Weathering the Storm

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Al Noor, The Boston College Undergraduate Middle Eastern Studies Journal, aims to:

- Facilitate a nonpartisan, unbiased conversation within the Boston College community and beyond about the Middle East.
- Provide a medium for students to publish research on the Middle East and Islam.
- Promote diverse opinions and present a comprehensive view of the myriad of cultures, histories, and perspectives that comprise the Middle East.
- Be considerate of the complexity of the region while pursuing the utmost objectivity.

MISSION STATEMENT

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For many observers of the Middle East, 2017 was a year defined by change in Washington. The Trump administration’s travel bans, hard diplomatic line against Iran, and recognition of Jerusalem as the capital of Israel all prompted extensive commentary, trying to make sense of these actions’ overarching rationale and to predict their likely consequences.

At the same time, many of the Middle East’s most pressing issues are longer-standing ones, crises whose slow movement prevents them from grabbing daily headlines. Internally displaced or gathered in neighboring countries, millions of Iraqi and Syrian civilians remain unable to return home—with untold consequences for their own lives and for the region’s future. Meanwhile, North Africa, the Levant, and the Arabian Peninsula remain particularly vulnerable to climate change, as increasing temperatures threaten to render already-arid areas uninhabitable.

With two interviews and three contributors, this issue of Al Noor seeks both to address the present moment and to freshly illuminate these long-term challenges.

In our first interview, Iranian-American scholar Trita Parsi describes the “institutionalization” of enmity between Iran and the United States, makes his case that the 2015 nuclear accord has put the countries on a path toward normal relations, and pointedly questions whether a return to the policy of containing Iran is in Washington’s best interest.

Next, Harvard Law professor and expert on Islamic philosophy Noah Feldman discusses constitutionalism and religion in the Arab world, and comments on various Trump administration policies.

In “Running Dry,” Leah Beaulac addresses environmental and political developments in tandem, using data from Jordan’s northern provinces to assess the impact of Syrian mass migration on the Hashemite kingdom’s scarce water resources.

“The Last Christians,” a photo essay adapted from the powerful new book by German priest Andreas Knapp, provides a glimpse into the vanishing world of Middle Eastern Christianity. Driven from their homes by war and religious persecution, Chaldean and Syriac Christians are pictured as they struggle to maintain their traditions in the refugee camps of Iraqi Kurdistan.

Finally, in “Nationalism Takes Flight,” Avi Colonomos addresses the important and sometimes overlooked subject of national identity in the Arab world. Drawing together economic and semiotic analyses, his article provides an engrossing picture of heavily subsidized Gulf state airlines, and their reasons for continuing aggressive but unprofitable business practices.

I would like to extend my gratitude to this semester’s staff members for their hard work—and on behalf of all of us, to thank our sponsors, contributors, and readers. We are particularly indebted to Peter Marino and Susan Dunn, without whose logistical assistance Al Noor would never go to print, to Professor Kathleen Bailey, our constant advisor and advocate, and finally to Andreas Knapp and the Plough Publishing House, whose generous permission and collaboration made possible a remarkable photo essay.

As always, we encourage you to visit our website bcalnoor.org for ten years of archived issues, and to send any questions, comments, or suggestions to eic@alnoorjournal.org.

Thomas Toghramadjian
Editor-In-Chief
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Unmaking Enmity: America and Iran
An Interview with Trita Parsi

Trita Parsi is the founder and president of the National Iranian American Council and an expert on Iran’s relations with Israel and the United States. He holds a doctorate in international relations from Johns Hopkins University, as well as master’s degrees in international relations and economics from Uppsala University and the Stockholm School of Economics, respectively. Parsi currently teaches international relations as an adjunct professor at Georgetown University. His most recent books from Yale University Press are *A Single Roll of the Dice: Obama’s Diplomacy with Iran* (2015) and *Losing an Enemy: Obama, Iran, and the Triumph of Diplomacy* (2017).
Born in Iran and raised in Sweden after his family was displaced by the 1979 revolution, Trita Parsi came to the United States in the early 2000s to write his doctoral thesis under Francis Fukuyama at Johns Hopkins University. In the time since then, he has quickly established himself as an leading scholar of Iranian international relations, with a rare degree of access to the diplomatic establishments of the United States, Iran, and Israel alike. Parsi’s first book *The Treacherous Alliance: The Secret Dealings of Israel, Iran, and the United States*, was acclaimed not only for its revelation of previously unreported historical events, but for its demonstration that the countries’ path toward enmity was not an inevitable one—and accordingly still might be retraced. For this scholarly achievement, Parsi won the 2010 Grawemeyer Award for Ideas Improving World Order, a prize awarded annually by the University of Louisville.
whose previous recipients include Ernest May, Richard Neustadt, and Mikhail Gorbachev. In recent years, Parsi has emerged as a prominent defender of the 2015 nuclear accord with Iran, which he helped to bring about as an advisor to the Obama Administration and whose negotiation he subsequently documented in Losing an Enemy: Obama, Iran, and the Triumph of Diplomacy (2017).

The following interview took place on November 1, 2017.

A Discussion with Trita Parsi

You have observed that Iranians have voted for the most moderate available candidate in three consecutive presidential elections. How much promise does this trend hold for the future of democracy in Iran?

Trita Parsi: In Iran there’s an understanding that, unfortunately, whether you like it or not, democratic elections will at times—perhaps often—be a choice between bad and worse. And they have tried worse, essentially not voting at all. It didn’t work out. That’s how Ahmadinejad was elected in 2005 and it became very clear that bad is better than worse. As they don’t have many other avenues for change, voting is one of the few avenues that is nonviolent, relatively cost-free, and doesn’t have a significant negative side, whereas all other paths, except for gradual societal change, carry with them tremendous risks. They’re in a region in which they’ve seen not only how American-sponsored democratic progress has gone completely backwards in Iraq and in Afghanistan, but also how indigenous Arab uprisings have not produced any positive results with the exception of in Tunisia. But in those circumstances the distinction between bad and worse is much clearer than in the 2016 American elections. So you see a clear pattern in how they’re voting, and that they vote to a much greater degree than in most Western democracies. It’s not, in my view, because they like their system or because they’re trying to legitimize their system. It’s because they don’t see other paths that have the same likelihood of success combined with a low cost.

You’ve written about an institutional enmity between the United States and Iran, a mutual hostility that has gone beyond real conflicts of interest to become something more entrenched. What political incentives sustain this enmity, and what might be done to overcome it?

Trita Parsi: It is really interesting to see how the incentive structure within both governments has essentially led to a scenario where enmity has become perpetual. One of the fastest ways to advance as a State Department official, and to even be able to get hired by the NSC (National Security Council) has been to work on sanctions against Iran. And there, you’re not going to create huge benefits for your career by figuring out how to make a diplomatic strategy succeed. Most of the time, it is about to make life as nasty as possible for the other side. The same holds true on the Iranian side—it’s simply part of the incentive structure. This is a very common problem; it’s not only the US and Iran. The US and Iran case has just led to an institutional enmity that has become self-perpetual.

Take Israel, for instance. An Israeli general told me part of the reason why there is such a tilt towards focusing on worst-case scenarios is because no one remembers when you’re wrong, but that one time that you’re right you’ll get four stars very quickly. So the incentive structure is to constantly think in those terms because there’s no cost to it. Anyone who follows Washington knows how little cost you pay being completely wrong in a prediction concerning foreign policy and geopolitics. If you were a stockbroker, you would be out of a job very quickly if you were as wrong as the people in Washington. So I would say that this is a systemic problem, one that’s not just limited to the US and Iran but which has become

“The incentive structure within both governments has essentially led to a scenario where enmity has become perpetual.”
particularly prevalent in the case of US-Iran sanctions.

*With the Trump administration taking apparent steps to back out of the 2015 nuclear deal with Iran, there’s widespread expectation that the accord may collapse. Is there a third way between the present agreement and a return to international sanctions?*

**Trita Parsi:** The US could try to re-impose sanctions. I think what could happen then is for the Europeans to decide to stand very firm, reject the American sanctions, protect their companies, and threaten countersanctions on the blocking mechanisms. If that succeeded, the deal potentially could survive, but it would be a deal without the United States. If the Europeans cave to the American pressure, then there’s no incentive left for the Iranians to be in compliance, because they’re not getting any benefits of being in compliance. Then we will likely see them walking out of the deal, and at that point you would probably see them restart their nuclear program. Short of that, I would say the first thing the Trump Administration is going to do is adopt a much tougher regional policy outside of the nuclear deal, rather than going against the nuclear deal itself.

There’s no reason to believe that the type of international unity around principles and goals that characterized sanctions on Iran before 2015 can be recreated by this administration. Even if we could say that President Trump is an exceptionally competent president, which clearly is not the scenario we’re in, you would have to consider how you are going to re-impose sanctions without recompense. We don’t have a functioning State Department right now. The amount of work it took to convince so many countries that had longstanding trade relations with Iran to forsake that economic benefit to go along with sanctions was immense. The Spanish, with all their other economic problems, were forced to buy oil on the stock market, which essentially meant they paid 20% more compared to what they were paying for when they were importing from Iran. That’s a pretty heavy price. How are you going to get a country to accept it? Well, the Obama Administration was able because they managed to convince the world that Iran was at fault. There had been a genuine diplomatic effort by the United States in 2009, which the Iranians had rejected. Right now, the overwhelming consensus outside of Israel and Saudi Arabia is that Trump is at fault. So the possibility of getting other countries to go along with a policy that is economically costly for them is minimal.

One of your primary criticisms of the Trump administration’s newly inaugurated policy in the Middle East has been the president’s adoption and promotion of Saudi interests as his own interests. Could you provide some examples of that policy in action?

**Trita Parsi:** The first one is that I have not seen any vision presented by Trump as to what he wants the US’s policy to be for the Middle East. It just seems to be a policy of opposing Iran regardless to what Iran does. Which makes sense if you’re Riyadh because they’re in a rivalry with Iran, and it absolutely makes sense for Riyadh to get a superpower on its side. The
Iranians would have done the same thing if they had the option, which they don't. They don't have the same need because they’re much more powerful, but nevertheless you cannot blame the Saudis for trying, you can only blame Trump for allowing them to succeed. I don’t see what the benefit is for the United States; I don’t see the Trump administration even trying to explain that to the American people. They’ve gotten away with it because the media isn’t asking what’s in it for the US here. Which is particularly fascinating mindful of the fact that this is a president who says he's going to put America first, and that everything he does is aligned with that agenda. How is this aligned with that agenda?

Let me give you an example: guess the number of jobs in the entire coal industry which has become some sort of sacrosanct thing, an indicator as to whether we are making America great or not. There are 76,000 jobs in that entire industry. 76,000 in the entire industry. The Boeing deal that was signed as part of the nuclear deal, in which the Iranians are massively buying American airplanes again for the first time since 1955—is itself 41.6 billion dollars with subcontractors. That will support roughly 100,000 jobs. And these are not coal miners. Nothing against coal miners, but building airplanes requires a completely different level of education and expertise. These are high-end jobs, whereas coal mining jobs are essentially a dying trade at this point. Killing the nuclear deal will kill a minimum of 100,000 jobs in the manufacturing sector and, as you’ll remember, Trump was big about reviving America’s manufacturing industry. I can see why ending the deal would be good for Saudi Arabia and I’m more than open to being convinced as to why it would be good for the United States, but it’s difficult when Trump hasn’t even tried to explain how this is in the U.S’s interest.

Is there an example of promoting Saudi interests aside from dissolving the Iran deal that you see the Trump administration pursuing?

Trita Parsi: I would point to his first trip to Saudi Arabia. The last five or six presidents all made their first international visits to Canada or Mexico, neither of which was eager to host Trump. Instead he goes to Saudi Arabia and he gets a hero’s welcome. But again, he went there to re-adopt a policy, outside of the nuclear deal, that is all about isolating and containing Iran. Again, I can see why some regional powers who don't have the capacity to balance Iran themselves would see this to be in their benefit, but why this advances US interests has been unstated.

What would the Middle East look like with an Iran that is integrated, rather than contained?

Trita Parsi: I think a fully integrated Iran, which is going to take some time, would pave the way for a very different Iran. Let me give you an example. According to a study by Virginia Tech, Iran’s middle class constituted roughly 60% of the population in 2015. That’s still one of the bigger middle classes in the entire region, but it’s only 60%. If the deal is fully implemented, if sanctions relief is actually working and not undermined by the Trump administration, the Virginia Tech economist calculates that Iran’s economy would grow in such a way that by 2025, Iran’s middle class will constitute roughly 85% of the population. It’s
not guaranteed, but a country that has 85% middle class is far more likely to be a status quo power, to find its economic interests to be rooted in stability in the region and state-to-state relations rather than acting through sub-state actors. Again, there’s no guarantee, but it becomes far more likely. Not many states with that large of a middle class behave like Iran has behaved in the last 40 years. I think there is far greater promise in diplomacy than in thinking that just isolating Iran for another ten years is going to produce a dramatically different result than the isolation of the past four decades.

You have two careers, first as an academic expert on US-Iran relations, and second as the founder and president of the NIAC (National Iranian American Council). How do those two pursuits contribute to one another, and what steps have you taken to separate them to the extent that you’ve found separation to be necessary?

Trita Parsi: Well, separation is necessary in many different ways but not in all. I teach at Georgetown; that’s my complete academic persona. I give several different courses, including one on geopolitics of the Middle East. There, of course, it’s a completely academic setting. We have readings from all different sides and perspectives, and my personal opinions are either largely kept outside of that classroom, or very explicitly stated as my personal view. When it comes to writing books, they hold academic status, in the sense that they are published by Yale University Press. It doesn’t mean that I don’t have opinions or anything like that, but an academic work requires balance and scrutiny of all sides.

I do reject the notion, however, that you can’t be an academic and at the same time be involved in policy. In fact, you see that all the time, on many different issues. Perhaps it’s been a little bit more unusual in my case, because there are not a lot of people who have both personas in the field of US-Iran relations, but you certainly have it in many other fields. I do believe that for the protection of the academic, in particular, you do need to separate them in specific areas such as teaching classes, but I think largely they have been mutually beneficial. My work through NIAC provided me the access to the White House and to the Iranian side that enabled me to write my books, and my academic work was also one of the reasons why the White House kept on calling me in for advice. So it is not an uncommon thing to be both an academic and an advocate, but it is important to be able to recognize how and when these roles need balance.

The war in Iraq and Syria is not over, but from the perspective of the United States it’s very much changed with the dissolution of the Islamic State and the onset of an uneasy status quo with the Assad regime in place. How do you think the isolation or integration of Iran in these next few years will affect that situation?

Trita Parsi: My biggest fear is that if the US-Iran rivalry gets further intensified and untamed, particularly but not only as a result of what the Trump administration is doing with the nuclear deal, it will negatively affect other existing conflicts and potentially give birth to new areas of conflict. The US and Iran, Iran and Saudi Arabia, and other adversaries prefer to compete with each other on someone else’s territory, which is why the Saudis and the Iranians are careful not to hit each other directly. Instead they ruined the entire country of Syria. I fear that behavior will be intensified if we move further towards confrontation and further away from a diplomatic process.
Constitutionalism Meets Islam
An interview with Noah Feldman

The Al Noor Staff
Noah Feldman, the Felix Frankfurter Professor of Law Harvard Law School, specializes in constitutionalism and the relationship between religion and law. He received his B.A. in Near Eastern Languages and Civilizations from Harvard College, where he was awarded the Sophia Freund Prize as the highest-ranked undergraduate in his year. He received his doctorate in philosophy studying Islamic political thought as a Rhodes Scholar at Oxford University, and his J.D. from Yale Law School. Feldman was a senior advisor to the Coalition Provisional Authority in Iraq, helping to draft the country’s interim constitution after the fall of Saddam Hussein. He writes a weekly column for Bloomberg View, primarily dedicated to domestic and Middle Eastern politics. Feldman’s books on Islam and the Middle East include The Rise and Fall of the Islamic State (2012), and After Jihad: America and the Struggle for Islamic Democracy (2003).
Few law professors today can claim such diverse expertise or command so much respect as Noah Feldman. Impeccably qualified as a constitutional lawyer—he clerked for Justice David Souter after graduating Yale Law School in 1997—Feldman’s original interest was in the languages, religions, and politics of the Middle East. This dual expertise paid off in 2003, when at the age of 33 he became a leading voice in the construction of Iraq’s provisional constitution as a senior adviser to the Iraqi Governing Council. In 2005, Feldman received a Carnegie Corporation grant to study constitutional change in the Islamic world. His resulting book, *The Rise and Fall of the Islamic State*, which contended that sharia principles are popular in Muslim-majority countries largely because they secure individual rights and the rule of law, drew controversy as well as widespread praise for its originality and rigor. A sought-after
lecturer and a prolific columnist, Feldman has contributed to public discourse on a wide variety of subjects, from Sino-American relations to the Israeli-Palestinian conflict.

Professor Feldman met with the Al Noor staff on December 6, 2017.

**A Discussion with Noah Feldman**

*You published a book in 2004, What We Owe Iraq, with the central argument that “having thrust Iraqis into this situation, we have an obligation to enable them to climb out of it.” What do we owe Iraq today and, by extension, what do we owe Syria to the extent that its problems have stemmed from instability in Iraq, and to the extent that we have involved ourselves in the conflict there?*

**Noah Feldman:** Let me break that into two, because those questions are both challenging in their own right. With respect to Iraq, I think that we never fulfilled our obligation of creating a fully functioning Iraqi state, and part of the evidence for that is the way Iraq was so vulnerable to the ISIS-Daesh takeover of territory. That said, at least in the post-ISIS period it seems like Iraq has a reasonable shot of being at least an effective sovereign state within its own territory. To that extent, I would think that we didn’t have further ongoing obligations with respect to establishing sovereignty. I think that our help with defeating ISIS was necessary; the Iraqi government asked for assistance—primarily air support—and we provided it. It was their choice whether to ask, but we did have an obligation to say yes and we complied with that obligation. I think the Iraqi government has made it very clear to us that they don’t want our participation or intervention in the form of their government and so it’s appropriate for us to be hands-off with respect to internal Iraqi governance.

Now, the Syria question. Syria is a very different situation, because there the US isn’t primarily responsible for the collapse of the state. I don’t mean that our policies didn’t contribute indirectly by adopting a kind of middle-ground policy that did not take the steps necessary to remove Bashar Al-Assad, but did support various parts of the opposition enough to keep the conflict going. We, unintentionally I believe, contributed to the continuation of the civil war, which created conditions for the rise of Daesh. But I don’t think we caused the structure of state collapse. I think that was caused by the combination of the Sunni rising against Bashar and Bashar’s harsh military response to it. The country was cast into a civil war very much by the exercise of the mutual political agency of those actors. So I don’t think the structure of our obligations is really analogous to the way our obligations existed in Iraq where we broke the regime and therefore had an ethical responsibility for what happened later. I think any bystanding country that cares about human life ought to help out if they see something like the tragedy created by Daesh. I also think that if it’s possible for outside countries to be helpful in a circumstance where a country is riven by a terrible civil war, they should—assuming that somebody reasonable is asking for it. I don’t think that the US had or has a clear answer as to how to solve the problems in Syria and I don’t think we have contributed in any substantial way to stabilization there.

*Can you discuss your role as an advisor to the members of the Iraqi Governing Council in the creation of the Transitional Administration Law, and how that process was affected by compatibilities or incompatibilities between Western constitutionalism and traditional Islamic law?*

**Noah Feldman:** Well, I would say that in retrospect it’s turned out that there was no incompatibility, at least in practice, between constitutionalism—and I wouldn’t call it Western constitutionalism because there are plenty of non-Western countries are effectively constitutionalist—and a serious commitment to Islamic values which are enshrined both in the Transitional Law and also in the ultimate Iraqi constitution. In fact, once in a while I hear someone, even sometimes someone in the government, refer to the contemporary government in Baghdad as the “secular Baghdad government” and it always makes me smile because of course it’s
not a secular government. It’s a government run by politicians primarily from the Dawa Party, which was an Islamist Shia political party for many, many years. But because Iraq, for all of its many problems, has a roughly functioning constitutional government in which the presence of Islam is not the impediment to its success, it’s a kind of exemplar of the possibility of actual compatibility. And that I think is easy to forget. It’s especially easy to forget because Iraq has faced so many other problems, but the problems it has faced are not really problems that people would have predicted based on the potential conflict between Islam and democracy. So what I would say is that the formulations in the transitional law that insisted on the compatibility of democratic values and Islamic values, have I think worked insofar as we have not seen in Iraq, among the many other problems and conflicts, a major conflict over the relationship between Islam and democracy. People are committed to the idea of Islam and they’re committed to the idea of democracy, even if either may not be perfectly effectuated.

Do you believe that Middle Eastern countries have any special need for constitutional provisions protecting specific religious groups, or would you say the neutral framework typified by the First Amendment suffices in their case?

Noah Feldman: I don’t think that the US model—that is to say, a model in which we have both strong protection of religious liberty and also a constitutional separation between religion and government—is the model that almost anybody has adopted in the majority Muslim world, or frankly most of the rest of the world either. That’s true in the Middle East as well. Instead, the model there allows for an overt alignment between religion and government while, at least as written, insisting on protection of religious liberty for everybody including religious minorities.

So, bottom line: do you need that? You need that in Muslim countries, as you do in every country. I think the Universal Declaration of Human Rights makes that pretty clear. You need strong protections of religious minorities and that’s true as a normative constitutional matter, it’s also true in practical terms. In any country where there exists a majority of people belonging to one particular religion, you need protection of the religious minority and you need it to be enshrined and institutionalized in order for to have any chance of it being respected. Of course, you can write it and nobody will follow it—that happens also sometimes, but it definitely does need to be written. I don’t think that’s distinctive or unique to a majority Muslim country, I think you need protection of religious liberty in a majority Hindu country for a Muslim minority, you need it in a majority Jewish country for Muslim or Christian minorities, and you need it in a majority Muslim country for non-Muslim minorities.

In the United States, protection for religious liberty takes the form of an abstract constitutional principle, defined by its application in specific cases. But Lebanon, for instance, has a confessional system of government with parliamentary quotas for different groups. So in a country where the religious or ethnic minorities are more discretely defined, do you think there’s any additional need for constitutional language addressing them by name?

Noah Feldman: There’s always interplay between the way the constitution is written and the way things work on the ground. In the U. S. you’re right to say that, as written, we have an abstract protection but we also have is tremendous religious diversity in this country, which as a structural matter helps protect religious liberty. In Lebanon, the confessional system is not actually written into the formal constitution;
you have to look at external documents like the Taif Accords for the unwritten norms of the confessional structure to find it. But there the structural realities of the division of power in society plays some role in what I wouldn’t call “religious liberty,” but at least a balance of religious institutions.

I never think that it’s better a priori to have something written or not, or that it’s better to have something abstract or better to have something concrete. It’s all about the way it actually works on the ground. The British constitution remains one of the world’s greatest, but it doesn’t have a single written document underpinning it. It has documents but there are many of them and their relationship is complex. The American innovation of a written constitution worked for us and it’s worked in some other countries, but we should never make the mistake of thinking it works just because it’s on paper. It works because it’s on paper and it’s also institutionalized in custom and practice and real world political balance.

How do you think that the Trump administration’s intention to move the United States embassy to Jerusalem will affect America’s and Israel’s position in the Middle East?

Noah Feldman: As of the time of this interview, as they say, today President Trump announced this plan to move the embassy and to recognize Jerusalem as the capital of Israel and there have been predictions of potential violence. My first part of the answer is that you’ll know a lot more when this interview is published than we know now, and luckily my business doesn’t involve prophecy. That said, I will say that it’s hard to see what the substantial upside for the peace process was in making this move. Israel has been saying that it wants something like this, but it hasn’t made it an absolute requirement for anything going forward and, on the other hand, lots of countries in the region have said really clearly they don’t want it. So the first danger is that this could actually spark violence that could get out of control. As we know from other provocations involving Jerusalem—like Ariel Sharon’s visit in September of 2000 to the Haram esh-Sharif, the Temple Mount, which led to violence which eventually spiraled out of control and produced the Second Intifada—sometimes actions have unintended consequences. That’s the biggest worry that I have, that violence might actually substantially endanger the peace process.

If that doesn’t happen, the question becomes: how does the symbolic move affect the calculus on the ground for the parties? My guess, and it’s just a guess, is that it communicates to the Palestinians that Trump is willing to be more pro-Israel: even more than any previous president, which is saying a lot. That puts some pressure on the Palestinians to agree to a deal, lest Trump approve further annexation by Israel. It also puts some implicit pressure on Israel by saying “Hey, the Trump Administration has given you more than you ever thought you would get. If we put a credible deal on the table you had better not be the ones to say no to it.” So, there is a scenario where the message might enable the US to essentially dictate the terms of a deal. Having lived a long time in anticipation of the possibility of some kind of a deal, and having consistently seen it fail, I know two things. First of all, the probability of success is very small. Second, success will probably require very substantial behind-the-scenes US pressure on both parties. The question, then, is how much leverage the US has,
and we’re going to know a lot more about that in six months that we know now.

Last, we’d be missing a great opportunity if we didn’t ask you—as both a legal scholar and a specialist in American-Islamic relations—about what’s now the third iteration of the Trump administration’s travel ban, which the Supreme Court has allowed to stay in place while it undergoes review in the circuit courts. Through whatever lens you think is most productive, what are your thoughts on the ban and the judiciary’s role in assessing it?

Noah Feldman: There were two really bad things about the ban from the beginning. One was the symbolic islamophobia that it entailed and the other was the practical effects that it will have on actual human beings who can’t unify with family members. The first of those, the symbolic aspect of islamophobia, has I think been addressed pretty effectively by the courts by rejecting the first and second versions of the ban. The third version of the ban, though it’s still problematic and is in some relationship to what came before and could very reasonably be struck down on the same grounds, at least has backed away from the express, open islamophobia that accompanied versions one and two. Again, not perfect, but definitely a big improvement.

To my mind, even if the third version were to be ultimately upheld by the courts, which I hope it won’t be, I think the message would still have been sent very strongly that the administration and the government of the United States cannot openly embrace an islamophobic or other anti-religious or anti-ethnic or anti-national sentiment even when it’s addressing immigration, which is a topic in which the government has a lot of discretion. I hope and believe that the courts have made an important stand on behalf of equal protection and fair treatment for religious liberty in that regard. With respect to the second side, the practical side, this third version will have some, of the same bad effects as the earlier version. That remains unfortunate and I would like to see the ban struck down, but if it survives we’re going to find that it will be harder for Americans to visit those countries that are included in the ban but it also will create a real hardship for people from countries that remain listed countries to get into the US. That will go for students, it will go for family members, and unfortunately it will have a meaningful, practical consequence. I don’t think it’s going to make the United States substantially safer. The dangers of terrorism are not only external; they’re also internal to the United States and in a world where ideas travel, we’re just as vulnerable with immigration coming from these particular countries as we would be without it.

"There's always interplay between the way the constitution is written and the way things work on the ground."
The Last Christians
A Photo Essay

Andreas Knapp

A poet, priest, and popular author in Germany, Andreas Knapp left a secure position as head of Freiburg Seminary to live and work among the poor as a member of the Little Brothers of the Gospel, a religious order inspired by Charles de Foucauld. Today he shares an apartment with three brothers in Leipzig’s largest housing project, and ministers to prisoners and refugees. His latest book, The Last Christians, recounts the stories of refugees in his neighborhood and of displaced people in camps in Kurdistan, northern Iraq.
Three years ago, Andreas Knapp began to meet newcomers in the Leipzig neighborhood where he lives and works as a member of the Little Brothers of the Gospel, a Catholic religious order dedicated to service of the poor. The new arrivals were Christians from Iraq and Syria, who had made the dangerous passage into Europe to escape targeted violence in their war-torn countries. On the invitation of one of these refugees, Knapp traveled in November 2015 to Iraqi Kurdistan, where tens of thousands of Assyrian Christians—uprooted by a decade of persecution from Islamist militants, culminating in the Islamic State’s conquest of Iraq’s Christian heartland—are currently sheltered. While visiting Kurdistan, Knapp witnessed the hardship of a people recently dispossessed of their homes and encountered one of the last places on earth where
Iraq’s indigenous Aramaic speakers are preserving a vestige of ordinary community life.

Upon returning home to Germany, Knapp’s social work put him in contact with many more refugees. Hearing them relate their stories, he became increasingly impressed by the eastern churches’ commitment to nonviolence—even those who lost family members rejected militarism and expressed compassion for their attackers. Inattention to the plight of Middle Eastern Christians, Knapp fears, will deprive the world of this valuable example and of what may be its final chance to halt a process of ethnic and religious cleansing that threatens to silence the Aramaic language forever. Together, these stories and conclusions form the basis of his book, *The Last Christians* (Plough Publishing House, 2016). The following excerpt and images are reprinted with permission.

From Chapter 18: "Easter Comes Early"

After the Good Friday service, I cycle over to Grünau-North. Another family from Mosul moved in there a couple of weeks ago, and I would like to discuss registering their little girl, Suhayla, for kindergarten. Besides their daughter, Shatha and her husband, Nasir, also have three sons, two of whom are already grown up, and Boulos, who is just thirteen. I was recently alerted to the family by my friend Yousif.

I ring the bell. A man of around fifty opens the door and invites me into the living room. With his shiny bald head and round figure, Nasir makes a congenial impression. The equally round Shatha hastens to serve hot tea and cookies on a low glass table. As Good Friday is a day of fasting for Catholics, I haven't eaten anything so far and gobble one cookie after another while fishing in my bag for a form and starting to enter a few details. Boulos sits next to me, acting as interpreter. His curly black hair is cut short and he looks at me attentively with warm, dark eyes.

Once I have gathered all the details, I sit back, and a request springs spontaneously to my lips: “I don’t know anything about you yet. Tell me your story.”

Nasir starts to talk and Boulos translates, though he soon takes over the narrative without waiting for his father’s prompts. By now, Boulos’s older brothers have joined us, and add their own contributions to their brother’s account.

The family, it seems, lived in Mosul for generations, and belongs to the Syriac Orthodox Church. Like his father, grandfather, and ancestors before them, Nasir is a carpenter—an occupation as old as Christianity itself—and ran a small, flourishing family business in Mosul. In 2003, the Americans took the metropolis almost without a fight, but fanatical Muslim movements were busy organizing an underground resistance which made a point of targeting local Christians.

One fateful morning, Nasir found a threatening letter stuck to his front door containing a blunt demand for money. The sum was so high that Nasir wasn’t able to raise it immediately. A few days later, his brother was stopped in the street by jihadists and forced at gunpoint to show his passport. Seeing the word “Christian,” they opened fire without further comment and killed him with five bullets to the head, his six-year-old boy standing by.

Nasir knew he had to get himself and his family to safety as quickly as possible. But he wasn’t quick enough. The very next day, masked men burst into his workshop, firing indiscriminately. Nasir had a young son, Nimrod, who happened to be celebrating his seventh birthday that day and was playing in the adjacent timber yard. When the first shot was fired, Nasir instinctively threw himself to the ground behind the counter. The terrorists then left the shop through the yard, from where a loud crash was heard, followed by a high-pitched scream—a death scream. Nasir rushed into the yard to find that the terrorists had knocked over a pile of heavy planks, burying the little boy beneath them.
Nasir gets out his smartphone and searches for a picture. I wince to see the little boy’s face beaming back at me from the photo.

“That’s Nimrod,” says Boulos. And I can see the tears welling up in Nasir’s eyes. I shouldn’t have asked about their story, I think to myself uncomfortably. There is an oppressive silence in the room, and the family’s grief is palpable. Good Friday feels very real.

We sit there in silence for a long time, and I continue gazing at the smiling child in the picture.

Then I pass the phone back to Nasir and Boulos resumes his tale.

The crushed body of little Nimrod was buried the very same day at one of Mosul’s Christian cemeteries. Afterward, Nasir and the heavily pregnant Shatha packed the bare essentials, loaded them into their van, and left their home city in the middle of the night with their three remaining children. ☺

A refugee camp on the grounds of Mar Elya Church in Ankawa, a city in northern Iraq’s autonomous Kurdistan region. In addition to religious messages in English and Arabic, the tents display the Arabic letter nun, standing for nasrani—“Nazarene” or “Christian.” The letter, used by ISIS fighters to mark Christian homes in occupied territory, has been adopted as a symbol of faith and solidarity. (Photograph by Allen Kakony)
*Top Left:* Recent arrivals from Qaraqosh wait for water in a Kurdistan refugee camp. Once Iraq’s largest settlement of Assyrian Christians, Qaraqosh was overrun by IS in 2014, forcing tens of thousands to abandon their homes. (Photograph by Allen Kakony)

*Top Right:* A girl sleeps in Holy Spirit Church in Tel Keppe, Iraq. On August 6, 2014 Kurdish fighters abruptly withdrew from Qaraqosh, despite previous assurances that they would remain to defend the city. Under bombardment, residents had to run for their lives as IS closed in. Knapp writes: “The Christians who finally made it to the border had to enter on foot with nothing but the clothes they were wearing. Utterly exhausted from trekking ten to twenty miles in the blistering summer heat, people had to sleep in schools and churches.” (Photograph by Allen Kakony)

*Bottom Right:* Two children play outside the entrance to their family’s shelter. “The children lost their homes, their friends, their schools, their toys,” Knapp writes. “They often asked their parents ‘Mom, Pa, when can we return home?’”
Top Left: Priests of the Syriac Orthodox Church celebrate the Divine Liturgy in Aramaic. Christians in Iraq and Syria are the last speakers of the ancient Semitic language, which was once the lingua franca of the entire region and was famously the native tongue of Jesus and his disciples.

Bottom Right: The funeral procession of Archbishop Paulos Faraj Rahho, head of the Chaldean Catholic Church in Mosul and a prominent advocate for Christians in post-invasion Iraq, who was abducted and killed in 2008. As reported in The Guardian’s obituary, Rahho had “expressed disquiet at the inclusion of some aspects of sharia law in the new Iraqi constitution.” (Photograph by Allen Kakony)

Bottom Left: Women mourn at Archbishop Rahho’s funeral in Mosul. According to the New York Times, a likely reason for Rahho’s murder was his decision to stop his congregation’s payments of the "protection money" insurgents routinely demanded from Christians in wartime Iraq. (Photograph by Allen Kakony)
Top Left: The Islamic State occupied the Nineveh Plain and its numerous Christian villages for a three-year period before the Iraqi-Kurdish counteroffensive of 2016. The barrier of stones and sand marks the boundary between free Kurdistan and IS-held territory.

Bottom Left: Longer-term refugee housing in Ankawa, complete with a school and playgrounds. Knapp writes: “Over the last decade, the Christian village of Ankawa has evolved into a smallish town with a population of around thirty thousand. Many Christians from Baghdad or Mosul sought refuge in the Kurdish autonomous region, some still cherishing the hope that Iraq might revert to normality at some point, and that they would be able to return to their homes and jobs.” Today, however, that hope has dimmed. “Even after the military defeat of ISIS, Christians do not see a future in their homeland, because there is no political plan to guarantee to them religious freedom and security of life.”

Bottom Right: Refugee tents in Ankawa, with the cross of St. Joseph’s Cathedral illuminated in the background. “This can be read as a sign of hope,” Knapp writes. “The Christians who have lost all of their goods still trust in Christ, and the cross stands as a symbol of hope that faith in Christ can illuminate the world, when people listen to the Gospel of pardon and peace.”
Nationalism Takes Flight

Emirati and Qatari Flag-Carrying Airlines as Instruments of Nationalist Expression

Avi Colonomos

Avi Colonomos graduated from the University of Pennsylvania in 2017 where he majored in Political Science and Modern Middle East Studies and minored in History. He studied Arabic at AMIDEAST in Rabat, Morocco. His research interests include the intersection of nationalism and business in the Middle East and the role of pre-Islamic motifs in modern Middle Eastern nationalist movements.
Emirates Airlines, Etihad Airways, and Qatar Airways connect cities as distant as Krabi, Panama City, Djibouti City, Cebu, Skopje, and Birmingham through their respective hubs. The characteristic liveries of these three airlines appear on landing strips across the world, and fill the runways of Dubai, Abu Dhabi, and Doha’s international airports. Conducting long-haul flights on mammoth aircrafts such as the Boeing 777 and the Airbus A380, the flag carriers of the United Arab Emirates and Qatar are widely renowned for their exceptionally high-quality service; Forbes describes their in-flight amenities as including “Sixteen exclusive Bulgari amenity kits… [and] Dom Pérignon vintages paired with canapés of cured duck with saffron poached peach.” Looking beyond the reputation of luxury that is commonly attributed to the flag carriers of the Arab Gulf, these airlines function as powerful tools in
the expression of Emirati and Qatari nationalisms. Emirates Airlines, Etihad Airways, and Qatar Airways express Emirati and Qatari nationalisms in three primary ways—by incorporating national and patriotic symbols of the United Arab Emirates and Qatar into their iconographies, maintaining unprofitable policies with regard to their rapid network expansion for the sake of maintaining nationalist pride and status, and exporting their respective national “brands” through sponsorships of prestigious brands and celebrities outside of the Arab Gulf.

In its first section, this essay discusses the historical context surrounding the emergence of the flag carriers of the United Arab Emirates and Qatar. It also explores how the rise of nationalism in these two nation-states parallels the rise of the modern Arab Gulf airline industry. The second section examines the particularities of how the airlines’ iconographies—including their liveries, in-flight videos, and cabin crew uniforms—align them with wider nationalistic movements. The third section describes how the maintenance and fostering of certain unprofitable policies—including entry into lossmaking and saturated markets and their rejection of traditional airline alliances—serve to glorify the United Arab Emirates and Qatar. Finally, the fourth section examines the relationship between nationalism and the airlines’ sponsorship of celebrities and prestigious international brands.

**Background**

The history of the airline industry in the Arab Gulf region in the post-colonial era began with the purchase of the British Overseas Airways Corporation’s holdings in Gulf Aviation—a small, Manama-based charter airline—by the newly independent states of Qatar, Bahrain, Oman, and the Emirate of Abu Dhabi (on behalf of the United Arab Emirates). The Foundation Treaty of 1974 named Gulf Aviation, later known as Gulf Air, the joint flag carrier of Qatar, Bahrain, Oman, and the United Arab Emirates. Through the 1970s and 1980s, Gulf Air functioned almost exclusively as a regional carrier, with limited service to Europe, sub-Saharan Africa, and the Indian subcontinent. By 1986, Gulf Air’s profits fell as the Arab Gulf’s oil revenues declined and it ultimately saw $5.5 million in losses.

At points in its history, Gulf Air cut back its service to Dubai and other cities in the Arab Gulf, fearing that the gradual arrival of rival non-Gulf carriers would route passengers away from Gulf Air and its network. Around the same time, the United Arab Emirates and Qatar saw noteworthy political, economic, social, and cultural growth that prompted their development into prominent international hubs. It is in this context that Emirates Airlines, followed by Qatar Airways, and, finally Etihad Airways emerged as internationally renowned and prestigious flag carriers.

The rise of Emirates, Etihad, and Qatar Airways as flag carriers of the United Arab Emirates and Qatar occurred parallel to the development of coherent forms of nationalism in the two countries. As Miriam Cooke discusses in *Tribal Modern*, in the second half of the 20th century, the nation-states of the Arab Gulf transformed from impoverished economies dominated by the fishing and pearling industries to internationally prominent economies fueled by natural gas and oil. Heritage engineering projects—such as the revamping of Souq Waqif or the construction of the Museum of Islamic Art in Doha—emphasized the unique cultural heritage of Gulf Arabs serving as a key component in the development of nationalism in the region.
The rise of Emirates, Etihad, and Qatar Airways reflects the conscious engineering of Emirati and Qatari nationalisms by the ambitious regimes leading the United Arab Emirates and Qatar.

Modern asserts, since the decolonization of the United Arab Emirates and Qatar dress, sports, the arts, and architecture have played an important role in forging a connection between ancient tribalism and modernity, and ultimately in the fashioning of national identities in the Arab Gulf. Specifically, the promotion and celebration of the thawb and abaya, falconry, images of the desert, and modern architecture with Islamic themes have been pivotal to this development.

The rise of Emirates, Etihad, and Qatar Airways reflects a component of the conscious engineering of Emirati and Qatari nationalisms by the ambitious regimes leading the United Arab Emirates and Qatar. Since their emergence, these three airlines have removed the need for a pan-national airline such as Gulf Air, grown rapidly as flag carriers of distinct nation-states, and dominated several markets. In 1985, Emirates Airlines arose as a startup carrier in the United Arab Emirates, challenging Gulf Air’s domination of the regional market and ultimately shattering Gulf Air’s regional hegemony. In 1993 and 1994, Sheikh Hamad al-Thani of Qatar established Qatar Airways, furthering reducing Gulf Air’s status as the undisputed flag carrier of the four aforementioned Arab Gulf states. Driven by the example of Emirates and Qatar Airways, Sheikh Khalifa bin Zayed Al Nahyan of Abu Dhabi withdrew support for Gulf Air and established Etihad by royal decree in 2003 as the United Arab Emirates’ second national airline and Abu Dhabi’s primary carrier. Between the 1990s and the early 2000s, the United Arab Emirates and Qatar fully withdrew support for Gulf Air as they established their own independent flag-carriers as tools of nationalist expression. This is evident in the striking growth of Emirates, Etihad Airways, and Qatar Airways, which began regularly serving New York in 2004, 2006, and 2007 respectively, despite American carriers’ inability to maintain profitable routes serving the Arab Gulf. By 2010, Emirates, Etihad, and Qatar Airways had expanded rapidly into Pakistani and Indian markets, and increasingly began to capture the steady and lucrative traffic between North America and the Indian subcontinent. The three major flag carriers of the Arab Gulf became the largest international airlines serving Pakistan and India, with Emirates serving 21 cities in the region on nearly 300 flights per week. By 2014, all three carriers competed with traditionally leading carriers—such as Qantas, British Airways, and Cathay Pacific—on the famed “Kangaroo Route” connecting the United Kingdom and Australia. In recent years, Emirates, Etihad, and Qatar Airways have expanded their respective networks in Sub-Saharan Africa, and have dominated the region’s international traffic (with the exception of routes connecting Western Europe and Sub-Saharan Africa).

The reaction by the leadership of other airlines to the rapid growth of the Arab Gulf flag carriers sheds further light on the way these carriers function as tools of nationalist expression. The expansion of the three airlines has drawn heavy condemnation from carriers across the globe, with particularly harsh criticism from North American, European, and Australian carriers. Air France and Qantas, for example, have accused Emirates of receiving secret state subsidies that are larger than the internationally acceptable subsidies officially reported by the airline. This accusation furthers the notion that Emirates—in a manner comparable to Etihad and Qatar Airways—is a tool used by the Emirati government in a wider project of national glorification. Air Canada and Lufthansa have lobbied the governments of Canada
and Germany in attempts to halt local expansion by Emirates. As a result, Emirates has been denied landing rights in Canada aside from Toronto, and has failed at several points in its attempts to expand its network to Calgary and Vancouver. Similarly, the German government has barred Emirates’ attempts to expand into Berlin and Stuttgart. Perhaps the greatest critic of the Arab Gulf flag carriers, Richard Anderson, the former CEO of Delta Airlines, even went so far as to haphazardly link the expansion of the Arab Gulf airlines to the events of September 11, 2001. Delta occupied a gate in Atlanta designated for Qatar Airways’ inaugural flight from Doha as a form of protesting the Qatari flag carrier’s “unfairly subsidized” expansion in the United States generally, and Atlanta in particular. Qatar Airways’ CEO Akbar al-Baker called Delta Airlines “wicked” and pronounced that his airline’s move to expand into Atlanta was indeed intended to “rub salt into Delta’s wounds.”

The weakening of Gulf Air, the rise of Emirates Airlines, Etihad Airways, and Qatar Airways as the flag carriers of the United Arab Emirates and Qatar, and the challenges that these airlines represent to the norms of international aviation provide context for understanding the role these airlines play as tools of nationalist expression. Additionally, a consideration of the wider features of the types of nationalism manifested in the United Arab Emirates and Qatar provides a framework to understand Emirates, Etihad, and Qatar Airways’ use of branding (including logos, aircraft design, in-flight videos, and uniforms), network expansion, and sponsorship in developing and exporting nationalism.

The Gulf Flag Carriers’ Iconographies
The role of airlines as tools of nationalist expression in the United Arab Emirates and Qatar is evident in the incorporation of powerful and indisputably nationalistic motifs into the liveries, in-flight videos, and cabin crew uniforms of Emirates Airlines, Etihad Airways, and Qatar Airways. These airlines’ use of nationalist imagery contributes to their role as tools of nationalist expression by visually aligning these airlines with the ambitious nationalistic projects of their nation-states of registry. Liveries and uniforms have an integral role in an airline’s commercial branding as the set of emblems and insignia associated with an airline characterizes its corporate identity. Studying the liveries, in-flight recordings, and cabin crew outfits of international carriers certainly suggests that airlines have historically adopted cultural and national symbolism. However, airlines have increasingly focused on luxury and fashion rather than national symbolism as the focus of branding, and have gradually abandoned overt national symbolism.

Instead, international flag carriers have chosen fashionable and culturally generic designs, or have maintained iconography only vaguely and distantly associated with nationalist imagery. Additionally, flag carrier mergers—such as the emergence of Scandinavian Airlines or the more recent rise of LATAM from Chile’s LAN Airlines and Brazil’s TAM Airlines—have contributed to the elimination of nationalist symbolism altogether. Lufthansa’s stylized blue and yellow crane, Brussels Airlines’ arranged pattern of dots, Singapore Airlines’ golden bird, Delta Airlines’ red and white triangle, and United Airlines’ stylized bird logos each represent these distinctively and uniquely corporate identities. These airlines have chosen to focus on cultural and generic designs, or maintain a very vague and distantly associated nationalist imagery. Moreover, flag carrier mergers—such as the emergence of Scandinavian Airlines or the more recent rise of LATAM from Chile’s LAN Airlines and Brazil’s TAM Airlines—have contributed to the elimination of nationalist symbolism altogether. Lufthansa’s stylized blue and yellow crane, Brussels Airlines’ arranged pattern of dots, Singapore Airlines’ golden bird, Delta Airlines’ red and white triangle, and United Airlines’ stylized bird logos each represent these distinctively and uniquely corporate identities. These airlines have chosen to focus on cultural and generic designs, or maintain a very vague and distantly associated nationalist imagery. Moreover, flag carrier mergers—such as the emergence of Scandinavian Airlines or the more recent rise of LATAM from Chile’s LAN Airlines and Brazil’s TAM Airlines—have contributed to the elimination of nationalist symbolism altogether. Lufthansa’s stylized blue and yellow crane, Brussels Airlines’ arranged pattern of dots, Singapore Airlines’ golden bird, Delta Airlines’ red and white triangle, and United Airlines’ stylized bird logos each represent these distinctively and uniquely corporate identities.
Airlines’ blue globe reveal absolutely no relationship whatsoever with nationalist imagery.\textsuperscript{19} China Eastern Airlines’ red and blue swallow, Aerolíneas Argentinas’ condor, Air New Zealand’s unfolding fern, and Japan Airlines’ crane, only ambiguously and unclearly invoke cultural symbols of their respective nations—state of registry.\textsuperscript{20} Even British Airways, Air France, Iberia, and KLM—which continue to use stylized versions of the symbols of the United Kingdom, France, Spain, and the Netherlands respectively—have altered these symbols in an impressionistic manner to make the nationalist imagery less explicit.\textsuperscript{21} Meanwhile, typical in-flight videos, almost never incorporate genuinely nationalist tropes and nearly always focus on presenting the airline as esteemed and perhaps lavish, and are characterized by universal air travel imagery. Similarly, cabin crew uniforms rarely reflect nationalist symbolism. With the exceptions of Thai Airways’ and Singapore Airlines’ incorporation of elements of Southeast Asian attire in cabin crew uniform design, airlines generally sustain contemporary, sterile, and simple forms of cabin crew uniform design rather than emulating the nation’s traditional costume or natural landscapes.

In contrast, the liveries and iconographies of Emirates Airlines and Etihad Airways consistently, explicitly, and unambiguously incorporate Emirati nationalist imagery, while those of Qatar Airways show similarly strong evidence of inspiration by Qatari nationalist symbolism. The red, white, green, and black of the national flag of the United Arab Emirates, presented without any other imagery, dominate the tailfins of Emirates Airlines’ airplanes. The Emirati government officially adopted these colors as its national flag on December 2, 1971, and the colors have grown significantly more prominent in the airline’s livery since its founding. Emirates Airlines’ logo features the Arabic words for “the Emirates” in a highly stylized form of traditional Arabic calligraphy, clearly reminiscent of the literary and cultural heritage of the Arabian Peninsula, specifically Quranic calligraphy. Complementing the displays of nationalism on their aircrafts, Emirates lounges and check-in desks feature the logo of the airline decorated in gold paint, a clear invocation of nationalist tropes of Emirati prosperity and opulence. Similarly, Etihad’s most recently redesigned livery reflects nationalist symbolism through the large, unembellished representation of the national emblem of the United Arab Emirates and the Emirati national flag alongside references to the natural and the manmade features of the Emirati landscape. An Etihad press release on December 18, 2014 describes the role of nationalist symbols airline’s livery:

“Created by leading brand consultants Landor Associates in partnership with Etihad Airways, the new livery is inspired by traditional Emirati design patterns, the landscapes of the desert and the geometric shapes found in the modern architecture of Abu Dhabi. The result is a striking and unique livery design which will present Etihad Airways as the airline of a progressive and innovative cultural hub, firmly rooted in its rich history.”\textsuperscript{22}

Etihad’s livery incorporates motifs of the nation’s historical connection to the desert as well as images of contemporary Emirati architecture, a common feature of Emirati nationalism. Like Emirates Airline, Etihad’s logo includes the airline’s name in traditional Arabic calligraphic style, alongside Etihad’s name in English and a bold presentation of the name of the Emirate of Abu Dhabi. In a similar manner, purple and white—the national colors of Qatar—overwhelm the tailfins of Qatar Airways. The logo of Qatar Airways, the oryx, is widely recognized as the national animal of Qatar (and serves as the logo of various other initiatives by the Qatari government with nationalist character, such as the 2006 Asian Games in Doha). Strikingly, this particular image of the oryx references the serrated purple and white of the flag of Qatar. By explicitly incorporating and invoking the national symbols, natural landscapes, and artistic and cultural heritage of the United Arab Emirates and Qatar into their liveries, the three airlines have served as an outlet for nationalist expression.

Alongside the liveries of Emirates Airlines, Etihad Airways, and Qatar Airways, the in-flight advertisements and recordings of these airlines extensively feature nationalist imagery, portraying architecture of the Arab Gulf, traditional costumes, and elements of cultural heritage rather than
addressing in-flight safety or other flight features. In particular, Qatar Airways makes especially conspicuous use of Qatari nationalist iconography in such recordings. “The Art of Qatari Hospitality” opens an in-flight video—opens with Qatar Airways CEO Akbar al-Baker stating:

“Qatar and Qatar Airways are synonymous because we carry the name of our country and you can see that it is spelled in the boldest way on the fuselage of our airplanes… Whatever I achieve for the State of Qatar, for my country, is always too little to me. I will always endeavor to reach higher in the kind of services that we offer on Qatar Airways to our passengers and to our countrymen… Qatar Airways is the world's most hospitable airline, the best and the most sophisticated airline. This is the trademark and the hallmark of Qatar Airways.”

The in-flight video intersperses images of the Doha skyline, Qatari desert, Qatari handicrafts in Doha's Souq Waqif, Qatari football, and Hamad International Airport with patriotic statements by His Excellence Sheikh Saoud bin Abdul Rahman Al Thani, the Secretary General of the Qatar Olympic Committee, who proclaims:

"We have so many things to be proud of here in Qatar. If you look at twenty years ago, through the wise decisions that our government has made, we are investing in the right things… I always feel proud that this is our national carrier and I always feel proud when I hear people speak about Qatar Airways as the first-class airline of the world."

“The Art of Flying Redefined” opens with an image of the skyline of Doha—perhaps the most iconic representation of Qatar—and portrays a man in a thawb and a woman in an abaya traveling the world with Qatar's flag carrier, and ultimately returning to Doha. Meanwhile, portrays a cabin crew of diverse cultural origins waving Qatari flags. In a similar manner, Etihad released “You Are At Home” on its flights, portraying images of a massive Emirati flag flying over the modern architecture of the Abu Dhabi skyline, a traditionally dressed Emirati man playing an oud in the desert, and falconry juxtaposed with an Etihad aircraft, and a group of Etihad passengers drinking Arabic coffee. The video plays to the sound of a song by Mehad Hamad, a renowned Emirati artist who is known for his celebration of Emirati heritage through music. Emirates and Etihad have both released videos celebrating the United Arab Emirates' National Day (December 2), with nationalist displays of flag waving by the airline staff alongside Emirati citizens. The Arab Gulf carriers' take advantage of their in-flight videos to disseminate nationalist imagery through their airline's iconography.

The flight staff uniforms of these airlines also serve as a form of iconography, exhibiting strong nationalist motifs in a manner unparalleled by other major international flag carriers. While British Airways, Air France, Lufthansa, and Qantas opt for sophisticated but simple outfits created by prominent designers, Emirates, Etihad, and Qatar Airways have chosen more extravagant designs highlighting
nationalist imagery. Most notably, Emirates requires female members of its cabin crew—many of whom are neither Emirati nor Muslim—to don the airline’s signature veil hanging from a red hat.28 The veil is clearly evocative of the traditional Arab Gulf form of the Islamic hijab. The khaki outfits that both male and female members of the cabin crew wear represent the sand of the United Arab Emirates’ physical landscape, according to Smithsonian.29 Etihad’s uniforms—which underwent rebranding as part of the airline’s wider “Facets of Abu Dhabi” initiative—use a color palate the airline has formally described as reflecting the varying shades of the natural landscape of the United Arab Emirates, “from the darker sands of Liwa to the lighter colours seen in the Northern Emirates.”30

Advertisements on Etihad’s website display women wearing the latest uniforms while walking over sand dunes, as well as men dressed in the outfits inspired by nationalist tropes of landscape while participating in another common expression of Emirati nationalism—falconry.31 In a distinct manner, though no less explicitly nationalist, Qatar Airways has modeled its uniforms on the deep purple of the Qatari national flag, and is the only airline to incorporate this bold hue into its patterns.32 Overtly echoing traditional costume and images of the Arab Gulf’s natural landscape, the cabin crew uniforms on Emirates, Etihad, and Qatar Airways complement the airlines’ other displays of nationalism. The iconography—primarily in the form of liveries, in-flight videos, and cabin crew outfits—of these airlines reflects and emulates the cultural practices and values of their nation-states of registry, and suggests their significance in promoting nationalism. Through the utilization of national symbolism, cultural heritage, and imagery of landscapes, Emirates Airlines, Etihad Airways, and Qatar Airways use their iconographies as elements in their broader expressions of nationalism.

Route Selection and Maintenance

Emirates Airlines, Etihad Airways, and Qatar Airways have used their flight networks as an additional instrument in their attempt to promote nationalism. In particular, their maintenance of unprofitable routes, their expansion into lossmaking and saturated markets, and their rejection of traditional airline alliances indicates a clear prioritization of nationalist expression over profitability. These flag carriers’ rapid and unprofitable expansion in the aforementioned manners strongly suggests that nationalist expression plays a role in their decision making.

The flag carriers of the United Arab Emirates and Qatar have greatly expanded their networks since their establishment. Both Emirates and Qatar Airways serve every inhabited continent, operating as hub-and-spoke networks with their nuclei in the Arab Gulf functioning as the sole hubs. The expansion of these three airlines, however, has proven highly unprofitable. A study by GRA Incorporated Aviation and Air Transport Economics Consultants found that of the twenty-three routes operated by Emirates Airlines, Etihad Airways, and Qatar Airways between Dubai, Abu Dhabi, or Doha and the United States in 2015, nineteen have proven unprofitable. The three flag carriers combined for an overall loss margin of negative 14.4 percent, according to the GRA study.33 Despite the few profitable routes that these carriers serve in the United States, no individual Gulf carrier has generated profits on more than 30 percent of the markets that it serves. Since the release of this report in 2015, these airlines have only continued to expand their services to the United States. Emirates has introduced services between Dubai and Fort Lauderdale, Newark, and Orlando, and has stated its intent to begin serving Atlanta;34 Etihad has introduced services between Abu Dhabi and Los
Angeles; and Qatar Airways has initiated services between Doha and Atlanta, Boston, and Los Angeles, and will begin service to Las Vegas in 2018.

In yet another unprofitable expansion, Emirates has commenced operations in loss-making routes connecting European and North American cities. Although Malév Hungarian Airlines cancelled its route connecting New York from Budapest in 2008—collapsing shortly thereafter—and both American Airlines and Delta Airlines failed in their attempts to operate the route by 2011, Emirates has taken steps toward opening this connection. Emirates’ choice to pursue the inauguration of this unprofitable route can only be explained by the airlines’ ties to the exportation of Emirati nationalism. Similarly, Emirates inaugurated a flight connecting Newark and Athens (with Dubai as the ultimate destination), a route that United Airlines has struggled financially to sustain and has ultimately decided to only fly seasonally. Scott Kirby, the president of United Airlines, claims that Emirates will lose between $25 and $30 million annually on its route connecting Newark and Athens the route.

An identical phenomenon exists in the markets of the Indian subcontinent, where Emirates—which, according to reports, only generates profits on its routes servicing Mumbai, Delhi, and Bangalore—has expanded to ten cities, indirectly causing the reduction of services to India by once leading carriers such as Singapore Airlines, and has announced plans to continue its expansion. It is obvious that the generation of profits does not motivate the continued expansion of networks and introduction of the aforementioned routes. Unmistakably, these routes serve to disseminate grandiose Emirati and Qatari nationalist images and ultimately glorify these airlines’ countries of registry by placing them at the center of international travel, business, and cultural exchange.

Furthermore, Emirates and Etihad do not belong to any of the three major airline alliances—Star Alliance, Oneworld, or Sky Team. In snubbing these associations, Emirates and Etihad pose a unique challenge to every other major flag carrier and set themselves apart and, in a sense, above other airlines. Historically, most passengers traveling between, for example, the United States and sub-Saharan Africa or India would use Star Alliance’s major hubs in Chicago, Frankfurt, and Istanbul, Oneworld’s major hubs in Dallas, London, and Hong Kong, or Sky Team’s major hubs in Atlanta, Paris, and Amsterdam. Along the way, passengers would change airlines, and the involved airlines would, according to convention, be partners. The Gulf carriers’ policy of avoiding involvement in airline alliances has no coherent commercial benefit, but rather has rested on the Gulf carriers’ identification with Emirati and Qatari nationalisms. By rejecting airline alliances, these carriers direct significant traffic away from established European and Asian hubs, and route traffic through Dubai, Abu Dhabi, and Doha. Etihad has even established its own airline partnership—known as Etihad Airways Partners—that includes all of the airlines in which the Abu Dhabi-based carrier has
Qatar Airways, which joined Oneworld in 2013, has at several points publicly considered withdrawal from the alliance in pursuit of an alliance similar to Etihad Airways Partners. Through their far-reaching networks and rejection of traditional partnerships Emirates and Etihad Airways, and to a lesser extent, Qatar Airways, retain their passengers through airport connections, rather than handing them over to partners. In doing so, they encourage passengers to visit the heritage-engineered cultural attractions of Dubai, Abu Dhabi, and Doha during layovers. Emirates, Etihad, and Qatar Airways broadcast their nationally inspired brands through their rejection of traditional airline alliances.

In addition to commencing services in unprofitable markets and snubbing airline alliances, Emirati and Qatari flag carriers have entered saturated markets as a form of nationalist expression. The route connecting New York’s various international airports with Milan, for example, is highly saturated—American Airlines, Delta Airlines, United Airlines, and Alitalia all successfully maintain it. Emirates—which directly connects New York and Dubai three times daily, and clearly does not need to make a refueling layover—began flying from New York to Milan (with Dubai as the ultimate destination) in 2013. According to James Patrick Hanion in Global Airlines: Competition in a Transnational Industry, which addresses Emirates’ routes servicing well-connected markets in Australia and New Zealand, Emirates dumps capacity in saturated markets in an attempt to cover its marginal costs and drive prices below a profitable level for its competitors. The incredibly high subsidies that the flag carriers of the United Arab Emirates and Qatar receive from their governments allow them to enter these markets, drive out competitors, and function as hegemons in these markets. In doing so, these flag-carrying airlines connect international destinations through Dubai, Abu Dhabi, and Doha, and thus further serve as instruments in the expression of Emirati and Qatari nationalism.

Network expansion by Emirates, Etihad, and Qatar Airways—specifically with regard to entering saturated or lossmaking markets and rejecting airline alliances—promote the idea that the United Arab Emirates and Qatar are at the heart of international commerce and travel and place the flag carriers of these nation-states above all other carriers. Without a doubt, these commercial practices by Emirates, Etihad, and Qatar Airways operate as elements of the wider role of the airlines as expressions of nationalism in the United Arab Emirates and Qatar.

Celebrities, Sponsorship, and the Exportation of Arab Gulf States’ Nationalisms

By aligning themselves with well-known celebrities and brands (particularly soccer teams), Emirates, Etihad, and Qatar Airways present themselves as top-tier airlines and support the attempt to associate their countries with affluence, splendor, and excellence. Their use of celebrities as brand ambassadors contributes to Emirati and Qatari nationalistic pursuits as it presents these personalities alongside the nationalist imagery and policies that are central to these airlines’ corporate identities. For example, an Emirates advertisement depicts American actress Jenifer Aniston experiencing a nightmare during which she asks the cabin crew where the showers and lounges are, to which a group of disrespectful American flight attendants responds, “There are no showers here, ma’am” and “There’s no lounge here ma’am, but we do have hot towels and a bag of peanuts.” A member of the cabin crew then states, “This isn’t an Emirates plane,” and the group begins to mock Aniston. She ultimately wakes up in a luxurious, gold-colored first class cabin, visits the airplane’s bar, and asks a member of the cabin crew,

“No individual Gulf carrier has generated profits on more than 30 percent of the markets that it serves.”
“Is there someone that we can talk to about maybe flying this around a little bit longer before we land?”

In another advertisement, Aniston comes across a child playing with a model Emirates airplane in her first-class cabin. After taking a tour of the aircraft, the child points at the model and says, “This is the best plane Jen, so I only want to fly this plane.”

In similar manner, an Etihad commercial, known as “Flying Reimagined,” stars Australian actress Nicole Kidman, who enjoys the luxurious features of an Etihad flight to the music of a rebab. Kidman marvels at Abu Dhabi’s contemporary architecture, Etihad’s food and drink menus, and her cabin’s plush bed. The commercial closes with a voice stating, “Their goal isn’t to improve on what has been done before, but to totally reimagine it,” as an Etihad aircraft with its desert-inspired livery travels through the sky.

The three Gulf airlines have actively and broadly associated themselves with prominent and established celebrities, bolstering their nations’ prestige by association.

The three Gulf airlines have also engaged in substantial sponsorship deals with sports teams and sporting events. Notably, the teams and events that Emirates, Etihad, and Qatar Airways sponsor are not strictly from the Arab Gulf region but are internationally relevant and visible. Emirates serves as the shirt sponsor of Arsenal, AC Milan, Real Madrid, Benefica, Paris Saint-Germain, Hamburger SV, and the New York Cosmos. Emirates’ name—in a bold and Arabic calligraphy-inspired font—sits on the jerseys of internationally recognized football players such as Cristiano Ronaldo, Gareth Bale, and Karim Benzema. Etihad sponsorship has landed the name of the airline on Manchester City FC, Anorthosis Famagusta FC, Melbourne City FC, and New York City FC jerseys, and Etihad has at points decorated its airplanes in Manchester City’s iconic blue. Most prominently, Qatar Airways’ logo is conspicuously displayed on FC Barcelona’s jerseys (as well as the jerseys of less internationally renowned teams such Al Ahli Saud FC).

Beyond sponsorship of the teams themselves, the airlines have installed their brands in the names of massive stadiums across the world. Emirates Stadium in London and Etihad Stadium in Melbourne are two such examples. Through sponsorship, the names of these airlines—which all explicitly reference the names of their nation-states of registry—are displayed at such illustrious venues in an internationally prominent manner. Associating with celebrities and sponsoring prestigious brands have served as indispensable tools in the exportation of Emirati and Qatari nationalisms by the Gulf states’ flag carriers. By aligning themselves with internationally prominent figures and brands, Emirates,
Etihad, and Qatar further build their own images, and, as a direct result, contribute to the prestigious images of the United Arab Emirates and Qatar.

**Conclusion**

On June 1, 2016, Qatar Airways launched its route servicing Atlanta from Doha. Instead of using a Boeing 777 as planned (and which it used for later trips), Qatar Airways sent a mammoth Airbus A380. The immense A380 was adorned with the purple and white of the flag of Qatar and an image of the oryx—the symbol of the Qatari government’s various state branding projects. Its dramatic entry at Hartsfield-Jackson International Airport and its pompous display of its iconography at Delta Airlines’ hub emphasized the reality that the airline’s Atlanta route would serve as yet another example of an unprofitable but highly prestigious route. All the passenger on the inaugural route from Doha to Atlanta viewed Qatar Airways’ safety video in both in English and Arabic, featuring Messi, Pique, Mascherano, and Neymar, linking Qatar Airways to the respected FC Barcelona brand. Although Delta Airlines attempted to block Qatar Airways’ access to a proper gate and Delta’s leadership lambasted the network expansion, Qatar Airways maintained the route. In its display of nationalist iconography, its maintenance of this unprofitable route, and its alignment with prominent and celebrated brands, Qatar Airways exemplified its role as a tool of Qatari nationalist expression. In its inaugural route servicing Atlanta, Qatar Airways—like Emirates Airlines and Etihad Airways—embodied the manner in which Gulf airlines function as manifestations of nationalism.

By robustly integrating nationalistic themes into their liveries, in-flight videos, and cabin crew uniforms, the flag carriers of the United Arab Emirates and Qatar use iconography to advance nationalist goals. Through their maintenance of unprofitable routes, rejection of traditional airline alliances, and engagement in capacity dumping to weaken established airlines in saturated markets, these airlines expand the networks routed through their hubs in the United Arab Emirates and Qatar as form of glorifying their nation-states. These carriers’ efforts to align themselves with internationally recognized celebrities and sponsor prestigious international brands further export Emirati and Qatari nationalism. By virtue of their international visibility—and the resources expended for its sake—it is apparent that Emirates Airlines and Etihad Airways function as essential tools in Emirati nationalist expression, while Qatar Airways serves a comparable role in promoting Qatari national identity.
Endnotes:

3. Ibid.
7. Ibid.
12. Ibid.
14. Ibid.
15. Ibid.
19. Ibid.
20. Ibid.
21. Ibid.
25. Ibid.
27. Etihad Airways Official Youtube Channel – You are at Home,” https://www.youtube.com/user/EtihadAirwaysTM.
32. Stephen Shaw, Airline Marketing and Management (Oxon: Routledge, 2016).
39. Ibid.
42. Capacity dumping is the practice by airlines of deliberately flying a route more frequently and/or using a larger aircraft on a route, allowing the airline to cause their costs of fares to go down until rival carriers cannot compete because of economic unviability.
44. “Emirates Official Youtube Channel,” https://www.youtube.com/channel/UCJ6jdm9qTla9LP3jF-TPwb
45. Ibid.
46. Ibid.
49. Ibid.
53. Ibid.
Running Dry

The Impact of Syrian Migration on Water Demand in Northern Jordan

Leah Beaulac

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Recent Syrian migration has sharply increased water demand in northern Jordan, a region characterized by severe water scarcity. A global risk analysis conducted by Maplecroft ranked Jordan as the third most water insecure country in the world.\(^1\) According to the Jordan Ministry of Water and Irrigation (MWI), Jordan is a resource-starved, middle income country with an insufficient water supply. Classified as a semi-arid to arid region and comprising 89,297 km\(^2\) of land, more than 90% of Jordan is defined as either desert or rangeland. Additionally, the country receives less than 200mm of annual rainfall over 92% of the land.\(^2\)

The MWI documented Jordan’s annual renewable water resources to be less than 100m\(^3\)/capita in 2016, a number far below the global threshold of
severe water scarcity, which is 500 m³/capita. This indicates that renewable water resources in Jordan are either unable to meet national demand or unsustainable or both. Additionally, watersheds and aquifers are becoming increasingly overused and the national water balance is facing negative impacts due to high demand, over-abstraction, and climate change.²

Both national and international concern is growing over the impact of refugees and associated relief plans on regional groundwater resources. Jordan’s northern border towns, specifically the governorates of Ma’arqa, Irbid and Zarqa (MIZ), have been overwhelmed by a population increase of 1.7 million people since 2005, when the last official Jordan Department of Statistics (DOS) census was conducted. This population increase is due to country population growth in addition to Palestinian and Syrian refugee migration. In 2015, the MIZ governorates’ population was 3.7 million, double the 2005 census population of 1.9 million.³ Numerous compounding factors impact water usage in Jordan; therefore, it is necessary to investigate and further define the implications of the growing Syrian refugee population on the country’s water sector. The result of this investigation will further clarify Jordan’s water needs and assist in future water developmental plans.

A Brief History of Jordan

The sociopolitical history of Jordan is intertwined with regional water politics. Due to border changes and a history of accepting refugees, Jordan continuously encounters changing demographics and trans-boundary water resources, leading to changes in water use and Jordan’s ability to meet this rising demand.

The 1917 British invasion of the territory comprising today’s Israel, Iraq, and Jordan removed it from centuries of Ottoman control and led to the establishment of Mandatory Palestine, Mandatory Iraq, and the Emirate of Transjordan. In 1921, the Hashemites, the royal family currently ruling Jordan, established power in Transjordan in unison with the British.⁶ In 1946, the Hashemite Kingdom of Transjordan gained independence. Two years later, in 1948, Jordan fought lands of former British-mandated Palestine, gaining control of the West Bank. The West Bank was later regained by Israel during the Six-Day War in 1967.

The creation of Israel and the later Jordanian loss of the West Bank meant the kingdom lost most of its control of the Jordan River (see picture 1). The lower portion of the Jordan River, which runs down Jordan’s border with Israel, is supplied by headwaters stemming from both the Sea of Galilee and the Yarmouk River. The river basin changed dramatically as a result of increased water use following the establishment of Israel and the Six-Day War.⁷

The flow of the upper portion of the Jordan River (whose headwaters start in Lebanon) into the Sea of Galilee has remained relatively natural, but flow rates downstream have decreased sharply due to construction and reallocation in the past 50 years. Israel is now the only user of the Sea of Galilee, as well as the largest user of water from the Jordan River basin, withdrawing an estimated 640-800 million cubic meters
annually. This compares to Jordan’s estimated 290 MCM annual use of the basin. The current annual water discharge into the lower portion of the Jordan River into the Dead Sea is projected at 20-200 MCM compared historically to 1,300 MCM (the Dead Sea’s shoreline “bathtub rings” seen in Picture 2 offers ample evidence of this decrease in water flow). Additionally, the decrease of the water supply in the lower Jordan River has been compounded by a dramatic decline in water quality, now consisting of primarily untreated sewage and agricultural runoff.9

The ebb and flow of Jordanian borders plays an important part in Jordan’s acceptance of refugees. Currently 2.1 million Palestinian refugees are registered in Jordan.10 Additionally, there was an influx of Iraqi refugees after the Iraq War began in 2003. At the same time, Sudanese, Egyptians, and Yemenis also fled to Jordan, as a result of perils in their respective countries. Most significantly, Jordan has recently seen a dramatic increase in refugees from Syria.11

The Hashemite kingdom’s stable leadership in the region has allowed for millions of refugees to flow into the country. However, Jordan is reaching its limit. In a February 2016 interview with the British Broadcasting Corporation (BBC), King Abdullah II noted that Jordanians were suffering as a result of the influx, with 25% of the state budget spent on helping refugees, public services under strain and many struggling to find jobs, going on to state:

“The psyche of the Jordanian people, I think it’s gotten to the boiling point. Sooner or later, I think the dam is going to burst and I think this week is going to be very important for Jordanians to see, is there is going to be help—not only for Syrian refugees, but for their own future as well.”12

Recently, Syrians migrated to Jordan due to the Syrian Civil War, caused by political changes resulting from the Arab Spring, over 40 years of a Syrian police state, discontent over the vast power of the Assad regime, and a devastating drought13 exacerbated by global warming. The conflict resulted in an estimated 10 million Syrians displaced both within their own country and globally,14 including millions of Syrians fleeing to northern Jordan, a region already strained with limited water resources.

**Population Breakdown of Syrians in Jordan**

Results of selected censuses and estimates conducted by the Department of Statistics (DOS) are presented to more fully understand the impacts of the post-Arab Spring Syrian migration into Jordan. Table 1 shows the general population trend increases and establishes the pre-Arab Spring population baseline.15 The average growth rate of the Jordanian national population is 1.94%, higher than the world average growth rate of 1.7%. Table 1 shows an annual increase of 4.5% in population, due to outlier impacts such as the Six-Day War, the Gulf War, the Syrian Civil War, and foreign migration.
The UNHCR recorded 655,344 Syrians as refugees in Jordan in December 2016. Unfortunately, this can be misleading, as there are approximately 1,265,514 total Syrians in Jordan (see Table 2). Syrians are often statistically under-represented in Jordan due to differences in government classification and the turbulent nature of war. There are approximately 610,170 Syrians in Jordan who not registered as refugees.

The more than 1.2 million Syrians recorded in Jordan’s Department of Statistics (DOS) 2015 census include registered and non-registered refugees, asylum seekers, expatriates, and others. For the purpose of water analysis, the recorded DOS number of Syrians (seen in Table 2) in Jordan will be used in calculations, and not the number of registered refugees.

Water Analysis in the North

Jordan utilizes both groundwater and surface water sources. Due to Jordan’s border, there are very few water basins not shared with other countries. Jordan’s only water resources contained exclusively within the nation’s borders are limited to winter rainfall, the Zarqa River north of Amman, seasonal wadis and streams, and a few, limited groundwater aquifers. Cross-border surface and groundwater sources remain Jordan’s main water sources. Unfortunately, agreements between Jordan and other countries are not always honored; determining the exact amount of water that is available for use on a year to year basis is difficult. Regardless of these limitations and uncertainties, water demand will be based on municipal, tourism, irrigation, and industrial uses.

Table 1: Population Statistics, includes data for all Hashemite Kingdom of Jordan censuses, as well as DOS estimates between each 10-year census

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Annual Increase</th>
<th>Annual % Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1952</td>
<td>586,200</td>
<td>xxx</td>
<td>xxx</td>
</tr>
<tr>
<td>1961</td>
<td>900,800</td>
<td>34,955</td>
<td>4.8</td>
</tr>
<tr>
<td>1965</td>
<td>1,028,000</td>
<td>31,800</td>
<td>3.3</td>
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<tr>
<td>1970</td>
<td>1,508,200</td>
<td>96,040</td>
<td>7.6*</td>
</tr>
<tr>
<td>1975</td>
<td>1,810,500</td>
<td>60,460</td>
<td>3.7</td>
</tr>
<tr>
<td>1979</td>
<td>2,133,000</td>
<td>80,625</td>
<td>4.1</td>
</tr>
<tr>
<td>1984</td>
<td>2,599,000</td>
<td>93,200</td>
<td>3.7</td>
</tr>
<tr>
<td>1989</td>
<td>3,144,000</td>
<td>109,000</td>
<td>3.8</td>
</tr>
<tr>
<td>1994</td>
<td>4,139,400</td>
<td>199,080</td>
<td>5.5**</td>
</tr>
<tr>
<td>1999</td>
<td>4,738,000</td>
<td>119,720</td>
<td>2.7</td>
</tr>
<tr>
<td>2004</td>
<td>5,597,000</td>
<td>171,800</td>
<td>3.3</td>
</tr>
<tr>
<td>2011</td>
<td>6,993,000</td>
<td>199,429</td>
<td>3.1</td>
</tr>
<tr>
<td>2015</td>
<td>9,531,712</td>
<td>634,678</td>
<td>7.7***</td>
</tr>
</tbody>
</table>

Average Population Increase 159,141 4.5

* Six-Day War (1967): Involved Israel, Egypt, Palestine, Syria, and Jordan; resulted in the Israeli annexation of the West Bank from Jordan and the Golan Heights from Syria.
** Gulf War (1990-1991): Kuwait hosted many Jordanian expatriates and refugees after Gulf War expatriates and refugees residing in Kuwait were forced to return to Jordan.
*** Syrian Civil War (2011-present): See Table 2 for breakdown
Statistics were taken from three DOS documents
“Cross-border surface and groundwater sources remain Jordan’s main water sources. Unfortunately, agreements between Jordan and other countries are not always honored.”

The overall water demand in Jordan, according to 2015 figures, was 1,401 MCM. The Jordan Ministry of Water and Irrigation (MWI) provides a water demand calculation that was used to determine the Syrian water demand in Jordan, estimating it to account for a total of 3.3% demand increase on all water usage. The water demand calculation was then used to analyze the Syrian water demand in the MIZ governorates (1.7% demand increase on total country use). A further breakdown looked into the impact Syrians have had on municipal water demand in the MIZ governorates (19.8% demand increase on MIZ municipal use). It is important to note that municipal demand is under the umbrella of the previously listed percent increases. While this number seems large, it is a breakdown of a category (municipal use) within the total country water demand.

Jordan’s Ministry of Water and Irrigation sets standards for municipal use of water share per person per day (liter/p/d) based on available water resources in order to estimate per capita consumption. The water demand is separated into three different categories:

- 80 liters/p/d in rural areas,
- 100 liters/p/d in urban areas,
- 120 liters/p/d in the capital, Amman.

In Table 3, I provide a breakdown of Jordan’s municipal water share in liters/p/d, highlighting the populations’ use in the northern governorates of Mafraq, Irbid and Zarqa (MIZ). Water demand in Amman, where roughly 40% of the population resides, was used only for the estimated total. Daily water consumption is provided in liters per day and converted to million cubic meters (MCM) when addressing yearly consumption.

The MWI estimated that 2015 water demand across all sectors (industrial, irrigation, municipal, and tourism) was approximately 1,401 MCM. The ministry provided a breakdown of demand as listed below:

- Municipal, industrial and tourism: 701 MCM
- Irrigation: 700 MCM

Table 4 shows that almost 20% of the MIZ municipal water demand is attributed to the Syrian population. Total increase in Syrian MIZ water demand is less than 4% in the country, which highlights the uneven
population distribution and resulting stress on the water resource. These figures are based on the water demand indicated in Table 4 and the total country demand noted by the MWI.\textsuperscript{25}

**Confounding Variables**

Twelve groundwater basins account for 60.6% of Jordan's total water supply.\textsuperscript{26} According to the MWI report, six basins are over-extracted, four are utilized at capacity, and two are underexploited. The Jordanian government estimates that the twelve water basins have a combined safe yield of 275 MCM/yr (see picture 3 for breakdown).\textsuperscript{27} In 2014, a total of 589 MCM/yr of ground water was utilized to satisfy country demands; this resulted in nearly 314 MCM/yr of over abstraction of Jordan's ground waters. The country water strategy for the 2016-2025 period aims to cut over abstraction of groundwater to 118 MCM/yr by 2025. Unfortunately, due to limited options, the current plan could not eliminate completely the need for unsustainable extraction.

Surface water (26.6%) and treated wastewater (12.8%) make up the remaining amount of Jordan's water supply.\textsuperscript{28} Historically, the Yarmouk river, when combined with the upper Jordan River, provided a major source of surface water to Jordanians. Before the 1960s, flow into the Dead Sea was estimated at around 1,300

<table>
<thead>
<tr>
<th>MIZ Governorates</th>
<th>Population</th>
<th>% Total Population (Jordan)</th>
<th>Water Share in liters/person/day</th>
<th>Average liters/person/day*</th>
<th>Million Cubic Meters MCM/day</th>
<th>MCM/Year</th>
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</thead>
<tbody>
<tr>
<td>Syrian MIZ Population</td>
<td>80 liters</td>
<td>100 liters</td>
<td>120 liters</td>
<td>18,711,270</td>
<td>0.018</td>
<td>6.329</td>
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<td>Ma'afir</td>
<td>207,903</td>
<td>2.18</td>
<td>16,632,240</td>
<td>20,790,300</td>
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<td>Irbid</td>
<td>343,479</td>
<td>3.6</td>
<td>27,478,320</td>
<td>34,347,900</td>
<td>xxx</td>
<td>30,913,110</td>
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<td>Zarqa</td>
<td>175,280</td>
<td>1.84</td>
<td>14,022,400</td>
<td>17,528,000</td>
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<td>15,775,200</td>
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<tr>
<td>Sub-Total</td>
<td>726,662</td>
<td>7.62</td>
<td>65,399,580</td>
<td>0.065</td>
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<tr>
<td>Total MIZ Population</td>
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<td>5.77</td>
<td>43,995,840</td>
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<td>Ma'afir</td>
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<td>18.57</td>
<td>141,612,640</td>
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<td>1,364,878</td>
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<td>Zarqa</td>
<td>3,684,984</td>
<td>38.66</td>
<td>331,648,560</td>
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<tr>
<td>Sub-Total</td>
<td>1,265,514</td>
<td>13.28</td>
<td>101,241,120</td>
<td>126,551,400</td>
<td>151,861,680</td>
<td>126,551,400</td>
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<tr>
<td>Jordan (Total)</td>
<td>9,531,712</td>
<td>100</td>
<td>762,536,960</td>
<td>953,171,200</td>
<td>1,143,805,440</td>
<td>953,171,200</td>
</tr>
</tbody>
</table>

* Assume equal distribution of Syrians in rural and urban categories.

All data taken from 2015 Jordan Housing and Population Census unless otherwise noted (Hashemite Kingdom of Jordan 2016)
MCM/yr. Construction of large water diversion projects such as Syrian dams (1980s) on the Yarmouk River and the Israeli National Water Carrier (1950s), which transferred water from the upper Jordan River and the Sea of Galilee to Israel’s population centers and arid south, have decreased the inflow into the Dead Sea, with the current flow estimated to be around 20-200 MCM/yr.\(^\text{39}\)

The Zarqa River is the only major river completely contained within Jordan’s borders. Unfortunately, the river is highly contaminated as it runs through metropolitan Amman, Jordan’s main industrial area. The only remaining water sources contained nationally in Jordan include seasonal rivers, intercepted winter precipitation, and treated wastewater (12.8%).

Jordan receives only an estimated one-third of its proposed share of surface water as specified by treaties and agreements of distributed water among neighboring countries. Additionally, rainfall is seasonal and localized, occurring mainly between November and March with high evaporation rates quickly diminishing the available water supply. Furthermore, the MWI notes the need to further develop wastewater collection and treatment in order to further draw from that potential water source.\(^\text{30}\) This leaves Jordan chronically dependent on transboundary water sources susceptible to the shaky geopolitical environment and negotiations.

The Jordan River is 223 kilometers long and flows from the northern slopes of Mount Hermon through the borders of Israel, Lebanon, and Syria to the Dead Sea in the south. The largest part of the Jordan River basin is located in Jordan (40%) and Syria (37%) with the remaining basin spread between Israel (10%), Palestine (9%) and Lebanon (4%). The basin had an estimated 2012 population of more than seven million with the majority (71%) residing in Jordan, 18% in Syria, and the remaining in Israel, Palestine, and Lebanon.\(^\text{32}\) Note that the water consumption per basin country is not proportional to their respective populations.

Approximate riparian water usage of Jordan River Basin:
- Israel: 640-800 MCM/yr
- Syria: <450 MCM/yr
- Jordan: 290 MCM/yr
- Lebanon: 9-10 MCM/yr

<table>
<thead>
<tr>
<th>Population Group</th>
<th>Water Demand (MCM)</th>
<th>% Water Demand of Total (Jordan)</th>
<th>% Municipal Water Demand of Total (MIZ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jordan (Total)*</td>
<td>1401</td>
<td>100%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Syrian (Total)**</td>
<td>46.2</td>
<td>3.3%</td>
<td>xxx</td>
</tr>
<tr>
<td>MIZ (Total)**</td>
<td>121</td>
<td>8.6% (municipal demand)</td>
<td>xxx</td>
</tr>
<tr>
<td>Syrian (MIZ)**</td>
<td>24</td>
<td>1.7%</td>
<td>19.8%</td>
</tr>
</tbody>
</table>

* (Ministry of Water and Irrigation (MWI) 2016) reported 2015 water demand
** Residential water use based on MWI water consumption formula: 80 liters/p/d in rural, 100 liters/p/d in urban, and 120 liters/p/d in the capital, Amman.\(^\text{31}\)
<table>
<thead>
<tr>
<th>Riparian Countries</th>
<th>Jordan, Saudi Arabia</th>
<th>Jordan, Syria</th>
<th>Jordan, Syria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Recharge</td>
<td>3-10 MCM/yr</td>
<td>~30 MCM/yr</td>
<td>~37.3 MCM/yr</td>
</tr>
<tr>
<td>Surface Area</td>
<td>~44,000 km²</td>
<td>6,900 km²</td>
<td>8,500 km²</td>
</tr>
<tr>
<td>Renewability Strength</td>
<td>Low</td>
<td>Very low (0-2 mm/yr)</td>
<td>High</td>
</tr>
<tr>
<td>Storage</td>
<td>Jordan: 4-10 BCM</td>
<td>22 BCM</td>
<td>Information not available.</td>
</tr>
<tr>
<td></td>
<td>Saudi Arabia: ~740 BCM</td>
<td></td>
<td>Information not available.</td>
</tr>
<tr>
<td>Population/Location</td>
<td>750,000 (500,000 in Tabuk Province in Saudi Arabia, 250,000 in Jordan - 133,000 in Aqaba Governorate 116,000 in Ma’an Governorate)</td>
<td>440,000 - Saudi Arabia. The aquifer is situated on the Jordanian border and there was no population record available.</td>
<td>1.6 million (1.2 million Syrians in the governorates of Dar’a, As Suwayda and Quneytra, and 443,000 Jordanians where the basin extends over parts of the governorates of Irbid and Mafraq)</td>
</tr>
<tr>
<td></td>
<td>750,000 (500,000 in Tabuk Province in Saudi Arabia, 250,000 in Jordan - 133,000 in Aqaba Governorate 116,000 in Ma’an Governorate)</td>
<td>440,000 - Saudi Arabia. The aquifer is situated on the Jordanian border and there was no population record available.</td>
<td>126,900 (43,600 Syrians within a small part of As-Suwayda governorate and 83,300 Jordanians in parts of the Mafraq and Zarqa governorates)</td>
</tr>
<tr>
<td>Amount Abstracted MCM/yr</td>
<td>Jordan: 90 MCM</td>
<td>1984: 100 MCM</td>
<td>~244 MCM/yr - 50-57, Jordan, 189 MCM, Syria</td>
</tr>
<tr>
<td></td>
<td>Saudi Arabia: &gt;1,000 MCM</td>
<td>2004: 3,500 MCM</td>
<td>~51.16 MCM Jordan. No information available on Syrian extraction.</td>
</tr>
</tbody>
</table>
Mean Annual Flow Volume:
Natural conditions (1950s)
- Upper Jordan River: 605 MCM
- Yarmouk River: 450-500 MCM
- Lower Jordan River: 1,300 MCM
Current conditions
- Upper Jordan River: 616 MCM
- Yarmouk River: 83-99 MCM
- Lower Jordan River: 20-200 MCM

Development of a realistic water budget is complicated by the county’s infrastructure problems. For example, “lost” water, or water that is not billed, is caused by leaks in the system due to poor-quality equipment and pipes or inadequate maintenance. Additionally, non-operational meters, as well as unauthorized connections such as illegal groundwater wells, contribute significantly to water loss. According to the MWI, up to 51% of water sent into the Jordanian water distribution system remains unaccounted due to physical and administrative losses. This creates an information gap in water data accounting and budgeting as the government is unable to account for more than half of its revenue water. Additionally, monitoring water escaping the ministry’s system through either unauthorized groundwater abstraction or illegal service connections is very difficult to detect. Stolen water is often used for irrigation or sold through water tankers to businesses or municipal services. It is unclear how this impacts the MWI reported water use numbers, since estimates do not exist.

As stated in the MWI’s National Water Strategy, the government aims to reduce non-revenue water by 3-6% per year and up to 25% nationally by 2025. The two-part plan includes, (1) improving infrastructure quality and maintenance, effectively cutting technical losses down to less than 15%, and (2) strengthening the criminalization of both water theft and the use of unauthorized wells with the hope of cutting down unauthorized connections.33

Jordan underwent significant population increases between the 2004 (5,103,639) and 2015 (9,531,712) censuses. 1.2 million of this increase was accounted for by the Syrian, Palestinian and Egyptian populations, which collectively quadrupled. The 2015 combined Palestinian and Egyptian population amounts to 1,270,452, a number slightly greater than the total Syrian population increase in Jordan.34

Roughly 1.5 million (50%) of non-Jordanians live within the capital of Amman. Additionally, almost three million foreigners reside inside the nation’s borders, marking an annual increase of 59% relative to the 392,273 non-Jordanian population of 2004. Furthermore, the Jordanian national population is only 6,613,587, meaning that a little over two-thirds of the nation’s population are Jordanian nationals. The initially small 2004 country population has nearly doubled in a little over 10 years. Meanwhile, adjusting infrastructure built for a much smaller population—including that for water—has been met

![The Jordan River Basin](image)
with complications including high costs and limited resource capacity.35

**Information Gaps**

The majority of water basin information described in this analysis was obtained through a search of relevant documents and reports. Many of these reports were produced in partnership with the Ministry of Water and Irrigation, United Nations Economic and Social Commission for Western Asia (UN-ESCWA), and Bundesanstalt für Geowissenschaften und Rohstoffe (BGR). See footnote for a full list of reports used.36

All available research unanimously described the difficulties of obtaining relevant data due to the lack of updated information. Margane et. al (2015) listed the following as reasons for information gaps:

- No defined procedure for water level measurements
- No entity feels responsible for water management tasks
- Lack of adequate monitoring equipment due to:
  - broken instruments
  - cable lengths too short
  - no instruments
  - lack of budget

Margane et. al (2015) further urges the need to implement, standardize, and create consistent procedures for water level measurements. These measurements should be taken yearly and coordinated among all monitoring agencies including improvement in unit measurements, procedures and information sharing.

The report also stated that static water level reports are a prerequisite for hydrological studies (currently these reports are unavailable or outdated) since groundwater models and assessments cannot be conducted without these data prerequisites. For example, many groundwater models are nearly obsolete and outdated in Jordan since current studies reference old assessments (many dating back to the 1990s) that are based on outdated or wrong information and lack geological descriptions. Margane et. al (2015) concluded that, due to information gaps, “the impact of the Syrian refugee crisis on the groundwater system cannot be assessed.” This statement stresses monitoring agencies’ frustration with the lack of data and highlights the importance of increasing studies and assessments of water availability in Jordan.

It is important to note the distinction between the impact of Syrian migration on water demand in Jordan, which is what this report focuses on, and the impact of Syrian use of Jordan’s groundwater, which

<table>
<thead>
<tr>
<th>Table 5: Non-Jordanian 2004, 2015 Census Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of Non-Jordanian</td>
</tr>
<tr>
<td>2004 (Official Census Data)</td>
</tr>
<tr>
<td>2015 (Official Census Data)</td>
</tr>
<tr>
<td>Annual Increase</td>
</tr>
<tr>
<td>Annual % Increase</td>
</tr>
</tbody>
</table>

All data from: (Department of Statistics 2004) (Hashemite Kingdom of Jordan 2016)
BGR states cannot currently be assessed. The key differences are listed below:

- The impact of Syrian migration on water demand in Jordan can be assessed as it looks into the percent increase on water demand in Jordan. Water demand is based on reported water usage, which the Jordanian government is able to track since Jordan runs on a water delivery system and requires wells and irrigation to be both reported to and approved by the government. This number is flexible as it is dependent on year-to-year water demand changes; therefore, assessments need to be conducted on an annual basis.

- The impact of the Syrian refugee crisis on the groundwater system cannot be assessed with the current data available. There needs to be a comprehensive analysis of the groundwater systems in Jordan before the impact of a population increase on the groundwater system in Jordan can be assessed. Until the water quantity in Jordan is known, it is impossible to assess the actual impact that populations are having on groundwater resources. Any studies that claim otherwise are basing their research on speculation.

All agencies expressed the desire to update current groundwater maps and water basin information. MWI (2016) called upon donors and technical experts to assist in expanding the current capacity of the water sector. The National Water Strategy 2015-2016 states that addressing knowledge gaps and building the capacity of monitoring plans will be a priority.

In addition to the above problems, there are notable discrepancies in the available published data, including inconsistent reporting within the same document as seen with the MWI (2016) report mentioned above, which references different total values for municipal demands. This discrepancy might be due to a number of things including but not limited to: inaccurate census population reports, lost water, and illegal abstraction. However, without further information it is impossible to conclude why there is such a large reporting difference.

Without further clarification of water usage and allocation it is difficult to draw accurate conclusions. An increase in data sharing and transparency would benefit further research. As mentioned above, outdated information creates large knowledge gaps. If information in the future continues to be based on inaccurate data, then finding appropriate water management solutions will become increasingly difficult.

**Conclusion**

The Syrian population increases water demand in Jordan by 3.3% according this study’s analysis using the MWI water demand calculation. However, this number can be misleading in two ways:

1. The number is relatively small and ignores that most of the Syrian population is concentrated in northern Jordan. For example, Syrians in the MIZ governorates increase Jordan’s total water demand by just 1.7%. However, there is a 19.8% increase in municipal water demand in the MIZ governorates due to this same population. This indicates that the concentrated population increase has a significant impact on local municipal usage and service.

2. The percent water use, regardless of being either for the total country or only for the MIZ governorates, does not allow for unknowns or complicating uncertainties (i.e., wasted water, outdated data, illegal connections, or cross-border water resources). This highlights the difficulties of quantifying an accurate account of the Syrian demand. Of course, accurately quantifying a continuously increasing and migrating refugee population only exacerbates this problem. It is necessary that these issues be considered and data be updated prior to attempting an assessment like this again. It should also be noted that these estimates do not consider the increased stress a population increase of almost 15% may exert upon infrastructure and water services, or how it may effect water demand related to tourism and irrigation. Without better data, the water demand of the Syrian population can only be quantified through yearly assessments of the municipal water use and census estimates, such as the one done in this report.
In conclusion, the numbers given for Syrian impact on water demand in northern Jordan (3.3% water demand increase overall, and 19.8% increase on specifically municipal use in the MIZ governorates) provide baseline data useful for future assessments and inquiries into the Syrian impact in Jordan. However, as these numbers are dependent on fluctuations in populations, total water available, and sociopolitical environments, they must be treated as such and updated regularly. Precise assessments are only possible through increasing information in databases and continuous updating of previous studies. This work will serve as useful baseline for future studies on the impact of the Syrian migration on water demand in Jordan.

Endnotes
4. 726,662 of which are Syrians that presumably migrated after the civil war began in 2011
6. The Hashemite Kingdom’s rule was strongest in areas of modern day Jordan, Palestine and Israel. For further information see (Hashemite Kingdom of Jordan 2016) or Review: Jordanian History: Studies in the History of Transjordan, 1920-1949: The Making of a State. by Uriel Dann, or The Modern History of Jordan by Kamal Salibi

Picture 1: http://www.bluebird-electric.net/oceanography/Rivers/River_Jordan.htm
Picture 2: Jordan Looking South - May 17, 2014 (Michael Beaulac)
7. (Hashemite Kingdom of Jordan 2016)
13. In 2006, the worst drought in Syrian history began. Shahrzad Mohtadi, an advisor to the White House and expert in the field, stated that Syria may have experienced a phenomenon with the “most severe set of crop failures since agricultural civilizations began in the Fertile Crescent many millennia ago.” Furthermore, geographer Dr. Jessica Barnes argues that water scarcity in Syria was constructed as a direct product of the Syrian government’s promotion of agriculture since the Ba’ath Party came to power in 1963.
15. (Department of Statistics 2016)
16. The Syrians registered as refugees are defined as the following: “A refugee is someone who has been forced to flee his or her country because of persecution, war, or violence.” UNHCR. 2017.

17. This number includes both unregistered refugees and Syrians who were living in Jordan before the war. In practice, Jordan avoids the official recognition of refugees under its domestic law and prefers to refer to Syrian refugees as ‘visitors,’ ‘irregular guests,’ ‘Arab brothers’ or simply ‘guests,’ all of which have no legal meaning under domestic laws. (ARDD-Legal Aid (Arab Renaissance for Democracy and Development): Refugees in Jordan: FAQ)


19. (Ministry of Water and Irrigation (MWI) 2016)

20. Percent annual increase was produced using the following formula \[ r = 1/\ln(P0/P1) \]


22. (Ministry of Water and Irrigation (MWI) 2016)

23. (Ministry of Water and Irrigation (MWI) 2016)

24. Unfortunately, information available to further divide municipal, industrial and tourism use is conflicting. For example, the MWI national water strategy indicated municipal demanded to be 429 MCM, industrial, 37 MCM and tourism 4 MCM. In the same document the ministry described the three sectors as using a combined total of 701 MCM. There is no indication in either the MWI document or other relevant resources as to why these numbers do not agree.

25. (Ministry of Water and Irrigation (MWI) 2016)

26. (Ministry of Water and Irrigation (MWI) 2016)


28. (Ministry of Water and Irrigation (MWI) 2016)

29. (UN Economic and Social Commission for West Asia-Bundesanstalt für Geowissenschaften und Rohstoffe (ESCWA-BGR) 2013)

30. (Ministry of Water and Irrigation (MWI) 2016)

31. It is important to note that the MWI calculation does not compute with the recorded numbers MWI (2016) stated for the 2014 municipal water usage, 136.5 MCM, in 2014. However, without knowing where the 15MCM discrepancy between the 121MCM number calculated with the MWI calculation compared to their reported number, 136MCM, it is more accurate to use their calculation for this reports statistical analysis than guess on the reason behind said discrepancy.

32. (UN Economic and Social Commission for West Asia-Bundesanstalt für Geowissenschaften und Rohstoffe (ESCWA-BGR) 2013) All data is from ESCWA-BGR report unless otherwise indicated Picture 5: Ibid.

33. (Ministry of Water and Irrigation (MWI) 2016) All data from National Water Strategy unless otherwise indicated

34. (Department of Statistics 2004) (Hashemite Kingdom of Jordan 2016)

35. (Hashemite Kingdom of Jordan 2016)

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