998/99, p.7). In a research on Lebanon's water sector in 1998 she stated already that it had become urgent to re-shape water policies to meet water demand. This is dependent on how government officials, scholars and donors perceive this issue as they advise and implement new water policies.

The influx of Syrian refugees went combined with an influx of international actors in Lebanon that have suggested ideas to overcome pre-existent problems in the water sector. Studies on international assistance argue how regional and developmental programming can extent program durations and involve larger financial resources. Based upon feedback from successful interventions, it is argued how policy solutions should address the needs of various actors by implementing long-term development planning. Nonetheless, this is complicated by policy fragmentation and isolated initiatives due to separated mandates of humanitarian actors that are responding to the most urgent needs (Otto & Weingartner, 2013, p.59-63).

It is increasingly sought to combine humanitarian and developmental agendas to mitigate the environmental and socio-economic impact of the Syrian crisis on the region to stabilization and resilience. This is in line with an international policy commitment to resilience-building in neighbouring countries of Syria (*Regional Strategic Overview: Regional Refugee & Resilience Plan 2017-2018: In Response to the Syria Crisis*, 2017, p.6). This focus is clearly

stated in the 3RP 2017-2018. This goal is translated in policy sub-systems; partners seek to contribute to policy development n the WASH sector by focusing on strengthening local resilience and equity.

It can be argued that a 'window of opportunity' has arisen to overcome challenges that predated the Syrian crisis in Lebanon's water sector. In other words, it can be argued that the humanitarian situation has created developmental opportunities and has created a policy network of actors aiming to enhance Lebanon's water sector. Here, reports on humanitarian and developmental assistance in the water sector highlight how a multi-sector approach facilitates integrating policy-fields, thereby shaping the policy agenda with a long-term vision in regional programming.

In the context of displacement situations, both host countries of refugees and IDPs and the international community face an important development challenge finding social, economic and environmental 'sustainable' solutions to displacement. Overlap can be found in all policy responses to exacerbated water challenges in Lebanon, in their calls for international and national cooperation. Indicators for this can be found specifically in the LRCP and the 'Roadmap to Stabilization'. The LRCP aims to enhance cooperation between partners of the GoL to reinforce stability through the Syrian crisis whilst protecting both Lebanon's (vulnerable) population and refugees. Stabilization in this sense, refers to addressing long-term poverty and social tensions whilst meeting humanitarian needs by strengthening national capacities. Calls for international cooperation include burden- sharing in and the coordination of humanitarian assistance to countries hosting refugees (LCRP, 2014, p.)

The 3RP (2017, p.6-7) has framed policy solutions in the context of 'effective' humanitarian and resilience-based interventions to establish sustainable responses. The 3RP (2017, p.10) states that: "The importance of integrating development into ongoing humanitarian assistance activities, to support individuals impacted by the Syrian crisis, is now widely recognized". Besides the refugee protection and humanitarian component, a resilience/stabilization-based development component is added that focuses on the needs of impacted and vulnerable communities in all sectors, including the WASH sector. This aims to build the capacities of national and sub-national service delivery systems, to provide strategic, technical and policy support to advance the national response and enhance governmental capacities in crisis response.

In addition, this should avoid the creation of parallel systems and should prioritize national ownership to policy responses. Moreover, this approach can be seen in the Dead Sea Resilience Agenda among countries affected by the Syrian crisis. This aims to provide a common basis for resilience-based responses, which can also be used in similar future contexts. Among several action principles of this agenda is the aim to expand the use of programme-based approaches for basic service delivery. This framework suggested the expansion of the Social Development Centers network to integrate and strengthen delivery by ministries at the sub-national level in the Lebanese context (3RP, 2017, p.17). Also, the Lebanon Roadmap for Stabilization of Syrian conflict aims to include programs that build upon the GoL's development strategy and that aim to mitigate the impact of the Syrian conflict—such as extensive use and depletion of physical assets— whilst building resiliency.

Increasingly, narratives surrounding crisis-emergencies stress how the recipients of international assistance and interlocutors prefer international engagement that addresses long-term challenges that caused crisis rather than short-term assistance (Otto & Weingartner, 2013, p.58). This is not only the case in Lebanon. In Mali, Cherlet (2012) analysed with an extensive study on the countries' water sector how development aid brought in extremely heterogeneous actors that advocate a similar narrative to solve water sector problems with a long-term vision into programming.

Finally, it can be argued that another narrative emerged that connects the influx of Syrian refugees to Lebanon and exacerbated water issues in relation to meeting the Millennium Declaration (now SDGs). In Lebanon, one interviewee in the developmental sector stressed how for a long-time there was a lack of comprehensive long-term environmental policies linked to refugee management. This has recently changed with the Sustainable Development Goals of the UN that have been adopted by the main international organization responsible for refugee management, the UNHCR. Specifically, MDG7 (ensuring environmental sustainability) is not on track due to long-standing environmental challenges in e.g. the provision of piped water and sewage treatment services, the lack of access of households to public piped water, and the discharge of untreated waste water into public watercourses. Under the LCRP (2014, p.11) a narrative is put forward that stresses how: "The impact of the Syrian crisis on Lebanon's economy and society has significantly increased the challenges of

achieving key development commitments". In relation to this, policy recommendations are aimed to enhance long-term solution and sustainable development in Lebanon's water sector.

5.6 The influence of politics and national mood on the water agenda

The influx of Syrian refugees to Lebanon took place within a political context of three governmental transitions and a presidential vacuum (Dionigi, 2016, p.18). At the end of 2016, a newly elected president took office. One interviewee stressed that the presidential party has taken up improvements to the water sector as a priority issue, which has facilitated policy entrepreneurs' work in the water sector. This can result in new changes to the agenda-setting in Lebanon's water management.

In addition, there can be stated that the national mood has changed in Lebanon with regards to long-standing water management problems. Recently, new tensions have arisen as many Lebanese lack access to public services due to the additional burden on these services. Tensions - whether perceived, or real - emerged among impoverished Lebanese communities that find their growing needs being neglected in comparison to humanitarian and developmental assistance efforts targeting refugee communities. This has gained the attention of politicians.

The LCRP argues that there is a need for governmental policies at the national and local level that take larger responsibility to respond to rising tensions. To this aim, policy response should translate investments more effectively to beneficiaries, not only in water management, but also in other sectors of service delivery. There is argued that this should be guided by the 'Do No Harm' principle of humanitarian intervention. Hereby, equity in targeting and delivery strategies can be more adequately prioritized into future policy response (LCRP, 2014, p.15).

Chapter 6: Empirical Discussion

In this study, the focus lay on one aspect of the policy process; namely agenda-setting at the national level. This study focused on the role of governmental and non-governmental actors in shaping the policy agenda at the national level. However, these actors also played an important role in shaping the policy agenda at the local level. This is specifically seen in the Bekaa region with the establishment of the WEs in collaboration with municipal actors (King-okumu et al., 2016, p.19). In order to gather the most accurate background information on agenda-setting in Lebanon's water sector, fourteen interviews have been conducted. Although, this is a relatively small number, data is collected from all sectors (academic, non-governmental, governmental and community level) [see annex 9]. Hereby as varying data as possible is collected to overcome bias.

The aim was to analyse agenda-setting in the water sector and not the true impact of the Syrian conflict on Lebanon's water sources. It is mentioned throughout this study that current challenges were pre-existent to the Syrian crisis and are exacerbated due to the current humanitarian and developmental crisis. Data on water resources in Lebanon should be taken with precaution as few studies have been able to take the climatic effects on the flows of water through the Assi (Orontes) or Litani Rivers into account (Ramadan, 2012). Also, water balance studies of the MoEW could not be published in detail and were not peer reviewed (Fayad, 2014). In addition, several studies that have been conducted by international organizations have not been approved by the government. It should be noted that this study is conducted in line with existent research in the policy field. Should this study be used in follow-up studies, specifically in the field of environmental, hydrological studies and political ecology, it would be highly recommended to do an extensive research on Lebanon's data on its water sources.

It is debatable to what extent policy theories are applicable to Lebanon's case, which is in many aspects a different governmental system when compared to case studies on which policy-making theories such as the MSF rely. It is pointed out how agenda-setting can be studied in a developing context by employing the MS as an analytical framework. It is indicated how this approach can be used whilst devoting attention to institutions. Specifically, this study demonstrates how the MS can be combined with a policy network approach. The policy network approach has proven to be useful to analyse opportunity structures that are

used by interconnected actors that seek to gain political attention. Moreover, it is argued that this enhances our understanding of how framing is used in the policy network to gain political attention for necessary long-term developmental interventions.

By combining the MSF to a policy network approach, a more comprehensive understanding of the institutional context in which policy-making takes place has been provided. Hereby, the exploratory power of the MSF as such is expanded. Moreover, despite its politically unstable context, Lebanon is upholding stability to some extent and is recognized as a democratic republic in the region. Solely focussing on its instable aspects will prevent us from understanding those sectors and governmental mechanisms that are functioning as is indicated by an interviewee in the academic sector. Hence, it can be argued that more can be learned from applying the MS to other countries facing similar situations.

It is decided to leave out other aspects of the policy process - such as analyzing the possibility to policy change - due to this study's limited scope. Nonetheless, it would be hard to say to what extent policy change took place. Not only will analysing policy change result in negotiable findings (a lot, or a little policy change), also it is difficult to determine whether change has occurred in some point in time as policy change is a process that takes place over a decade or more. This goes far beyond this study. In Lebanon, the implementation of certain policy goals is not very often felt on the ground. Policy implementation is not taken into account, however institutional obstacles to policy implementation are mentioned in section 5.1.

It is difficult to generalize the findings of this case study to other countries. However, by analysing how this case handled a humanitarian and developmental crisis that is currently shared by other countries, this study can contribute to the current knowledge base, specifically with regards to the displacement-development nexus. These findings can be used in the context of other neighbouring countries that are coping with similar problems, namely Jordan and Turkey. It would be interesting to further explore linkages between Jordan, Turkey and Lebanon as similar changes to the agenda-setting in the water sector under the umbrella of humanitarian and developmental assistance exist here. Particularly, Jordan would be of interest as refugee influxes are historically viewed as an opportunity to advance national development (Carnegie, 2015). In addition, cross-country comparisons could be made in future policy analysis on this topic to analyze whether similar patterns emerge in neighboring

countries and whether this study's research findings can be confirmed in their case. Here, a longitudinal perspective could be taken to analyze possible eventual policy transition in these countries. To do so, studies can rely on already existent empirical evidence.

Chapter 7: Conclusion

This study sought to analyse how agenda-setting in the policy process can be affected by focusing events. It looked at how agenda-setting in water management changed for Lebanon's national government as a response to the humanitarian and developmental crisis caused by an influx of Syrian refugees from 2011-2015. Firstly, there is argued that long-standing issues gained attention on the governmental agenda as part of increased efforts to address challenges to resilience, and stabilization. There is indicated how the policy agenda is shaped by: 1) The development of new ideas that address water sector problems in the context of resilience and stabilization; 2) Coalition-building between both governmental and non-governmental actors to create an inter-sectoral response to the impact of the Syrian crisis on Lebanon; 3) The establishment of venues under inter-sectoral approaches to connect multiple actors in the water sector with policy efforts such as the LCRP and the Roadmap to Stabilization; 4) The usage of the developmental and humanitarian situation in Lebanon as a window of opportunity.

A window of opportunity was recognized by policy entrepreneurs. In line with the problem stream of Kingdon's (1995) MS, this study referred to the influx of Syrian refugees as a focusing event. Indicators highlight challenges due to climate variability, water quality concerns, depletion of groundwater tables and water scarcity that were exacerbated by the ongoing humanitarian situation in Lebanon. In addition, feedback on previous governmental policies attributed to the recognition of the problem situation that is seen as a development crisis in Lebanon's service delivery. Also, it is argued that a newly elected presidential office and changes to the national mood has affected governmental attention and the policy agenda.

Next, ideas to improve the problematic conditions in Lebanon's water sector are addressed in policy proposals that aim to provide both short-term humanitarian assistance and long-term developmental solutions. Actors have sought to shape the policy agenda by framing solutions as part of resilience-building and stabilization. Here, policy networks were pivotal in presenting Lebanon's water infrastructure issues as a developmental issue. Nonetheless, several interviewees highlighted that the take up of policy proposals is slow in Lebanon. Hence, the most important change to agenda-setting in Lebanon's water management since the influx of Syrian refugees to the country is discussing pre-existent water management problems under the umbrella of developmental and humanitarian assistance. Here, the scope

of the problems gave momentum to propose new short- and long-term actions in Lebanon's water sector. It is now wishful that these proposals have impact on the ground to alleviate water stress.

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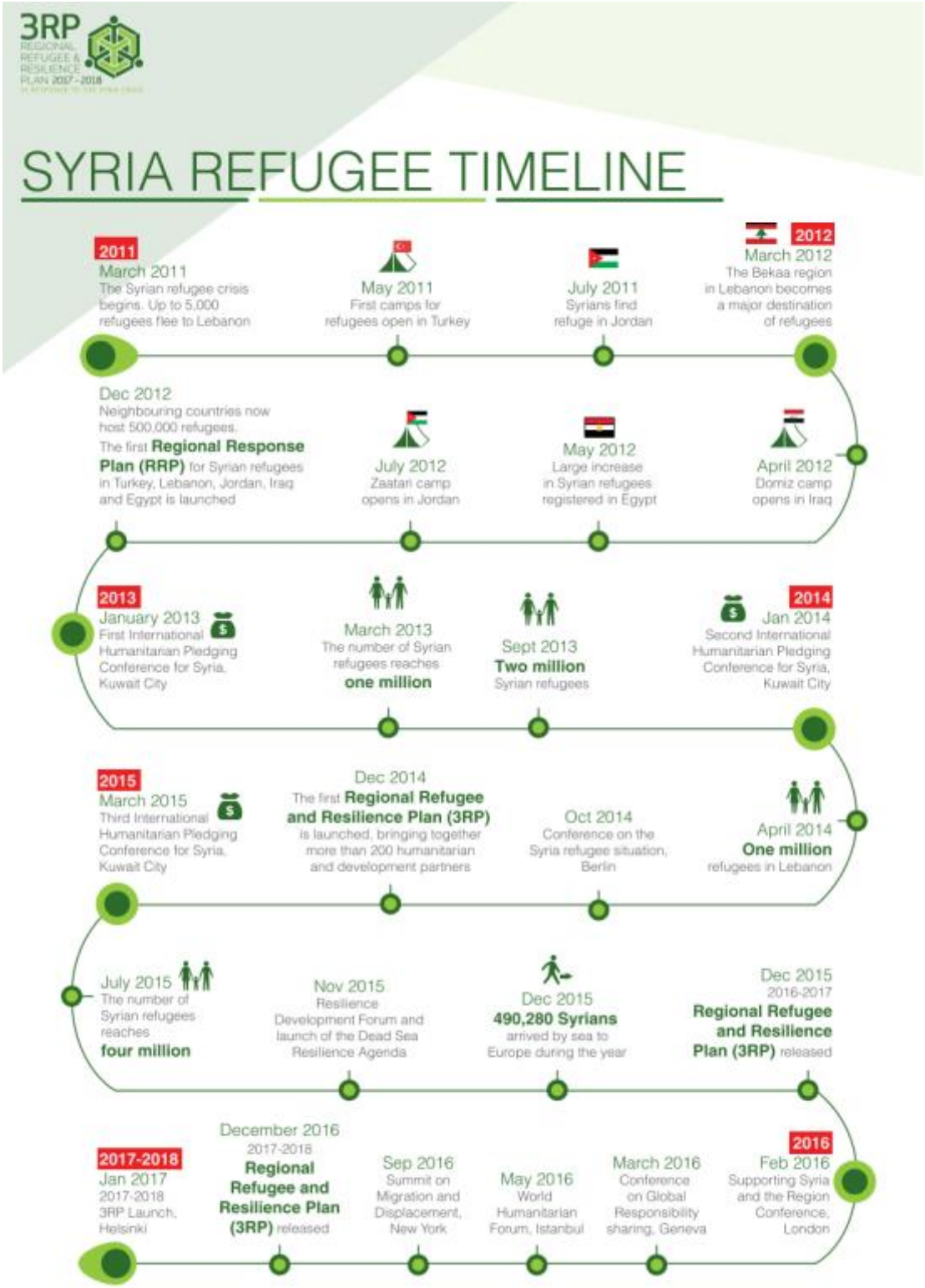
Annexes

Annex 1 Syrian Refugee Timeline



Source: (*Regional Strategic Overview: Regional Refugee & Resilience Plan 2017-2018: In Response to the Syria Crisis*, 2017)

Annex 2 Extensions of the Litani River

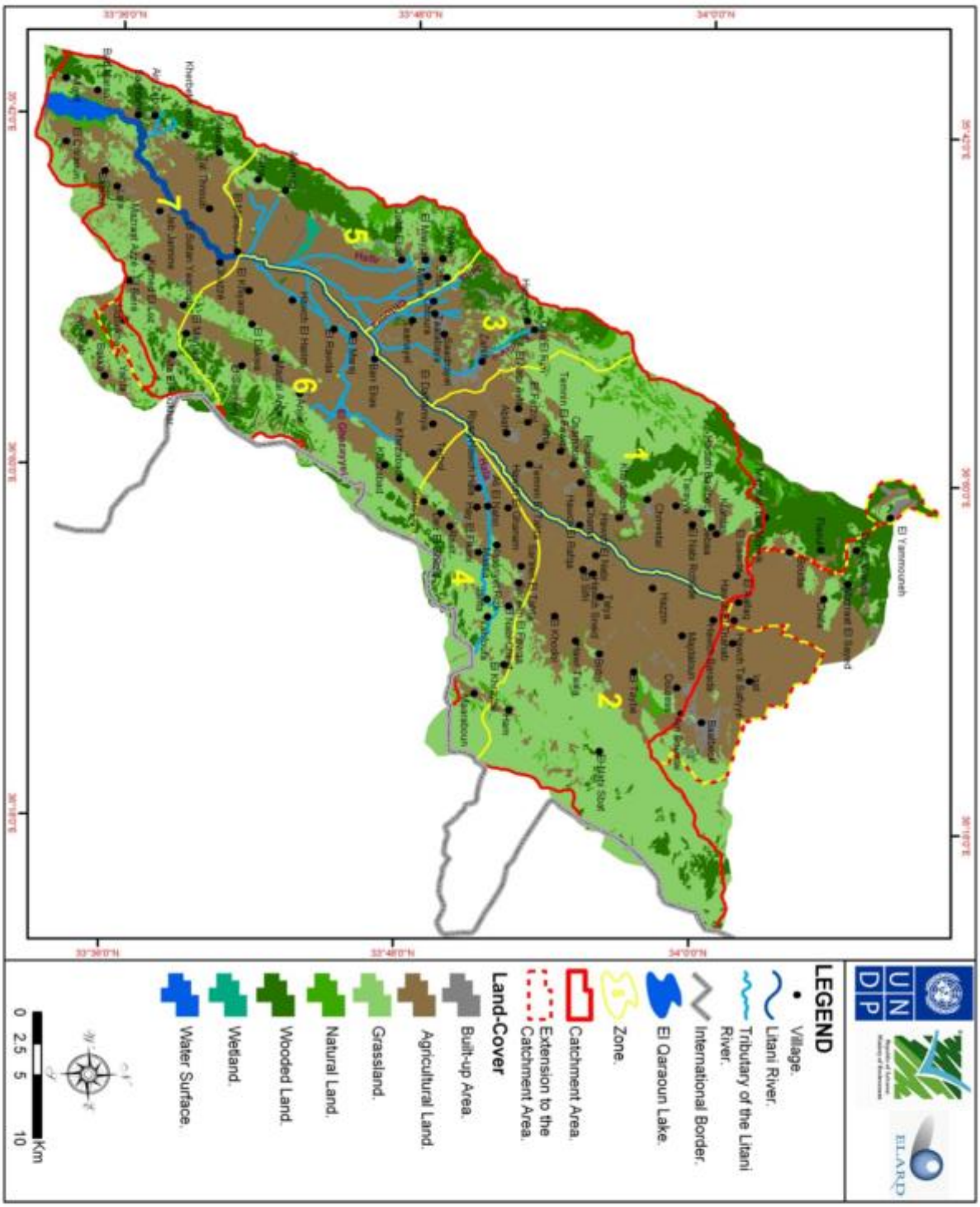


Figure 3-6 Extensions to the Upper Litani River Catchment Area and Zones' Identification

Source: (Musharrafiyeh et al., 2011)

Annex 3 Actions by local and foreign entities to secure and enhance Lebanon's water sector

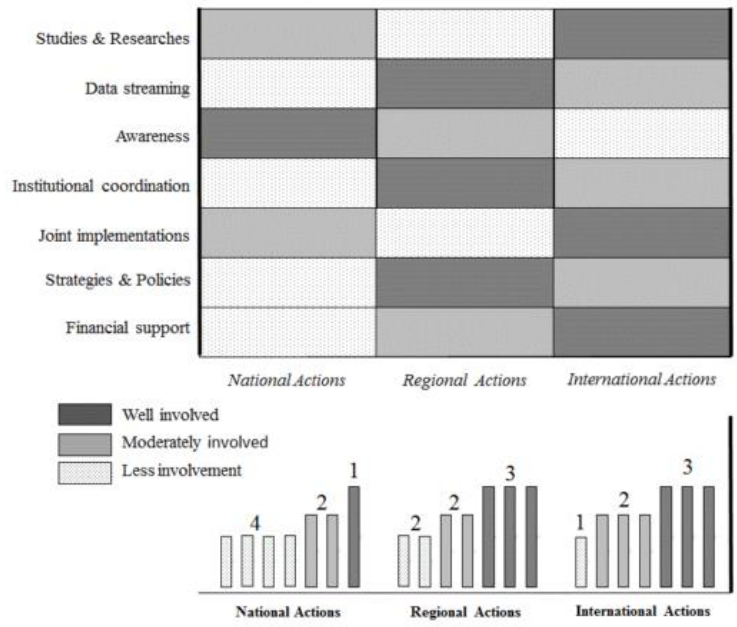


Figure 2: Actions obtained by local and foreign entities to secure and enhance water sector in Lebanon. There are several aspects of contributing action (in the left column). It is clear that the international action occupies the principal role (3-well, 2-moderately and 1-less involvement), and then the regional is the second, while the national is still with least role.

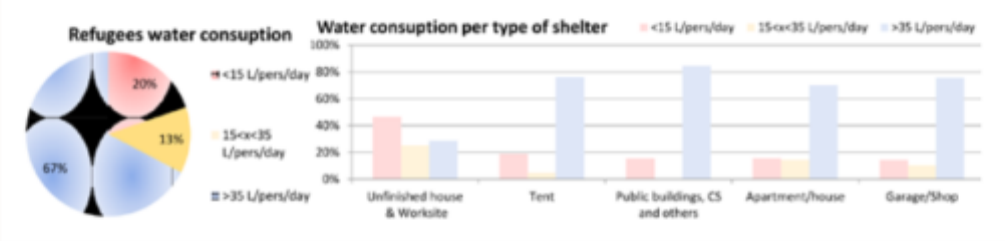
Source: Shaban (2016, p.2)

Annex 4 Water Demand and Wastewater Generation Rate from Syrian refugees in Lebanon

ANNEX C. COMPLEMENTARY INFORMATION TO THE WATER AND WASTEWATER SECTORS

Box C-1. Methodology for estimating water demand and wastewater generation rate from Syrian refugees in Lebanon

Data from Solidarités International (January 2014) in the North shows water consumption per type of shelter as per the below graph (figure 7). The same reference mentions that: "with regard to water availability in the North, Syrian refugees are consuming on average 145 litres per person per day" (L/person/day) (UNHCR, 2014).



In this context, according to Figure 7 of the WASH chapter, a weighted average for water consumption per type of shelter is calculated (based on the percentages set) using the following assumptions:

- For the quantity of water below 15 litres, it is assumed to be 15 litres
- For the quantity of water between 15 and 35 litres, it is assumed to be 35 litres
- For the quantity of water above 35 litres, 2 scenarios were used as follows:
    - o As a higher estimate, the average water consumption per person per day was assumed to be 145 litres.
    - o As a lower estimate, the average water consumption per person per day was assumed to be 85 litres (half a Lebanese person's water consumption).
- After calculating weighted average water consumption per type of shelter, a national weighted average was calculated taking into account the percentage distribution of refugees according to shelters (57% in apartments, 15% in informal settlements and 28% in substandard buildings and collective shelters).

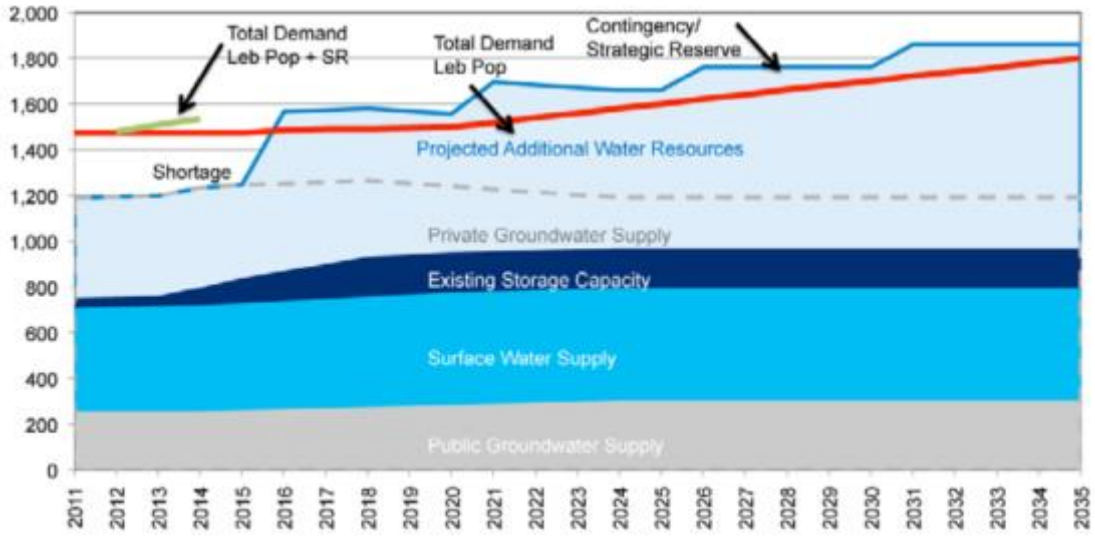
Source: UNDP." Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions." UNDP. September 2014. accessed June 29, 2016
http://www.undp.org/content/dam/lebanon/docs/Energy%20and%20Environment/Publications/EASC-WEB.pdf

Annex 5 Water Demand and Wastewater Generation Rate from Syrian refugees in Lebanon

Type of shelter	Average quantity of water consumed using the higher estimate (litre/person/day)	Average quantity of water consumed using the lower estimate (litre/person/day)
Unfinished house & worksite	62.3	42.5
Tent	116.8	70
Public buildings, collective shelters and others	121.6	72.4
Apartment/house	102.9	63.9
Garage shop	117.6	70.8
Average taking distribution of refugees per type of shelter	104.313	64.255

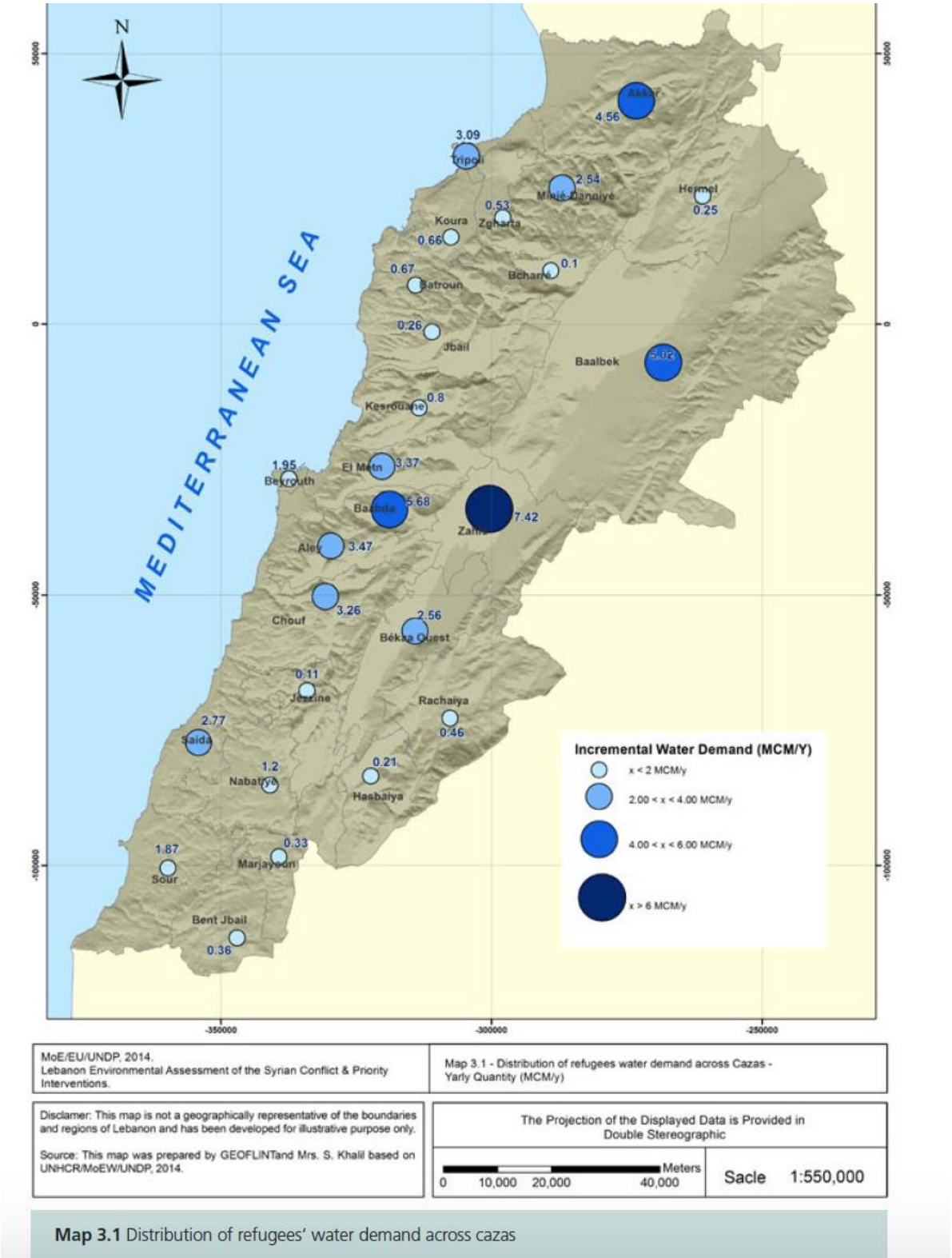
Concerning wastewater generation rates, wastewater generated is assumed at 80% of water consumed and for pollution load, "BOD_5 load is based on 60 grams per capita per day BOD_5 emission".

Figure C-1. Supply/demand planning in Lebanon for a moderate dry year in MCM for 2011-2035 (MOEW 2010)



Source: UNDP." Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions." UNDP. September 2014. accessed June 29, 2016
http://www.undp.org/content/dam/lebanon/docs/Energy%20and%20Environment/Publications/EASC-WEB.pdf

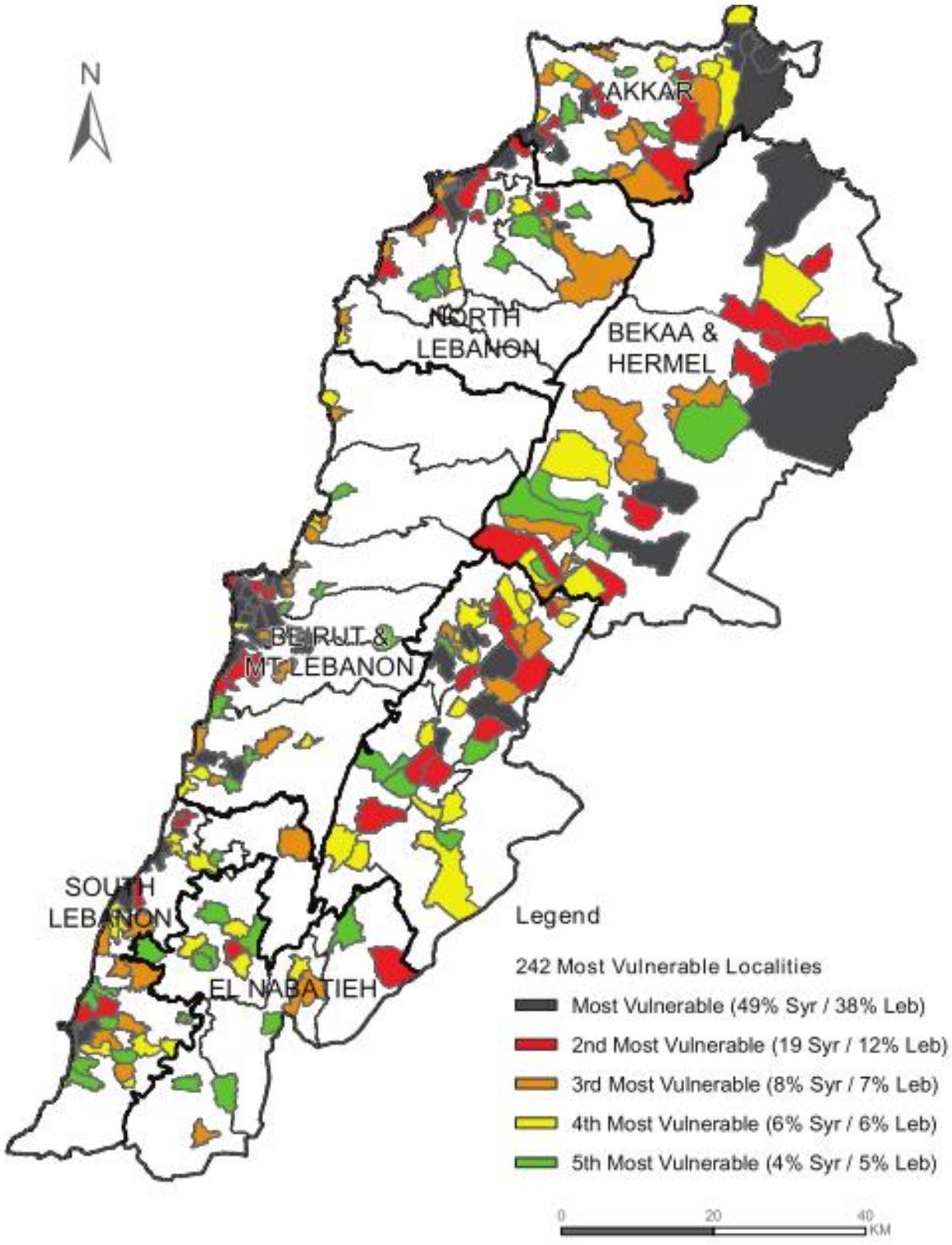
Annex 6 Distribution of refugees' water demand across areas



Map 3.1 Distribution of refugees' water demand across cazas

Source: UNDP." Lebanon Environmental Assessment of the Syrian Conflict & Priority Interventions." UNDP. September 2014. accessed June 29, 2016
http://www.undp.org/content/dam/lebanon/docs/Energy%20and%20Environment/Publications/EASC-WEB.pdf

Annex 7 Most Vulnerable Localities according to Lebanon Crisis Response Plan



Source: (*Lebanon Crisis Response Plan (2017-20)*, 2014)

Annex 8 Institutional framework in Lebanon's water and wastewater sectors

Table 3.25 Key players and responsibilities in the water and wastewater sectors

Function	MOEW	RWEs	LRA	CDR	MOE	MOPH	Other
Planning	X	X		X			
Licensing and permitting (inc. EIAs)	X				X		X
Capital Investment	X	X		X			X
Infrastructure construction	X	X		X			X
Operation & maintenance	X	X					
Financing (national)	X	X		X			
Financing (external funding)	X			X			
Regulations and guidelines	X				X	X	
Water quality / quantity monitoring	X		X		X		
Hydro-power plants	X		X				

Notes: "Other" includes Council for the South, Municipalities, other ministries and agencies

Source: (Tayyar et al., 2011, p.69)

Annex 9 Interview Guidelines 2016-2017

Actors	**Number**
Independent Researchers	2
Governmental Actors	4 (Ministry), 1 (Municipality)
Non-Governmental Actors	6
Local Community	1
Total	14

Annex 10 Interview Questions (semi-structured interviews)

Research question and objectives:
The aim of this thesis is to analyze how the setting of the agenda in water management has changed for Lebanon's national government since an influx of Syrian refugees to Lebanon from 2011-2015.

Larger research agenda:
How can agenda-setting in the policy process be affected by certain focusing events?

- Lebanon's water management issues pre-date the influx of Syrian refugees to Lebanon. Do you think there is a recent increase in interest in addressing these problems?
  If so, what indicates this increase in interest according to you? (e.g. a speech, law, environmental assessment)

- Would you say that governmental efforts have been made in building resilience and enhancing stabilization whilst responding to the impact of displaced Syrians on Lebanon's water resources?

- Would you say that governmental efforts have been made in both preserving Lebanon's environment whilst responding to the environmental impact of displaced Syrians on Lebanon's water resources?

- Do you think that the way Lebanon's water management problems are framed in policy recommendations plays a role in the possibility for policy change? (e.g. presenting them as long-term environmental problems)

- The NWSS of 2010 did not take into account the humanitarian crisis caused by displacement that started in 2011. Is there a new strategy now that addresses the additional pressure on Lebanon's water infrastructure?

- Did non-governmental actors play an important role in addressing this issue?

- A committee has been assigned to conduct an environmental assessment on the impact of the Syrian conflict upon Lebanon's service delivery in 2014.
  - Has there been a follow up on the suggested mitigation measures in this assessment? If so, could you please tell me more about what measures have been undertaken?