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**A New Libya in a New Climate:  
Charting a Sustainable Course for the  
Post-Gaddafi Era**

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There is an atmosphere of heady optimism amongst the Libyan public, and there should be. Muammar Gaddafi, after over 40 long years in power, has fallen. His peculiarly brutal brand of government (essentially a Ceausescu-style surveillance state with a neo-bedouin fashion veneer) has fallen with him, to join the same sands of history that have swept away Libyan rulers for centuries, from Roman governors to Ottoman pashas.

Mahmoud Jibril, *de facto* head of the rebellion's National Transitional Council (NTC) has [vowed](#) to form a caretaker government that will hold elections for a constitutional assembly in [eight months'](#) time. Then, provided that all goes according to plan, the assembly will draft a new constitution, constructing new pillars and structures of government, and addressing Libya's unique challenges. The expectation is that parliamentary and presidential elections will then follow. Powerless people have been empowered, and opportunities exist that until recently, were not even a dream.

But amidst that optimism and sense of empowerment there walk shadows of anxiety about the future. Will Libya be a real [democracy](#)? Will Eastern and Western Libya [set aside their differences](#)? Will the foundation of Libya's constitution be [secular or sharia law](#)? Whose vision for a Libyan future will ascend, and will it be a broadly shared one? Will [Berber minorities have a voice](#) in an Arab-dominated society? Will the long years of political violence die with Gaddafi? How will a new government manage the country's natural resources – and, perhaps, the challenges of climate change?

### First questions first

It would be perfectly understandable if during this exciting, yet anxious process of charting a course forward for Libyan governance, the climate change question did not factor heavily (or at all) in the transition discussion. Climate change is not an issue that will easily fit into the dizzying political dialogue and attempted consensus-building among diverse parties and aspiring stakeholders that is characteristic of post-revolutionary, post-conflict environments. Deep foundational issues regarding the political and moral philosophy of a new government, the mechanisms for moderating and channeling power, and the optimal structures for managing the wealth and human capital of Libya, will necessarily be the order of the day.

## The question of water

Libya's transitional leaders will place great emphasis on righting Gaddafi's wrongs. But Gaddafi's iron hand extended far beyond his chilling disregard for human rights, and into the realm of natural resource management, where he implemented massive, yet ultimately unsustainable projects to extract the country's finite resources – water in particular. Even if climate change is not discussed at this stage in Libya's transition, the challenges of water availability most likely will be. The Gaddafi regime's desperate attempt to dry out the rebellion by [shutting off water supplies](#) will not be easily forgotten.

Gaddafi's oil-financed [Great Man-Made River Project](#), identified as one of the largest water engineering projects in the world, continues to function. But in Libya, a country identified as [93% arid](#), it is unclear how long this can be sustained. Libya's primary source of water is a [finite cache of "fossilized" groundwater](#), the remnants of a more verdant Pleistocene past. Present day demand for groundwater, [primarily for use in irrigating crops](#), has severely stressed this supply, and [coastal aquifers](#) have been progressively [invaded by seawater](#). According to the IAEA's ["Nubian Aquifer Project"](#) over-extraction by Libya from the Kufra sub-basin, which Libya shares with Egypt, Chad and Sudan, has also led to "reduced water levels and the drying up of desert lakes linked to oases."

In this context, any new Libyan government or constitutional assembly will, for the sake of its legitimacy and viability, need to address the fundamental issues of delivering a sustainable supply of water to its growing population, and managing the complex problems associated with sharing such a supply with other nations.

## Projections for climate change and drought

Enter climate change, which also presents a threat to Libya's water availability. While decreasing water availability is not the only predicted impact, it is a major one. According to a recent [report by Joshua Busby et al](#), climate change projections for Libya are set to yield some bitter fruit (or fluid...or lack thereof). The report notes that from the present day to the middle of this century, some of the wettest and most populated areas of Libya along the Mediterranean coast are likely to experience increases in drought days from a current 101 days, to a whopping 224 ([see Figure 18 on page 25](#)). Doubling anything negative is a problem, but doubling drought days is a really big problem – particularly if one is heavily reliant on non-renewable groundwater.

While Libya is by no means the country most vulnerable to climate change in North Africa (see the [Sahel and the Horn of Africa](#)), climate change-induced impacts on drought patterns in Libya and Tunisia are projected to be some of the most dramatic. Also, given uncertainties

about the stability of a new government, Libya will need to prepare for the possibility of greater vulnerability in the future.

There is also the possibility that Libya's vulnerabilities will extend beyond its borders. For example, Libya already extracts an extensive amount of groundwater from the Nubian aquifer. If climate change-induced drought reduces water availability and the Libyan government responds by drawing more water from the Nubian aquifer, this [could cause tension](#) with bordering countries Egypt, Chad and Sudan, all of whom share the aquifer's waters. Given the current political and economic instability of all four governments sharing the aquifer, this is a potential security issue that cannot be ignored.

### **A resilient Libya**

The dawn of a new Libya presents a unique opportunity to create a political tradition of good governance in the country – one that is transparent, respects human rights, holds free and fair elections, and enacts economic policies that work for all Libyans. It is also an opportunity for Libyans to transition not just to a post-Gadaffi era, but to an era of resilience – one that uses its finite resources wisely, and adapts itself to a changing climate. The potentially destabilizing impacts of this unprecedented shift in the global climate, particularly for countries and regions in transition that share essential natural resources, should not be underestimated. Climate change may not be on the agenda in Libya today, but it should not remain off the table for too long.

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