

# Climate Congress 2019: Fostering sustainable development by empowering indigenous abilities: The border zone case of rural South Lebanon- G Gharios- University of Dundee

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Lebanon has built its water sector on foundations laid down by Mesopotamian, Roman, Ottoman and French water laws that were superimposed on Muslim customs and practices and traditional Arab social water arrangements in Lebanon. Experts agree that Lebanon will be the first country in the Middle East to be affected by climate change. Rural communities in the region have historically adapted to the characteristic water scarcity by harvesting and storing rainwater. The focus of this study is on the role of indigenous water arrangements, customary law and inherited practices in developing the water sector in Lebanon. Indigenous water practices are the result of the complex interactions of changing practices imposed over time, combined with lessons learned regarding successful techniques, forming a palimpsest of legislative and administrative water competence that are potentially better able to address climate change because of their tested adaptive capacities. This work researches the influences and effects that strengthening customary, locally developed water arrangements could have on community resilience and adaptation to climate change. We were able to identify several ancestral social water arrangements that were developed in the region for the conservation of property and for the periodic distribution of water between interested parties that allowed for the mediation of disagreements between users and assured each of the equitable allocation of water to match needs. These include, Urf, Hima, Mushaa, Sabil, Birket, Jall, Aouna, Sulha, Mudaraba and Chaoui. Following the application of a series of criteria relevant to resilience and climate change adaptation (e.g. democracy, equity, equality, fairness, spontaneity, transparency, participatory, replicability, adaptability, flexibility, efficiency and effectiveness) particular focus was made on communal pools (Birket). Rainwater harvesting and storing has long been a traditional approach to water management in South Lebanon. Here, precipitation occurs ordinarily only during winter (e.g. in Jebel Amel, Bilad Beshara, Northern Galilee), so it is important for the inhabitants to conserve this water into the dry season. During the research, 99 birkets were identified using very old maps and their status assessed using comparison with modern aerial images, across 85 villages and cities in three administrative regions and nine sub-regions. Only one third of these pools are still functioning and the remaining is either abandoned or

transformed. The case of the pool in the village of Marwaheen is of special interest, it was abandoned 30 years ago and transformed into a dump site, but was then restored by the municipality and currently functions as a communal water reservoir to which all farmers have access to irrigate their fields. This fact has contributed to a remarkable increase in vegetable farming which has risen from 12 to 25 ha in one year. Based on this experience, reclaiming these traditional rainwater harvesting pools are important in facing future challenges of water management at the local level.

In Lebanon, conventional traditions and practices of water use developed into legend despite everything winning today. In south Lebanon, country networks adjusted to the trademark shortage in water assets of the locale by gathering and putting away water in birket. These outdoors stores establish one of the numerous genealogical water rehearses that are the most proper for adjustment to unsure changes and future water the board. In spite of the potential for progressively visit and extreme dry spells later on, and ebb and flow irregular conventional access to water, birket-s are really declining in numbers. In this paper I ask: what should be possible to fortify customary social water plans and how might we recover them to all the more likely face the flow and future water the executives issues? I initially look at the arrangement of laws, composed and unwritten, at play. At that point I examine two instances of recovered birket-s to all the more likely comprehend the social and financial parts of their capacities in the network. I contend that this structures a palimpsest of authoritative and regulatory water ability that is better ready to address vulnerability and water instability.

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and how might we recover them to all the more likely face the ebb and flow and future water the executives issues? I initially look at the arrangement of laws, composed and unwritten, at play. At that point I break down two instances of recovered birket-s to all the more likely comprehend the social and financial parts of their capacities in the network. I contend that this structures a palimpsest of authoritative and managerial water skill that is better ready to address vulnerability and water weakness. Introduction Described as the most significant characteristic assets of the 21 st century, water the executives and water security have started discusses encompassing the assurance, protection, and circulation of the asset. In the Middle East, where environmental change and intermittent dry seasons increment strain on water, late clashes, wars, and occupations further cutoff individuals' entrance to it. However, water preservation rehearses were performed since days of yore. The superposition of civilisation through time, have added to the specialty of water use and the executives, where antiquated civic establishments comprehended that water is a typical decent that should be directed, ensured, and rationed. Customs and practices of water use have united a lot of methods and decides that have sorted out land and water the executives for neighborhood social orders and are the product of humanism and history. Lebanon presents a fascinating instance of study. The structures forced by the geology of the destinations, and the fine and expanded human relations explained and frequently regulated throughout the hundreds of years, comprises the first highlights of a Lebanon whose geological and political solidarity depends on the lavishness of contrasts instead of on the reinforcing of likenesses. Mankind, in reacting to the goals of nature has for a huge number of years engraved its blemish on the Lebanese scene to make it a focal point of environment and cultivating, quietly and barely vanquished against the physical components and requirements of history. In spite of the fact that precipitation there is the most elevated in the area 800 mm for every year by and large, the nation can't completely misuse, create, and advantage from its water powered sources. Just 17% of the nation's water assets are utilized, while the greater part of the water is squandered to the ocean and about 40% is unaccounted for, because of the absence of support of the water gracefully organizes. However rustic networks, specifically in the locale of South Lebanon, have.