

LINES IN THE SAND:
Sustainable Development in Iraq

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ABSTRACT

This paper compares historical maps of the Middle East with contemporary maps of Iraq to consider its sustainability given present territorial boundaries. Iraq was mostly shaped in 1916 by a secret Sykes-Picot agreement between Britain and France and the Lausanne Agreement of 1923 with Turkey. Following the defeat of the Ottoman Empire in World War I, the Allied powers divided the spoils of war and drew lines in the sand. Perennial border disputes, ethnic and religious conflicts should call into question whether historic division of the Ottoman Empire is sustainable. We use our geodatabase to develop maps for sustainable allocation of natural resources among the Iraqi people. Natural resources and demographics: hydrology, petroleum, agriculture, populations, ethnicity, religiosity, languages, are parameters in models. Using spatial analysis and model builder, we vary parameters to redraw the borders and project sustainable futures for people in the region.

I. LINES IN THE SAND

Many people are unable to sustain themselves adequately in the world, because they are located in countries that were not formed naturally. They are often dominated by external powers, usually Western countries. Their borders are artificial. The failed state of Somalia is a catastrophic example of a country that was torn apart by the Cold War, then left to rot in environmental degradation. In this paper, we move away from the Horn of Africa and pan to the Middle East and zoom in on Iraq in particular. Iraq is unable to sustain itself now, because of the territorial and colonial problems caused by the British.

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We examine the historical reasons for the present state of affairs and discuss solutions for the people in Iraq that will give them a sustainable future. That includes partition of Iraq.

If we were to redraw the political maps of the Middle East today, based on human and natural geography, how would the Middle East look? The GIS provides the tools we need to redraw the boundaries of modern Iraq, by applying and analyzing the geography abstracts. If we let those people naturally come up with political borders, without the influence of Western occupation, then we may predict how this part of the world would look today. Oil and gas has always been a factor in our economic relationship with the Middle East, so it is not a coincidence that we are helping Saudi Arabia, Kuwait, and Qatar in our fight against terror because of their black gold. Britain and France realized long ago that this geography is rich in natural resources, so they drew “lines in the sand” to map oil in the Middle East. Using GIS input we can redraw the boundaries for Iraq.

Iraq is a significant country because of its historical, religious, and geopolitical sides. The region was the seat of an ancient Babylonian civilization and the center of the great Abbasids. Iraq was formed by western powers, especially by British, after World War I out of disparate governates (Mosul, Baghdad, and Basra) of the former Ottoman Empire. Though the new country as such had no political history of its own, the lands it comprised used to host some of the most innovative empires and civilizations of human history. Iraq has one of the world's oldest cultural histories. What is now modern Iraq was once a cradle of civilization in ancient Mesopotamia, which means “between two rivers.”

I.A. THE SYKES-PICOT AGREEMENT

In 1916, a secret agreement was made between Britain and France, which was later to include Italy and Russia, in anticipation of defeating the late Ottoman Empire

(Turkey) and dividing the spoils of World War I. Hence, Britain controlled the areas of Jordan, Iraq, and Haifa (Israel). France controlled southeastern Turkey, Northern Iraq, Syria, and Lebanon. Italy controlled some of the Aegean islands and southwest Anatolia. Palestine was promised by Britain to the Zionists. Russia was to control Armenia and parts of what may be called Kurdistan. When Russia lost its claim to lands after the 1917 revolution, the secret Sykes-Picot agreement was revealed to the rest of the world by Lenin. Foreign powers in the West drew lines in the sand. Perennial border disputes in the Middle East make us question whether dividing the Ottoman Empire is sustainable.

I.B. THE HISTORY OF IRAQ

Modern Iraq was mostly shaped in 1916 by the Sykes-Picot agreement between Britain and France as legitimized by the Lausanne Agreement of 1923 with Turkey. The boundaries of modern Iraq are an artificial creation of the British and French after First World War. Winston Churchill is credited with having drawn lines in the sand to make Iraq what it is today for the sake of oil extraction (Time, 2006). Churchill said later that forcing the three regions of Iraq into a single state was his greatest mistake. The creation of a state centered in Baghdad in 1920, with its frontiers, its bureaucracy and its fiscal system, established a new framework for politics. Iraq under British rule was a society in isolation, political disarray, tribal unrest, social chaos, and with economic uncertainty.

Iraq has never been ethnically or religiously homogeneous; rather it has always been divided into at least three ethnic and religious groups: (1) Sunni Arabs, (2) Shia Arabs, and (3) Kurds. Iraq was always an unstable country, held together by the iron bonds of an authoritarian regime. In such circumstances, “regime change” inevitably results in state change or country change; democratization would mean that one or more

of the three ethnic and religious groups and territorial parts of Iraq would vote to separate it from the others (Figure 1). One could have a unified Iraq, but without democracy. One could have democracy, but without a unified Iraq. However, one could not have both.

In 1932, British mandate rule was terminated and a monarchy was established. Iraq was recognized as a sovereign state, but was neither democratic nor independent from Britain. From 1940 to 1958, the question of Iraqi nationhood became a political rallying point for opposition groups, despite their diverse and often conflicting positions. In 1958 the monarchy was overthrown by a coalition headed by the Iraqi military. The King and Crown Prince were both assassinated, and Iraq was subsequently declared a republic by its new leader, Qasim. A new organization, the Arab Socialist Resurrection Party, known as the Ba'ath party, persuaded the army that Qasim should be overthrown. In 1963 the leader of the Ba'ath party overthrew Qasim and established the National Council for Revolutionary Command. This organization came under control of Saddam Hussein, who ascended to the presidency in July 1979, while killing off his opponents.

Saddam's regime lasted throughout the Iran-Iraq war (1980–1988), during which Iraqi forces attacked both Iranian soldiers and civilians with chemical weapons. The war ended in stalemate. This period is notorious for human rights abuses, for instance, during the Al-Anfal campaign (Black, 1993). In 1990 Iraq invaded Kuwait, resulting in the Gulf War and economic sanctions imposed by the United Nations at the behest of the U.S. The sanctions were intended to compel Saddam to dispose of his weapons of mass destruction. Critics estimate that more than 500,000 Iraqi children died as a result of the sanctions (Hay Brown, 2000). The U.S. and the UK declared no-fly zones over Kurdish northern Iraq (Mosul) and Shiite southern Iraq (Basra) to oversee the Kurds and southern Shiites.

Iraq was invaded again in March 2003, by a United States-organized coalition, claiming that Iraq had not abandoned nuclear, biological, and chemical (NBC) weapons programs that were outlawed under the U.N. The justifications for invasion, including purported Iraqi government links to Al Qaeda, claimed that Iraq had weapons of mass destruction, that they had the opportunity to remove an oppressive dictator from power, and to bring democracy to Iraq. The United States established the Coalition Provisional Authority to govern Iraq. An Iraqi Interim Government took over in 2004 and permanent government was elected in October 2005. More than 140,000 Coalition troops remain in Iraq. After the invasion, al-Qaeda took advantage of the insurgency to entrench itself in the country concurrently with an Arab-Sunni led insurgency and sectarian violence. On December 30, 2006, Saddam Hussein was hanged.

The occupation of Iraq by the U.S. is not the first such occupation of that region. Although some remembered in the U.S., the British occupation of Iraq at the end of the World War I, and the uprising and Mandate period that followed, are still vividly recalled in Iraq. Although historical parallels are never exact, the British experience does contain some striking parallels with the initial the U.S. experience. One goal of this study is an attempt to think through some lessons of history of Iraq since early twenty century, as it proceeds through the second occupation of modern Iraq (Marr 1985; Tripp, 2000). Is there anything to be learned from the first occupation by the British in the years during and after the First World War? Can the U.S. avoid the mistakes made by the British?

In fact, the current civil war and ethnic cleansing in Iraq have reinforced a natural partition (Figure 2). The Kurdish people and their militias have their own quasi-country in which the Iraqi government does not govern and the Iraqi flag does not fly. Many of

the Shiite areas are governed by militias, which have infiltrated the Iraqi police and army. In Sunni areas, guerrillas effectively control many towns. U.S. forces have been unable to disarm many of these armies since the beginning of war. To sustain the people of Iraq, we propose the return to natural borders. That is, the future of a sustainable Iraq is a three-state solution (Gelb, 2003; Galbraith, 2006).

II. SUSTAINABILITY

Our Common Future (World Commission on Environment and Development, 1987) first coined the term sustainable development to mean: “development which meets the needs of the present without compromising the ability of future generations to meet their own needs.” Sustainable development falls into three domains: environmental, industrial, and societal. They are inter-related parts of the modern Iraqi nation. These domains signify a key feature of Iraq’s geography. Iraq is located in the Middle East at the northernmost extent of the Arabian Gulf, north of Saudi Arabia, west of Iran, east of Syria, and south of Turkey. The total area of Iraq is 437,072 square Km, with 432,162 square Km of land surface. Iraq has common borders with the following countries: Iran, 1,458 Km; Jordan, 181 Km; Kuwait, 240 Km; Saudi Arabia, 814 Km; Syria, 605 Km and Turkey, 352 Km. Iraq has 18 governorates that are divided into a total of 102 districts.

A spatial analysis of the geographic features of Iraq was conducted by focusing on its (1) hydrology, (2) petroleum, and (3) demography. These features represent three pillars of environmental, industrial, and societal sustainability. The environmental pillar represents Iraq’s water resources (hydrology), the industrial pillar represents Iraq’s oil resources (petroleum), and the societal pillar represents Iraq’s demographic resources.

II.A. ENVIRONMENTAL SUSTAINABILITY

Sharing water is essential to a sustainable solution for Iraq, not only to problems in the region, but throughout the Middle East. Turkey can stop the flow of water from the north, while the Sunni Arabs are located at the conflux of the Tigris and Euphrates rivers. Population growth is "the heart of the problem of semi-arid development" (Falkenmark, 1990). The importance of water both for habitability and for rural access to biomass for food, fodder, fuel wood, and timber makes water scarcity a crucial problem for a higher quality of life of poor rural populations. Where habitability is reduced by water shortages, emigration is a habitual consequence. The total population of Iraq is 20.4 million (1995), of which 25% is rural (United Nations, 1997). About 26% of the land is cultivable which is about 11.48 million hectares. In Iraq, 85% of the river water is used for agriculture.

II.A.1. HYDROLOGY

There is only one river basin in Iraq, the Shatt Al-Arab basin. The Shatt Al-Arab river basin is formed by the confluence downstream of the Euphrates and the Tigris and flows into the Persian Gulf after a course of 190 km. Before confluence, the Euphrates flows for about 1,000 km and the Tigris for about 1,300 km, respectively within Iraqi territory (Figure 3). The Tigris and Euphrates rivers provide Iraq with nearly 100% of its fresh water. The flow of these waters "depend essentially on agreements with Turkey" where both rivers originate (Naff, 1991). Turkey disagrees over quotas needed to meet Syria and Iraq's minimum requirements for what would be the natural flow of the water, claiming that Syria and Iraq take more than their fair share of water from these rivers.

The importance of Euphrates and Tigris rivers to Iraq, from an economic point of view, is linked to the development of agriculture. The share of hydroelectric power (out of all the power produced) will gradually decrease even further. A large number of the

projects developed in Iraq, whose principal aim was to prevent flooding, will become redundant as a result of the constant flow of the river caused by the controlled release of water from the dams in Turkey and Syria. Conversely, the quantity of water in the river will be reduced and its quality impaired. This may affect the extent of agricultural areas and the type of production.

In terms of foreign policy, Iraq's dependence upon Turkey and Syria will grow because the upstream States will determine the quality of water flowing in the river. The close economic ties with Turkey may be expected to be renewed and even strengthened after the invasion of Iraq by U.S. With regards to internal policy, the Euphrates waters will continue to be important if Iraq wants to raise the standard of living of the local population and thus prevent negative emigration from rural areas. To achieve this, more and more water will be diverted to domestic use. The Euphrates water is also associated with the image of the country's leaders who wish to see massive development in the region in order to restrict the extensive importation of food into the country.

Water is taking over oil as the newest cause of conflict in the Middle East. Since the first Gulf oil well gushed in Bahrain in 1932, countries have squabbled over borders in the hope that ownership of a patch of desert or a sand bank might give them access to new riches. Now, most national borders have been set, oil fields mapped, and reserves estimated - unlike the water resources, which are often unknown. Water is linked to oil.

Water is vital to the production of oil; one barrel of water is required to produce one barrel of oil. Bechtel and Halliburton, who received a U.S. Army contract to rebuild the conflict damaged oil industry which will likely reach \$600 million, are the two most strategically-positioned corporations to control both the water and oil industries in Iraq.

II.B. INDUSTRIAL SUSTAINABILITY

Iraq has one of the largest oil reserves in the world. Iraq makes oil and not much else, except the civil war (Figure 4). This lack of a diversified economy makes the nation especially vulnerable to exploitation because of over-reliant on one source of sustenance. Conflict in Iraq is arguably about protecting the interests of oil companies (Paul, 2003).

Ecological economics (Costanza, 1996) differs from neoclassical economics by taking into consideration the nature of nonrenewable substitutes. Weak sustainability is where land (natural resources), labor, and capital are all substitutable with utility theory (Gowdy, 1999). Strong sustainability holds that nonrenewable resources should not be exhausted, but should instead be recognized as a form of natural capital. Goodland and Daly (1996) distinguish between growth and development when defining sustainability.

The major source of revenue in Iraq is from petroleum production in gas and oil fields. Petroleum deposits are non-renewable resources. If Iraq maintains its current rate of production, then predictions are that Iraqi petroleum reserves will be exhausted in 85 years. This natural resource could be weakly sustainable, assuming that capital was to be reinvested in alternative forms of production or investments in manmade capital stock.

Unlike Somalia in the Horn of Africa, which was mostly abandoned by the West for a lack of key natural resources to exploit, Iraq has abundance (for now) of petroleum and water to sustain itself into the near future. Replacement of this natural capital stock with manmade capital by applying the concept of weak sustainability will ensure survival of human populations into the future. Current Iraqi government plans are to share oil and gas resources through the central headquarters in Baghdad. This policy is opposed by the Kurds, who fear that it returns them to Saddam era dependency. There are many

solutions to common pool problems (Ostrom, 1990). Alternative oil sharing arrangements could be made, but might be difficult to enforce. The current conflict is over resources.

II.B.1. PETROLEUM

Sharing oil is not necessary for human survival in a minimalist sense, but it does provide energy to maintain a modern state. An oil sharing program was proposed for Iraq, but it remains how to devise an equitable solution to provide control over this resource.

II.B.1.a. OIL FOR FOOD

The question of water in Iraq, a desert country with temperatures reaching to 130 degrees Fahrenheit (54 degrees Celsius), is buffeted by highly-charged hydro geopolitics, the integral part that water plays in the oil industry, and low quality of existing resources. Iraq shares the waters of the Tigris and Euphrates with regional competitors Syria and Turkey. Water is very important to the oil industry companies. Water thus constitutes a resource which is equally precious to oil, so it is important that Iraqi oil interests to keep water in friendly hands with neighbor states. In addition, the water resources in the area are often brackish and saline, and require expensive and inefficient processing to be fit for consumption or agriculture. Food is such a scarce resource that it what used against Saddam Hussein's regime in Iraq as a sanction following the Gulf War (Katzman, 2002).

After the invasion of Iraq by coalition forces, Iraqis face water-related struggles. An August 2003 United Nations report titled, "Iraq: Water – a source of life and death," says that 70 percent of illnesses in children are linked to contaminated water. Not one principal Baghdad sewage plan, for instance, is operational (as of August 2003), so raw sewage courses through the system and into the rivers without treatment. In most places,

where water has not come through the pipes in months, Iraqis procure their water rations directly from the river or from tanker service, which, residents say, often causes diarrhea.

The marshlands of Mesopotamia represent a unique component of global heritage and natural resources (Mitsch, et. al., 2006). The Mesopotamian marshes, between the Tigris and Euphrates Rivers in southern Iraq, were historically one of the world's most important wetlands. The area was once over 20,000 square kilometers—thought by some to be the original Garden of Eden—and provided habitat for millions of migrating birds. It has been inhabited since the time of the Sumerians by thousands of people living on artificial islands of mud and reeds and depending on sustainable fishing and farming.

Since the early 1990s, this ecological and cultural jewel has been devastated by a series of thoughtless dam constructions and deliberate water diversions that led to what many have come to regard as one of the most severe “ecocides” in history. While the wetlands destroyed, the 5,000-year old way of life of the marsh dwellers was erased.

II.C. SOCIETAL SUSTAINABILITY

There is an adage that “oil and water don’t mix.” That could be said about the different religious and ethnic groups throughout the Middle East and particularly among Muslims in contemporary Iraq. Traditionally, the basic resource for sustaining humanity is water, while in modern times energy has emerged and oil is become more necessary.

Societal sustainability includes establishing and maintaining a sovereign state for Iraq or parts thereof, such as Kurdistan. In her “political logic of sustainability,” Choucri (1999) identifies three dimensions of security as: external security (defense of borders), regime security (security of governance), and internal security (life-support properties). “A state is truly secure to the extent that all three dimensions or conditions of security are

in place.” We consider the reunification and partition of Iraq below, under sustainability conditions. Internal security refers to the natural resource base of Iraq. Currently the US is providing external security and regime security. Iraq is dependent on US occupation.

II.C.1. DEMOGRAPHY

Iraq is a rather diverse country based on ethnicity and religiosity. From religious points of view, Iraq is a Muslim country, 97% of Iraq population is Muslims, from that number 60-65% Shia and 32-37% Sunni. The other 3% represents other religion groups together (Christian, Mandaean, Yazidi, and Jewish). The numbers are estimates because the last Iraqi national census was held in 1997. The numbers were for the governorates under Saddam’s regime. We re-classified Iraqi population by religious and ethnic groups, and then redistributed them according to the 18 governorates and the 102 districts. This map (Figure 5) shows the diversity of Iraqi society, with 75-80% Arab, 15-20% Kurdish and other minority groups together less than 5% (Assyrians and Turkmen). This map was generated from reference number 2 and the United Nations scanned map for 1965 census, the same map that was used in the Baker-Hamilton report (Iraq study group) modified.

III. SUSTAINABLE SOLUTIONS

Here we discuss reunification of Iraq under a federal secular government, which is being attempted now and an alternative solution, which would partition Iraq into three separate countries. It separates religious and ethnic factions that are engaged in civil war. The sustainable way forward in Iraq consists of two futures. They are reunification under a secular regime or partition into three ethnic and religious states. We discuss conditions for prospects, reunification and partition of Iraq, from a sustainability perspective.

III.A. REUNIFICATION

Reunification of Iraq as a secular state is presently failing, despite an escalation of armed intervention by the U.S. Recent attempts to impose social order around Baghdad have met with limited success, since armed militias and foreign insurgents are thwarting Iraq's rebuilding efforts. The United States and allied forces are now planning a staged withdrawal from Iraq. The fundamentalist Islamic insurgent groups are claiming victory over the West and democracy in particular. Ex-patriot Iraqis are calling for a return to strong man rule or "Saddamism." They express feelings that they would have been better off under Dictatorship to avoid the present anarchy. The path to democracy is painful.

Unification requires secularism and transcending tribalism. Turkey could provide a model for Iraq to unify its people. The regime form could range from confederalism to federalism, but Iraq without a strong central government would probably fail as a state.

III.A.1. SECURITY DILEMMA

Whenever ethnic or religious communities cannot rely on a strong and impartial central state to prevent civil strife, all groups must mobilize for self-defense. This creates a security dilemma, where no group can provide for its own security without threatening the security of others. The intensity of this security dilemma is a function of demography (Posen, 1993):

The more intermixed the pattern of settlement of the hostile populations, the greater the opportunities for offense by either side; and it becomes more difficult to design effective measures for community defense except by going on the offensive preemptively to cleanse mixed areas of members of the enemy group and create ethnically reliable, defensible enclaves.

Solutions that aim to restore multi-ethnic civil politics and to avoid population transfers, such as institution building, power sharing, and identity reconstruction, cannot

work during or after an ethnic civil war because they do not resolve the security dilemma created by mixed demography (Kaufmann, 1996). As long as both sides know that the best security strategy for each is to engage both in offense and in ethnic cleansing, neither side can entrust its security to hopes for the other's restraint (Lake and Rothchild, 1996).

The policy implication is that the international community should endorse separation as a remedy for at least some communal conflicts; otherwise, the processes of war will separate the populations anyway (the partition of Yugoslavia), at much higher human cost. The critical causal factor is separation of people into defensible enclaves, not partition of sovereignty? Conversely, partition without separation only increases conflict, as it did in Croatia and Bosnia in 1991-92, after they declared their independence from Yugoslavia (Kaufmann, 1996).

III.A.2. FEDERALISM

Federalism is seen by many as the “golden road” to reducing ethnic conflict in a sustainable way (Hannum, 2003). Federalism may also provide a platform for radical positions and counter-reactions and thus lead to a radicalization of ethnic politics in new forms, e.g. as an escalating fight between center and federal entity over the distribution of resources (Hechter, 2003). Also, federalization may heighten rather than reduce the risks of human right violations, especially for members of ethnic minorities living under the rule of the majority government of a federal unit (Kälin, 2003).

Territorial federalism is said to reduce incentives for politicians at the provincial level to pursue a policy of ethnic antagonism. In a territorially defined system, the current situation in Iraq provides an opportunity to introduce a non-ethnic federalism, since the Kurds in the North are split between two chiefdoms (Wimmer 2002). Both Talabani's

and Barzani's parties officially demand autonomy for a unified Kurdish era. A territorial federalism may be in the interest of the Sunni, because it would avoid an overly powerful Shia province and thus reduce the political impact of the demographic majority of Shia. Kurds and Sunni together may be strong enough to convince the Shia of the advantages of a non-ethnic federalism.

To avoid the sort of resource fights between center and provinces that led to the dismemberment of Yugoslavia and to the proliferation of claims to federal statehood in Nigeria, fiscal federalism has been proposed as a solution (Rodden and Wibbels 2002). Fiscal federalism would imply central control over the oil revenues of Iraq. A very large share of these revenues would directly be distributed to the federal states responsible for a large part of government functions. Fiscal federalism of this sort would greatly reduce the incentives to fight over control of the central government. And it would reduce pressure for controlling the oil fields in Mosul and Kirkuk, perhaps even to the point of halting the dynamics of ethnic cleansing that has plagued these regions for decades.

To ensure protection of individuals and minorities from abuse of power, a strong minority rights regime at the national level, again a powerful independent judiciary system and effective enforcement mechanisms are needed. Otherwise revenge against Sunni Arabs in Kurdish or Shia dominated federal units will be endemic, the series of ethnic cleansings and forced resettlements will continue, and minorities dispersed over the territory, such as Christian sects, Turkmen, Yezidi, etc., will face discrimination by provincial governments. There is currently no judicial system that would be capable of handling the thousands of claims addressing past injustices, forced resettlement, and expropriation, and that would protect citizens from similar treatment in the new federal

entities. The holding of peaceful national elections is no guarantee of rights, as Zakaria has cautioned us some time ago, (Zakaria, 1997), against democracies turning illiberal.

III.B. PARTITION

An alternative to unification is the partition of Iraq (Abood, 2006; Haciogullari, 2007). A three-state solution (Figure 6) was first proposed following the recent invasion of Iraq by U.S. led forces in 2003 (Gelb, 2003; Galbraith, 2006). We propose a tri-partite return to the ancient governates “pashas” of Mosul (Kurdistan), Baghdad (Sunni-Arab), and Basra (Shia-Arab). Iraqi oil resources are mostly located in two parts of the country, north and south, while hydrology resources converge in the centralized region that first created the country. To the north, Turkey can control the flow of rivers. The dominant religious and ethnic groups, Kurds in the north, Sunni Arabs in the central region, and Shia Arabs in the south, vie with one another for control over the landscape. Kurdish nationalism will not permit a two-state solution in combination with Sunni Arabs, while Sunni Arabs cannot reconcile with Shia Arabs. The three-state solution is: (1) Kurdistan (Sunni Kurd), (2) State of Baghdad (Sunni Arab), and (3) State of Basra (Shia Arab).

Partition entails a reorganization of political space that triggers complex identity problems within and across the borders of the states involved. The history of partition is steeped in controversy and violence. That history is comprised of both colonial partitions that occurred in Ireland, India, Palestine and Cyprus, as British imperial rule contracted in these locations (Hitchens, 2003) and cold war partitions in Germany, Vietnam and Korea. Recent examples of territorial division are Ireland (1920), Germany and Korea (1945), India (1947), and Indochina (1954), Yugoslavia (1991), Serbia and Montenegro (2006). The breakup of India into Muslim states of Pakistan and Bangladesh was conflictual,

which continues in Kashmir. Reunification of Germany was relatively peaceful, while reunification of Vietnam was relatively violent. There is continued conflict in Palestine over Israel and in Korea with threats against the South by the North. Partition is accepted as a method for terminating disputes outstanding among nations without recourse to war.

Iraq has never been ethnically or religiously homogeneous. Rather it has always been divided at least into three major ethnic groups, Sunni Arabs, Shia Arabs, and Kurds, with the Sunni minority imposing an authoritarian and usually brutal regime upon the Shia majority and the Kurdish minority. Moreover, the three ethnic groups correspond to three territorial regions, with the Sunni Arabs in the center, the Shia Arabs in the south, and the Kurds in the north (with mixed populations in major cities). We predict that the Iraqi civil war will intensify if these three regions are not allowed to govern themselves.

IV. CONCLUSIONS

The sustainable way forward in Iraq consists of two futures. They are unification under a secular regime or partition into three ethnic and religious states. In this paper, we discuss both prospects from a sustainability perspective that includes the Iraqi people, traditions, customs, languages, and resources. Not only is Iraq important geopolitically, but also historically and religiously. The region was the seat of an ancient Babylonian civilization. Iraq has one of the largest oil reserves in the world. The Iraq Study Group Report (2006) finds that prospects for unification in Iraq seem dim. Unless secularism and nationalism can triumph over parochial interests, among ethnic and religious Iraqi forces, then partition appears to be a feasible path forward. Partition would be less than optimal, but second best is perhaps better than civil war and no peace at all. Unification requires secularism and transcending tribalism. Turkey, as a member of NATO and EU

member candidate, could provide a model for Iraq to unify its people. The Iraqi regime's structural form could range, from confederalism to federalism. But Iraq without a strong central government would probably fail as a state. Strong man rule looms on the horizon.

Partition of Iraq into sustainable geographical, ethnic, and religious units is viable. Partition accepts tribalism and ethnic religious faction. We propose a three-state partition of Iraq as: Kurdistan (Sunni Kurds), State of Baghdad (Sunni Arabs), and State of Basra (Shia Arabs). The three-state solution threatens Iraq's neighbors, because the Kurdish minority groups in Turkey, Iran, and Syria may try to annex their regions into Kurdistan. Saudi Arabia may be threatened by Shiites with an Arab State of Basra. Despite the fears of bordering states, we argue that partition offers a peaceful, sustainable, future for Iraq.

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Ethnic Groups

- | |
|----------------------------------|
| Arab |
| Arab and Kurd |
| Arab, Kurd and Turkmen |
| Arab, Kurd, Turkmen and Assyrian |
| Kurd |
| Provinces |

Figure 1.
Iraqi Major Ethnic Groups



0 45 90 180 270 360 Kilometers





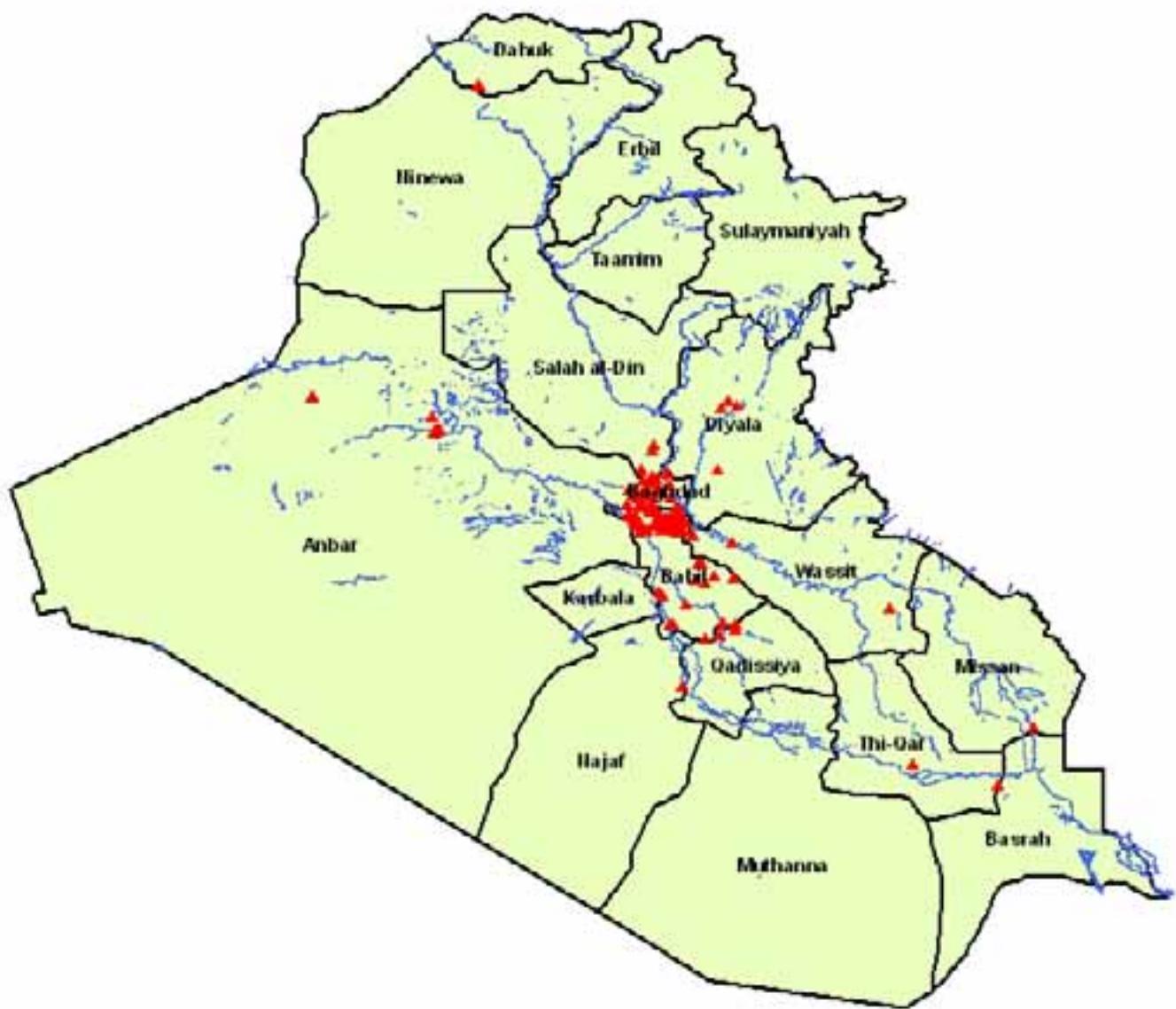
Political Parties and Militias	
■	Kurdish Democratic Party - Patriotic Union of Kurdistan
■	Kurdish, Inter of Kurdistan
■	Iranian Revolutionary
■	SCIRI and Dawa organization - Da'i al-Tawhid and Islamic Party (DID) - Fathullah Party
■	SCIRI and Dawa and Islamic Party (DID) - SCIRI and Dawa organization
■	GSP and Muqtada al-Sadr Militia
■	Other insurgents
■	Shi'ite
■	Frontiers

Figure 2.
**Iraqi Political Parties
and Militia Groups**



0 45 90 180 270 360 Kilometers





Legend

- ▲ Dams
- Rivers and Streams
- Provinces

Figure 3.
Iraqi Rivers and
Dams



0 45 90 180 270 360 Kilometers





Legend

- [Yellow Box] Provinces
- [Purple Box] Oil and Gas Fields
- [Red Line] pipeline

Figure 4.
Iraqi Petroleum
and Pipelines



0 45 90 180 270 360 Kilometers





Figure 5.
Iraqi Religious and Ethnic Groups

Religious and Ethnic Groups	
Dari Arab and Dari Kurdish	Dari Arab, Turkmen and Turkmen Kurds
Turkmen	Dari Arab, Turkmen and Turkmen Kurds
Dari Arab and Christian Arab	Dari Kurdish
Dari Arab and Turkmen Arab	Dari Kurdish and Turkmen Kurds
Turkmen, Dari Kurdish and Turkmen Kurds	Dari Kurdish, Turkmen and Turkmen Arabs
Dari Kurdish	Dari Kurdish, Turkmen and Turkmen Arabs, and Turkmen Kurds
Dari Kurdish and Turkmen Kurds	Christian



0 45 90 180 270 360 Kilometers





Legend

Provinces

New States

Kurdistan

State of Baghdad

State of Basra

Figure 6.
Three-State
Solution



0 45 90 180 270 360 Kilometers

