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War and the Iraqi Economy: An Experimental; Case Study

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Many of the charts in this study were developed with the aid of Dr. Abdullah Toukan using his SIRA Model (Strategic and International Risk Assessment Model). Any questions can be directed to abdullah.toukan@siracenter.org in Dubai, UAE.

The Four Threats That Drive Serious Terrorism and Insurgency (In Order of Priority)

- **1. Host Country Government and Security Forces:** Authoritarianism, failure to cope with internal divisions, poor governance and corruption, failed economy development and equity, population pressure and youth bulge, repression and violence by internal security forces, traditional and corrupt military.
- **2. The Overt “Threat”:** Moderate and peaceful beginnings shift to extreme and violent movements that feed on the civil-military divisions and failures of the host country governments.
- **3. The U.S. Threat to the U.S.:** Relearn counterinsurgency yet again. Separate military (tactical) and civil (project-oriented development) efforts. Threat oriented and downplay Host Country problems. No meaningful overall civil-military plan or net assessment. Rapid rotations with limited expertise. Cycle of denial, flood resources, rush to generate Host country forces, then leave too soon. “Take note” of lessons, then ignore.
- **4. Other Nations: Allied, Neutral, Hostile:** Allied limits to engagement, national caveats, demands; neutral interference for competing national interests, hostile action because anti-U.S., support overt threat, opposing national interests.

The Economist Threat to Counterinsurgency Economics

1. The economic factors that divided and sometimes shattered a nation are largely ignored.
2. The specific economic forces driving given factions, areas, and terrorist-insurgency threats are not measured or taken into account. (Sects, ethnic groups, regional tensions, conflict/war zones, IDP-refugee impacts, etc.)
3. Reliance on classic national wide metrics for developed nations at peace: GDP, GDP per capita, Inflation, debt, Balance of Payments, etc..
4. Fail to address major uncertainties, limits to data.
5. Focus on classic nation-wide development as if war and causes of war did not exist, and need to reconstruct and construct basic services and functions did not exist.
6. Economic aid becomes project aid without valid national analysis and plans. Fails to alter dominant military focus on fighting, conflict termination, departure, (possibly short-term stability) and not national stability.
7. Largely ignore demographic pressures, youth needs, corruption costs and impacts, critical problems in governance and budget planning and execution.
8. Live in “now”, rather than economic history, examine best-case, not real futures.
9. Bureaucratic compartments in Host Country, USG (Embassy, command, DoD, State, USAID, Intel, DoE/EIA, NSC, Congress), international organizations (UN, World Bank, IMF, etc.), Non-US national and NGO activity.
10. Focus on getting money and spending, not auditing use of money and measuring effectiveness.

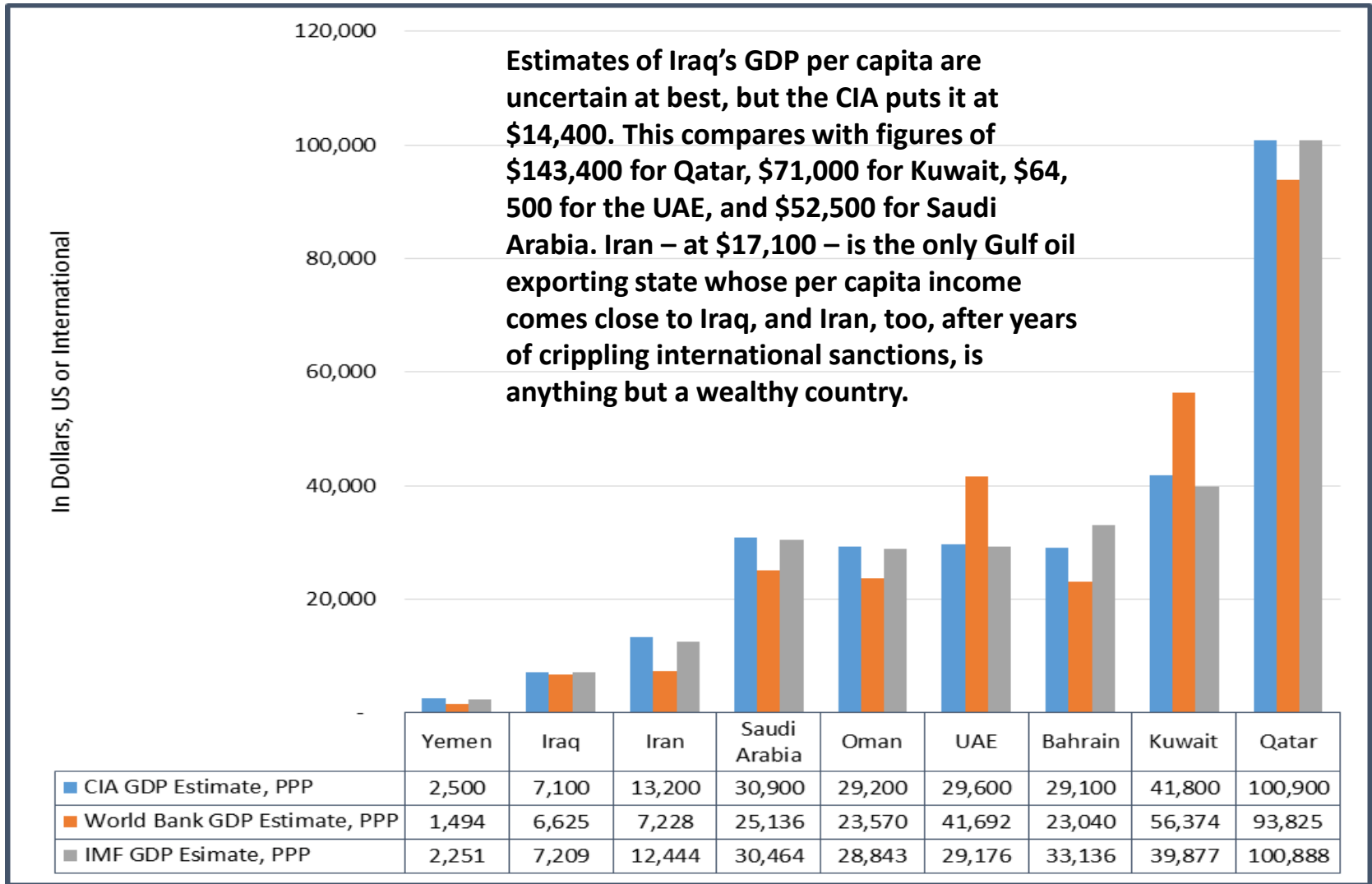
**Correlation is Not
Causation, and Economic
Forces are Only One
Factor.**

But....

The Iraq War and “Economic Determinism”

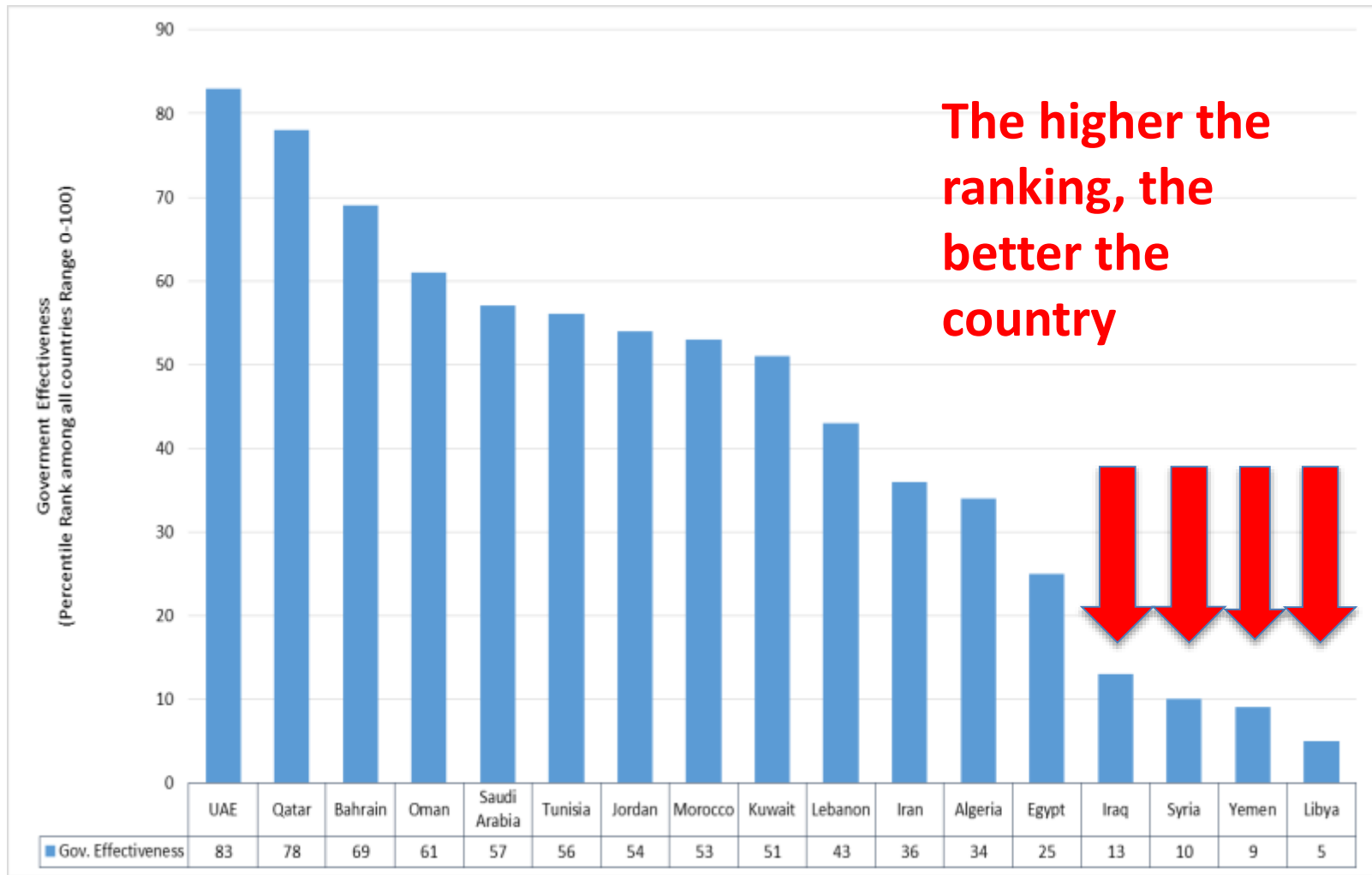
- 1. Correlation of limited variables is not causation. Economics are only one factor and not the dominant one. Religion, ideology, politics, governance, social structures, and sectarian, ethnic, tribal and regional differences, and capacity for violence and warfighting all have a major impact.**
- 2. All interact.**
- 3. But economic factors are important and sometimes critical, and some of Iraq’s present economic problems date back to the time of the monarchy, while many other are the product of the near constant state of war and/or crisis between Saddam’s seizure of power in 1979 and the present.**
- 4. There are a number of key economic factors that UNDP and the Arab Development reports warned from 2003 onwards could lead to crisis and internal conflict, and where they are common problems for Iraq, Syria, Libya and Yemen.**
- 5. Iraq’s problems are different in the sense they are shaped by a combination of**
 - Continuing long-term conflicts and related crises,**
 - Micro economics growing out of sectarian, ethnic and regional divisions between Arab and Kurd and Shiite and Sunni, and now by the division between government and ISIS held areas and expansion of the KRG zone of occupation.**
 - Acute population pressure interacting with hyperurbanization and a “youth bulge” leading to large-scale unemployment and under-employment.**
 - The “oil disease,” and excessive dependence on petroleum income.**
 - Grossly inflated and unproductive government employment and state industries and SOEs.**
 - Failure to reform and modernize agriculture.**
 - Inefficient budgets, gross corruption, and unrealistic development plans.**

Gulf GDP Per Capita by Country



Sources: World Bank Indicators: GDP Per Capita, <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>
 CIA World Factbook, <https://www.cia.gov/library/publications/the-world-factbook/>
 International Monetary Fund, <http://www.imf.org>
 Accessed April, 2014.

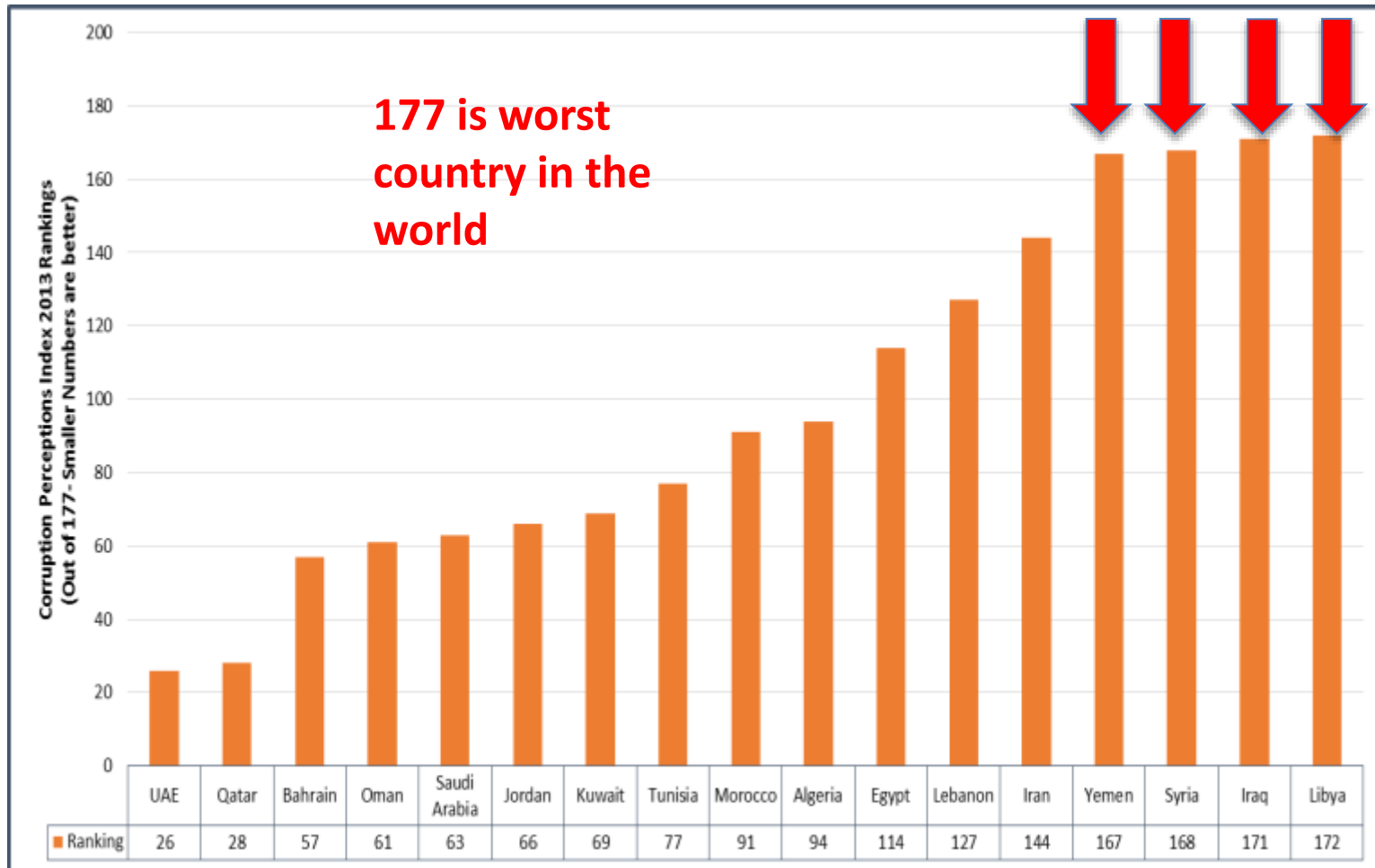
Government Effectiveness and Failed Secularism



Source: World Bank Governance Indicators, Accessed April, 2014.

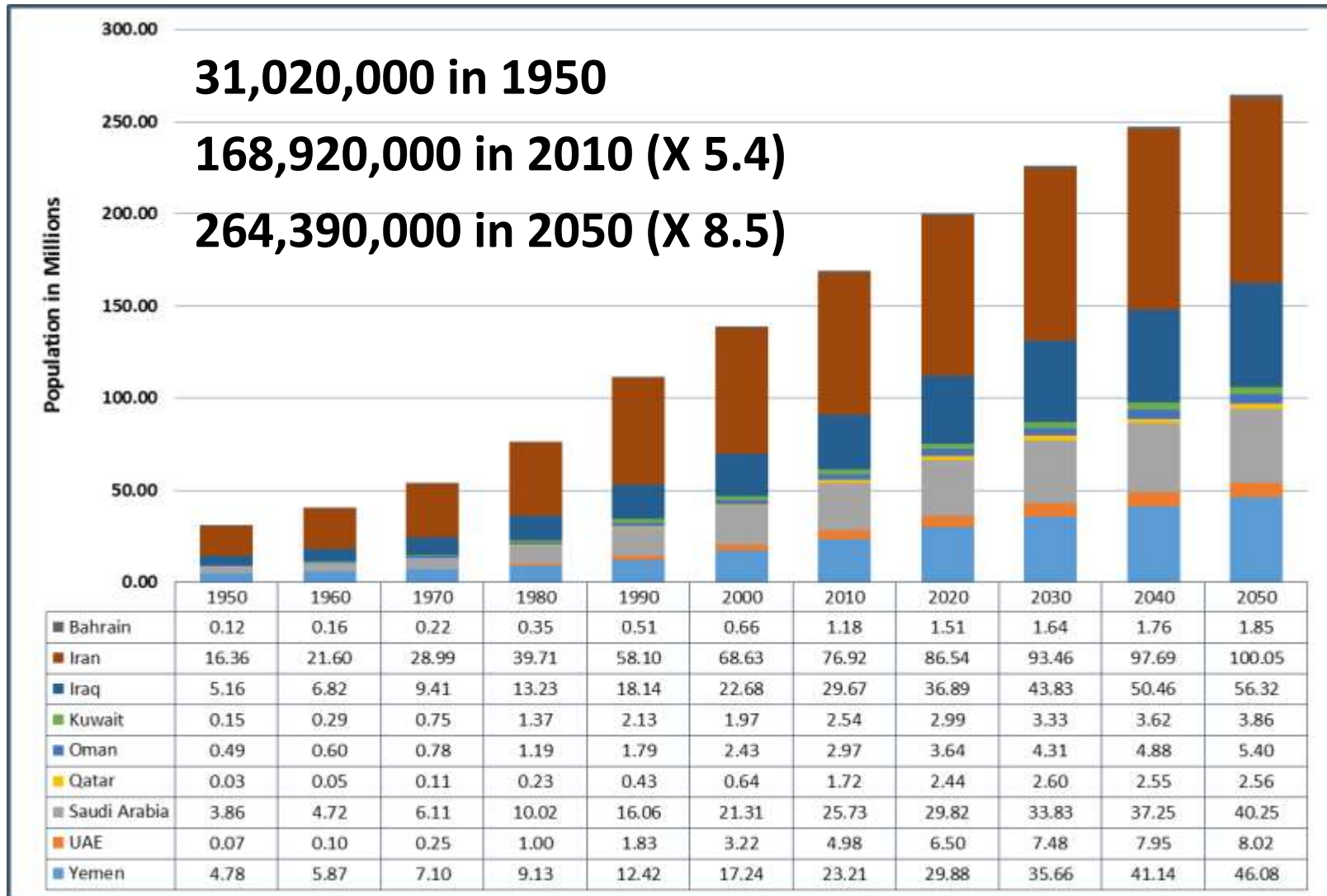
<http://info.worldbank.org/governance/wgi/index.aspx#home>

Transparency International Corruption Perceptions Ranking (Out of 177)



Transparency International Corruption Perceptions Index “The Corruption Perceptions Index ranks countries and territories based on how corrupt their public sector is perceived to be.”

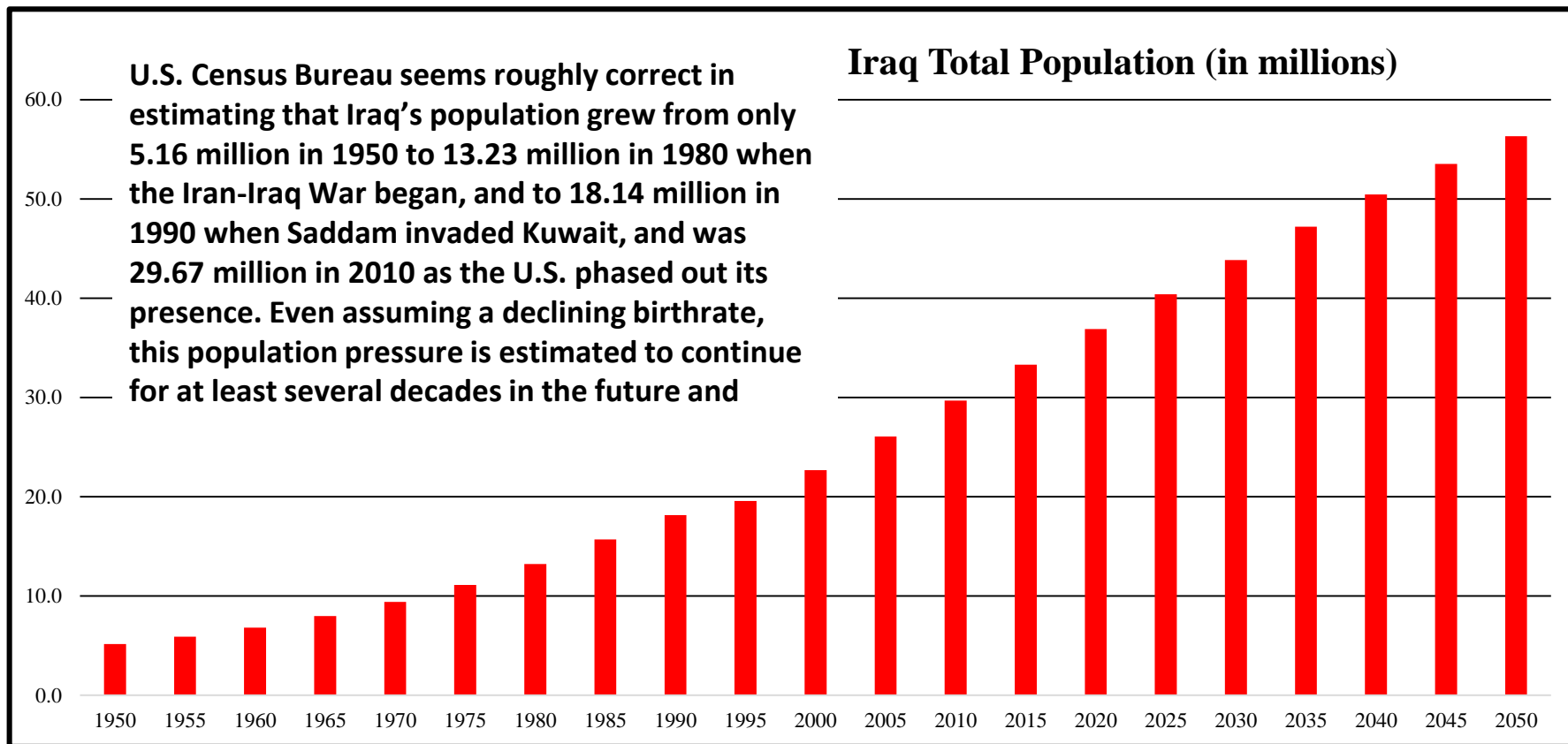
Gulf Demographic Pressure: 1950-2050 (In Millions)



Source: United States Census Bureau, International Data Base, Accessed April 2014.
<http://www.census.gov/population/international/data/idb/informationGateway.php>

Demographic Pressures on Iraq – U.S Census Bureau: 1950-2050

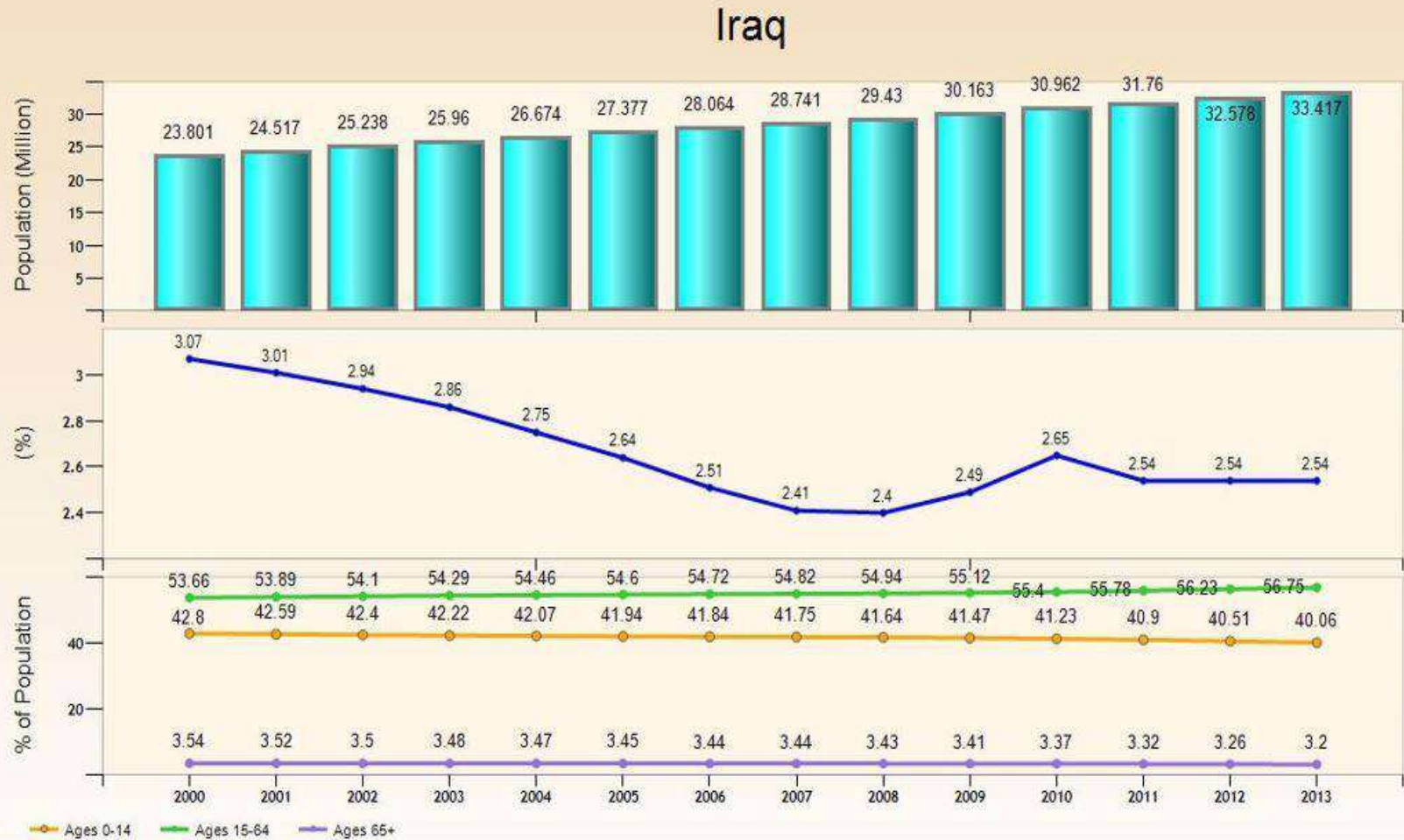
(Total Population in Millions)



	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
Total Population (millions)	5.2	5.9	6.8	8.0	9.4	11.1	13.2	15.7	18.1	19.6	22.7	26.1	29.7	33.3	36.9	40.4	43.8	47.2	50.5	53.5	56.3
Population Growth Rate (percent)	NA	NA	NA	NA	NA	NA	NA	NA	-2.7%	3.1%	2.9%	2.7%	2.4%	2.2%	1.9%	1.7%	1.6%	1.4%	1.3%	1.1%	0.9%
Total Annual Births (millions)	NA	NA	NA	NA	NA	NA	NA	NA	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

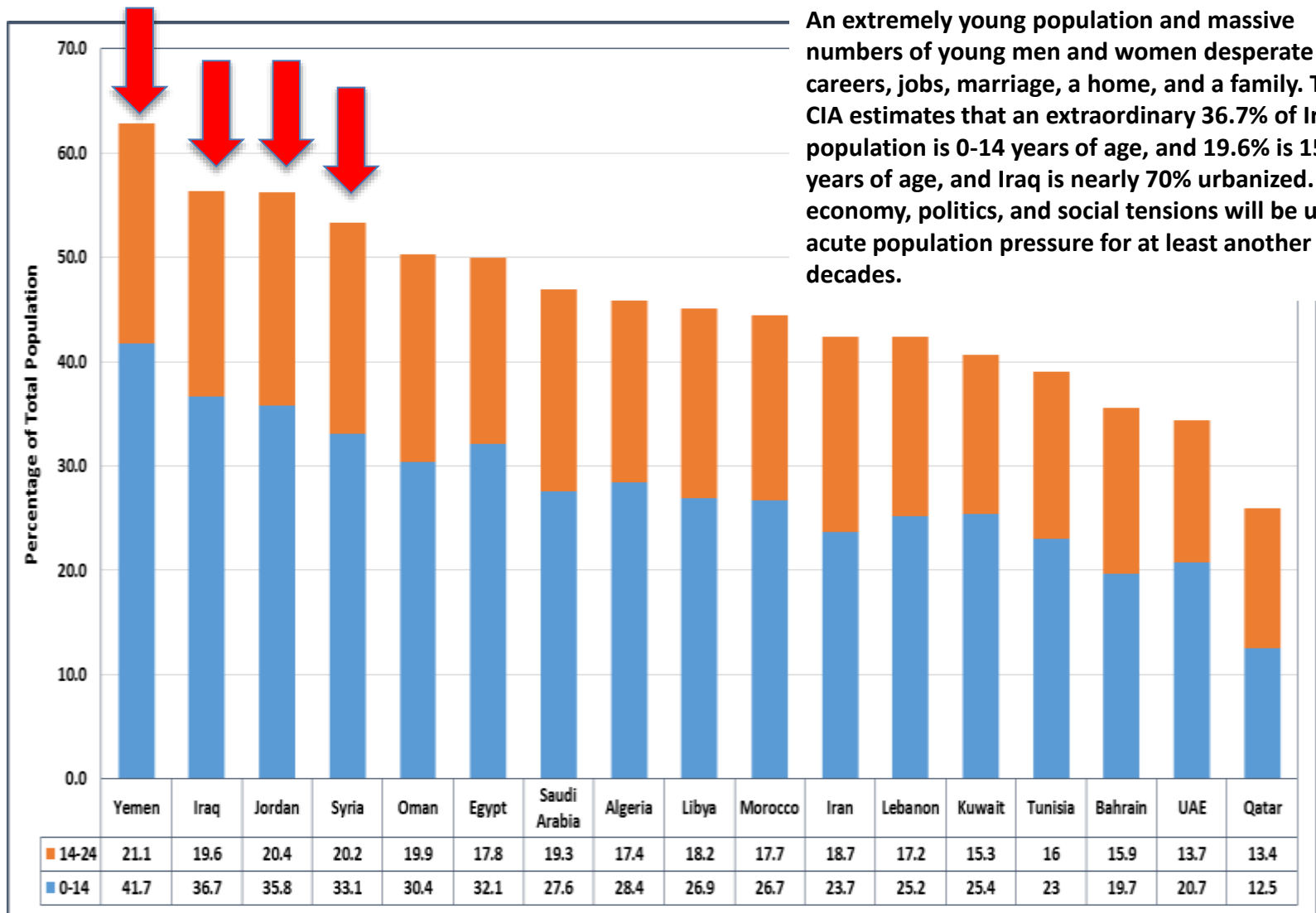
Source: U.S. Census Bureau, International Data Base (IDB), <http://www.census.gov/population/international/data/idb/informationGateway.php>, Accessed May 20, 2015.

Short-Term Demographic Pressures on Iraq – World Bank: 2000-2013



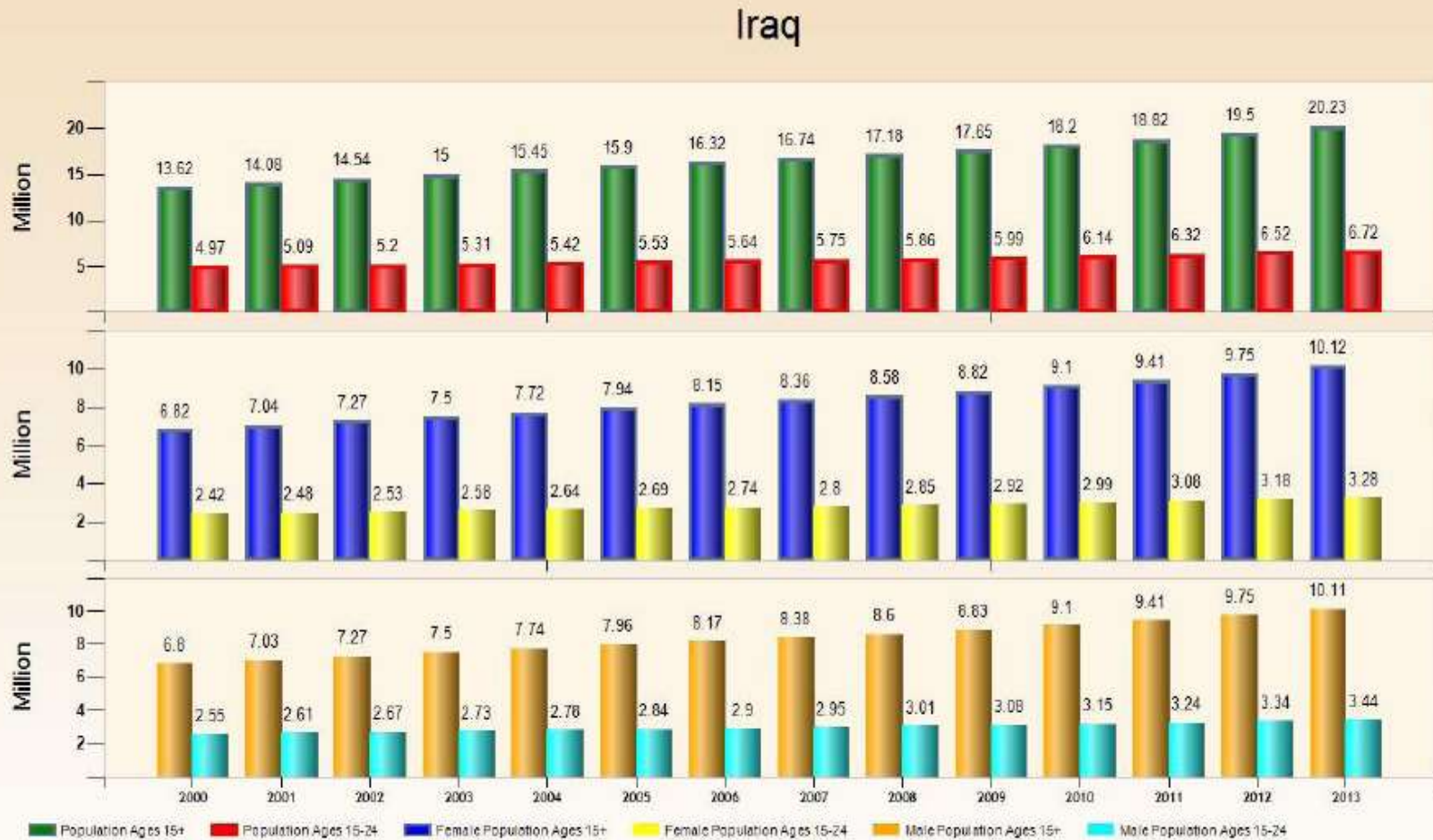
(Source: World Bank)

The MENA “Youth Bulge” (Percentage of Native Population Below 25)



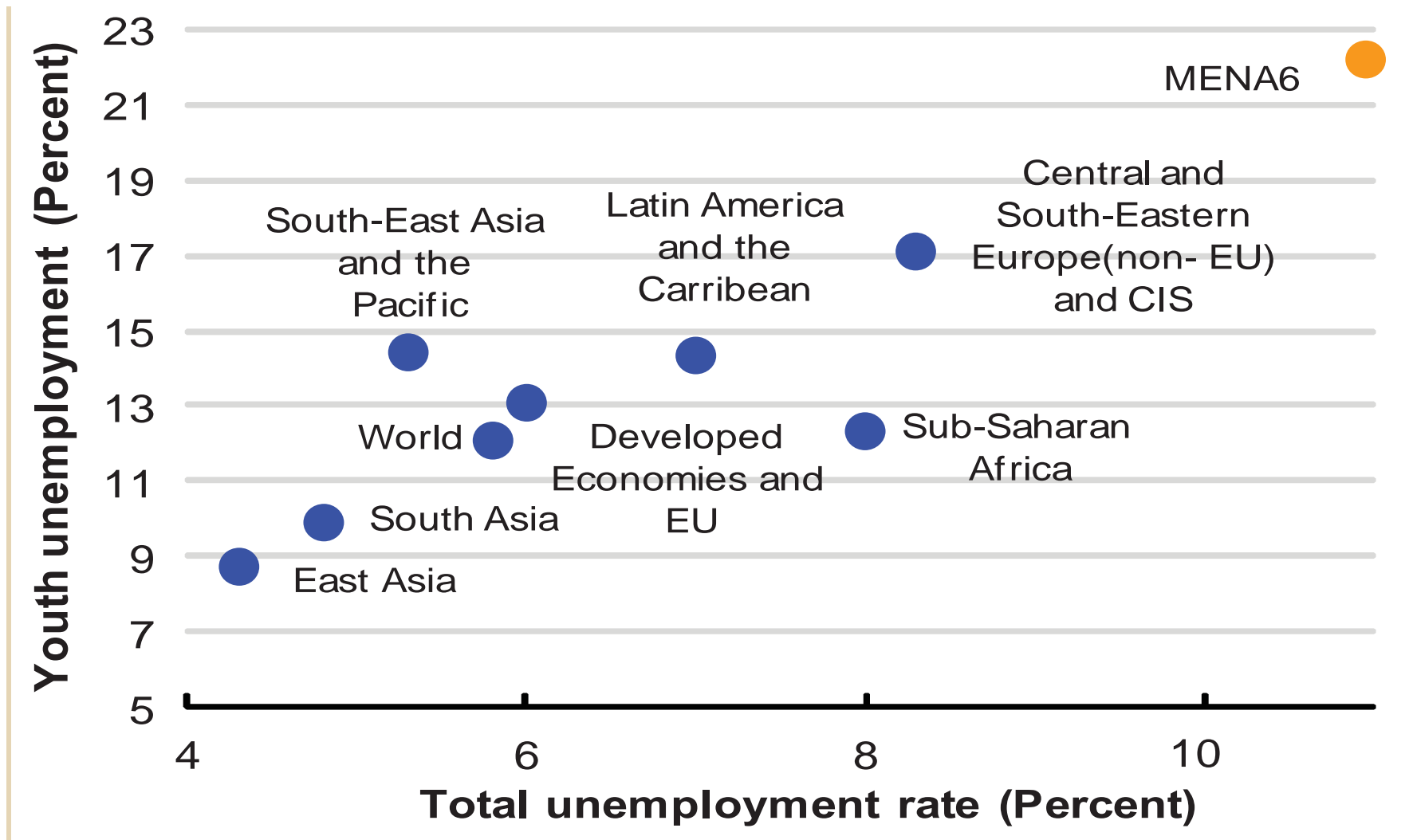
Source: Central Intelligence Agency, World Factbook 2014, Accessed April 2014,
<https://www.cia.gov/library/publications/the-world-factbook/>

The Iraqi “Youth Bulge”



(Source: World Bank)

Total and Youth Unemployment Rates by Region (2008): The Threat From POAYMs



Economics Cannot Be Separated from Governance

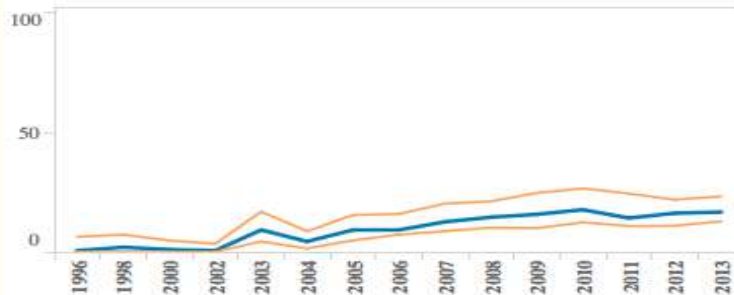
Iraqi Governance and Economic Challenges

1. **World Bank warns Governance has not improved materially in any respect since the fall of Saddam Hussein.**
2. **The government's revenues are so dominated by petroleum export revenues as to have limited meaning.**
3. **No meaningful metrics on many of the key social problems and causes of instability: Poverty, disguised unemployment, income distribution, development progress, war impacts, etc.**
4. **Post-Saddam corruption leads to major unquantifiable losses, while anti-corruption measures stifle efficient allocation and initiative.**
5. **Gross government overemployment, poor State sector and SOE performance, and wartime costs combine to dominate the budget and severely limit spending on development.**
6. **Grossly inefficient governments generate unrealistic budgets, delay approval, fail to execute on a timely basis, experience critical losses through corruption, and fail to audit and control expenditures and tie them to measures of effectiveness.**
7. **Major state barriers to efficient private sector investment and businesses, combined with a poorly performing financial sector, further cripple development.**
8. **Sectarian and ethnic power struggles, power broker struggles, and ineffective legislature cripple the process of governance in many ways.**
9. **Over-optimistic plans are often decoupled from real world budgets and capability to execute and in ways which lead to repetition of the same mistakes: Petroleum sector, electric power, etc.**
10. **Abadi reform plans address causes of summer protests in part, but have limited impact at best.**

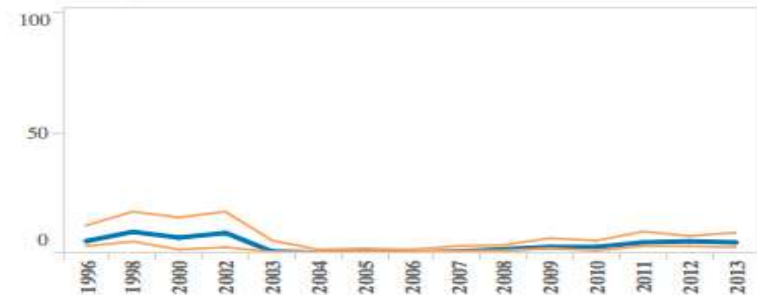
World Bank Rankings of Failed Governance in Iraq

Income Group, Region, or Country: Iraq

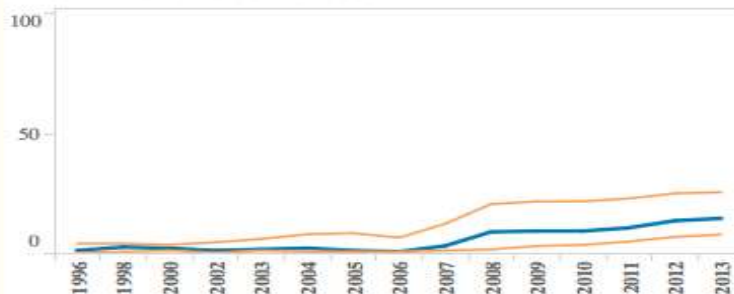
Voice and Accountability



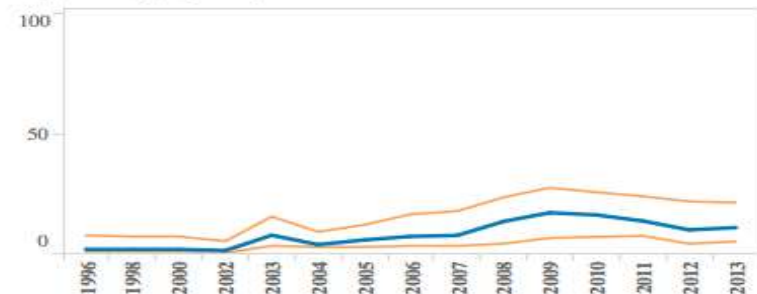
Political Stability and Absence of



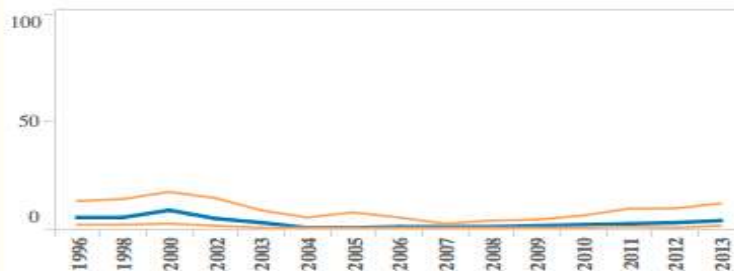
Government Effectiveness



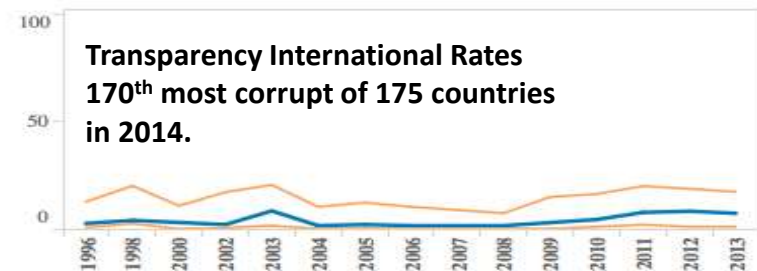
Regulatory Quality



Rule of Law



Control of Corruption



**Transparency International Rates
170th most corrupt of 175 countries
in 2014.**

The inner, thicker blue line shows the selected country's percentile rank on each of the six aggregate governance indicators. The outer, thinner red lines show the indicate margins of error.

The Limited Scope of the Abadi Corruption Reforms

- 1. Activating the role of the Anti-Corruption Council, chaired by the Prime Minister, and the launch of a “where did you get this” campaign along with the other functions of the Council, and in cooperation with the judiciary.**
- 2. Activating the role of regulatory institutions, identifying corrupt officials and establishing criteria for evaluating the performance of regulatory this requires activating the role of the National Integrity Commission, the reassessment of the offices of inspector generals, while focusing on the core functions of their offices to consolidate them and increase their efficiency.**
- 3. Opening past and current corruption cases under the supervision of a supreme committee composed of specialists to combat corruption, and inviting the judiciary to approve a number of specialized judges, known for their integrity to investigate and prosecute corrupt officials, and set a time limit to resolve the issues according to the law.**

The Abadi Reforms

Prime Minister Haidar al-Abadi made major new effort to address some of these problems by issuing a seven point reform program on August 9th, and correctly focused on the area where he could have the most near-term impact and do most to defuse public protests.

He had the support of the Ayatollah Sistani, and coordinated his proposals with the leading Sunni political figure in the current Iraqi government: the speaker of the parliament, Salim al-Jabouri. The end result was that the Iraqi parliament nearly unanimously approved the reforms on August 11, 2015, and did so virtually without debate. One needs to be very careful about the resulting program, however, because Iraq has never been able to turn broad goals into effective action in the past, and the actual substance of Abadi's brief reform package focused largely on politics.

One key step involved calling for the elimination of Iraq's three vice presidents as well as a corrupt Deputy Prime Minister Bahaa al Araji. The vice vice presidents included former Minister Nouri al-Maliki, a divisive and power hungry figure that had brought Iraq back to the edge of civil war by 2013, crippled its security forces, and made Iraq's Sunnis vulnerable to the invasion by ISIS. It also, however, included Ayad Allawi, a Shiite whose bloc had heavy Sunni support and won the most seats in national elections in 2010; and Osama al-Nujaifi, a leading Sunni Arab leader.

In addition, the program called for the end of ethnic, sectarian, and party quotas. Like in any of the steps in the program, this would be useful if it led to the kind of implementation that brought sectarian and ethnic unity, but an open ended effort can simply shift the balance of money and influence, and actually increase Shi'ite favoritism and corruption. Cutting back on government employment is also one thing in a growing economy and quite another if it creates more unemployment and resentment,

Many of al-Abadi's proposals also are largely statements of broad intent that do not involve any clear pattern of action. He instead sought to present a broad program to parliament that he stated was the "first batch of measures along the path of reform that we seek, and the fight against corruption. With the passage of this package, we will take the necessary measures to implement them."

An English summary of Prime Minister Abadi's proposed reform agenda, as reported by *1000 Iraqi Thoughts*, follows:

The Limited Scope of the Abadi Economic and Service Reforms

1. The Crisis Cell shall take the appropriate decisions to activate investment and stimulate the private sector through:
 - a. Activation of loans to stimulate the economy and reduce unemployment, both the loans endorsed by the cell in respect of loans allocated to the industrial sector and the agricultural sector and the housing sector amounting to 5 trillion dinars, and in respect of loans to support small projects amounting to 1 trillion dinars. The committee in charge shall develop appropriate mechanisms and submit its recommendations before the end of this week.
 - b. Carrying out the cabinet and the crisis cell's decisions to pay the dues of private sector companies in an equitable manner to facilitate their work and create new jobs.
 - c. Completion of the payment term program prepared by the Ministry of Planning in cooperation with the Ministry of Finance within one week, and submitting it to the Crisis Cell for approval, in order to provide services to citizens.
2. Cancellation of all government contract exceptions, excluding current armament contracts in the Ministry of Defense, and authorizing the Prime Minister to grant emergency exceptions.
3. Activation of strategies prepared by state institutions, especially those that have been prepared in cooperation with international organizations.
4. Creating a package of measures to resolve electricity problems in the areas of production, transmission and distribution, and collection, to be completed within two weeks.
5. The adoption of effective community-based monitoring program to detect any decline or failure in the delivery of services in order to hold the negligent accountable, which requires competent service collection, whether at the level of ministries, or local governments.

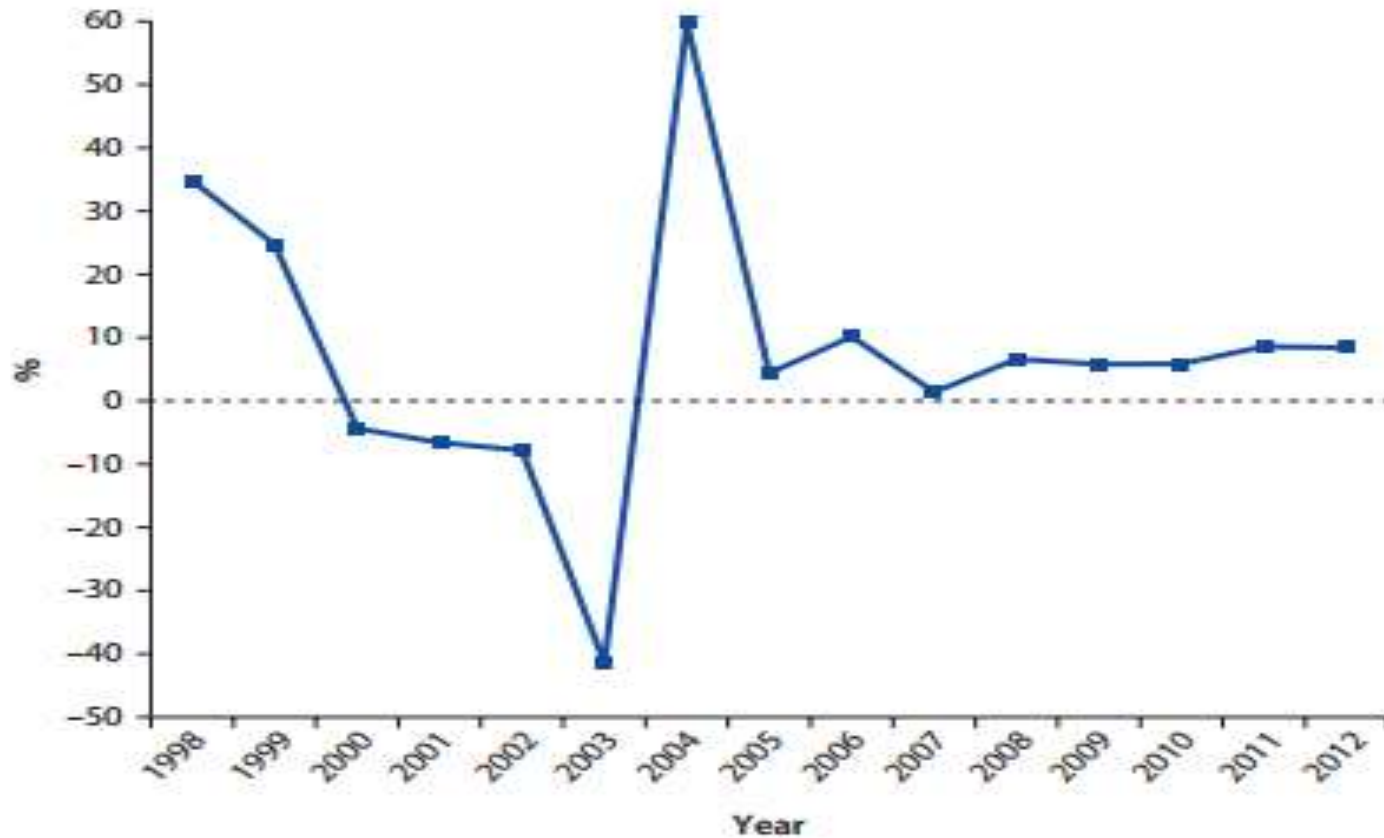
**Economics Cannot
Be Separated from
Constant State of
War and Crisis Since
1979**

Iraqi Economics and Wartime

- 1. Post GDP growth has been extremely erratic and war-crisis driven.**
- 2. More recent econometric trends fail to reflect current real-world impact of war, and structural problems in the economy. Gross trends in GDP reflect past rises in oil exports and prices, not development.**
- 3. Per capita income data heavily shaped by petroleum revenues and PPP add-ons. Do not reflect real world income.**
- 4. UNDP Ranking of Human Development Indicators are not good, but seem decoupled from real world impact of the fighting.**
- 5. World Bank Global Ranking of Ease of Doing Business in Iraq in 2015: 156th worst of 185 Countries – but again seems to apply largely to areas outside combat zone, does not attempt to distinguish between ISIS and KRG held areas versus areas securely held by government.**
- 6. IMF data present major problem in that they seem to reflect drop in oil prices and revenues and not include full impact of conflict. They do, however, warn of a serious deterioration in Iraq's position between 2013 and 2015.**
- 7. The decoupling of economics from the reality of human needs and stability, and the reality of war and civil conflict, is a major problem in today's international economics. They are developed and stable-state centric.**

Long Periods of Unstable GDP Growth well Below National Needs, Driven by War, Crisis, and Petroleum Revenues

Figure 1.2 GDP Growth Rate, 1998–2012



IMF World Economic Outlook, October 2013

Iraq Country Profile: (CIA World Factbook, May 2015)

- **Population:** 32,585,692 (July 2014 est.)
- **Youth Bulge: 56.3%:** 0-14 years: 36.7% (male 6,093,069/female 5,878,590); 15-24 years: 19.6% (male 3,237,212/female 3,142,202)
- **Entering Labor Force Annually:** male: 332,194; female: 322,010 (2010 est.)
- **Ethnic Divisions:** Arab 75%-80%, Kurdish 15%-20%, Turkoman, Assyrian, or other 5%
- **Sectarian Divisions:** Muslim (official) 99% (Shia 60%-65%, Sunni 32%-37%), Christian 0.8% (cut 50% since 2003), Hindu <.1, Buddhist <.1, Jewish <.1, folk religion <.1, unaffiliated .1, other <.1
- **Urbanization:** 69.4% (3.01% per year)
- **GDP vs. Labor Force:** agriculture: 3.3%, industry: 64.5%, services: 32.2% (2014 est.) versus agriculture: 21.6%, industry: 18.7%, services: 59.8% (2008 est.)
- **GDP:** \$505.4B (PPP 2014) \$232.2B (2014 Official Exchange Rate)
- **Per Capita Income:** \$14,100 (2014 in \$2013) (109th in the world)
- **Budget:** revenues: \$101.4 billion; expenditures: \$94.58 billion (2014 est.)
- **Taxes & Other Revenues:** 43.6% of GDP
- **Exports vs. Imports:** \$94.43 billion(84% crude oil) vs. \$62.34 billion
- **Direct Unemployment:** 16% (2012)
- **Poverty Level:** 25% (2008)
- **Transparency International Global Corruption Ranking:** 170th worst of 175 countries

Reductions in Inflation and Public Debt Supported by Aid and Rising Oil Export Revenues

Figure 1.5 Oil Prices Before and After Financial Crisis, 2006–12

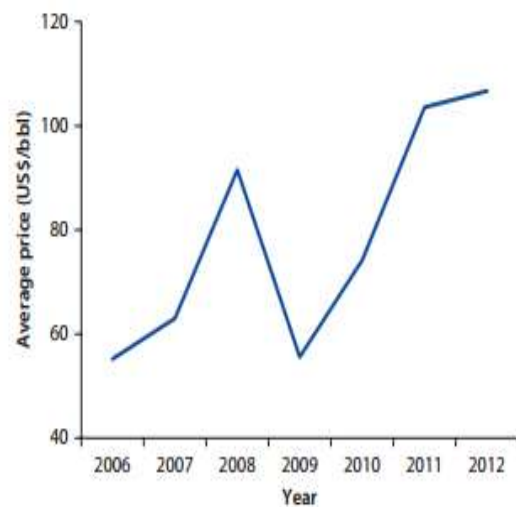


Figure 1.3 Inflation Rate, 2005–12

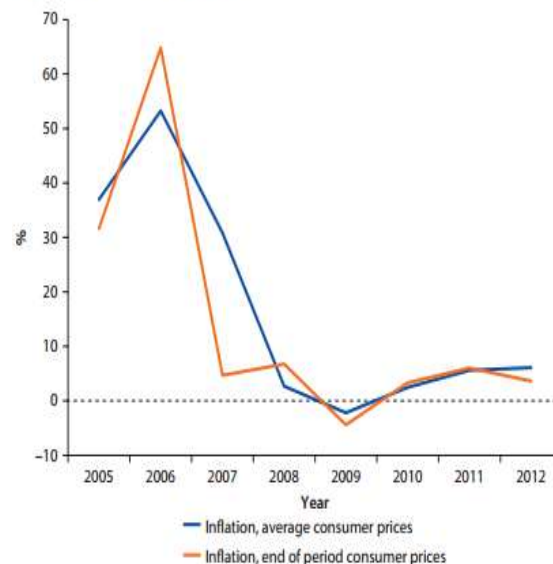
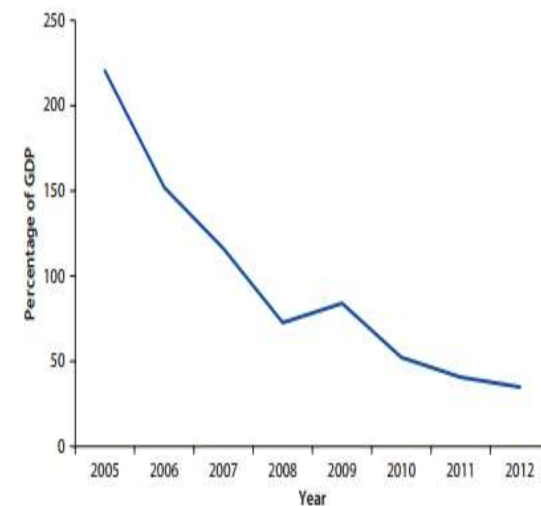


Figure 1.8 Gross Public Debt, 2005–12



Source: IMF World Economic Outlook, October 2013.

The bulk of Iraq’s fiscal revenue comes from oil receipts. During 2005–12, oil receipts accounted on average for 80.4 percent of total revenues, while taxes accounted for only about 2 percent of revenue.

Iraq’s public debt has steadily declined between 2005 and 2012 (figure 1.8), largely due to debt relief and restructuring by the Paris Club. The external debt comprises four categories:

- Paris Club bilateral debt (33 percent of total);
- non-Paris Club bilateral debt (52 percent);
- commercial debt (15 percent);
- multilateral debt (0.4 percent)

Iraq GDP, GDP Per Capita, Inflation: 2004-2020

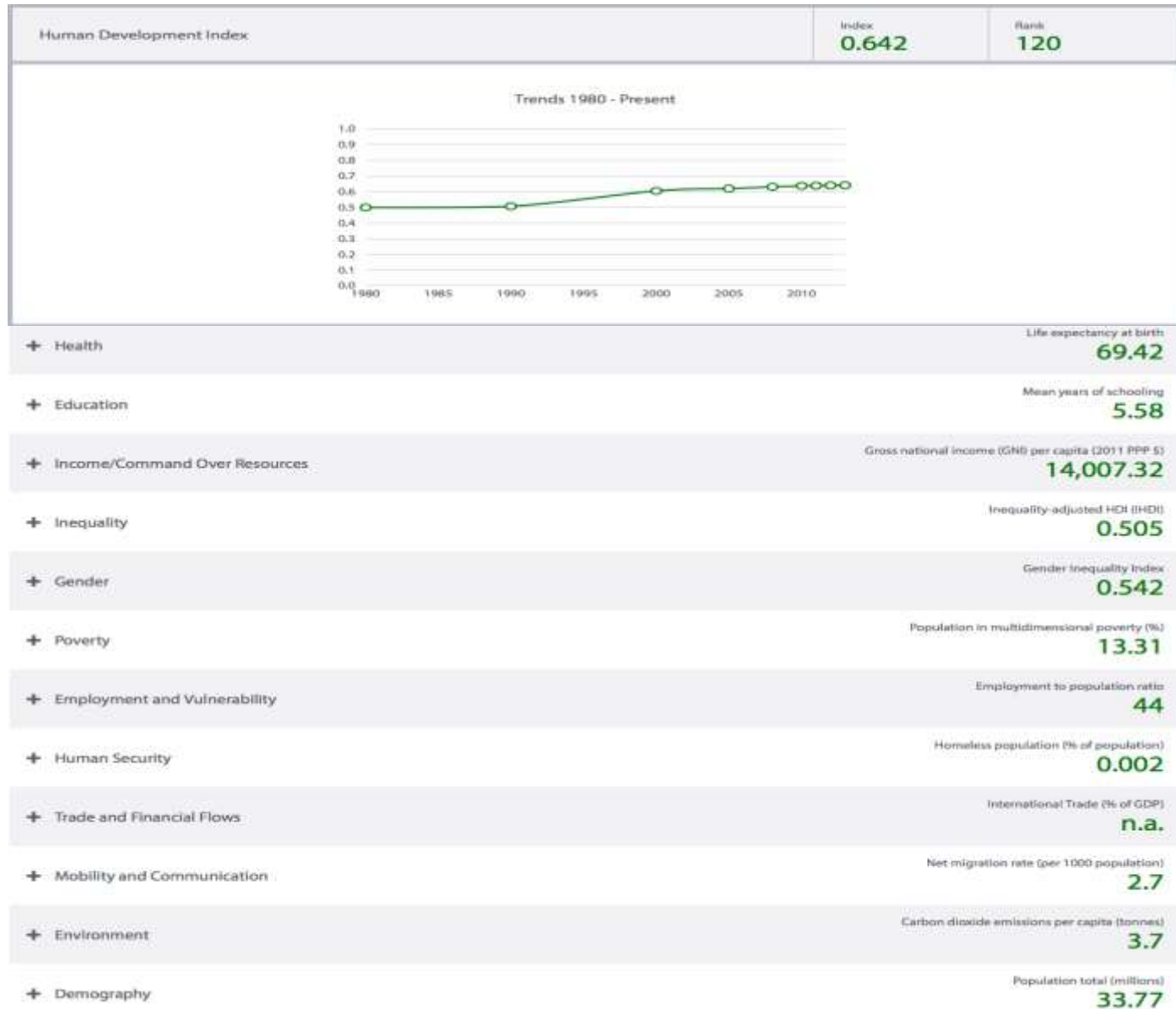
Iraq



IMF Projections

(Source: IMF)

UNDP Ranking of Human Development Indicators in Iraq in 2015: 120th worst of 187 Countries



9/18/2015

World Bank Global Ranking of Ease of Doing Business in Iraq in 2015: 156th worst of 185 Countries

REGION	Middle East & North Africa
INCOME CATEGORY	Upper middle income
POPULATION	33,417,476
GNI PER CAPITA (US\$)	6,710
CITY COVERED	Baghdad

DOING BUSINESS
2015 RANK

156

DOING BUSINESS
2015 DTF** (%
POINTS)

50.36

DOING BUSINESS
2014 RANK***

146

DOING BUSINESS
2014 DTF** (%
POINTS)

50.79

CHANGE IN RANK

↓ -10

CHANGE IN DTF** (%
POINTS)

↓ -0.43

Rankings	Distance to Frontier		
TOPICS	DB 2015 Rank	DB 2014 Rank	Change in Rank
Starting a Business	142	136	↑ -6
Dealing with Construction Permits	9	8	↑ -1
Getting Electricity	36	18	↑ -18
Registering Property	109	108	↑ -1
Getting Credit	180	178	↑ -2
Protecting Minority Investors	146	136	↑ -10
Paying Taxes	52	49	↑ -3
Trading Across Borders	178	178	No change
Enforcing Contracts	141	140	↑ -1
Resolving Insolvency	189	189	No change

IMF Summary Data on Iraq in 2015

Subject Descriptor	Units	Scale	Country/Series-specific Notes	2013	2014	2015
Gross domestic product, constant prices	Percent change		H	6.572	-2.399	1.315
Gross domestic product, current prices	U.S. dollars	Billions	H	232.497	221.130	173.819
Gross domestic product per capita, current prices	U.S. dollars	Units	H	6,685.526	6,164.617	4,700.729
Gross domestic product based on purchasing-power-parity (PPP) per capita GDP	Current international dollar	Units	H	15,177.547	14,570.805	14,448.114
Inflation, average consumer prices	Percent change		H	1.879	2.239	3.000
Volume of imports of goods and services	Percent change					
Volume of exports of goods and services	Percent change					
Unemployment rate	Percent of total labor force					
Population	Persons	Millions	H	34.776	35.871	36.977
General government revenue	Percent of GDP		H	42.575	40.485	40.930
General government total expenditure	Percent of GDP		H	48.412	43.452	50.928
General government net debt	Percent of GDP					
General government gross debt	Percent of GDP		H	32.103	37.022	55.553
Current account balance	U.S. dollars	Billions	H	3.052	-7.748	-16.636
Current account balance	Percent of GDP		H	1.313	-3.504	-9.571

IMF,

http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/weorept.aspx?pr.x=74&pr.y=8&sy=2013&ey=2020&scsm=1&ssd=1&sort=count&ry&ds=.&br=1&c=512%2C433%2C463%2C474&s=NGDP_RPCH%2CNGDPD%2CNGDPDPC%2CPPPPC%2CPCPIPCH%2CTM_RPCH%2CTX_RPCH%2CLUR%2CLP%2CGGR_NGDP%2CGGX_NGDP%2CGGXWDN_NGDP%2CGGXWDG_NGDP%2CBCA%2CBCA_NGDPD&grp=0&a=EM,21.5.15

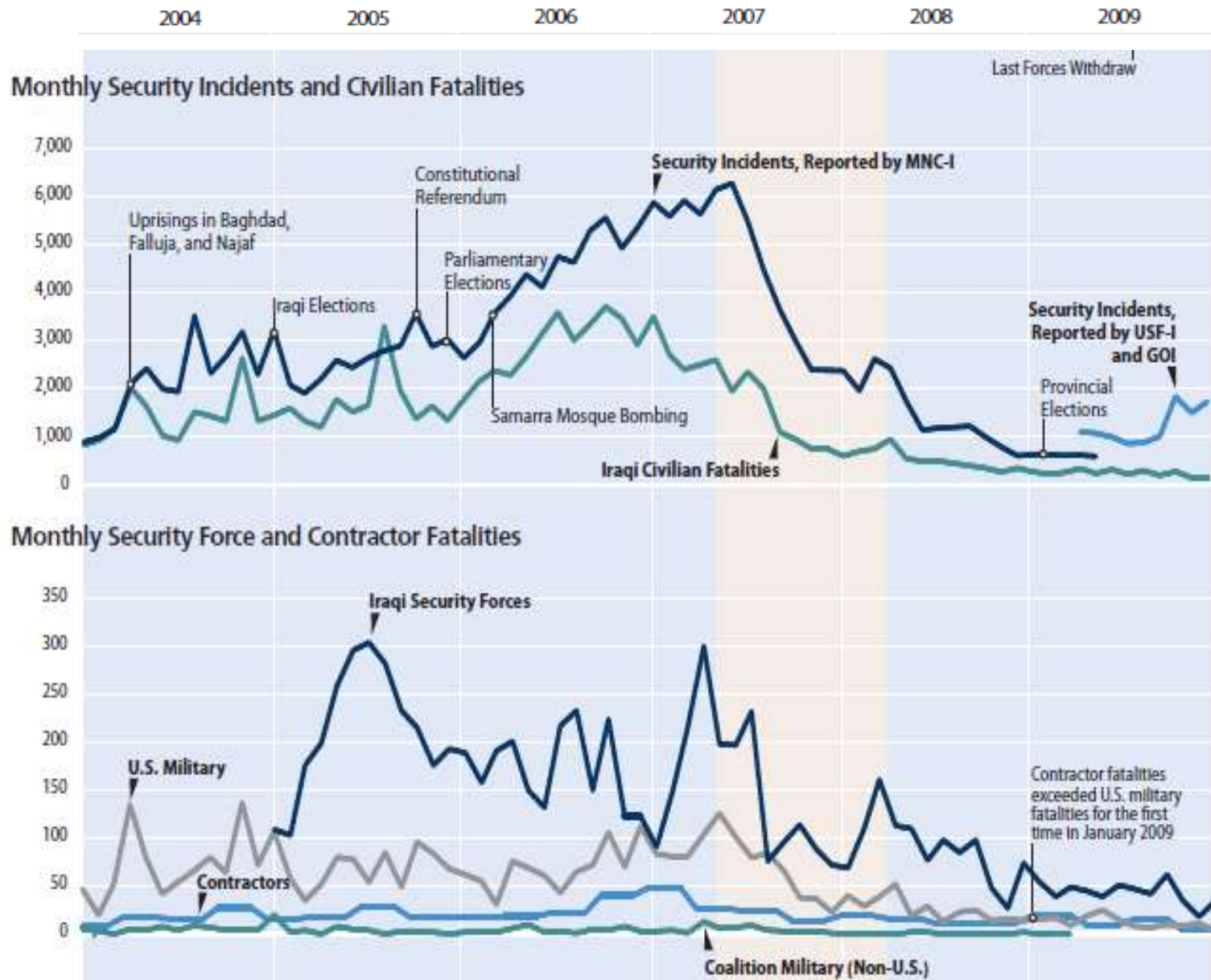
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The Overall Impact of War

The Overall impact of War

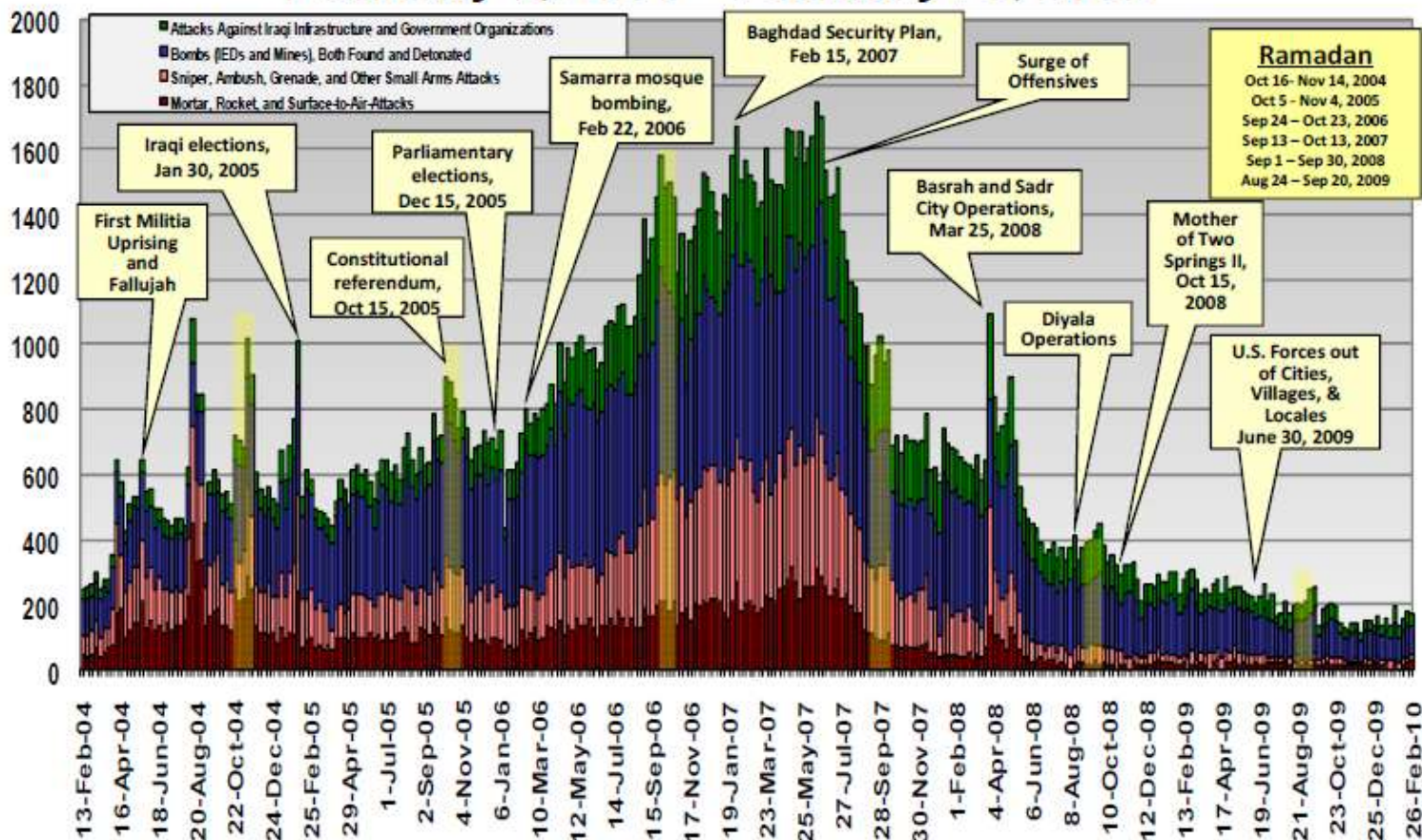
- 1. War and civil conflict has been Iraq's "normal" since 1980.**
- 2. State of at least low-level sectarian and ethnic conflict and tension since that time, with long historical antecedents.**
- 3. Today's Iraq and its economy must be viewed in terms of the major civil conflicts following the U.S. led invasion in 2003..**
- 4. There is a grim continuity in civil conflict. Repression and corruption Maliki government triggered a major return to civil violence between 2011 and 2013, and opened the country up to ISIS.**
- 5. The civilian casualty data tell only part of the story. They do not reflect measures of wounded, refugees, internally displaced persons, lack of secure movement and normal business, and areas with acute repression.**
- 6. All impact on Iraq's economics and add to the impact of sectarian and ethnic divisions on its economy.**

Iraqi Security Incidents and Casualties: 2004-2009



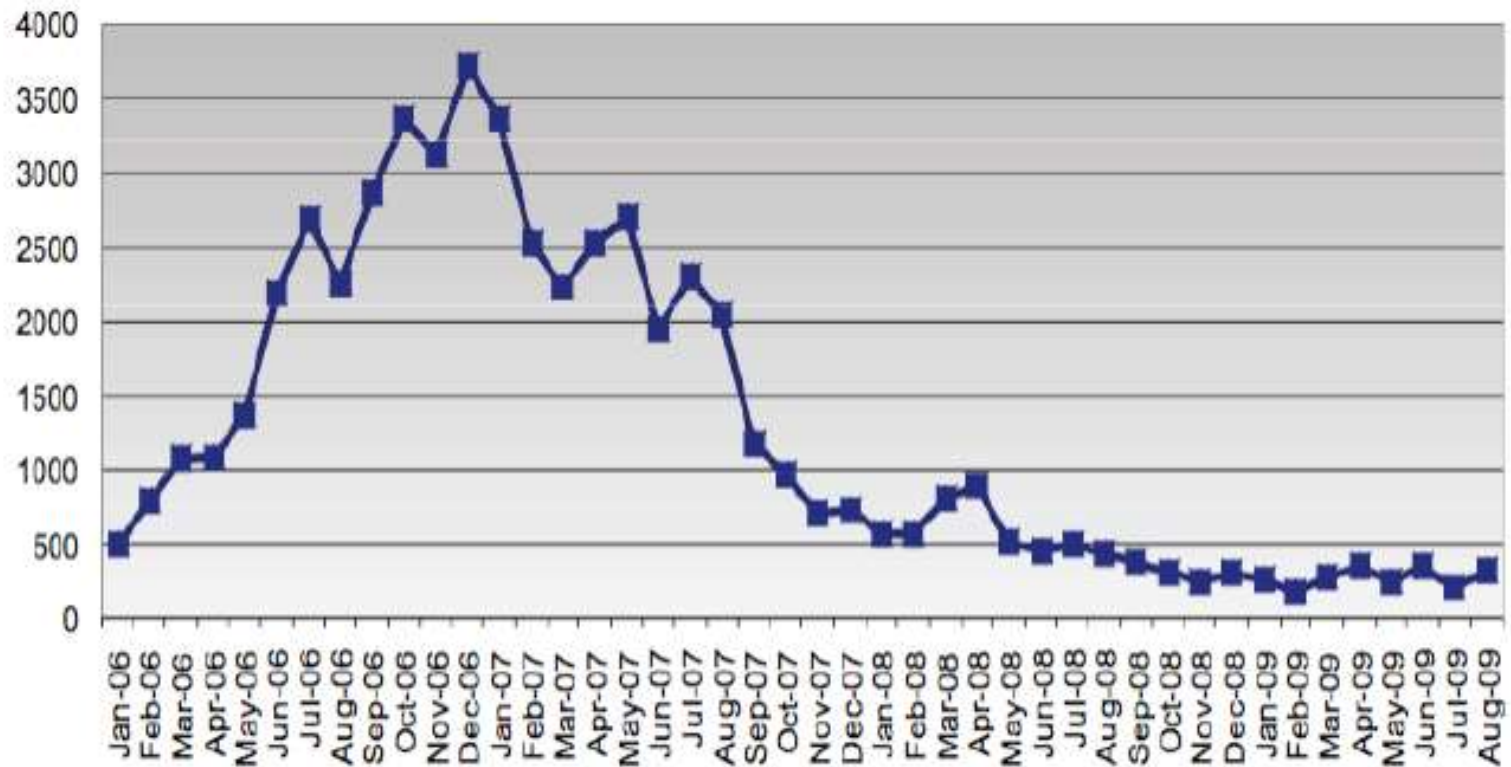
Security Incidents: January 3, 2004 – February 26, 2010

Overall Weekly Security Incident Trends February 7, 2004 – February 26, 2010



Source: USF-I J5 Assessments SIGACTS III Database (U.S. and Iraqi Reports) as of February 28, 2010. Chart includes executed attacks and potential (found and cleared) attacks. As a result of the June 30, 2009 withdrawal from cities, USF-I now relies on host nation reporting as the primary data source. Current charts now show a combination of U.S. and host nation reported data. The combination of these reports causes baseline numbers to increase, making it difficult to directly compare these charts with those presented prior to June 2009.

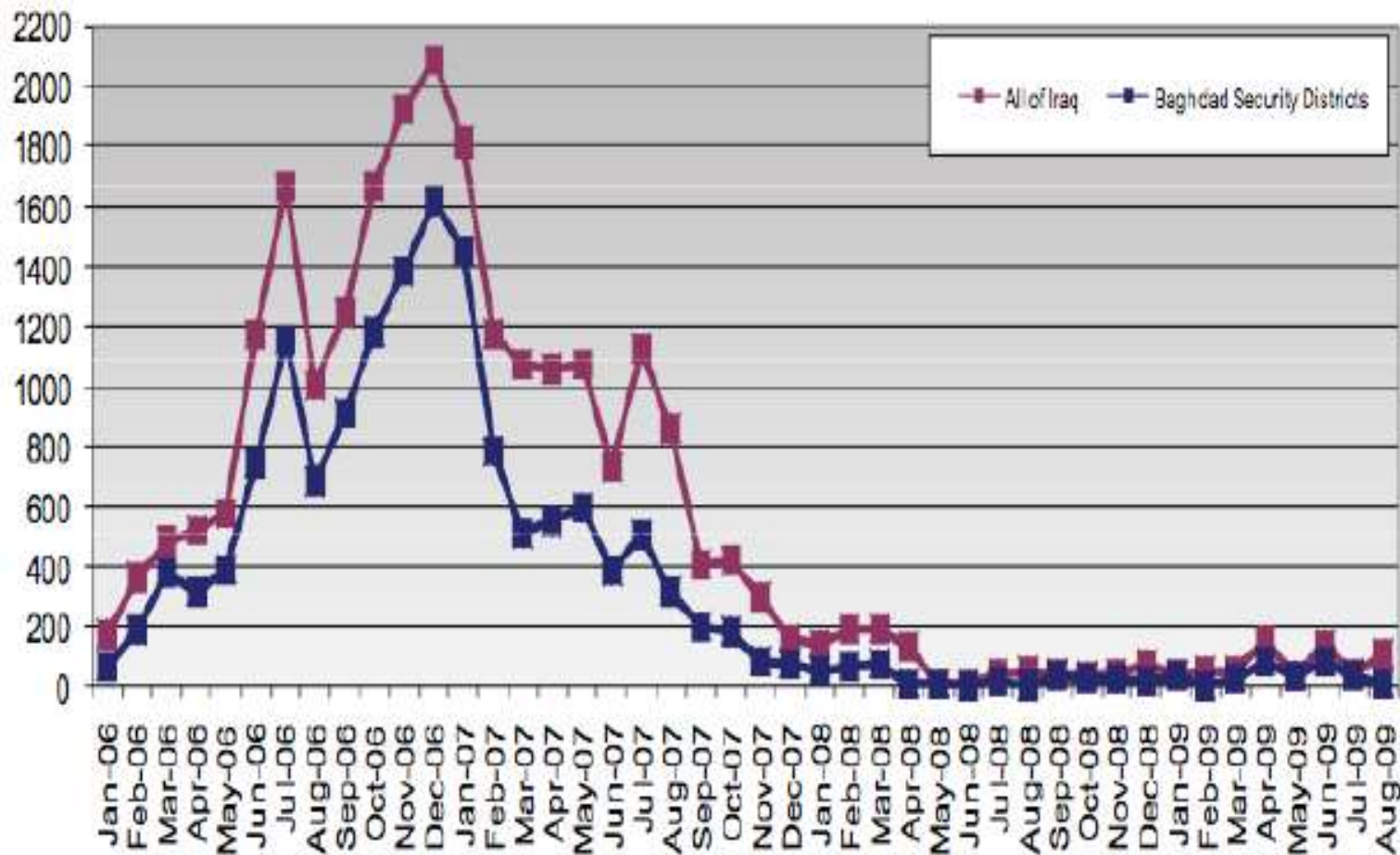
Civilian Deaths, January 2006 - August 2009



Source: MNF-I C.I5 Assessments SIGACTS III Database (Coalition and Iraqi Reports) as of August 31, 2009. Does not include civilian deaths due to accidents unrelated to friendly or enemy actions. As a result of the June 30, 2009 withdrawal from cities, U.S forces must now rely on host nation reporting as the primary data source. Current charts now show a combination of Coalition and host nation reported data. The combination of these reports causes baseline numbers to increase, making it difficult to directly compare these charts with those presented in previous publications of this report.

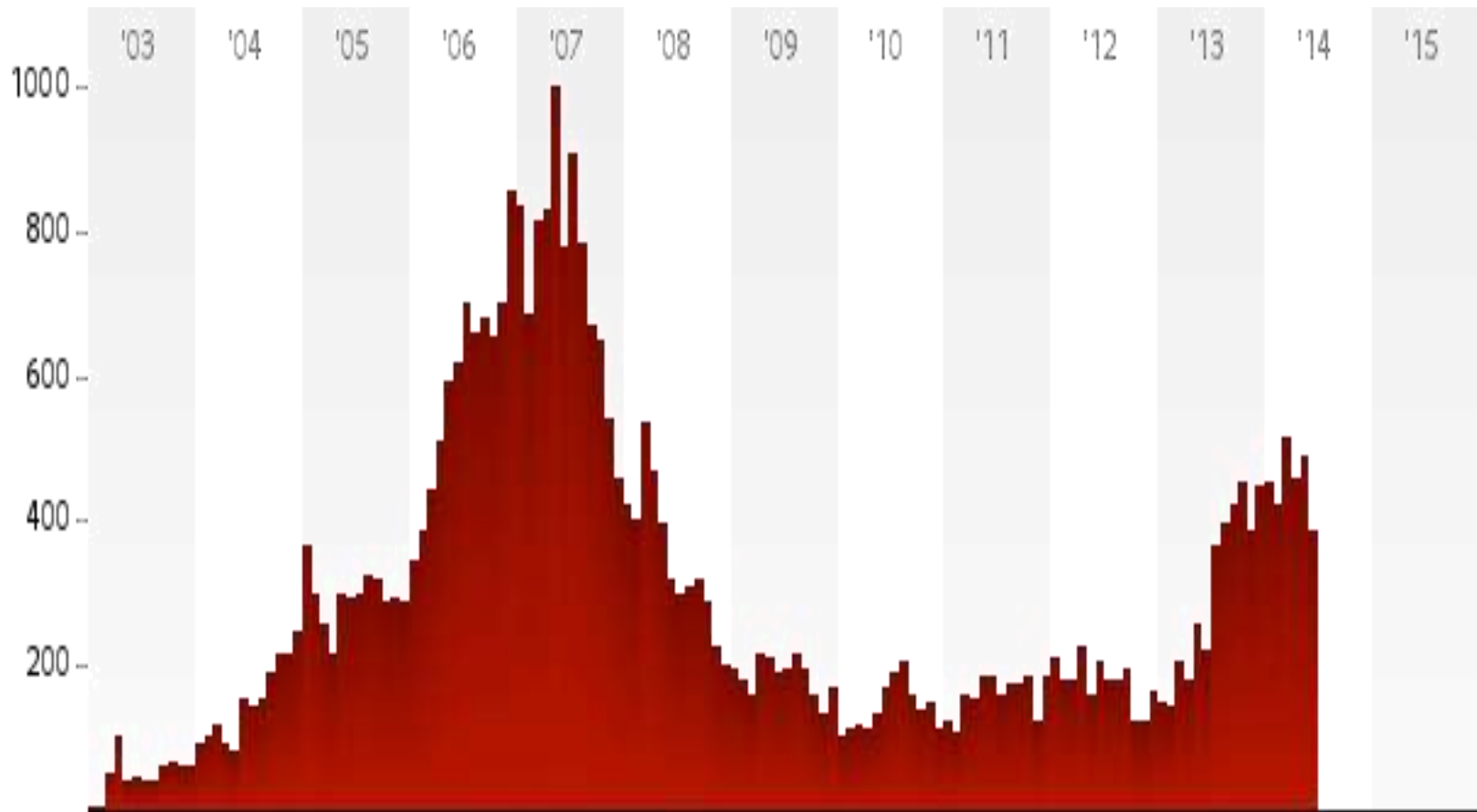
Source: USCENTCOM 9.28.09

Ethno-Sectarian Deaths, January 2006 - August 2009



Source: MNF-I CJ5 Assessments CIOD Trends Database (Coalition and Iraqi Reports) as of August 31, 2009. As a result of the June 30, 2009 withdrawal from cities, U.S forces must now rely on host nation reporting as the primary data source. Current charts now show a combination of Coalition and host nation reported data. The combination of these reports causes baseline numbers to increase, making it difficult to directly compare these charts with those presented in previous publications of this report.

IBC: Incidents Involving Civilian Casualties: 2003-2015



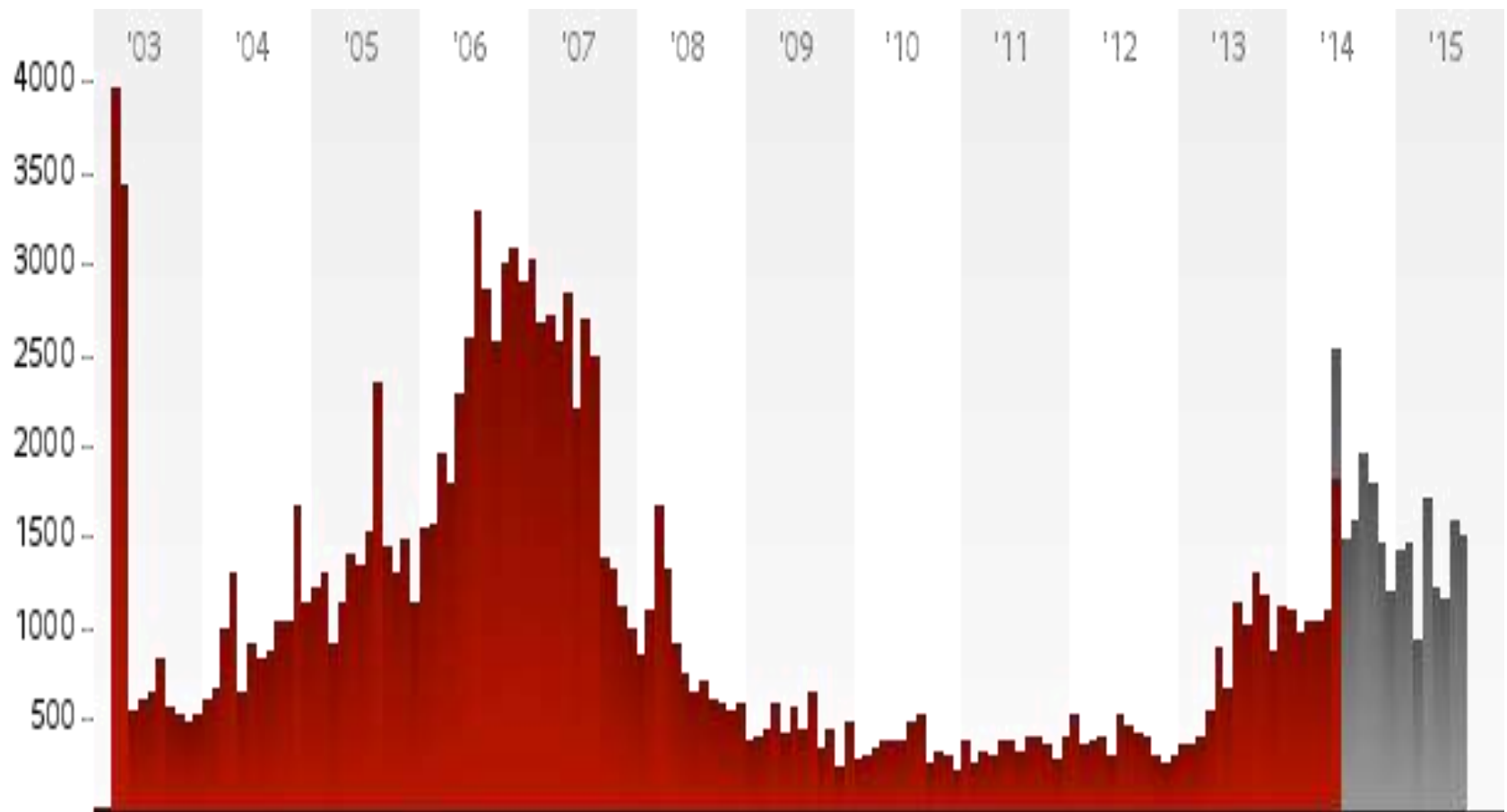
This data is based on 40,405 database entries from the beginning of the war to 30 Jun 2014, and on monthly preliminary data from that date onwards. Preliminary data is shown in grey when applicable, and is based on approximate daily totals in the [Recent Events](#) section prior to full analysis. The full analysis extracts details such as the names or demographic details of individuals killed, the weapons that killed them and location amongst [other details](#). The current range contains 15,856–16,589 deaths (11%–10%, a portion which may rise or fall over time) based on [single-sourced reports](#).

Graphs are based on the higher number in our totals. Gaps in recording and reporting suggest that even our highest totals to date may be missing many civilian deaths from violence.

Source: Iraq Body Count: <https://www.iraqbodycount.org/database/>.

IBC: Iraqi Civilian Deaths: 2003-2015

143,334 – 162,577 Further analysis may add 10,000 civilian deaths.



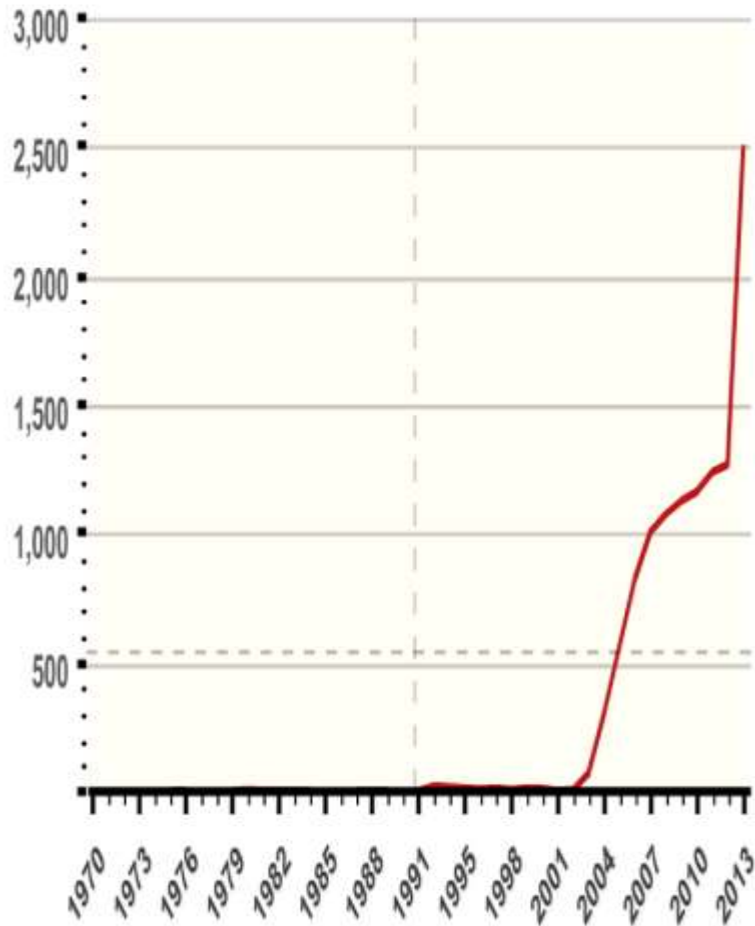
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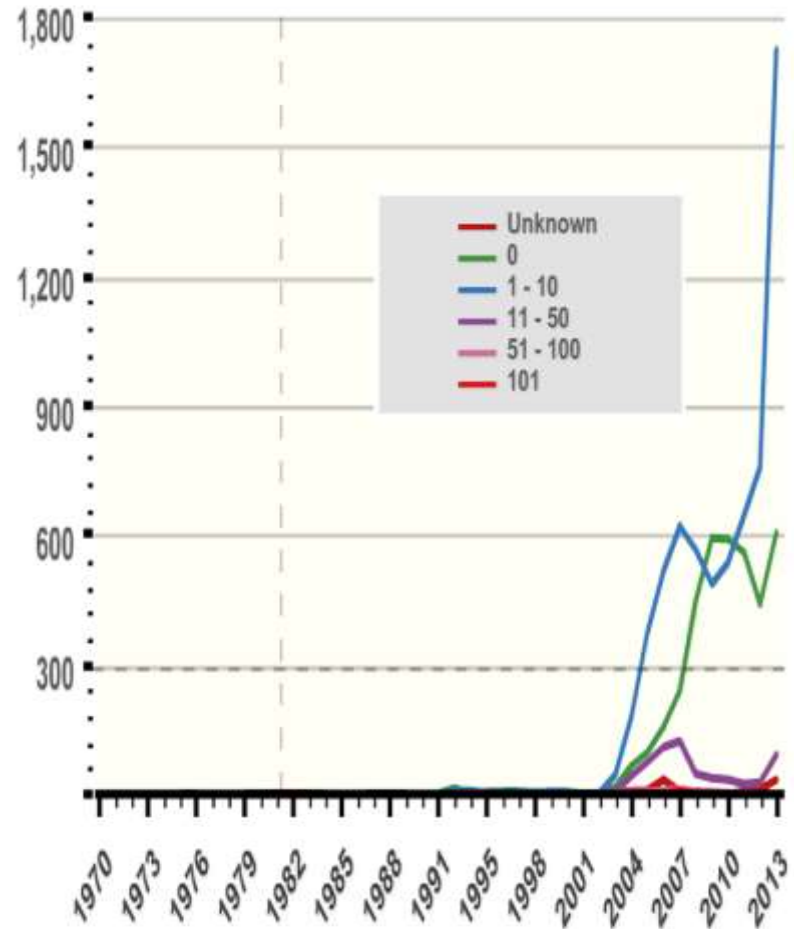
Source: Iraq Body Count: <https://www.iraqbodycount.org/database/>.

Rise of Iraqi Terrorism: 1970-2013

Iraq – Terrorist Incidents



Iraq - Fatalities



Source: START Global Terrorism Database, National Consortium for the Study of Terrorism and Responses to Terrorism, U.S. Department of Homeland Security, <http://www.start.umd.edu/gtd/>;

U.S. Withdrawal and the Rising Costs of Security

The Cost of War to Iraq

1. Went from party with Iran in 2003 to weak and incapable security forces in 2014.
2. U.S. force development effort was rushed into place after U.S. made disbandment of Iraqi forces official in 2004. Did not have time to be effective.
3. Maliki politicized and corrupted Iraqi security forces from 2011 onwards, marginalized and alienated Sunnis, did not integrate KRG Pesh Merga.
4. U.S. Military aid was important during 2005-2010, but Iraqi budget paid for majority of cost.
5. Iraq paid steadily rising costs after 2010, and official data show growing burden on GDP, but unclear how accurate Iraqi budget data are.
6. Iraqi spending and arms import costs rose, but did not compete with neighboring states.
7. Current military balance incapable of deterring and defending against neighboring state threats even if one ignores poor leadership, training, and impact of defeats by ISIS. Major potential legacy of costs to restore national defense capability if Iraq can eliminate ISIS and internal divisions.
8. Economic impacts include the cost of non-state actor forces like ISIS and Shi'ite and Sun militias, as well as police. No estimate exists of most such costs.

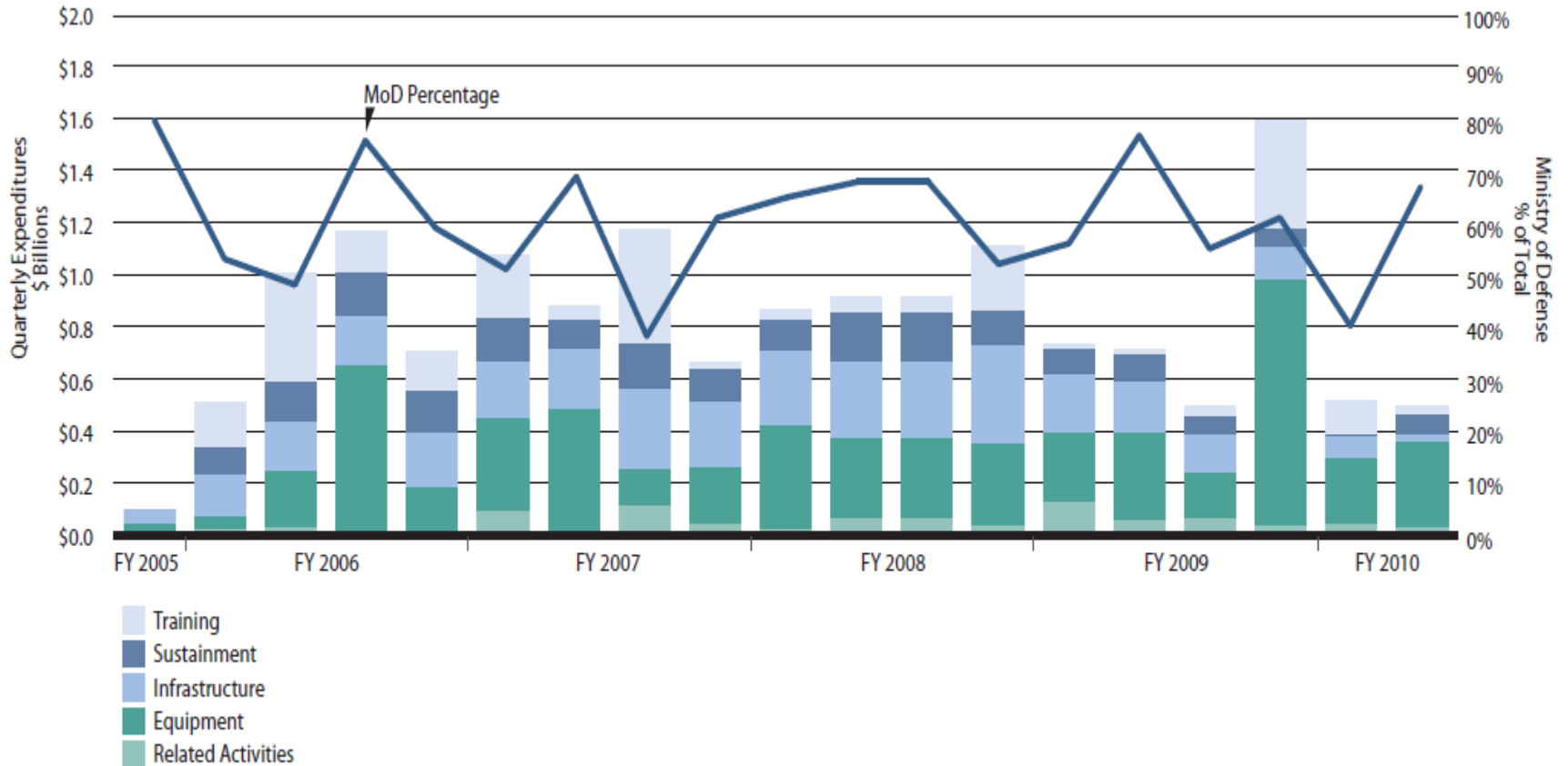
Details of Iraq's Loss of Deterrent and Defense Capability: 2003 vs. 2014

Category	2003			2014		
	Iraq	Iran	Force Ratio	Iraq	Iran	Force Ratio
Active Manpower	424000	513000	4:5	271400	523000	1:2
Reserve Manpower	650000	350000	19:10	0	350000	NA
Main Battle Tanks	2200	1565	7:5	336	1663	1:5
AIFVs	1300	815	8:5	188	610	1:3
APCs	2400	590	4:1	3688	640	6:1
Towed Artillery	1900	2085	9:10	138	2030	1:20
Self-Propelled Artillery	150	310	1:2	48	292	1:6
Multiple Rocket Launchers	200	889	1:5	some	1476	NA
Combat Aircraft	316	283	11:10	3	334	1:100
Attack Helicopters	100	85	6:5	0	50	NA
Major SAM Launchers	225	205	11:10		529	NA

Security Burden on Iraq: FY2005-FY2010

ISFF: QUARTERLY EXPENDITURES, BY MINISTRY AND SUB-ACTIVITY GROUP, FY 2005- FY 2010

\$ Billions and % of Total

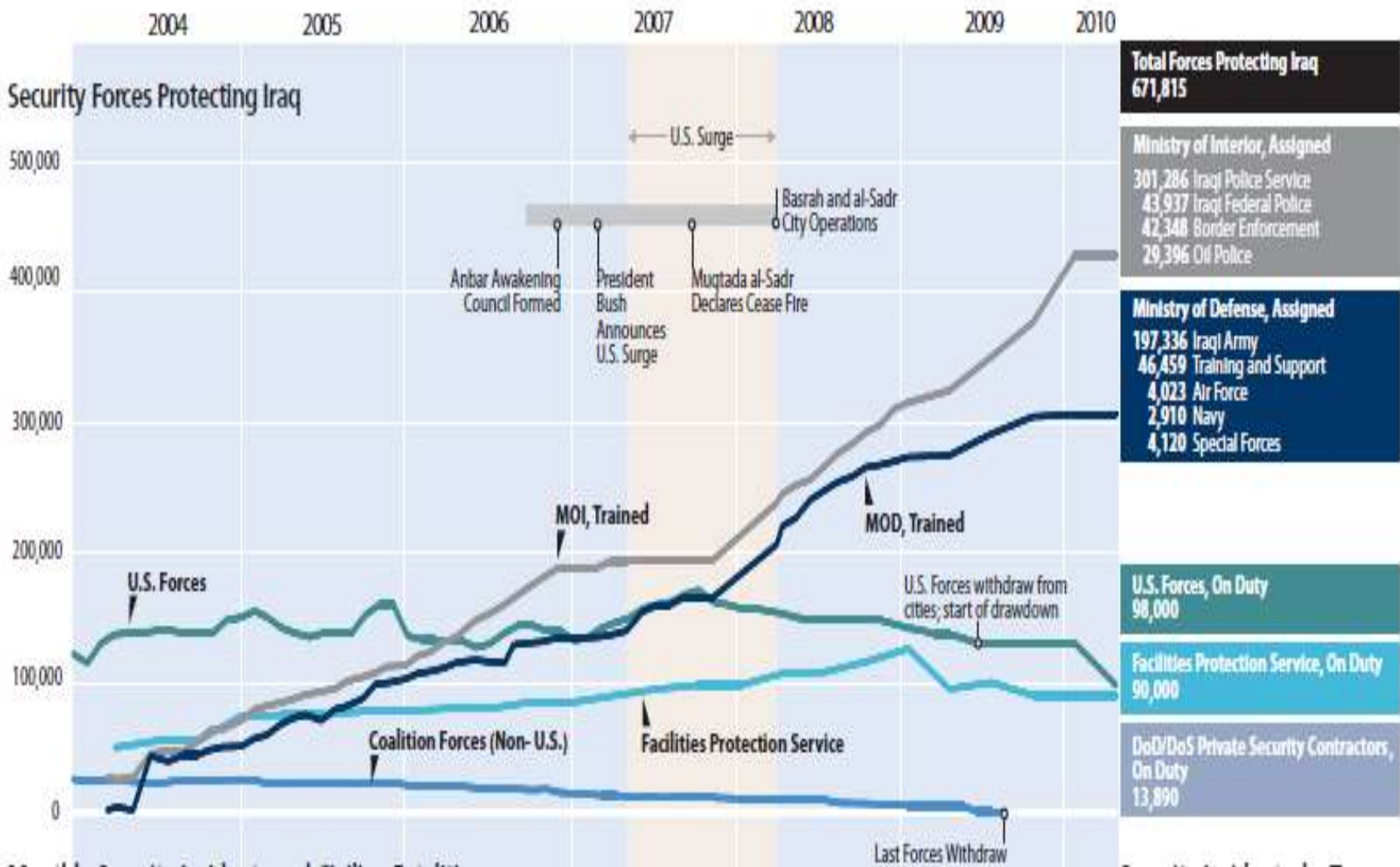


Note: Data not audited. Numbers affected by rounding.

Sources: OSD, response to SIGIR data call, 4/12/2010; SIGIR, *Quarterly and Semiannual Reports to the United States Congress*, 10/2005-1/2010.

Iraqi and U.S. Security Forces: 2004-2/2010

SECURITY IN IRAQ, 1/2004-3/2010



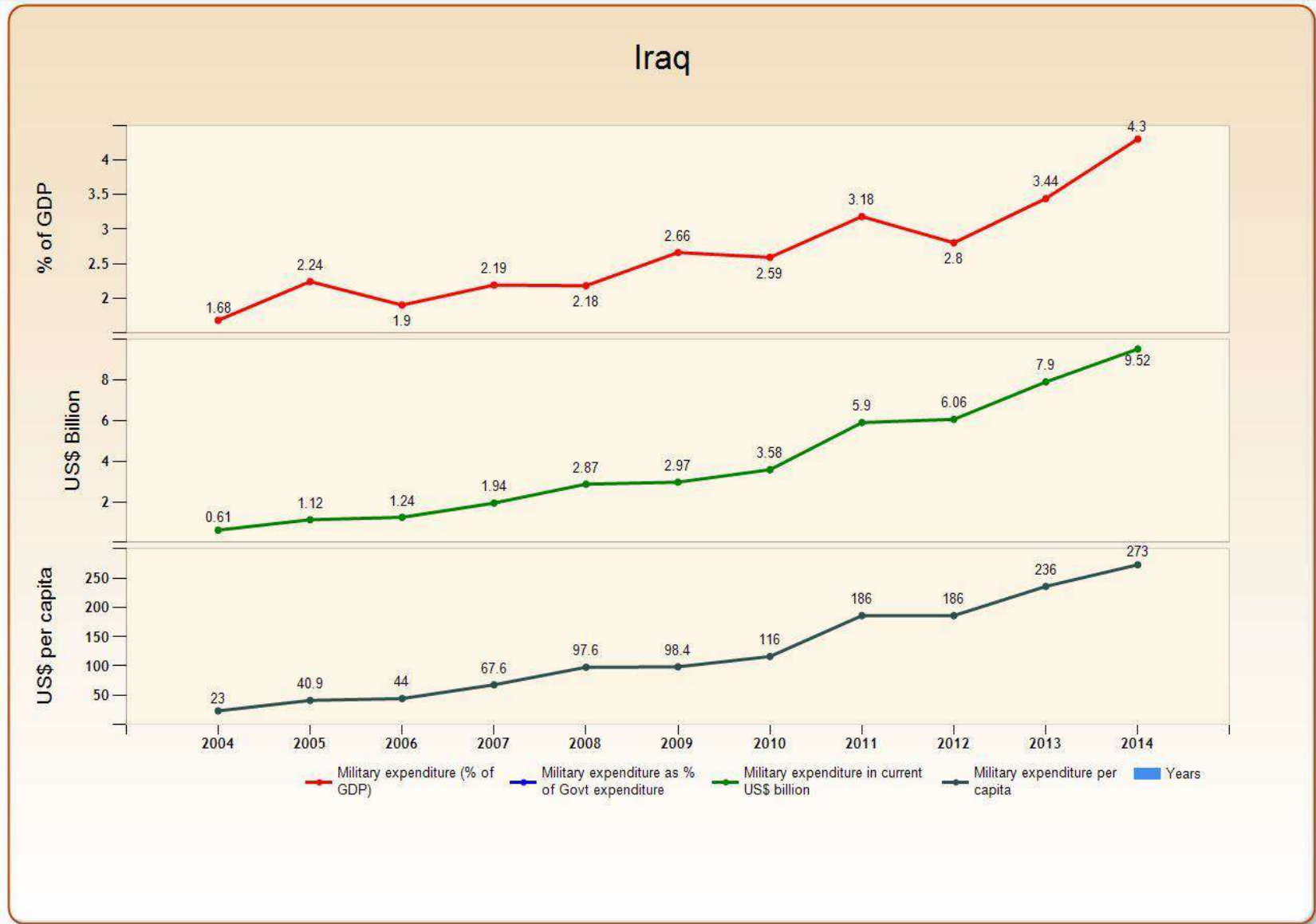
IRAQI SECURITY FORCES, AS OF 10/10/2011

SERVICE		ASSIGNED PERSONNEL
Ministry of Defense	Iraqi Army	200,000
	Training and Support	68,000
	Air Force	5,053
	Navy	3,650
	Army Air Corps	2,400
	Total MOD	279,103
Ministry of Interior	Iraqi Police	325,000
	Facilities Protection Service	95,000
	Training and Support	89,800
	Department of Border Enforcement	60,000
	Iraqi Federal Police	45,000
	Oil Police	31,000
Total MOI	645,800	
Counter-Terrorism Force		4,200
Total		929,103

Note: Numbers affected by rounding. Assigned numbers illustrate payroll data; they do not reflect present-for-duty totals.

Source: GOI, MOI IG, Information provided to SIGIR, 10/10/2011.

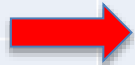
The Rising Burden of Military Spending: 2000-2013



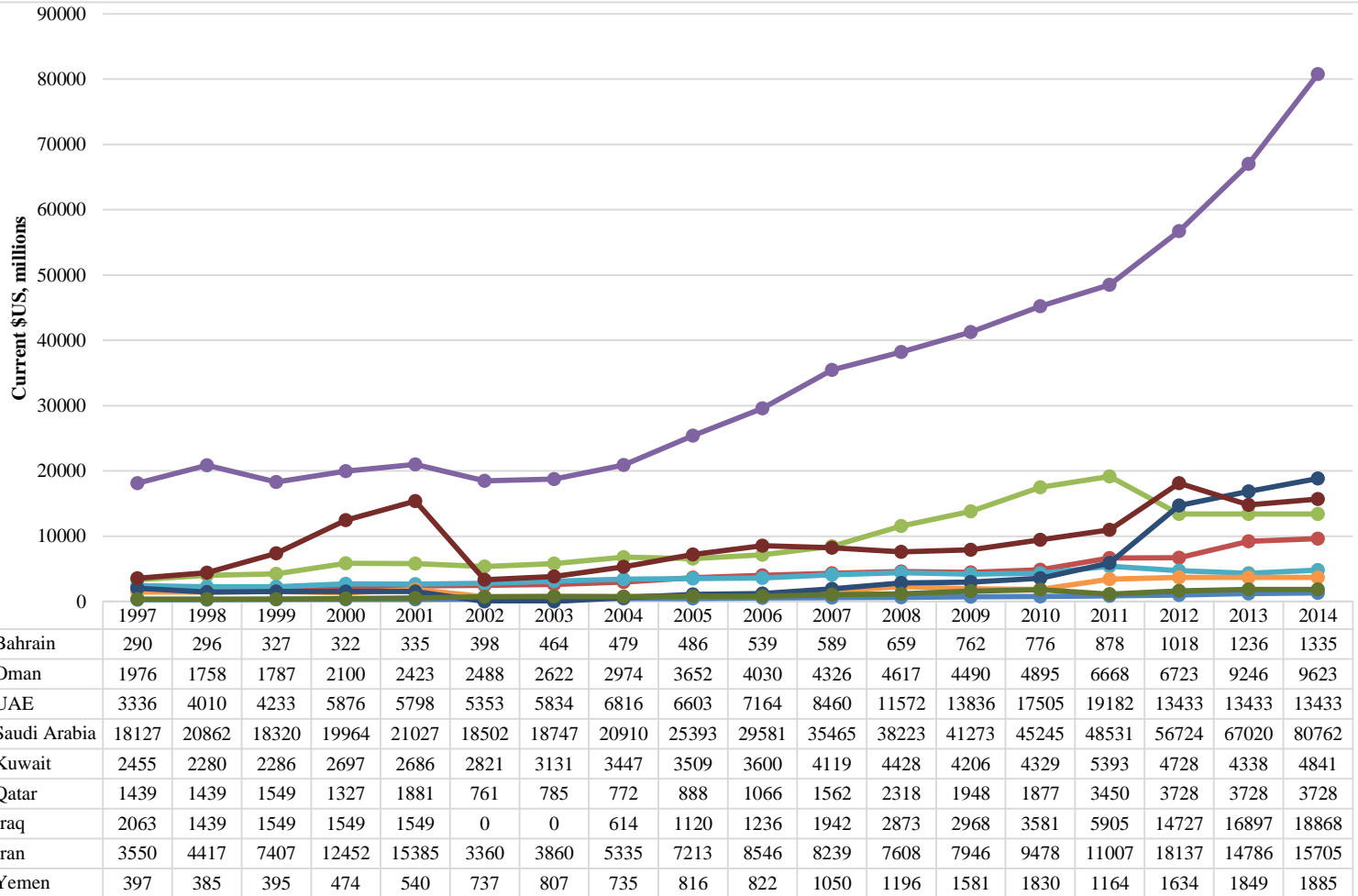
Source: Dr.. Abdullah Toukan, September 5, 2015, based on SIPRI data on Military Expenditure as % of GDP, Current US\$ Billion, and per Capita using his SIRA Model (Strategic and International Risk Assessment Model).Data Base. Any questions can be directed to abdullah.toukan@siracenter.org.

Iraqi Military Expenditures versus Neighboring States: 2000-2015

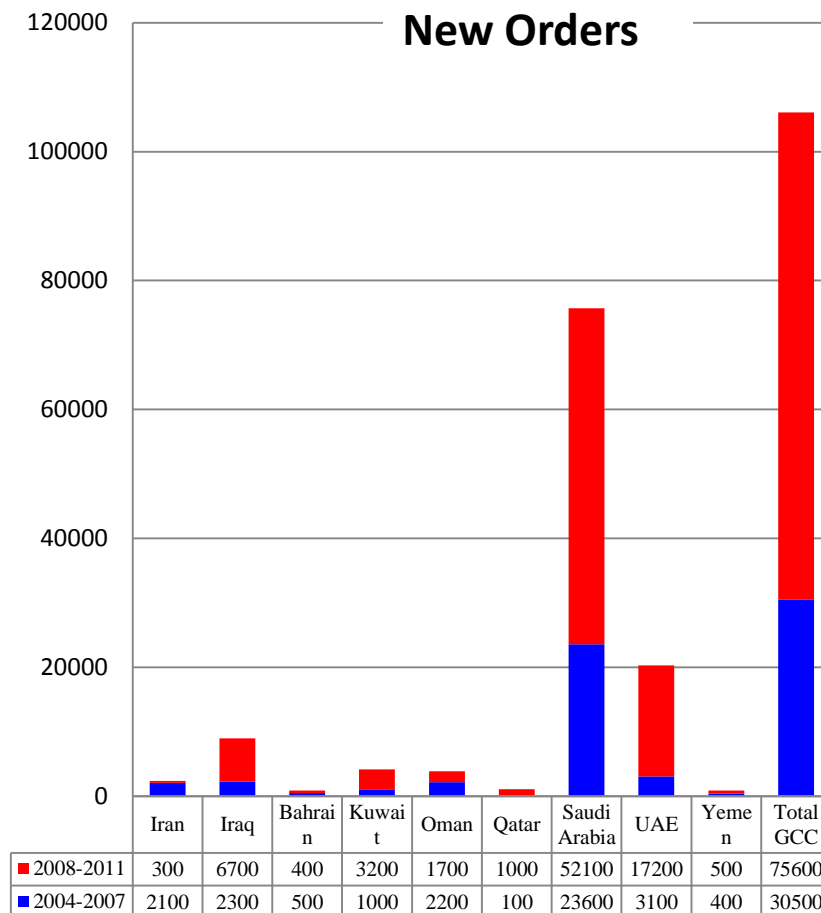
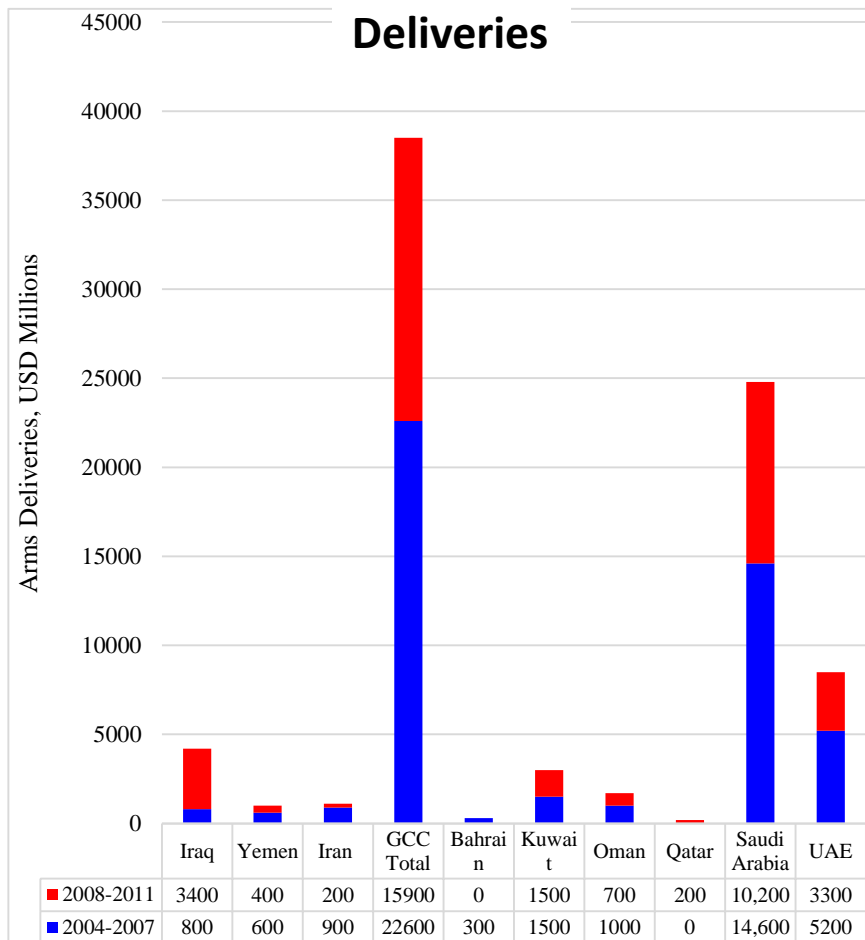
In current US\$ million	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
North Africa	7,282	7,703	7,205	7,357	8,240	8,774	9,293	10,791	13,576	12,918	13,810	17,174	20,955	19,590	25,081	
Algeria	1,881	2,092	2,101	2,206	2,802	2,925	3,094	3,946	5,172	5,281	5,671	8,652	9,326	10,405	11,862	
Libya	1,086	820	453	541	685	691	614	639	1,100				2,987		3,302	
Morocco	859	1,470	1,475	1,819	1,938	2,031	2,135	2,408	2,945	3,055	3,161	3,343	3,403	4,066	4,050	
Tunisia	332	336	345	407	445	468	497	491	579	565	571	715	681	759	906	
Egypt	3,124	2,985	2,831	2,384	2,370	2,659	2,953	3,307	3,780	4,017	4,407	4,464	4,558	4,360	4,961	
GCC	30,998	32,311	30,373	31,641	35,456	40,558	46,014	54,578	61,880	66,578	74,700	80,808	94,980	109,441	114,573	
Bahrain	358	373	443	517	533	513	574	643	720	828	843	1,033	1,182	1,348	1,433	
Kuwait	2,697	2,686	2,822	3,131	3,450	3,509	3,598	4,116	4,430	4,209	4,335	5,394	5,942	5,824		
Qatar			761	785	772	888	1,066	1,562	2,318	1,948	1,877					
UAE	5,876	5,798	5,354	5,835	6,817	6,604	7,165	8,461	11,572	13,836	17,505	19,182	19,024	23,561	22,755	
Oman	2,103	2,427	2,491	2,626	2,974	3,652	4,030	4,326	4,617	4,490	4,895	6,668	12,334	11,688	9,623	
Saudi Arabia	19,964	21,027	18,502	18,747	20,910	25,392	29,581	35,470	38,223	41,267	45,245	48,531	56,498	67,020	80,762	
Yemen	474	540	737	807	735	816	822	1,050	1,196	1,421	1,448	1,612	1,619	1,649	1,715	
Iran	8,340	10,379	3,244	3,717	5,244	6,797	8,751	9,331	11,082	12,585	13,561	14,278	12,719			
Iraq					614	1,120	1,236	1,942	2,873	2,968	3,581	5,905	6,055	7,896	9,516	
Levant																
Israel	9,394	9,529	9,949	10,670	10,962	10,761	11,430	11,954	14,130	14,031	14,645	15,481	14,758	16,967	15,908	
Jordan	529	529	522	612	587	604	702	1,032	1,341	1,404	1,367	1,385	1,246	1,196	1,268	
Lebanon	930	959	907	923	955	963	1,009	1,152	1,169	1,426	1,585	1,627	1,757	1,787	2,121	
Syria	897	1,023	1,103	1,436	1,389	1,450	1,435	1,599	1,732	2,182	2,346	2,495				
Turkey	9,994	7,216	9,050	10,278	10,921	12,081	13,124	15,092	16,914	16,151	17,749	17,130	17,810	18,431	22,618	



Outside Estimates Show Higher Rise in Iraqi National Security Costs



Trends in Iraqi Arms Imports: 2008-2011

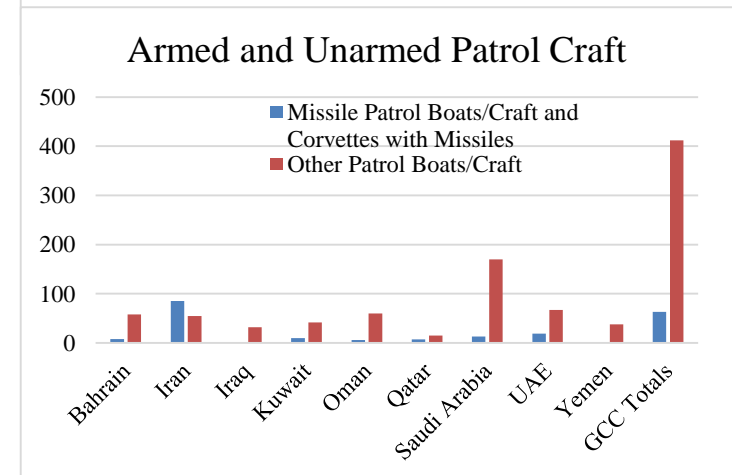
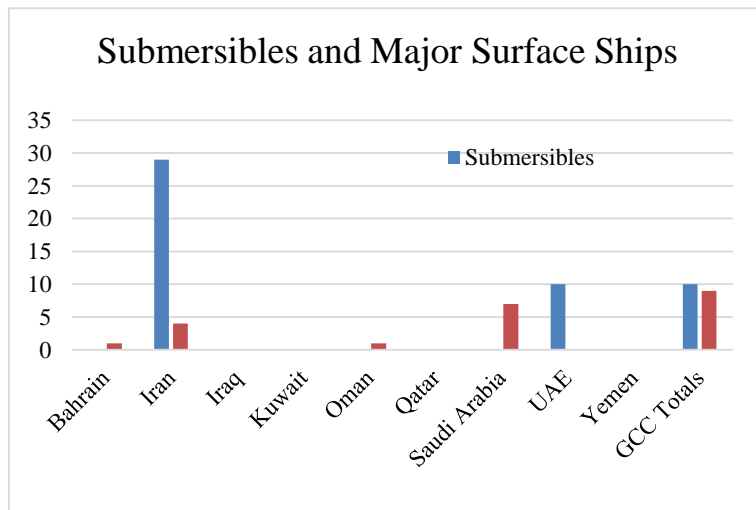
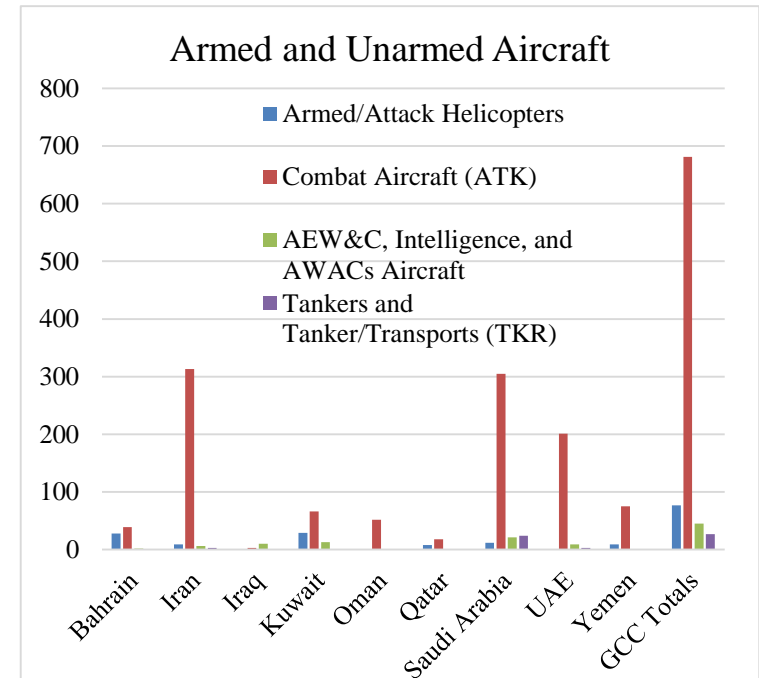
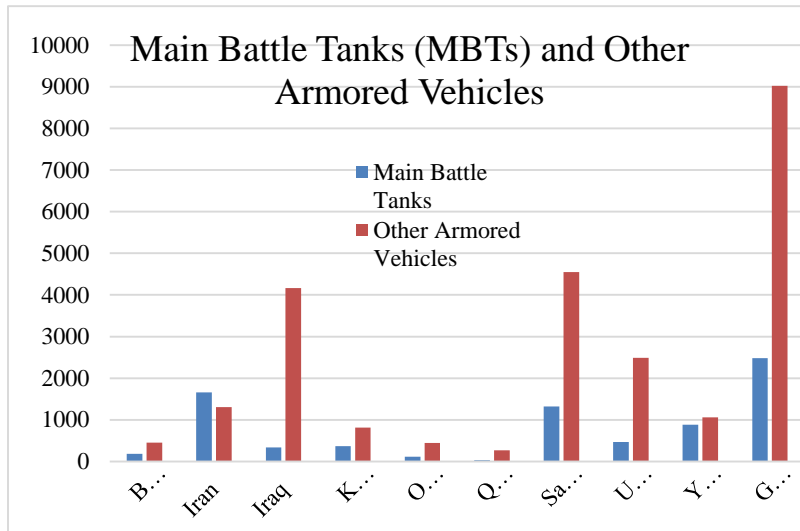


Source: Source: Richard F. Grimmett and Paul K. Kerr, *Conventional Arms Transfers to Developing Nations, 2004-2011*, Congressional Research Service, August 24, 2012. pp. 58, 59. "0" represents any value below \$50 million.

Iraq Today: A Negligible Military Power - I

The Military Balance		Bahrain	Iran	Iraq	Kuwait	Oman	Qatar	Saudi Arabia	UAE	Yemen	GCC Totals
Force Size	Total Active Military Manpower (2014)	8,200	523,000	66,700	15,500	42,600	11,800	233,500	51,000	66,700	362,600
	Total Reserve Military Man Power (2014)	0	350,000	0	23,700	0	0	0	0	0	23,700
	Total Paramilitary Manpower (2014)	11,260	40,000-60,000	531,000	7,100	4,400	0	16,000	0	71,200	38,760
	Active Manpower	8,000	450,000	193,400	17,600	30,000	8,500	175,000	44,000	60,000	283,100
	Reserve Manpower	-		0	0	0	0	0	0	0	0
Army and National Guard	Main Battle Tanks	180	1,663	336	368	117	30	1,318	471	880	2,484
	Other Armored Vehicles	453	1,305	4,164	813	445	269	4,551	2,489	1058	9,020
	Self-propelled Artillery	82	292	48	124	24	28	240	221	25	719
	Towed Artillery	36	2,030	138	0	108	12	226	93	310	475
	Multiple Rocket Launchers	9	1,476	unknown	27	0	4	60	92+	294	100
	Surface-to Surface Missile Launchers	0	20	0	0	0	0	10	0	0	10
	Armed/Attack Helicopters	28	9	0	29	0	8	12	?	9	77
Air and Major SAM Forces	Air Force Active Manpower	1,500	5,000	5,050	2,500	5,000	1,500	20,000	4,500	3,000	35,000
	Combat Aircraft (ATK)	39	313	3	66	52	18	305	201	75	681
	AEW&C, Intelligence, and AWACs Aircraft	2	6	10	13	0	0	21	9	0	45
	Tankers and Tanker/Transports (TKR)	0	3	0	0	0	0	24	3	0	27
	Maritime Patrol Aircraft (MPA, ASW)	0	0	0	0	0	0	0	0	2	0
	Air Defense Manpower	0	0	0	0	0	0	16,000	0	2000	16,000
	Surface-to-Air Missile/Launcher	91	529	0	76	64	75	1,805	?	?	2,111
Naval Forces and Coast Guard	Naval and Coast Guard Active Manpower	960	38,000	3,600	2000	4,600	1,800	18,000	2,500	2,900	29,860
	Marines	0	7,600	0	0	0	0	3,000	0	0	3,000
	Submersibles	0	29	0	0	0	0	0	10	0	10
	Major Surface Ships (cruisers, destroyers, frigates)	1	4	0	0	1	0	7	0	0	9
	Missile Patrol Boats/Craft and Corvettes with Missiles	8	85	0	10	6	7	13	19	1	63
	Other Patrol Boats/Craft	58	55	32	42	60	15	170	67	38	412
	Mine Warfare	0	0	0	0	0	0	7	2	1	9
	Amphibious	1	4	0	4	6	1	16	29	4	57
Helicopters	0	0	0	13	0	0	46	18	0	77	

Iraq Today: A Negligible Military Power - II

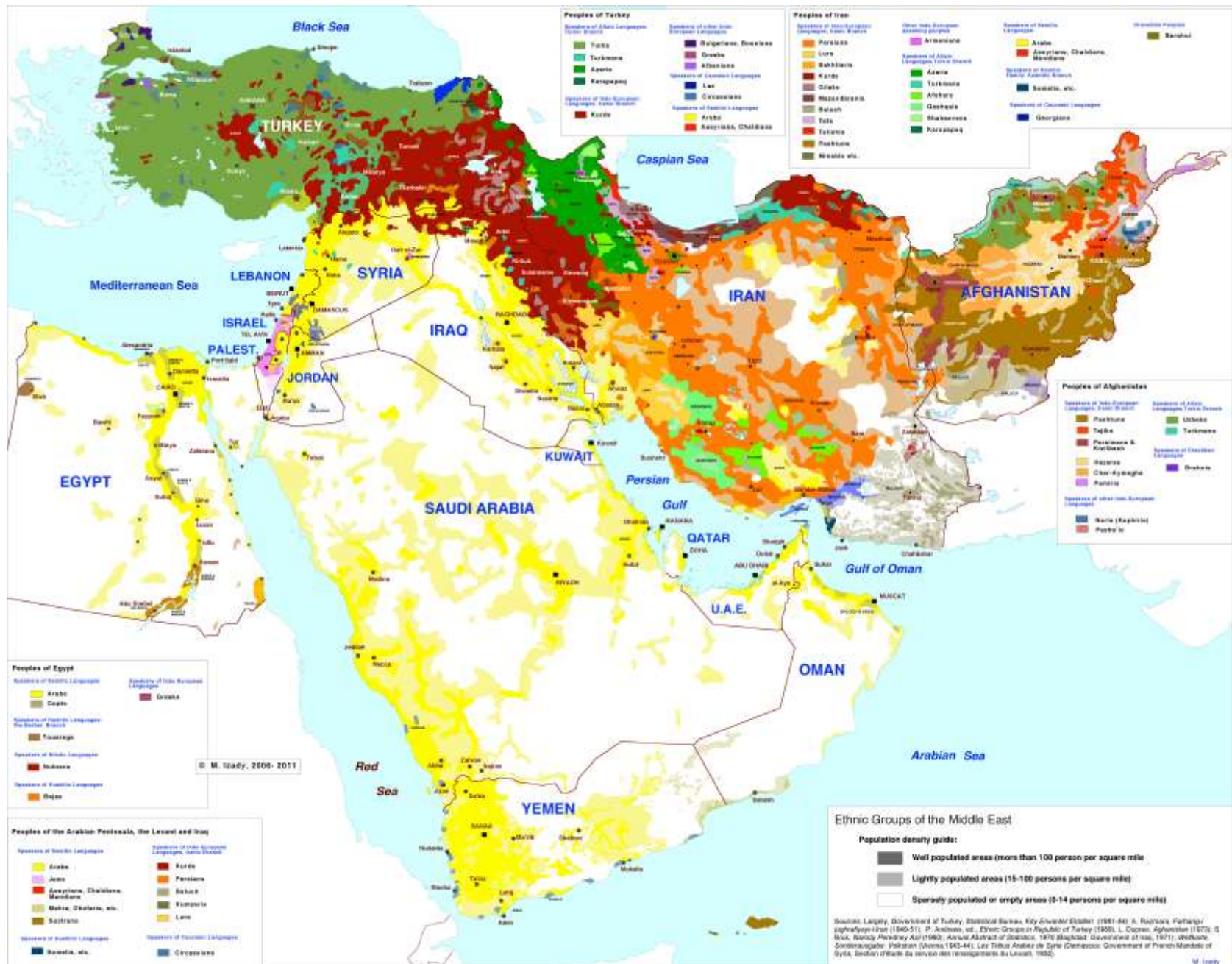


Continuing Sectarian and Ethnic Costs

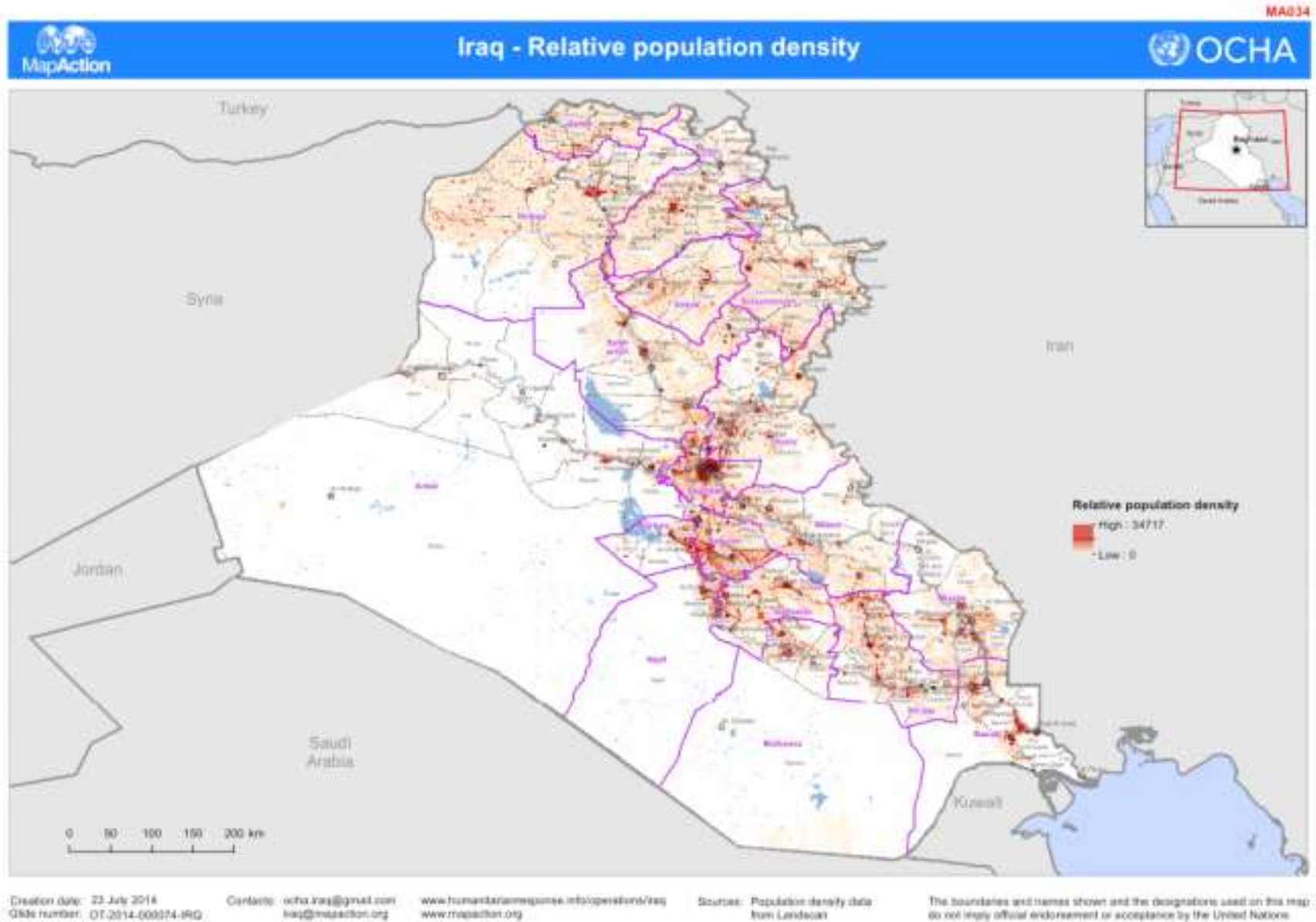
Economic Impact of Sectarian and Ethnic Divisions

- 1. Long history of Arab-Kurdish clashes led to major conflict during Iran-Iraq war, creation of Kurdish Security Zone and then Kurdish Regional Government with its own sub-economy.**
- 2. Iran-Iraq war triggered Shi'ite resistance movements and exile groups, regime crackdowns.**
- 3. Divisions in Iraqi Army and government spending favored Sunnis and western Iraq until 2003. Then saw sudden reversal as Shi'ites came to take power.**
- 4. Acute sectarian violence never halted after 2008. Had growing impact from 2011 onwards.**
- 5. Smaller minorities suffered badly, with massive economic impact on them, from 2003 to 2013 – then subject of massacres by ISIS.**
- 6. Key cities like Baghdad became increasingly segregated on sectarian lines from 2005 onwards. Rise of ISIS has made problem steadily worse, but no clear data.**
- 7. Broader rise of ISIS has crippled economy in Iraq's west, divided country.**
- 8. Kurdish victories against ISIS have made demographic and economic problems in creating a stable Kurdish and Arab relationship worse—particularly in Kirkuk province.**
- 9. Kurdish and minority problems tied to problems in Turkey, Syria, and Iran.**

A Nation in a Sea of Sectarian, Ethnic, Tribal, and Linguistic Differences



Iraq Population Density (UN OCHA) 7/2014

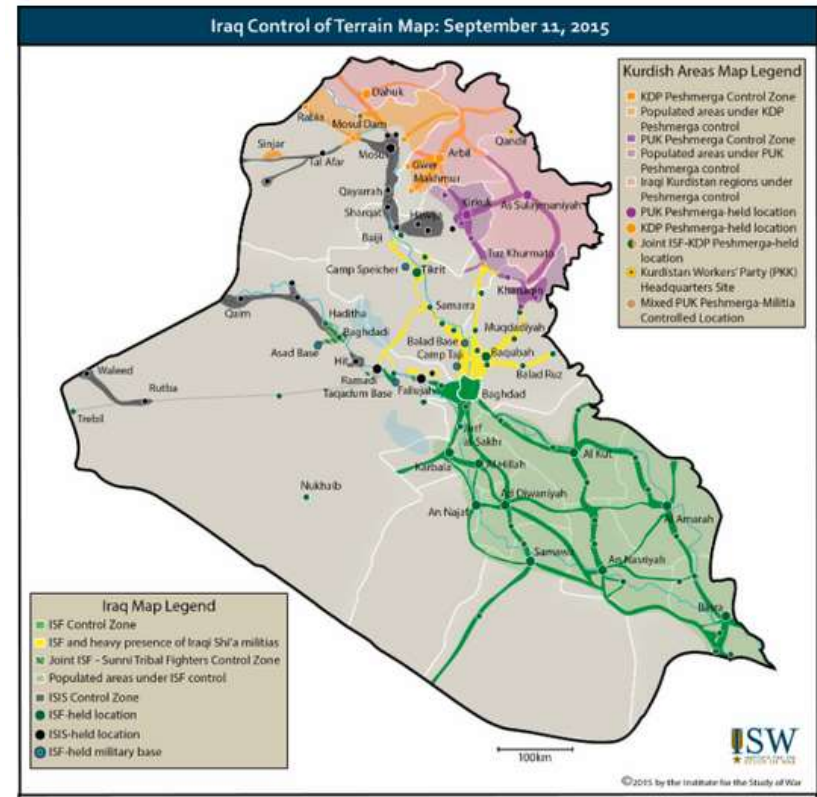
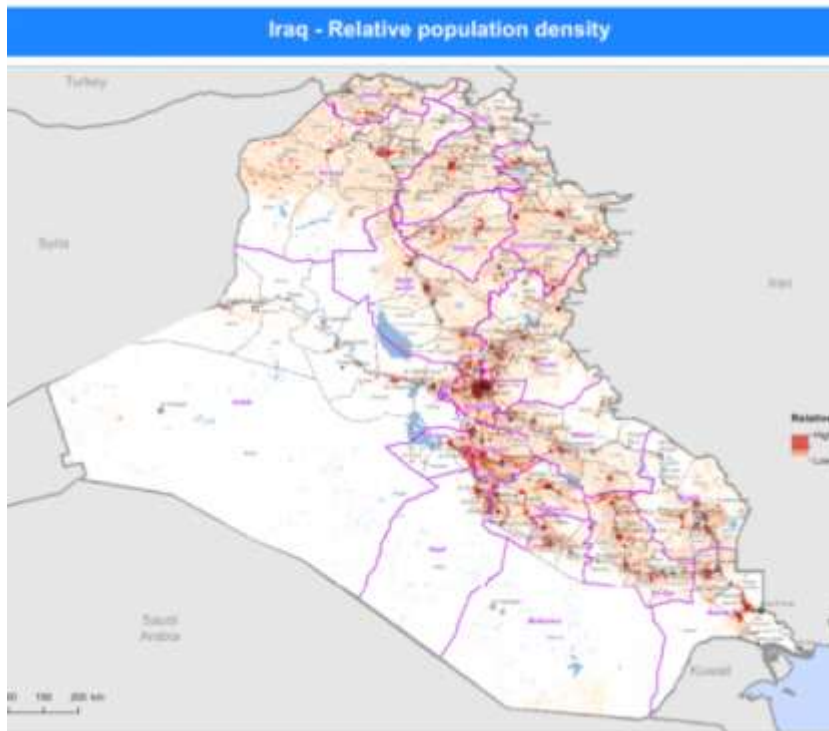


9/18/2015

Source: <http://reliefweb.int/map/iraq/iraq-relative-population-density-23-july-2014>

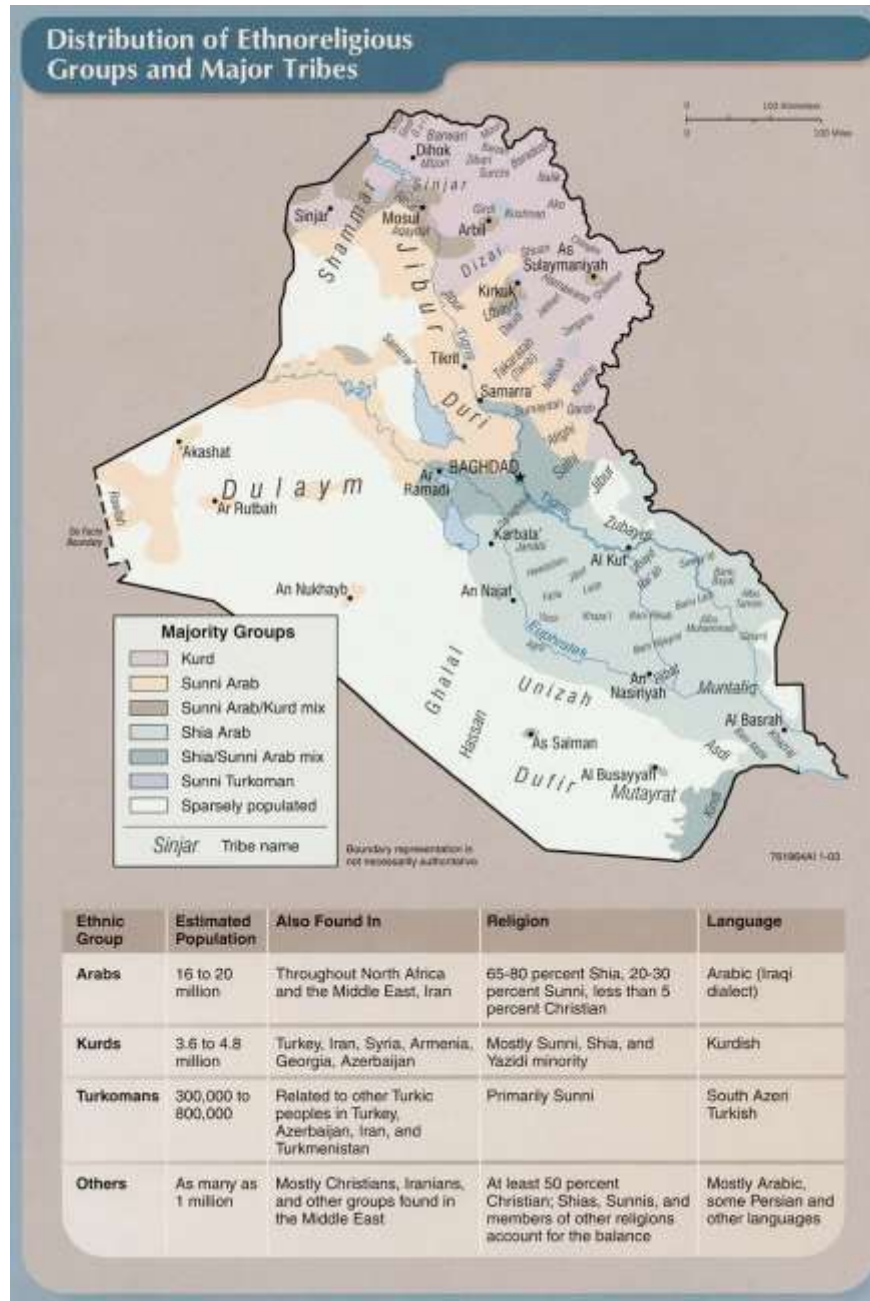
Population Density is Critical to Analyzing Conflict Economics and Dynamics

OCHA Population Density vs. ISW Estimate of Zones of Control



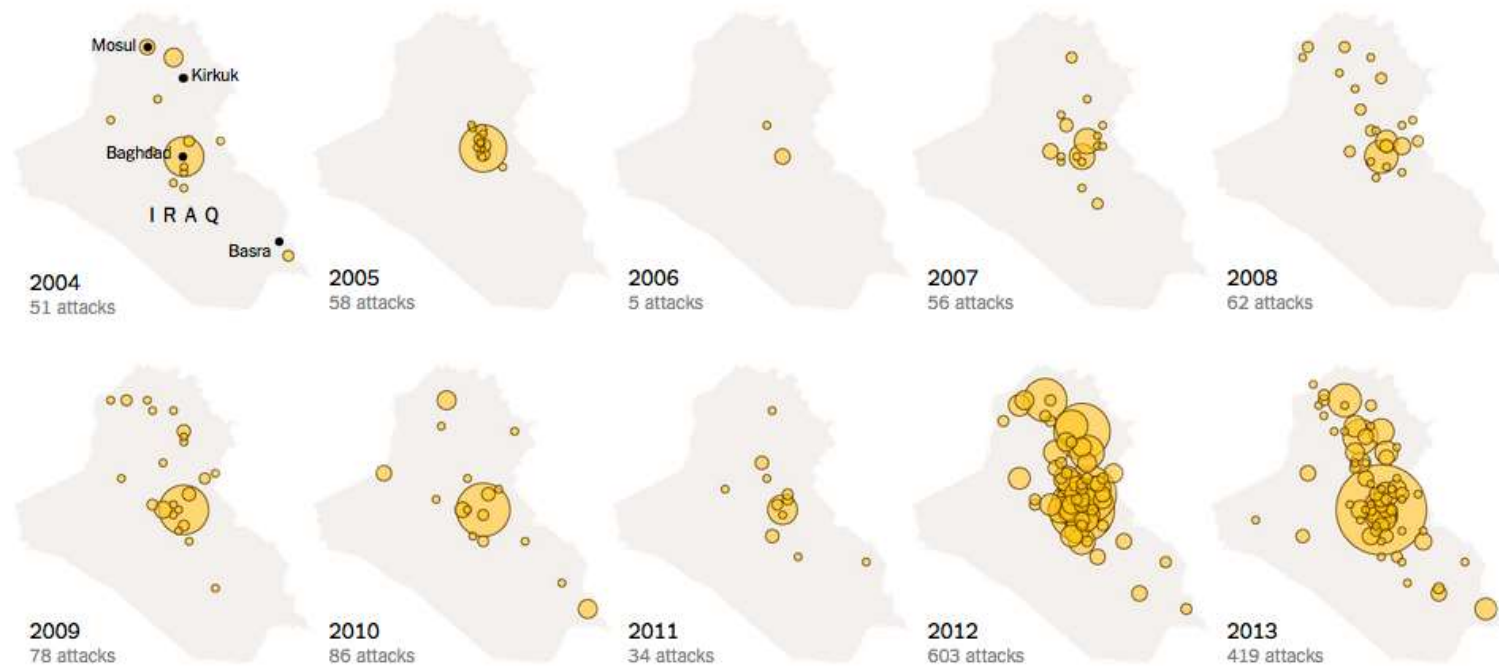
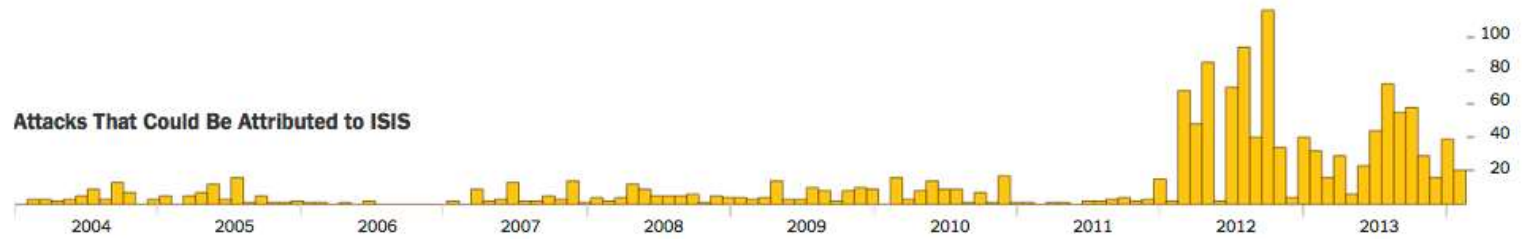
Iraq Population Density (UN OCHA) 7/2014, <http://reliefweb.int/map/iraq/iraq-relative-population-density-23-july-2014>; ISW, "Iraq Control of Terrain Map, September 11, 2015, <https://mail.google.com/mail/u/0/#search/map/14fbe050c5b14983>.

Sectarian Divisions in Iraq – 2003 Guesstimate



Source:
<https://www.google.com/search?q=iraq+water+resources+map&tbm=isch&tbo=u&source=univ&sa=X&ved=OCB4QsARqFQoTCPG1nt-h4scFCg1PgdxUsC8w#imgrc=xn60uJcm64Q1ZM%3A>

Ten Years of Sunni Terrorist Attacks: 2004-2013



2004-05 The group emerges as "Al Qaeda in Iraq" following the U.S.-led invasion of Iraq. Its goal is to provoke a civil war.

2006-07 The group's February 2006 bombing of one of Iraq's most revered Shiite shrines ignites sectarian violence across the country. After merging with several other Sunni insurgent groups, it changes its name to the Islamic State of Iraq.

2008-10 I.S.I. claims responsibility for more than 200 attacks, many in densely-populated areas around Baghdad.

2011-12 The group is relatively quiet for most of 2011, but re-emerges after American troops withdraw from Iraq.

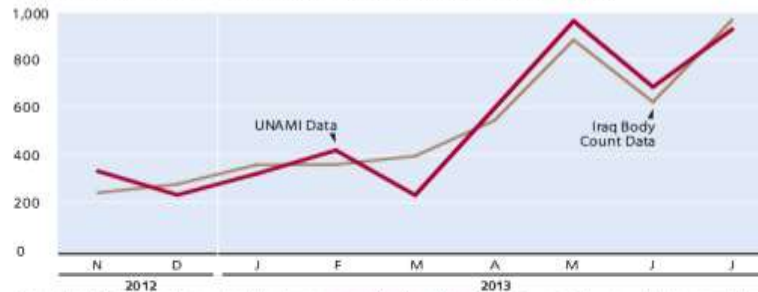
2013 Seeing new opportunities for growth, I.S.I. enters Syria's civil war and changes its name to reflect a new aim of establishing an Islamic religious state spanning Iraq and Syria. Its success in Syria bleeds over the border to Iraq.

Rising Death Tolls in the Maliki, Pre-ISIS Period

Daily Death Tolls
5/1/2013–6/15/2013



Reported Civilian Deaths From Violence, by Month, 11/2012–7/2013



Note: Non-ISF civilian police are included among casualties; Iraq Body Count figures for June and July are provisional.
Sources: UNAMI, press releases, various dates, unami.unmissions.org; Iraq Body Count, Database, www.iraqbodycount.org, accessed 8/31/2013.

Selected Major Attacks, 5/2013–7/2013

May 17

At least 73 killed, including 49 killed in car bombings near a Shia mosque in Ba'quba and 25 in bombings in Baghdad

May 20

At least 86 killed, including at least 48 in 10 bombings in Baghdad, 14 killed by a car bomb north of Baghdad in Balad, 14 killed in twin bombings at a restaurant and bus station in Basrah, and at least 9 Shia worshippers killed by a car bomb in Hilla

May 27

At least 66 killed in a coordinated wave of car bombings in mostly Shia areas in 11 Baghdad neighborhoods

June 10

At least 61 killed and many more wounded in bombings across Iraq, including more than 20 killed in separate bombings in Mosul, 15 others in bombings in Diyala, and 11 more in Salah Al-Din

June 16

At least 49 killed and dozens wounded in multiple suicide and car bombings in 9 cities in northern, central, and southern Iraq; gunmen killed at least 4 pipeline guards and wounded 5 others near Mosul

June 23–25

As many as 127 killed and hundreds wounded by gunfire, improvised explosive devices, and bombings across Iraq; Baghdad sustained heavy casualties

July 2

At least 59 killed by gunfire, car bombings, and IEDs in 10 cities, including at least 34 in Baghdad in predominantly Shia areas

July 11

At least 59 killed in attacks in 10 cities

July 14

At least 66 killed and dozens wounded in bombings in 11 locations around Iraq, including the Grand Mussayab Mosque

July 20

As many as 80 killed in a wave of evening bombings coordinated to detonate where Iraqis congregated to break their fast

July 29

As many as 60 killed in at least 18 bombings during morning rush hour in marketplaces and other populated areas in Baghdad, Kut, Basrah, and Samawa

July 30

IEDs, gunfire, and car bombings killed as many as 50 in coordinated attacks in 11 cities

Provinces Where Most Attacks Occurred

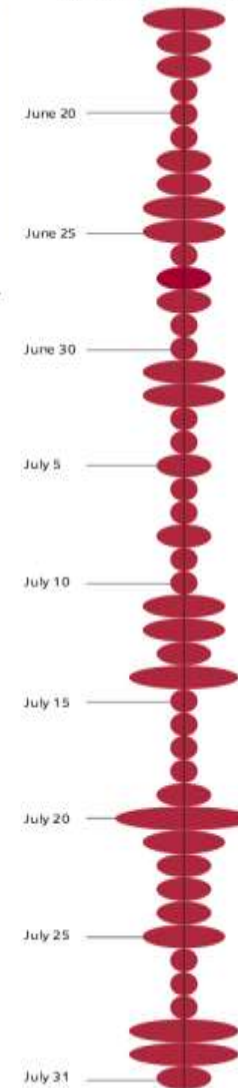


Anbar, Baghdad, Diyala, Ninewa, Salah Al-Din, and Tameem provinces were most frequently attacked.

Daily Death Tolls



Daily Death Tolls
6/16/2013–7/31/2013



Massive Losses in Minority Populations Before the Rise of ISIS

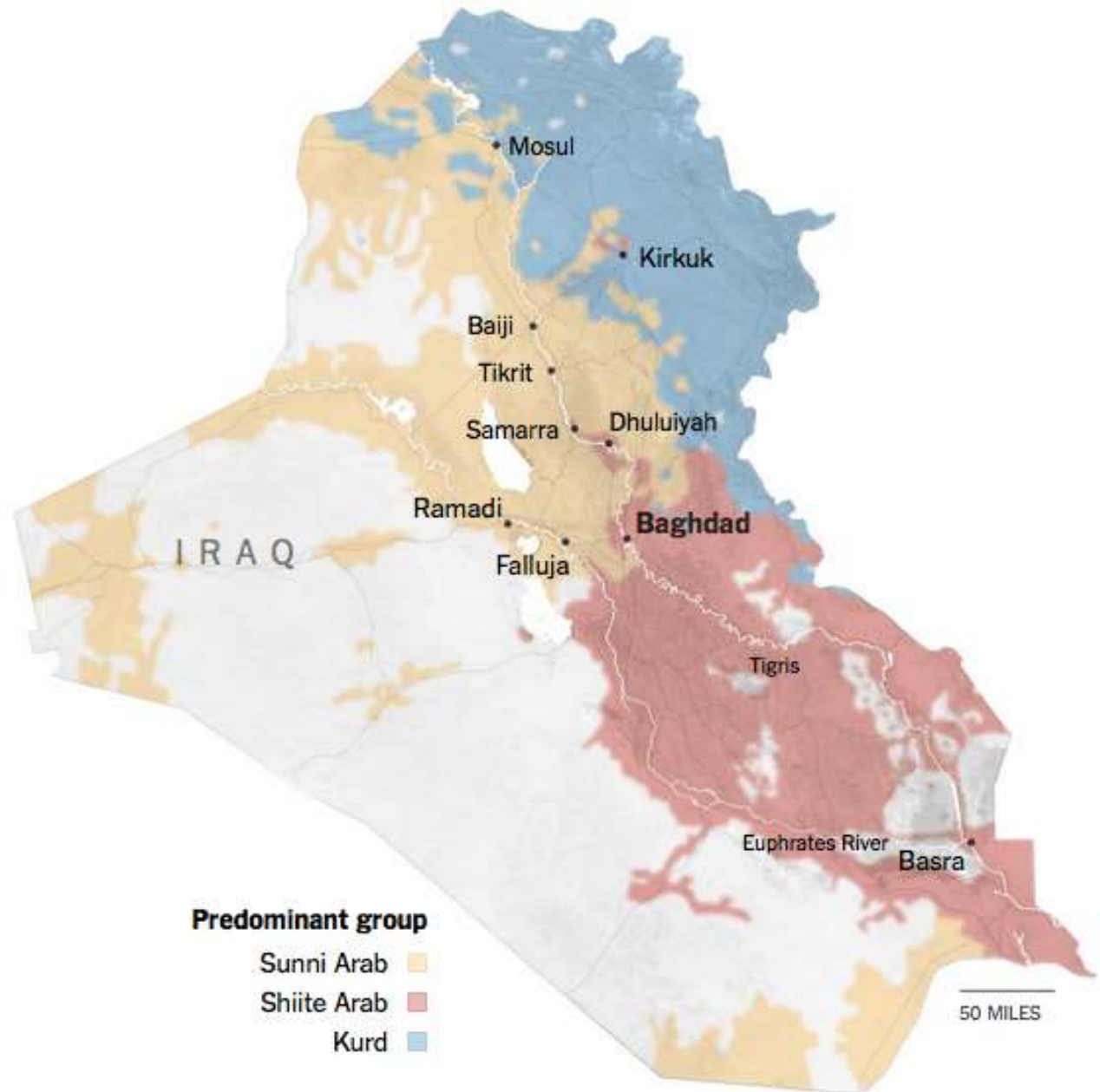
POPULATION ESTIMATES AND DESCRIPTIONS OF MINORITY COMMUNITIES IN IRAQ, 2003 AND 2011

		2003	2011
Christians	Predominantly Assyrian, Chaldean, Armenian, and Syriac; most live in or around the Kurdistan Region; a small number of Armenians live in Basrah.	1.4 million	400,000 to 600,000
Turkmen	Descendants of Ottoman Empire-era soldiers and traders, about 60% of Turkmen are Sunni Muslim and the rest are Shia.	800,000	200,000
Sabaeans	Gnostics who follow John the Baptist, Sabaeans do not accept converts and must live near a river to observe religious rites; concentrated in southern Iraq.	60,000 to 70,000	5,000 to 10,000
Yazidis	Ancient group with religious traditions drawn from Zoroastrianism, Manicheism, Islam, Christianity, and Judaism; Yazidis do not accept converts or marry outside the faith; concentrated around Sinjar Mountain west of Mosul.	600,000 to 700,000	Less than 500,000
Shabaks	Most identify as Shia and the rest as Sunni, but do not observe all pillars of Islam and draw religious traditions from Yazidis and Sufism. Shabaks have lived along the Ninewa Plains since 1502.	400,000 to 500,000	200,000 to 500,000
Feyli Kurds	Ethnically Kurdish Shia, the Feyli live mainly in Diyala province along the Iranian border, in Baghdad, and in Iran. Under Saddam Hussein's regime, they were stripped of Iraqi citizenship.	1 million to 1.5 million	100,000 to 120,000
Kaka'is	Kurds who speak their own dialect, Kaka'is draw religious traditions from Yazidis, Zoroastrianism, and Shia Islam. They live primarily in Kirkuk and Mosul.	200,000	60,000 to 70,000

Note: Some population estimates were obtained from community leaders who met with the Minority Rights Group International; others were taken from SIGIR interviews with community leaders and U.S. government reports.

Sources: DRL, *International Religious Freedom Reports, 2006 and 2010*, www.state.gov/g/drl/irf/2010/148821.htm, accessed 6/5/2011; SIGIR Interviews with members of Sabaeen community, 6/29/2011; Minority Rights Group International Report, "Still Targeted: Continued Persecution of Iraq's Minorities," 2010; Minority Rights Group International, Information provided to SIGIR, 10/18/2011.

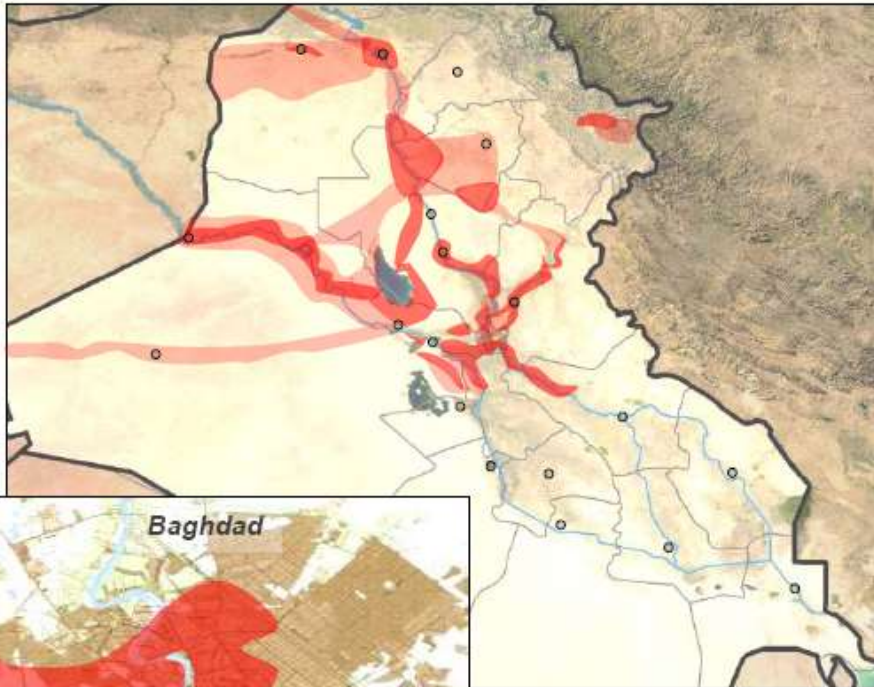
Sectarian Divisions in Iraq – 2015 Guesstimate



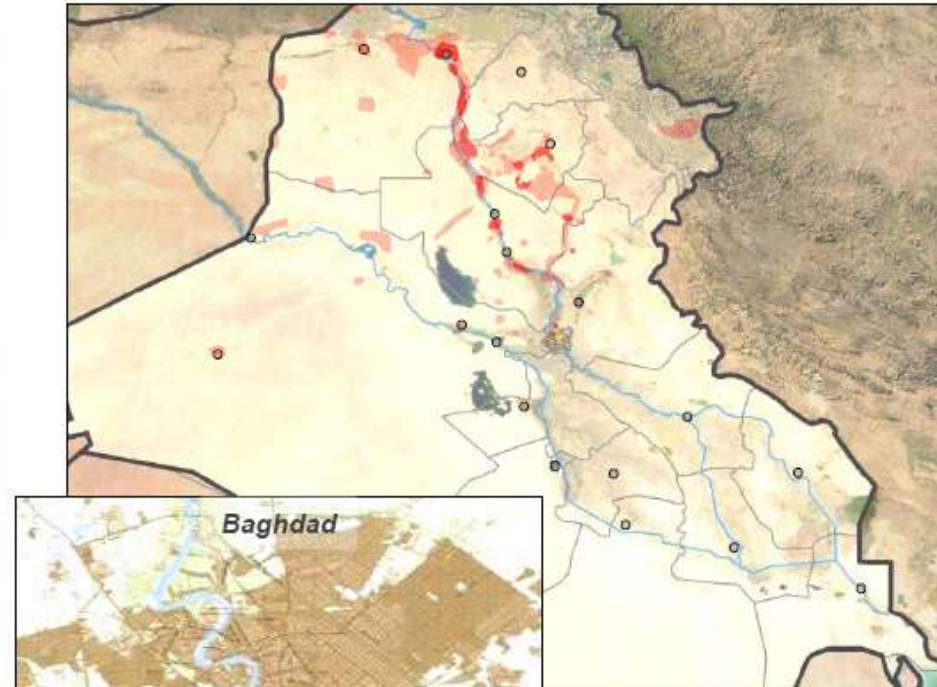
Source: New York Times, Updated May 11, 2015 <http://www.nytimes.com/interactive/2014/06/12/world/middleeast/the-iraq-isis-conflict-in-maps-photos-and-video.html?action=click&contentCollection=Middle%20East®ion=Footer&configSection=article&isLoggedIn=false&moduleDetail=undefined&pgtype=Multimedia>

Al Qa'ida in Iraq -- Winter 2006 vs. Fall 2008

Winter 2006-2007



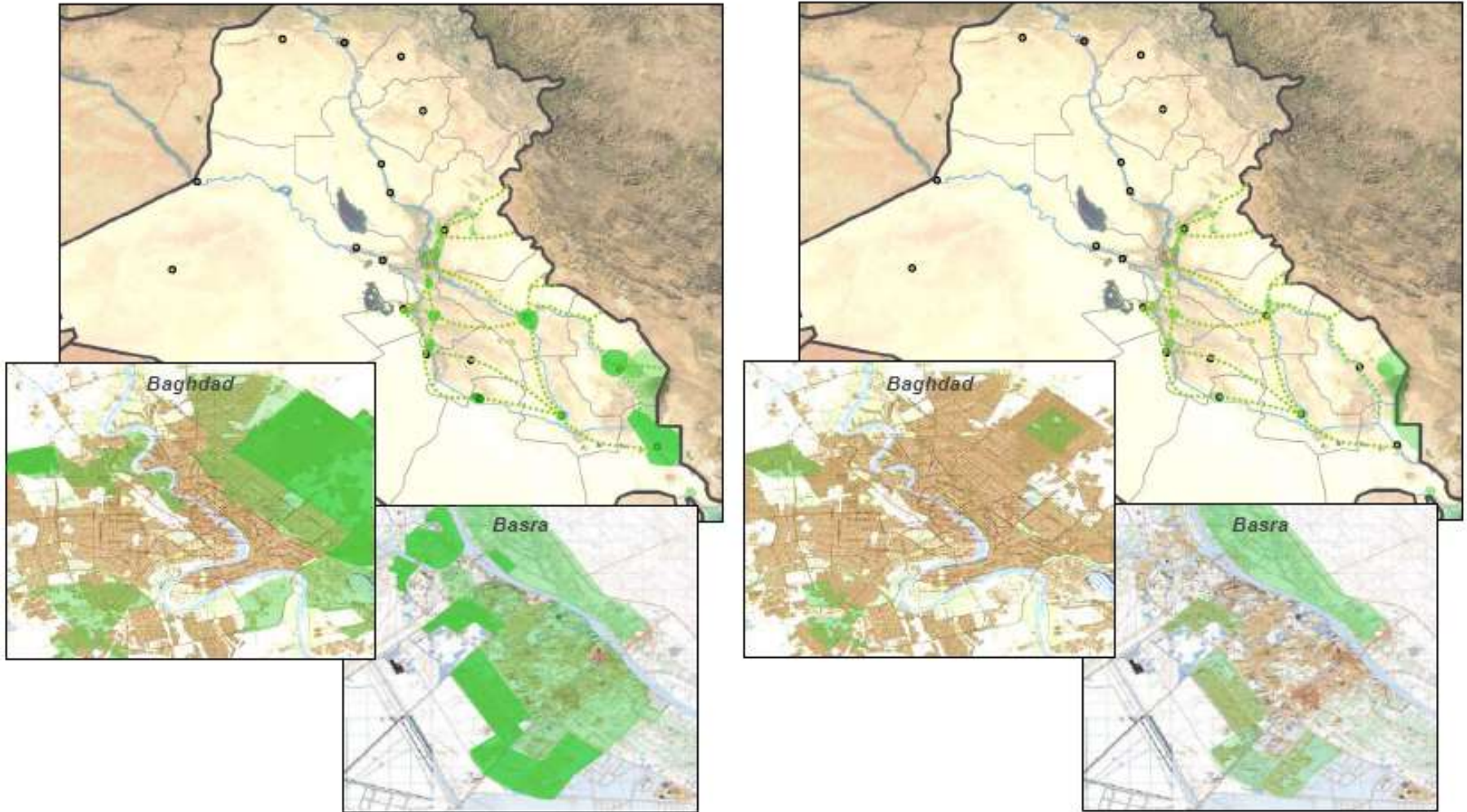
Fall 2008



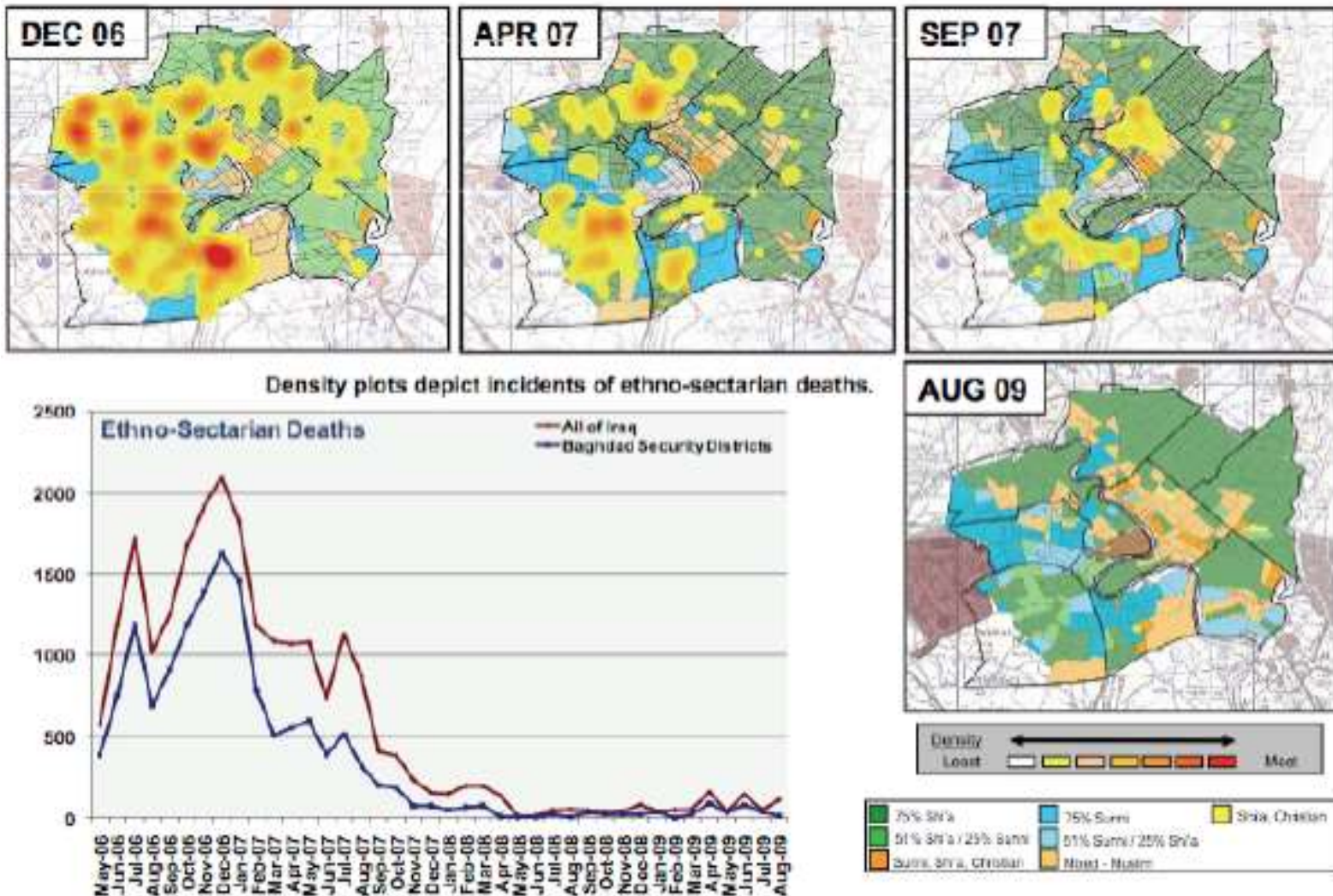
Key Areas of Shi'ite Extremist Activity: Winter 2007 vs. Fall 2008

Winter 2007-2008

Fall 2008



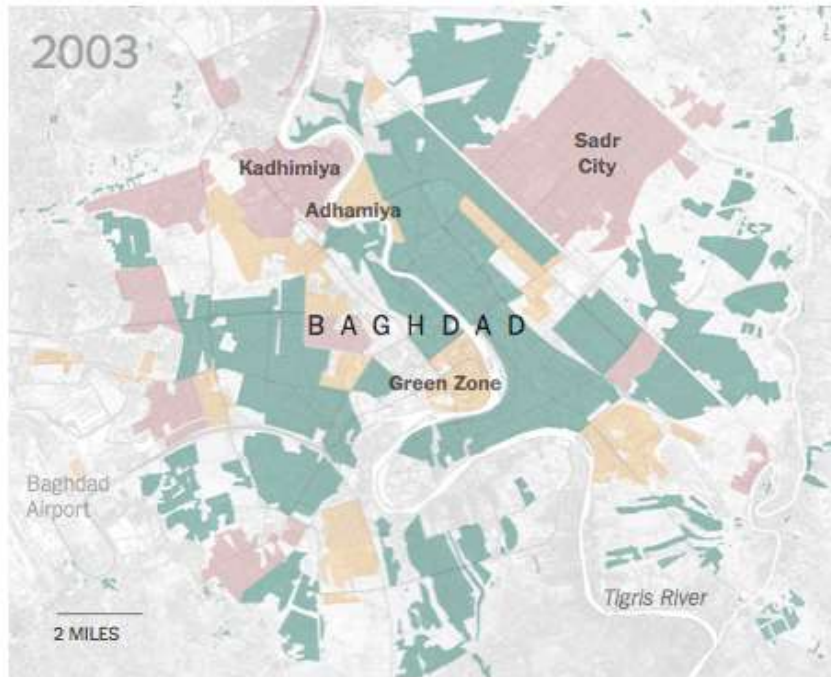
Ethno-Sectarian Violence in Baghdad: 2006 -2009



Sources: CIOC Trends (CF and Iraqi reports) as of 05-Sep-09; weekly beginning 01-May-06

Sectarian Division of Baghdad: 2003-2009

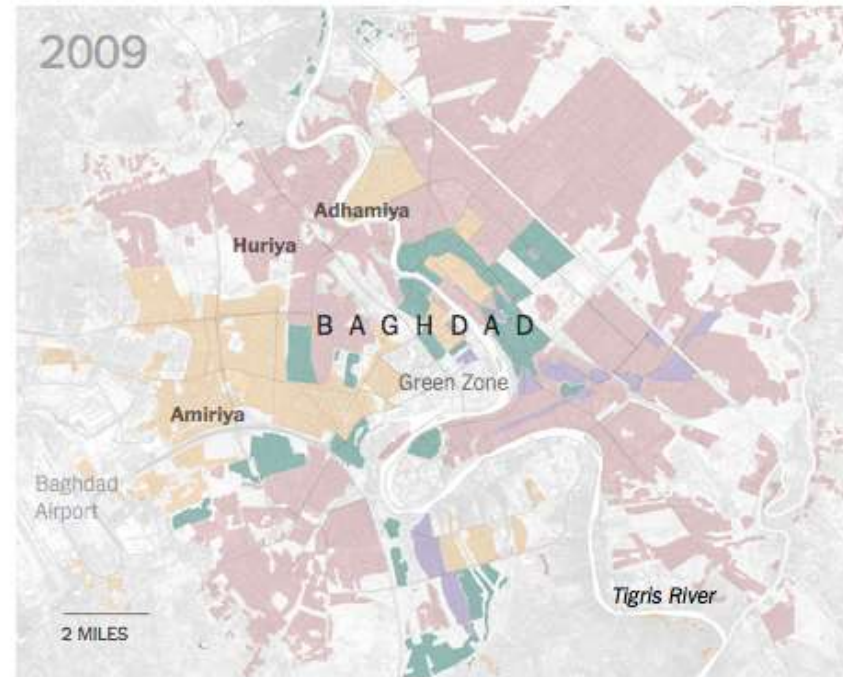
KEY Sunni majority Shiite majority Christian majority Mixed areas



2003: Before the Invasion

Before the American invasion, Baghdad's major sectarian groups lived mostly side by side in mixed neighborhoods. The city's Shiite and Sunni populations were roughly equal, according to Juan Cole, a University of Michigan professor and Middle East expert.

- **Kadhimiya**, a historically Shiite neighborhood, is home to a sacred Shiite shrine.
- **Adhamiya**, a historically Sunni neighborhood, contains the Abu Hanifa Mosque, a Sunni landmark.
- The **Green Zone** became the heavily fortified center of American operations during the occupation.
- **Sadr City** was the center of the insurgent Mahdi Army, led by the Shiite cleric Moktada al-Sadr.

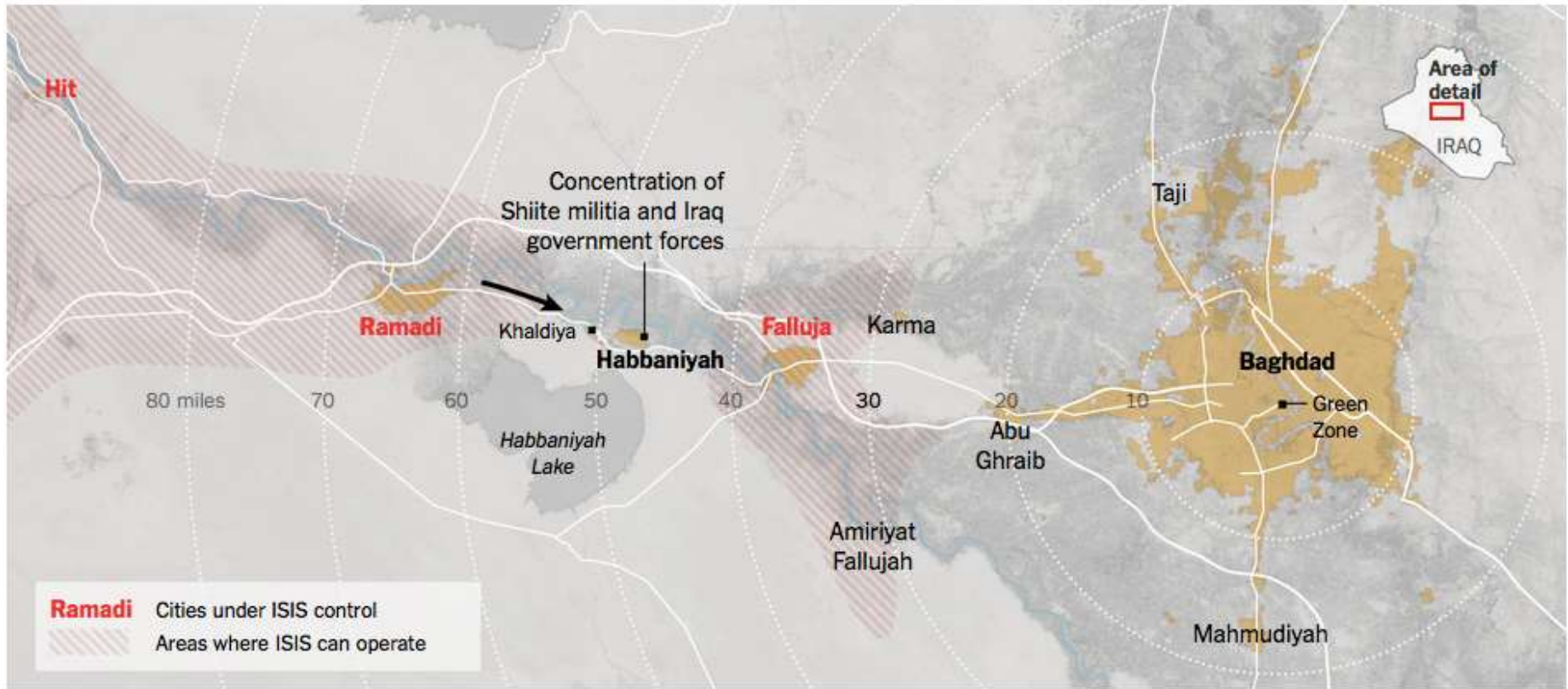


2009: Violence Fuels Segregation

Sectarian violence exploded in 2006. Families living in areas where another sect was predominant were threatened with violence if they did not move. By 2009 Shiites were a majority, with Sunnis reduced to about 10 percent to 15 percent of the population.

- **Huriya** was transformed in 2006 when the Mahdi Army pushed out hundreds of families in a brutal spasm of sectarian cleansing.
- More than 8,000 displaced families relocated to **Amiriya**, the neighborhood where the Sunni Awakening began in Baghdad.
- **Adhamiya**, a Sunni island in Shiite east Baghdad, was walled and restricted along with other neighborhoods in 2007 for security.
- Neighborhoods **east of the Tigris River** are generally more densely populated than areas to the west.

Fall of Ramadi and Approaches to Baghdad



Sources: Institute for the Study of War (ISIS area of influence); International Crisis Group.

DoD: Iraq and Syria: ISIL's Reduced Operating Areas as of April 2015

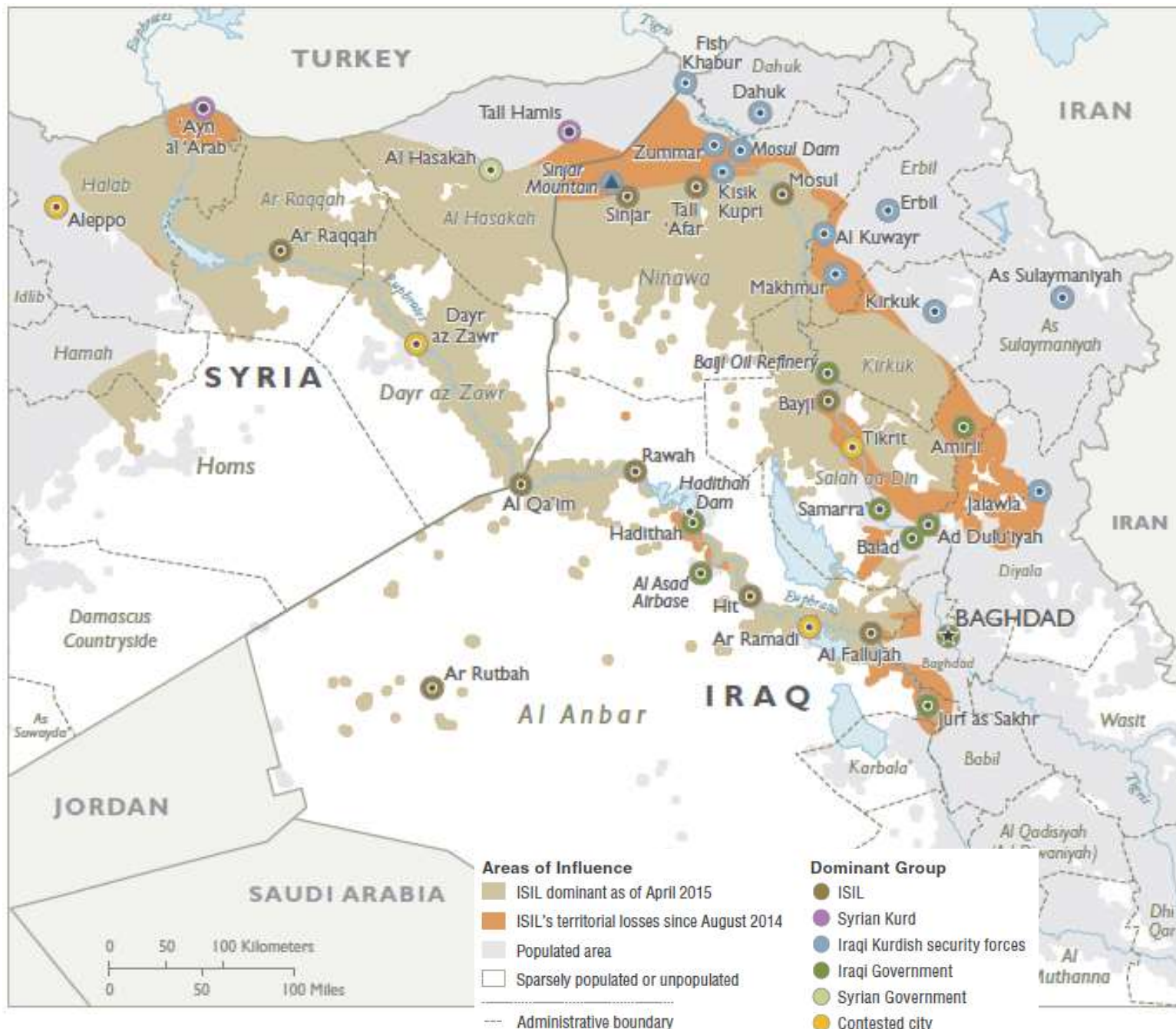
The Islamic State of Iraq and the Levant's (ISIL) frontlines in much of northern and central Iraq have been pushed back since August 2014.

ISIL can no longer operate freely in roughly 25 to 30 percent of populated areas of Iraqi territory where it once could.

These areas translate into approximately 13,000 to 17,000 square kilometers (or 5,000 to 6,500 square miles).

However, because of the dynamic nature of the conflict in Iraq and Syria, this estimate could increase or decrease depending on daily fluctuations in the battle lines.

ISIL's area of influence in Syria remains largely unchanged, with its gains in As Suwayda', Damascus Countryside, and Homs Provinces offset by losses in Halab and Al Hasakah Province

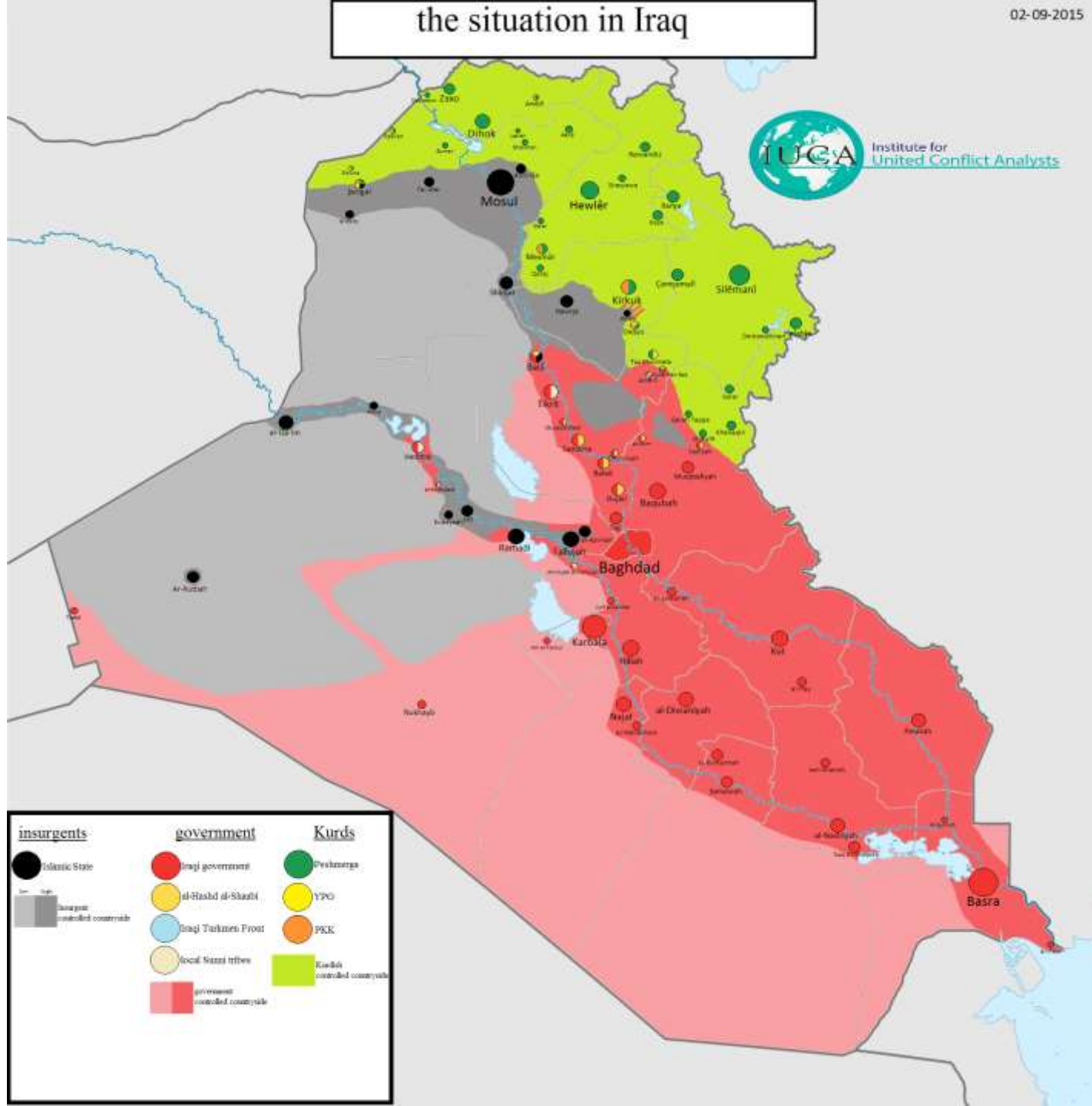


the situation in Iraq

Zones of Control in Iraq

UCA Estimate

September 2, 2015



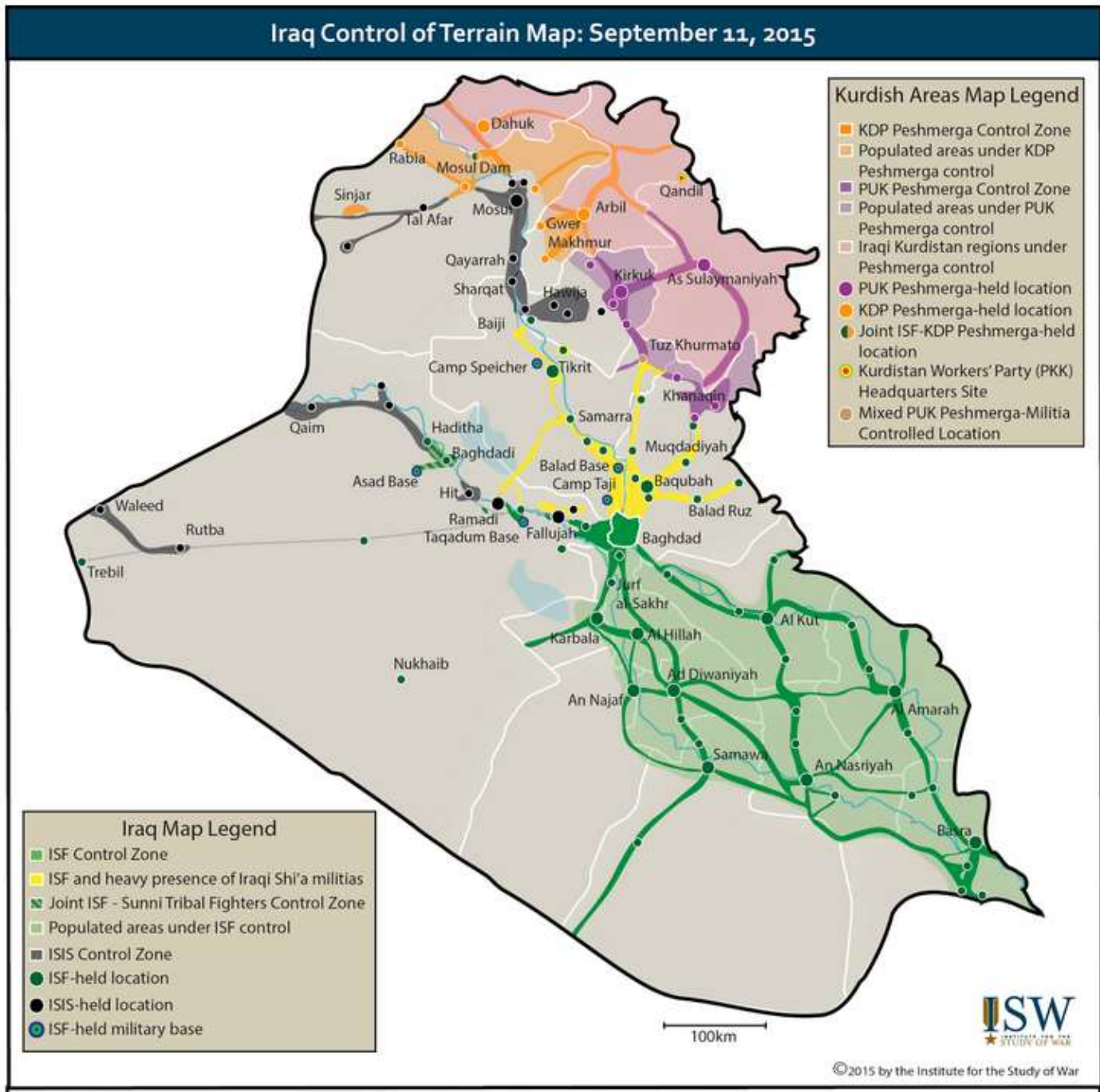
Source: Institute for United Conflict Analysis
<https://pietervanos.taeyen.files.wordpress.com/2015/09/2000px-iraq18.png>

Zones of Control in Iraq

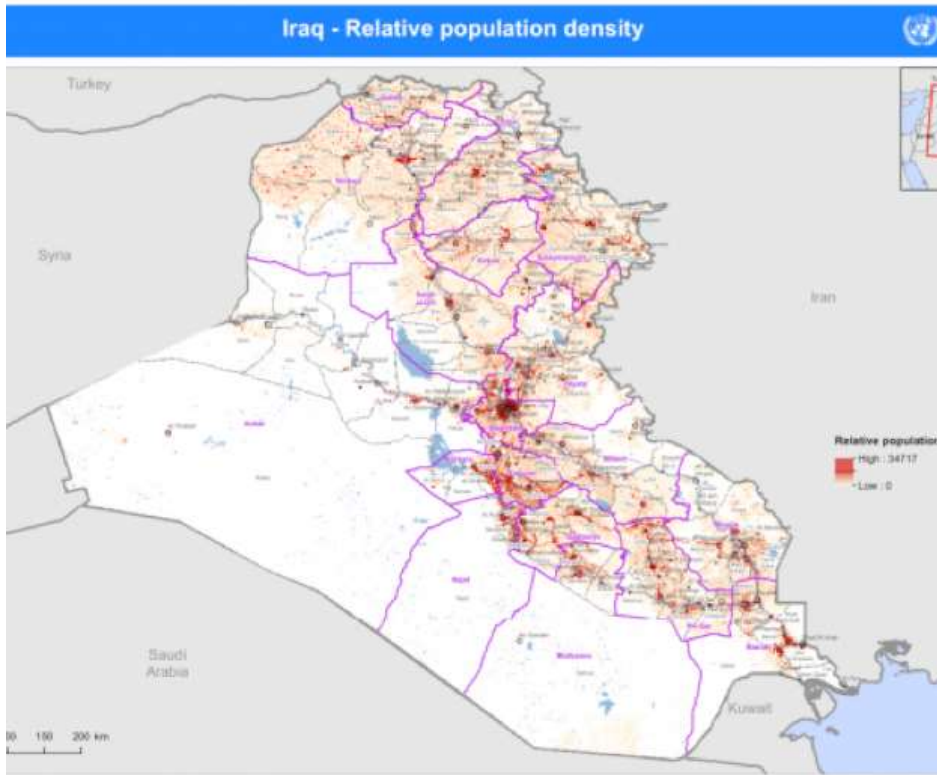
ISW Estimate

September 11, 2015

Source: Institute for the Study of War.
<http://iswresearch.blogspot.com/2015/09/iraq-control-of-terrain-map-september.html>

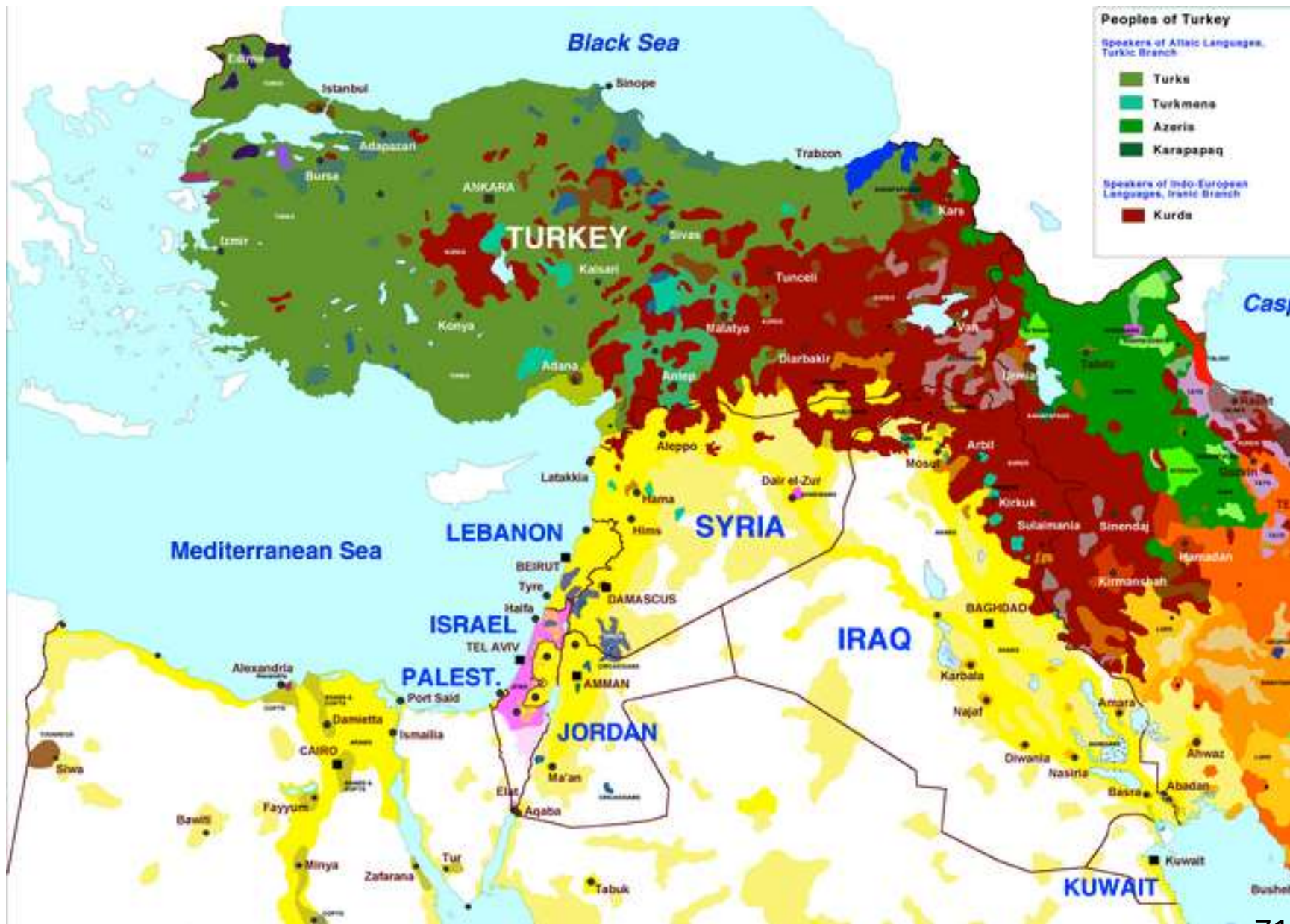


Iraq: Population Density versus Zones of Control: There are No Neat Ethnic and Sectarian Dividing Lines

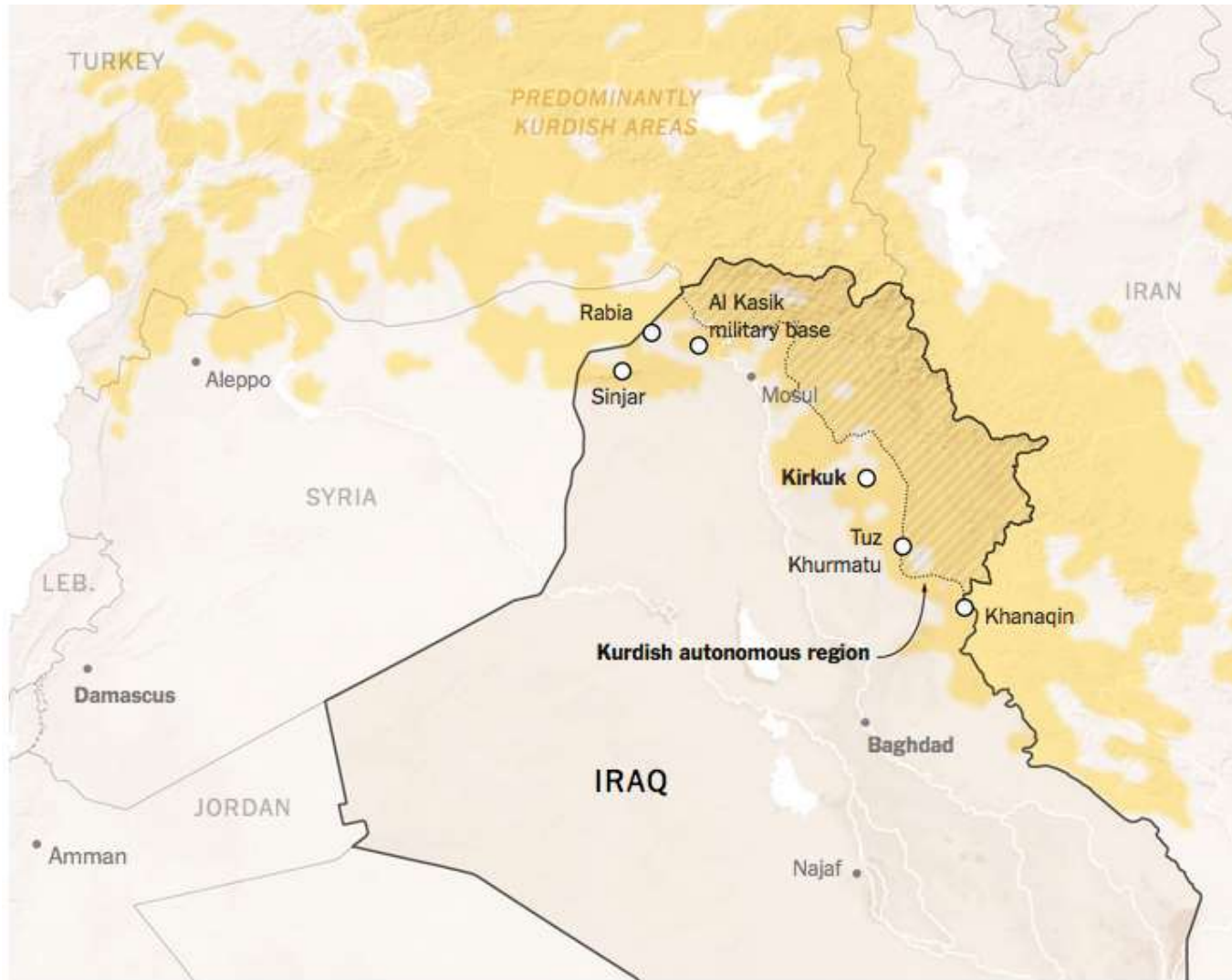


Source: Institute for the Study of War; <http://iswresearch.blogspot.com/2015/09/iraq-control-of-terrain-map-september.html>, and OHCA, <http://reliefweb.int/map/iraq/iraq-relative-population-density-23-july-2014>.

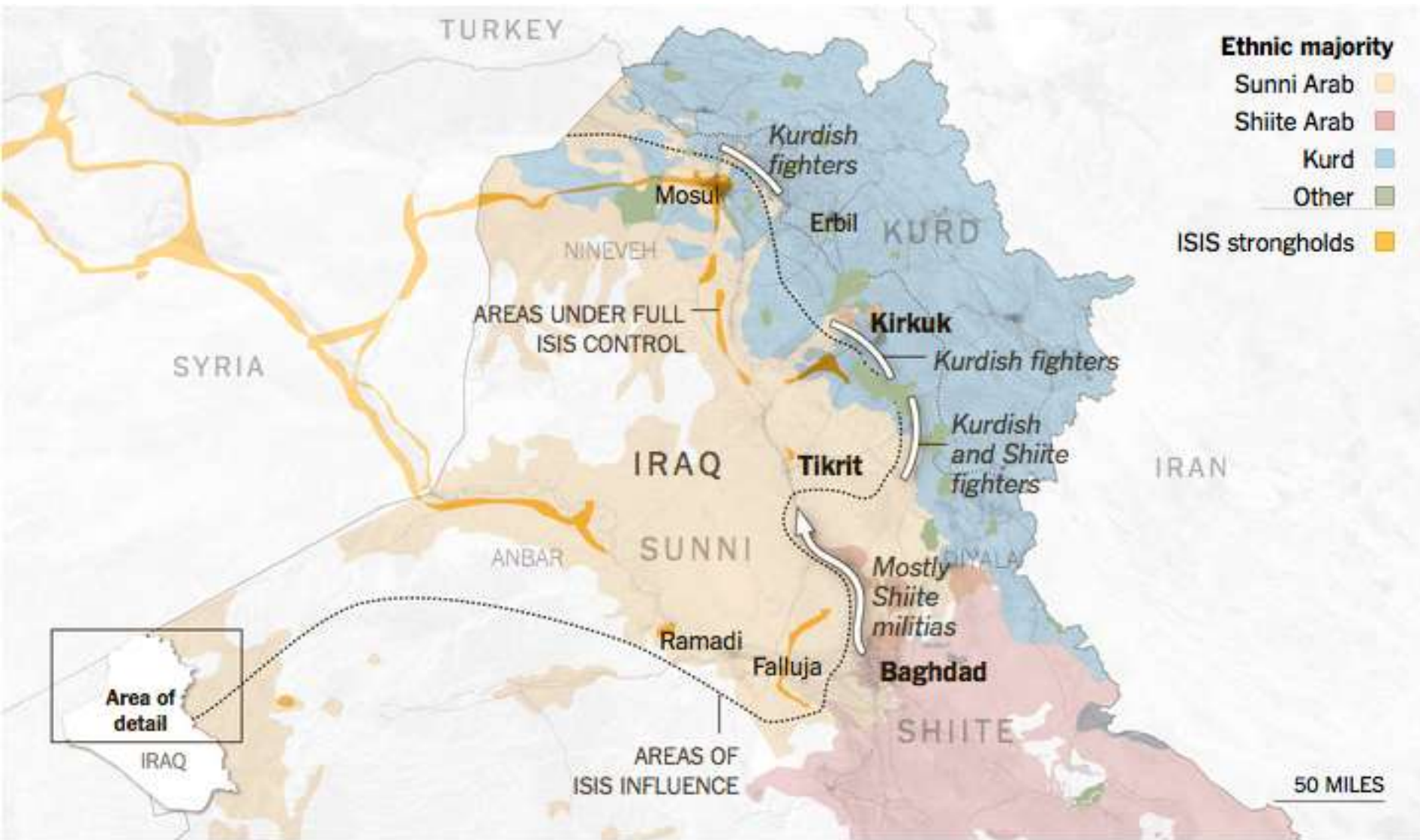
Regional Kurdish Areas: 2012-2013



The “Kurdish Problem:” April 7, 2015



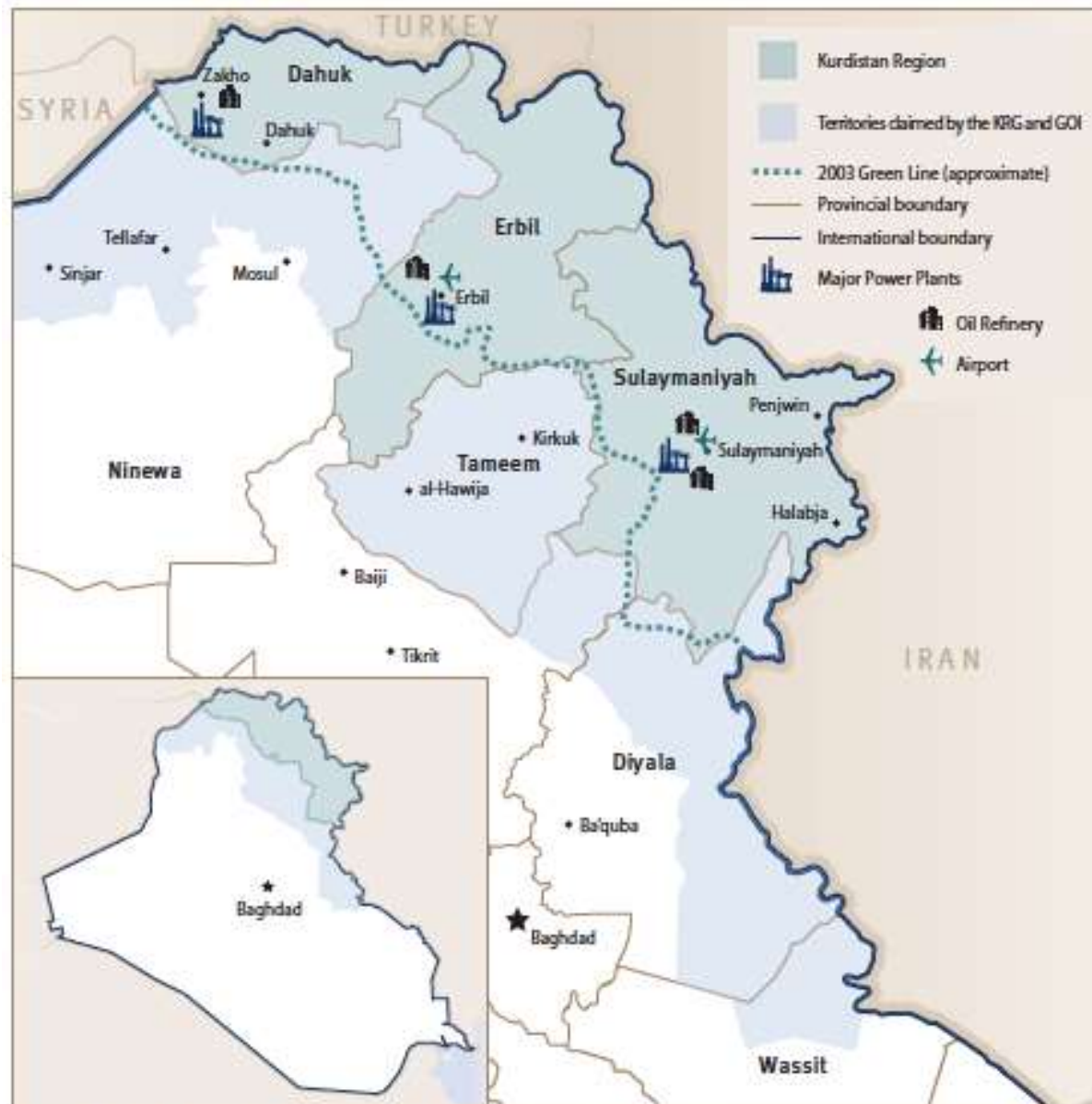
ISIS Control of Iraq: May 20, 2015



Source: New York Times, Updated May 20, 2015; <http://www.nytimes.com/interactive/2014/06/12/world/middleeast/the-iraq-isis-conflict-in-maps-photos-and-video.html>

The Kurdish Problem in Iraq before KRG Gains in /fighting with ISIS in 2013-2015

KURDISTAN REGION AND THE DISPUTED TERRITORIES



Note: All locations approximate and do not imply endorsement or acceptance.

Expanded Area of Kurdish Control: August 2015



Has become an area of Kurdish as well as Kurdish-Arab tension. Commander of the Yezidi Sinjar Protection Forces Haydar Qassem Sheshou was arrested on April 5th, 2015, by a special police force affiliated with Barzani and KDP under the pretext of being linked to the Popular Mobilization militias. These groups were accused of committing violent operations in areas liberated from ISIS, which prompted the PUK Central Council to condemn the arrest and hint that the Democratic Party wanted to hand Sinjar over to ISIS.

Is an area of critical energy value: EIA estimates 17% of Iraq oil reserves are in the north of Iraq, near Kirkuk, Mosul, and Khanaqin. Control over rights to reserves is a source of controversy between the ethnic Kurds and other groups in the area. The International Energy Agency (IEA) estimated that the Iraqi Kurdistan Region contained 4 billion barrels of proved reserves. KRG's estimate is much higher because it is a resource estimate that includes unproved resources. The KRG recently increased its oil resource estimate from 45 billion barrels to 60 billion barrels although this has not been independently verified and this number likely includes at least some resources in disputed areas—especially Kirkuk.

After skirmishes between ISIL and KRG forces around the Kirkuk and Bai Hassan fields, the KRG took over operations at the Avana Dome, a part of the Kirkuk field, and Bai Hassan in July 2014. Shortly after, KRG restarted commercial production at those fields, which allowed the KRG to increase oil flows through its newly built pipeline that connects to Ceyhan (see Table 2). Meanwhile, Iraq's Northern Oil Company continued to produce about 120,000 bbl/d from the Kirkuk's Baba Dome, of which 30,000 bbl/d was sent to the Kirkuk refinery. The remainder of the oil production was reinjected into oil fields associated with natural gas to keep natural gas production flowing for power generation.

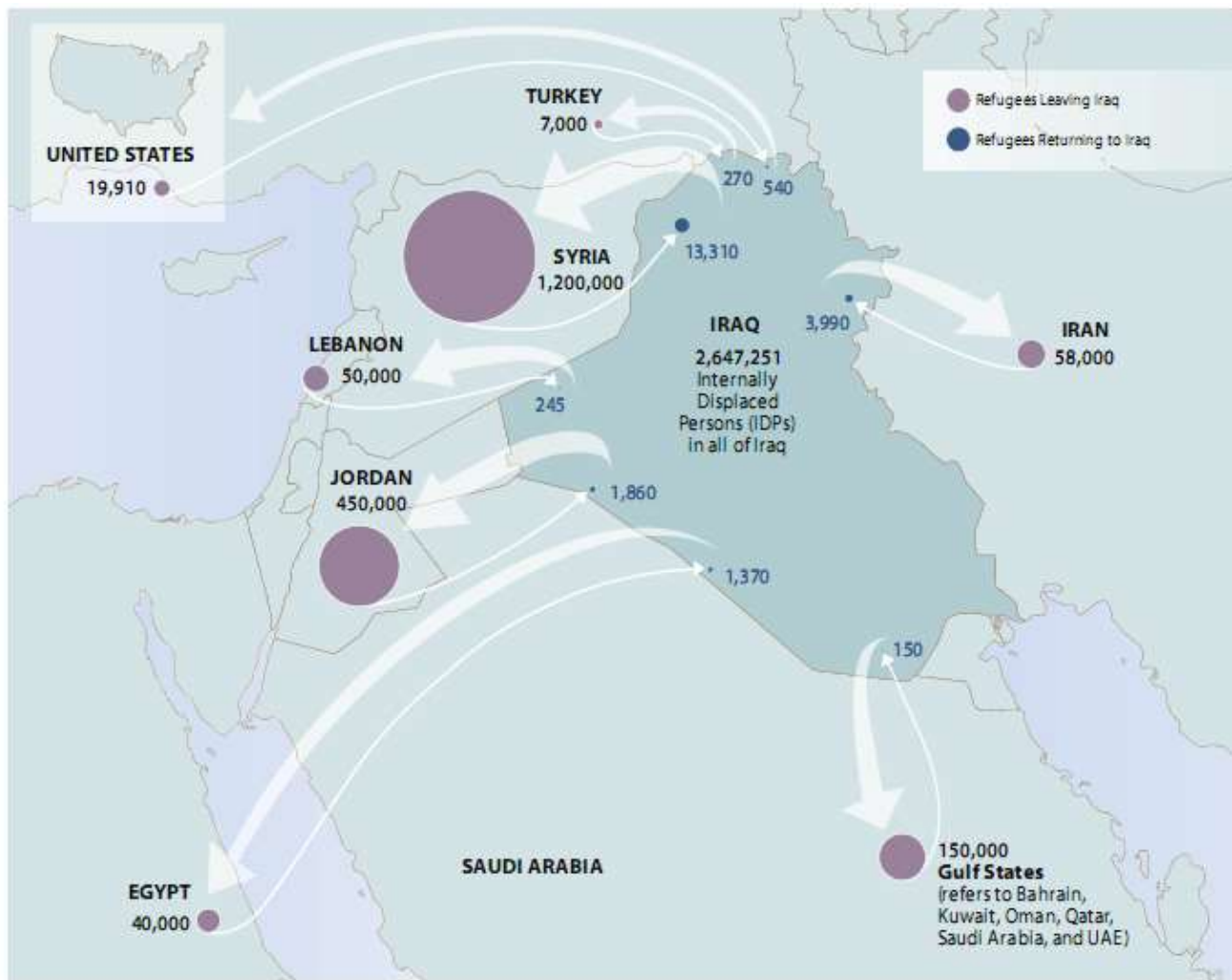
A December 2014 deal reached between Baghdad and the KRG has allowed Kirkuk crude to be transported via the KRG pipeline to Ceyhan, providing Baghdad with a commercial outlet for its northern production (see section on Issues between the Kurdistan Regional Government and Baghdad). Fighting around Kirkuk city continues to take place, making nearby fields vulnerable to supply disruption.

Construction, Reconstruction, and Stability Operations Economics

Economic Impact of Sectarian and Ethnic Divisions

- 1. How can Iraq forge a post-ISIS structure of politics, governance, and economics between Sunni and Shi'ite, Arab and Kurd?**
- 2. How can Iraq deal with costs of Iranian challenge, Syria instability, and Turkish Kurdish conflict?**
- 3. Iraq has long had its own IDP and refugee challenges.**
- 4. Now have IDP problems approaching 3.3 million, largely Sunnis from West. Flow limited by increasing Shi'ite hostility in more stable parts of central and eastern Iraq.**

Iraq: The Refugee and IDP Challenge in 2009



Note: Excludes refugee statistics for Europe and Australia.

Sources: UNHCR, "Country Operations Profile," www.unhcr.org/pages/49e486426.html, accessed 10/8/2009; USCIS, "Iraqi Refugee Processing Fact Sheet," http://www.uscis.gov/files/article/iraqi_refugee_fs_11feb09.pdf, accessed 10/8/2009; U.S. Embassy-Baghdad, response to SIGIR data call, 10/3/2009.

Source: Special Inspector General for Iraq Reconstruction (SIGIR), *Quarterly Report to the United States Congress*, (Public Law 108-106, as amended, and Public Law 95-452), October 30, 2009. Pp. 80-81.

DISPLACEMENT TRACKING MATRIX

IDP LOCATIONS & POPULATION

IRAQ IDP CRISIS - JANUARY 2014 TO 30 JULY 2015

IOM's DTM aims to monitor displacement and provide accurate data about the IDP population in Iraq. Data are collected through IOM's Rapid Assessment and Response Teams (RART), composed of 140 staff deployed throughout the entire Iraqi territory. Data is gathered using an

extensive network of over 1,300 key informants. From the start of January 2014 through 30 July 2015, the DTM identified 3,171,606 internally displaced individuals (528,601 families).

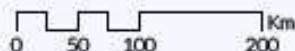
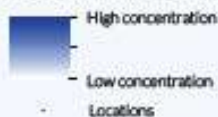


NUMBER OF FAMILIES BY GOVERNORATE

Governorate	Locations ¹	Families	Individuals ²
Anbar	283	97,394	584,364
Babylon	315	9,748	58,488
Baghdad	593	89,772	538,632
Basrah	208	1,729	10,374
Dahuk	97	71,009	426,054
Diyala	196	20,869	125,214
Erbil	111	47,544	285,264
Kerbala	220	12,117	72,702
Kirkuk	101	66,610	399,660
Missan	110	1,130	6,780
Muthanna	21	264	1,584
Najaf	110	14,078	84,468
Ninewa	139	32,974	197,844
Qadisiya	171	3,999	23,994
Salah al-Din	123	24,961	149,766
Sulaymaniyah	253	27,374	164,244
Thi-Qar	81	1,520	9,120
Wassit	199	5,509	33,054
TOTAL	3,331	528,601	3,171,606

LEGEND

IDPs by location of displacement



Sources: Thematic data: IOM DTM as of 2015/05/04. Administrative data: OCHA COD. This map is for illustration purposes only. Names and boundaries on this map do not imply official endorsement or acceptance by IOM.
 @ <http://iominsights.net/dtm-page> @IraqDTM@iomi.net

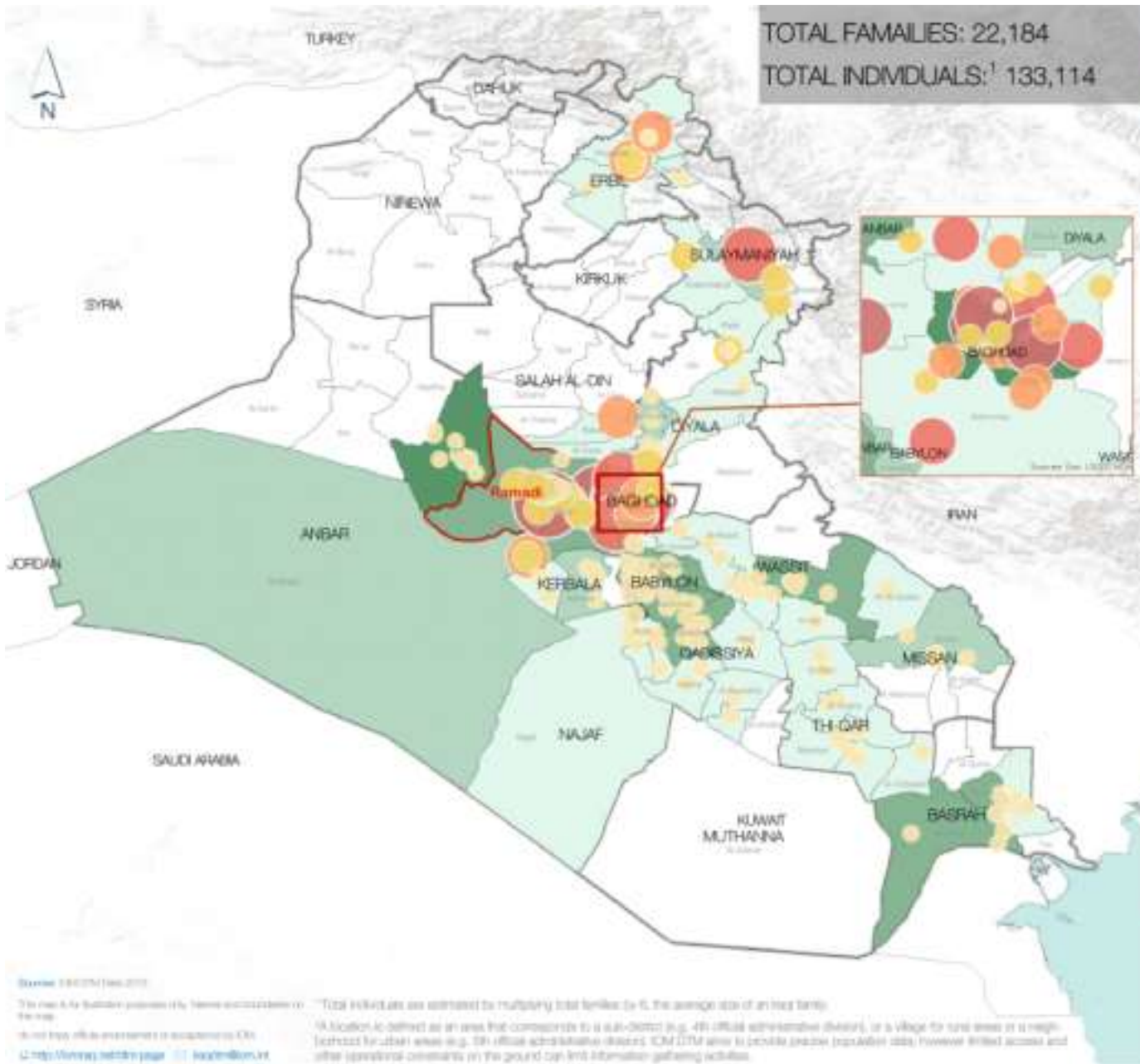
Dahuk governorate hosts the third largest IDP population (13% or 426,054 individuals), of whom 99% are from Ninewa. The majority of IDPs (83%) were displaced in August 2014, while no IDPs hosted in the governorate were displaced after September 2014. In terms of shelter arrangements, Dahuk hosts 56% of the total IDP population housed in camps (144,768 individuals), corresponding to 34% of the IDP population in Dahuk. Instead, about 29% are housed in critical shelter arrangements, and only 37% is in private settings.

Kirkuk governorate hosts the fourth largest displaced population (13% or 399,660 individuals). IDPs in Kirkuk are mainly from Salah al-Din (36%), Anbar (30%) and from within Kirkuk (19%). They were displaced mainly in June-July 2014 (29%) and September 2014-March 2015 (27%). The majority of IDPs (55%) are in rented houses, critical shelters (14%) and camps (3%). Furthermore, Kirkuk hosts 2% of the total returnee population (4,548 individuals).

Baghdad governorate hosts the second largest IDP population (17% or 538,632 individuals). The majority of this population is originally from Anbar governorate (85%), while a smaller portion (7%) are originally from Baghdad governorate. IDPs were displaced mainly before June 2014 (18%), September 2014-March 2015 (31%) and after April 2015 (28%). The vast majority (91%) is hosted in private settings.

Anbar governorate hosts the largest IDP population (18% or 584,364 individuals) and reports a very high rate of intra-governorate displacement; 97% of IDPs are originally from the same governorate. These IDPs were displaced mainly before June 2014 (46%) and after April 2015 (38%). The majority is housed in private settings (81%), out of which 72% in host families and 9% in rented houses, while a smaller portion (19%) is in critical shelters. Finally, Anbar governorate hosts 13% of the total returnees (39,558 individuals).

¹ Location is defined as an area that corresponds to a sub-district (e.g. official administrative division), or a village for rural areas or a neighborhood for urban areas (e.g. 3rd official administrative division). IOM DTM aims to provide precise population data; however, limited access and other operational constraints on the ground can limit information-gathering activities.
² Total individuals are estimated by multiplying total families by 6, the average size of an Iraqi family.



TOTAL FAMILIES: 22,184
 TOTAL INDIVIDUALS:¹ 133,114



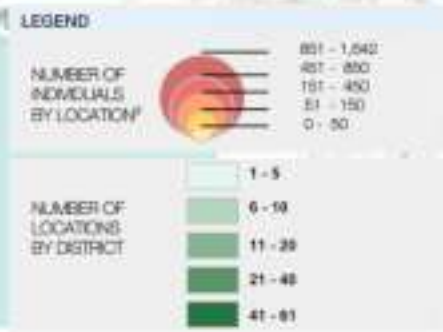
RAMADI CRISIS

10 April to 8 May, 2015

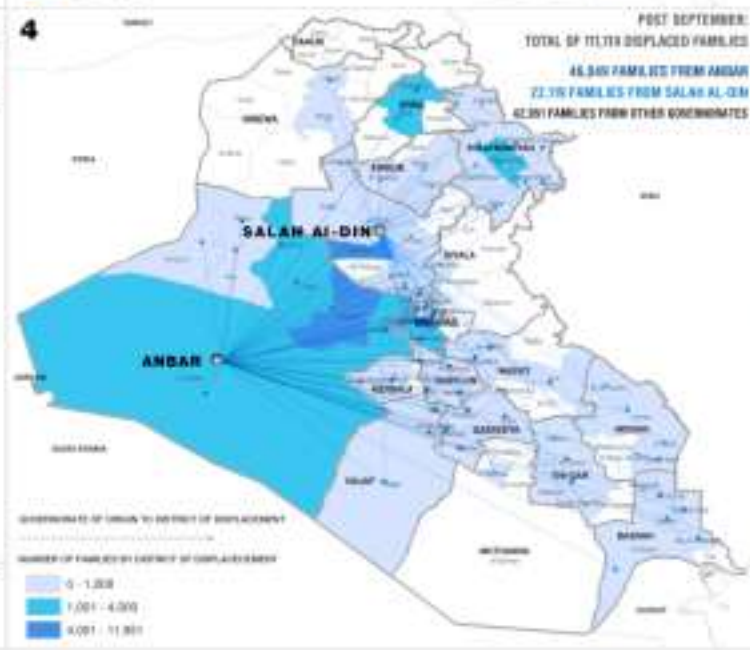
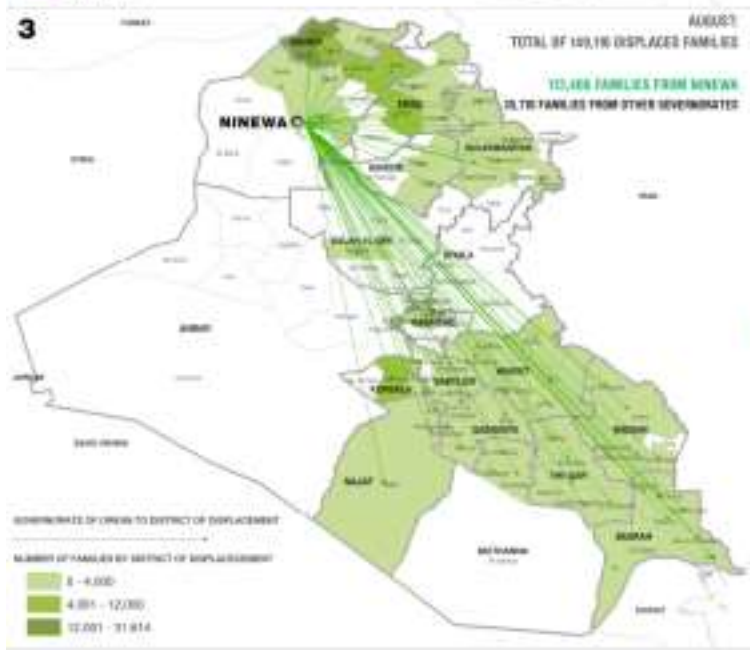
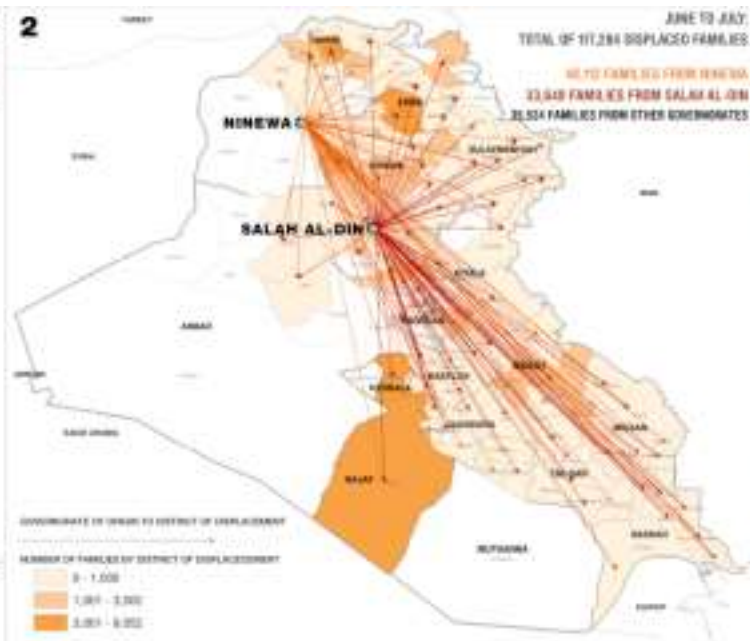
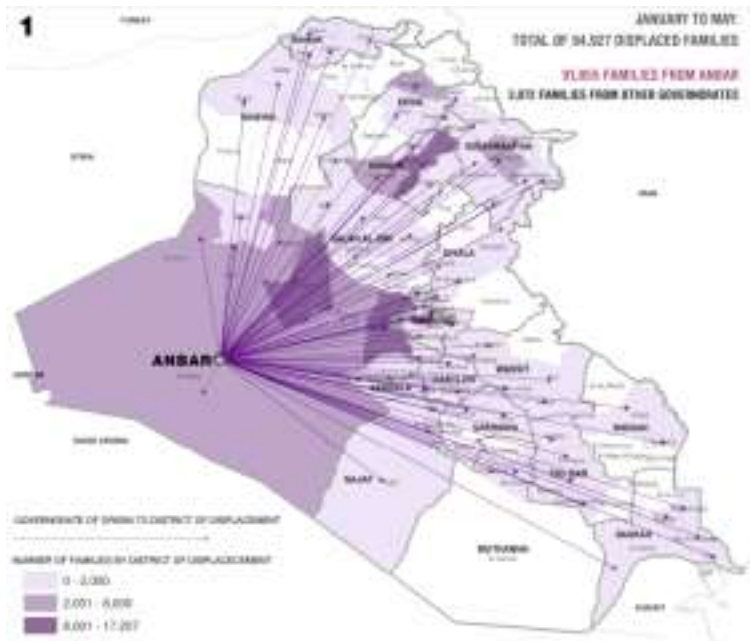
SUMMARY
 The DTM Emergency Tracking System is a web-based system to provide real-time displacement estimates from the onset of any large to medium-scale displacement events. Initial addresses are gathered through live monitoring techniques by an array of scouts from on the spot visits to transit sites or border roads along displacement routes and check points. Over time, further verification of data is applied as population figures are collected from the extensive network of key informants used within the wider DTM mechanism.

NUMBERS BY GOVERNORATE

CURRENT GOVERNORATE	TOTAL ESTIMATED POP. LOCATIONS	TOTAL ESTIMATED POP. FAMILIES	TOTAL ESTIMATED POP. INDIVIDUALS
Arbil	89	1,337	24,552
Baghdad	156	1,258	7,282
Basrah	45	10,962	81,172
Basra	33	73	438
Diya	11	101	308
Erbil	9	790	4,880
Karbala	10	54	324
Mosul	9	90	360
Muthana	3	30	180
Najaf	8	21	128
Qadisiyah	38	180	1,800
Salah al Din	9	315	1,890
Sulaymaniyah	10	1,284	6,324
Thi-Qar	10	44	264
Wasit	33	98	578
TOTAL	360	22,184	133,114



¹Total individuals are estimated by multiplying total families by 6, the average size of an Iraq family.
²A location is defined as an area that corresponds to a sub-district (e.g. 4th official administrative division), or a village for rural areas or a neighborhood for urban areas (e.g. 19th official administrative division). ICM DTM aims to provide precise population data; however limited access and other operational constraints on the ground can limit information-gathering activities.



9/18/2015

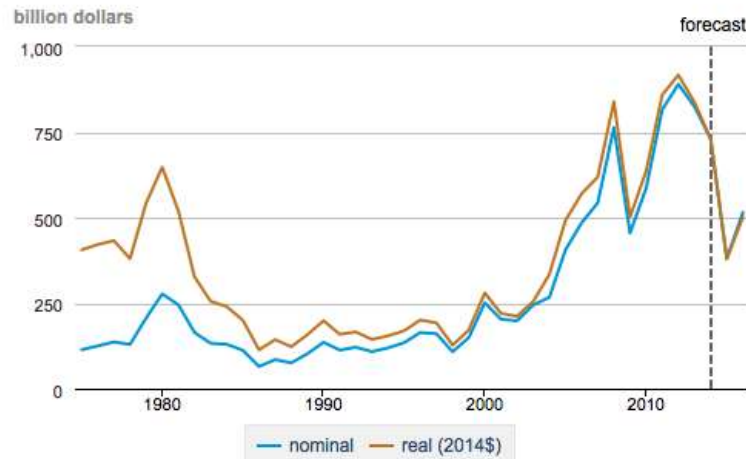
Iraq's "Petroleum Disease"

Iraq's "Petroleum" Disease

- **Over-dependence and acute instability coupled to long-term use to fund employment regardless of productivity and development impacts.**
- **Iraq's status as a petro-economy – and what is sometimes called the Dutch or Oil Disease – has done little to prepare it to cope with this population growth, or the many ways in which war, repression, civil conflict, and past ideology have combined to cripple its development. This includes more than 35 years of continuous pressure and, like Afghanistan, it has left a heritage that affects every aspect of Iraqi life.**
- **The impact of the current war has combined with the growing problems caused by the impact of far lower oil revenues. Revenues were 11% lower in 2014 than the government had originally projected, in spite of a growing total volume of oil exports. Official Iraqi estimates in April 2015 projected a budget deficit of at least \$22 billion in 2015 for a budget of \$105 billion.**
- **Iraq's oil wealth is limited at best. Even in 2014, the U.S. Energy Information Agency estimated that Iraqi annual per capita oil income was only \$2,682 vs. \$25,362 for Kuwait, \$36,012 for Qatar, \$7,900 for Saudi Arabia, and \$9,435 for the UAE.**
- **Shortfalls in oil revenues are critical in an economy that makes a minimal effort to collect tax revenues, and that the CIA rates as receiving 90% of its government income and 80% of its export revenues from the petroleum sector – a sector with one of the lowest rates of necessary employment relative to capital and dependence on locally made equipment and technology of any sector in the country.**
- **The impact of the "oil disease" is compounded by the fact that the allocation of key portions of Iraq's national income is not driven by market forces, and the Iraqi government cannot make effective allocation of the oil export money that is received. Key Ministries fail to allocate substantial funds. There is a broad internal failure to control waste corruption within the petroleum sector, and within the various government**

“Oil Wealth” is Limited in Constant Dollars and Declining in Per Capita Income Terms

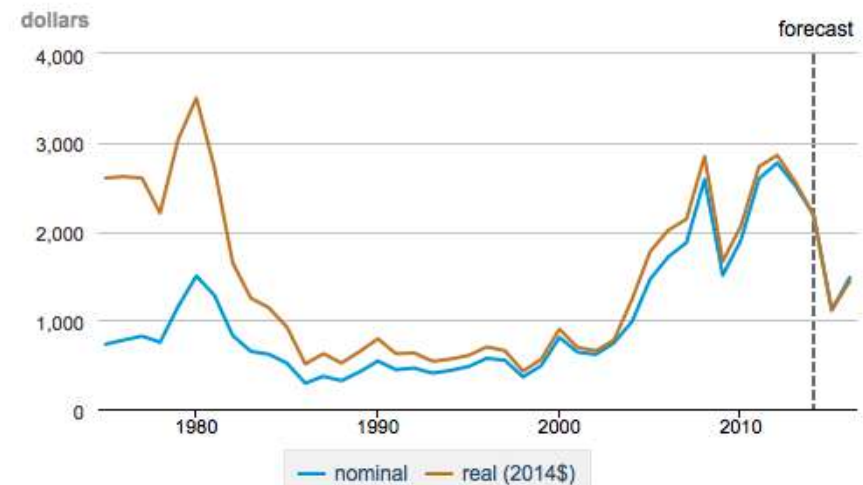
OPEC (excluding Iran) net oil export revenues* [DOWNLOAD](#)



Total export income gains have been far lower over time in constant dollars than in current dollars. Boom and bust cycles have been the rule, not the exception.

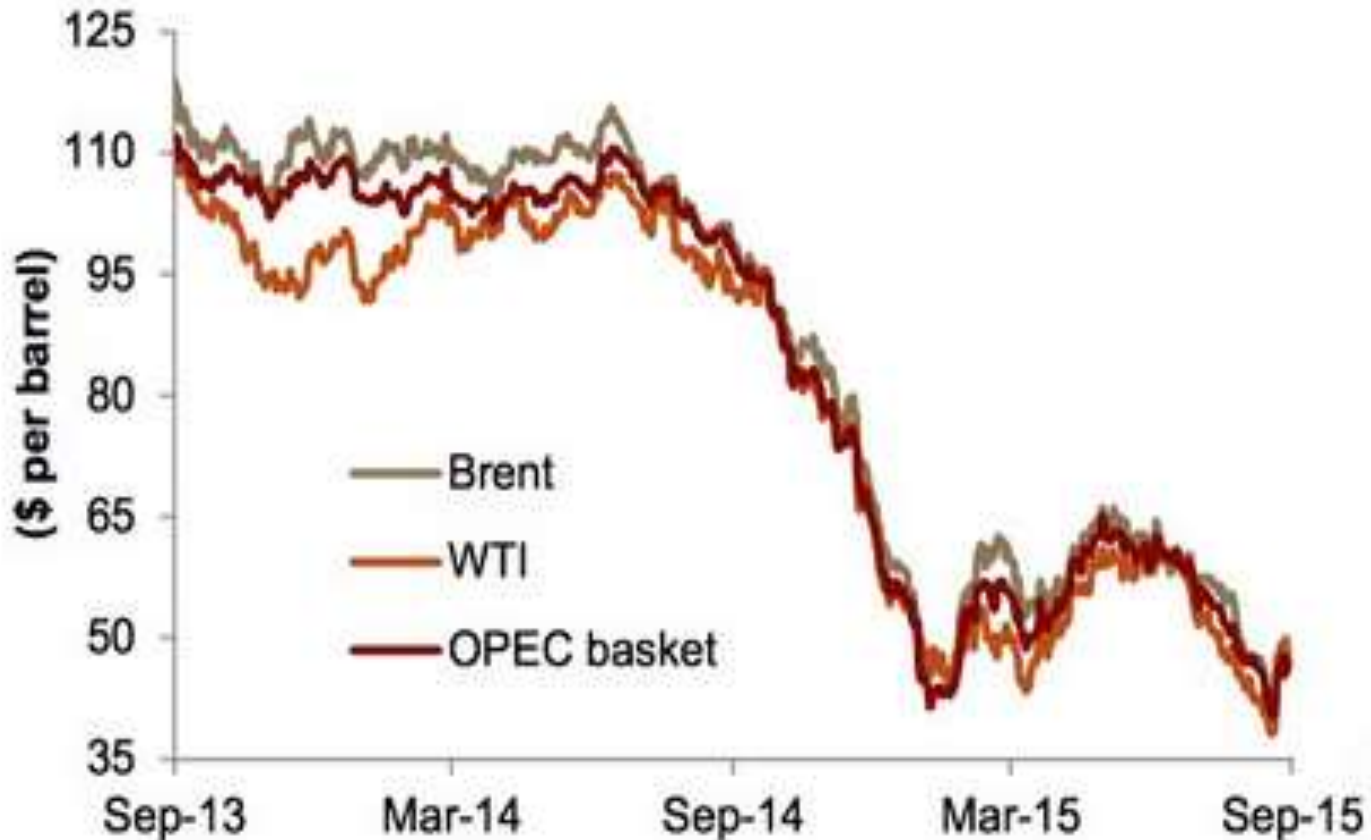
Population increases in highly populated states with high population growth rates like Iraq have more than offset the impact of increased export revenues in shaping per capita oil wealth and this ignores the impact of crises and conflicts

OPEC (excluding Iran) per capita net oil export revenues* [DOWNLOAD](#)

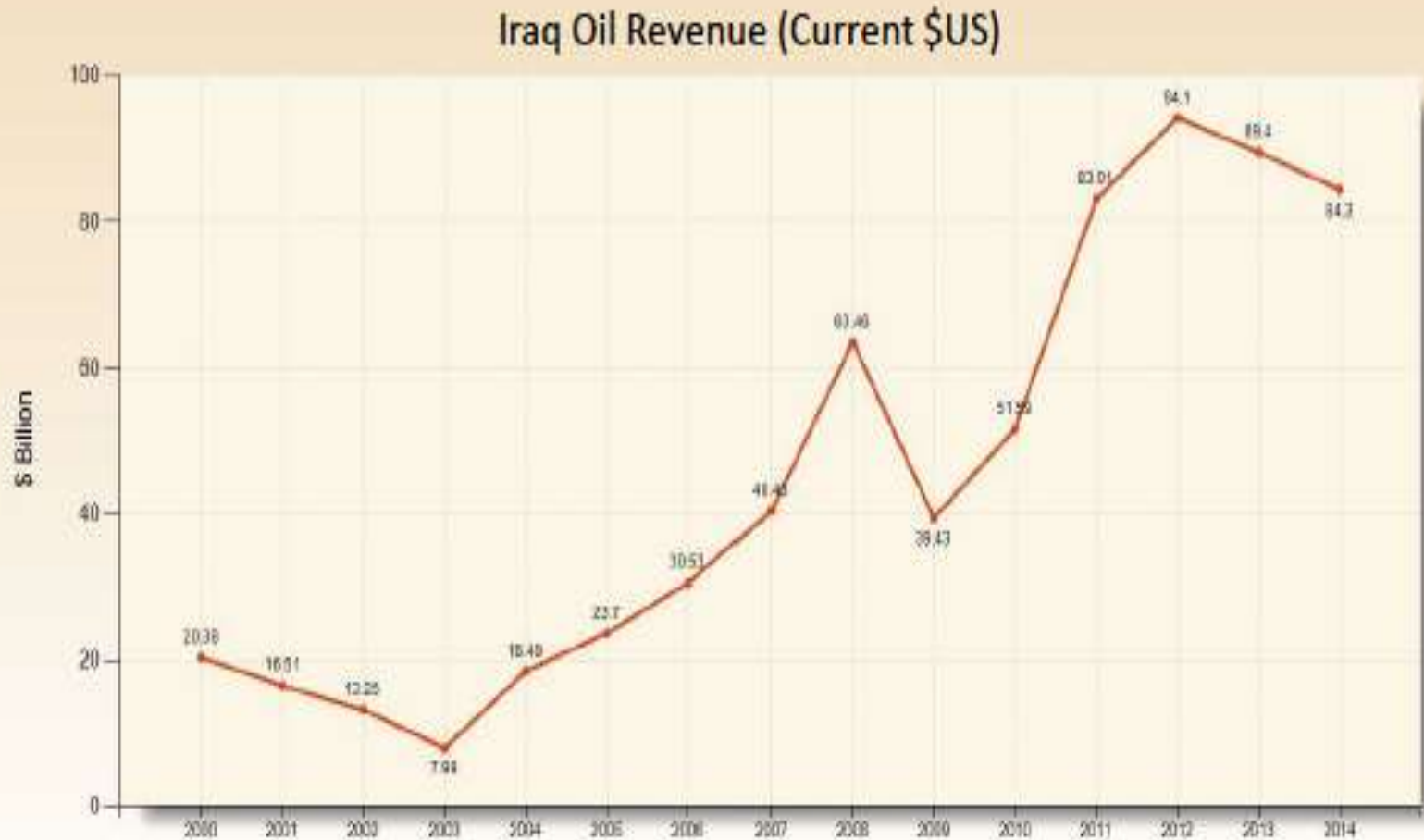


Iraq: Ongoing Cuts in Oil Prices: 9/13 to 9/15

Brent oil prices year-to-date (9/15) average is currently \$55 per barrel (pb), down 51 percent, year-on-year from 9/14.

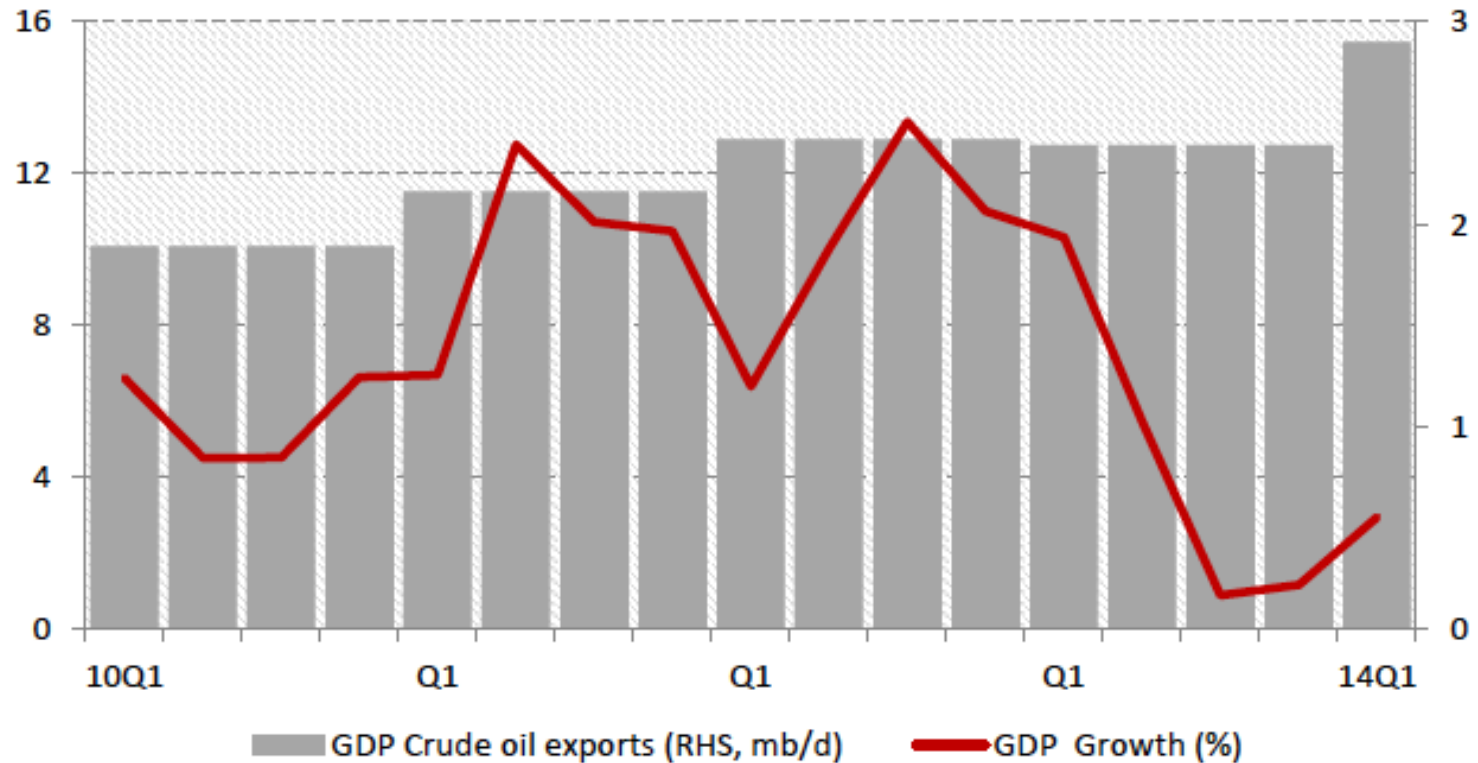


Iraq: Oil Revenues: 2000-2014



(Source: EIA)

Impact on GDP Growth: 2010-2014



- Iraq's oil exports have increased, reaching an average of 2.9 mb/d in December 2014, their highest level since 1980 (However, due to lower oil prices, oil receipts were much lower during this period compared to the early months of 2014).
- This has exacerbated the fiscal deficit, projected at 7 percent of GDP in 2014. It has come at a time when spending is higher than usual as the government battles to regain ground from ISIS.
- Current spending in Iraq accounts for more than 30 percent of GDP while capital expenditure is as much as half of that figure. Iraq's oil export revenues fell sharply in the second half of the year as a result of declining oil prices.
- Between May and November 2014, Iraq's monthly oil export value declined from \$8 billion to \$5.4 billion. This sharp decline mainly reflects the Iraq oil export price (which discounts to international benchmarks) declining from \$100.7 to \$70.4 during the same period. The prevailing insecurity has seriously hampered reconstruction and investment, which resulted in lower-than-foreseen oil production growth and hence slower economic growth .

The Myth of Iraqi Oil Wealth - I

OPEC (excluding Iran) Real Net Oil Export Revenues: 2014 \$Billion											
Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Algeria	41	49	53	65	39	49	66	63	56	48	
Angola	11	15	20	29	18	23	29	29	27	24	
Ecuador	7	8	8	10	6	7	10	10	10	10	
Iran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Iraq	29	37	43	67	43	53	79	92	88	87	
Kuwait	50	59	63	87	52	61	91	96	91	81	
Libya	34	42	48	63	37	46	13	51	29	9	
Nigeria	57	62	66	77	50	70	99	94	84	77	
Qatar	17	21	23	33	23	30	45	45	42	38	
Saudi Arabia	171	194	204	288	159	212	296	306	282	246	
UAE	30	36	38	51	30	37	57	61	58	53	
Venezuela	44	48	54	70	45	50	73	72	68	58	
OPEC	492	570	619	839	502	636	859	917	837	730	

The Energy Information Administration (EIA) estimates that, excluding Iran, members of the Organization of the Petroleum Exporting Countries (OPEC) earned about \$730 billion in net oil export revenues (unadjusted for inflation) in 2014. This represents an 11% decline from the \$824 billion earned in 2013, largely because of the decline in average annual crude oil prices, and to a lesser extent from decreases in the amount of OPEC net oil exports. This was the lowest earnings for the group since 2010.

OPEC (Excluding Iran) Per Capita Real Net Oil Export Revenues: (2014\$)											
Country	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
Algeria	1,266	1,476	1,587	1,942	1,155	1,414	1,876	1,768	1,565	1,326	
Angola	936	1,217	1,618	2,330	1,406	1,765	2,206	2,100	1,964	1,674	
Ecuador	536	623	581	697	398	493	716	680	666	693	
Iran	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
Iraq	1,109	1,379	1,555	2,384	1,496	1,777	2,609	2,943	2,771	2,682	
Kuwait	21,432	24,460	25,030	33,444	19,133	21,748	31,692	32,268	29,529	25,362	
Libya	5,912	7,115	7,864	10,141	5,886	7,094	1,909	7,574	4,317	1,250	
Nigeria	443	469	490	558	354	481	667	618	538	483	
Qatar	20,133	23,706	25,745	35,517	23,909	30,595	45,974	44,353	41,427	36,013	
Saudi Arabia	6,466	7,183	7,369	10,219	5,544	7,238	9,958	10,136	9,199	7,900	
UAE	7,221	8,433	8,560	11,123	6,193	7,367	11,068	11,434	10,610	9,435	
OPEC	1,773	2,013	2,138	2,843	1,662	2,062	2,730	2,857	2,554	2,186	

For 2015, EIA projects that OPEC net oil export revenues (excluding Iran) could fall further to about \$380 billion in 2015 (unadjusted for inflation) as a result of the much lower annual crude oil prices expected in 2015, a 48% drop from 2014.

For Iraq – assuming no military problems, this means a drop from \$87 billion in 2014 to \$45.2 billion.

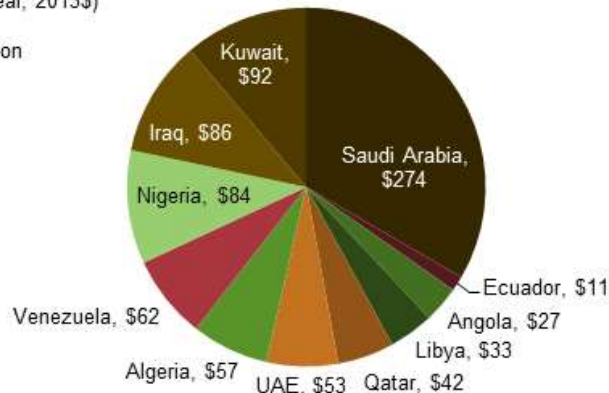
On a per capita basis, OPEC (excluding Iran) net oil export earnings are expected to decline by half from about out \$2,186 in 2014 to \$1,114 in 2015. OPEC net oil export revenues in 2015 are based on projections of global oil prices and OPEC production levels from EIA's March 2015 ShortTerm Energy Outlook (STEO).

Iraq's per capita oil income in 2014 was \$2,682, compared to \$7,900 for Saudi Arabia, \$25,362 for Kuwait, and \$36,013 for Qatar. If EIA is right, it will drop to \$1,368 in 2015.

EIA does estimate that OPEC revenues will rebound to \$515 billion in 2016, with the expected rebound in crude oil prices. (+36%)

OPEC net oil export revenues (excluding Iran), 2013
billion dollars (real, 2013\$)

total = \$821 billion

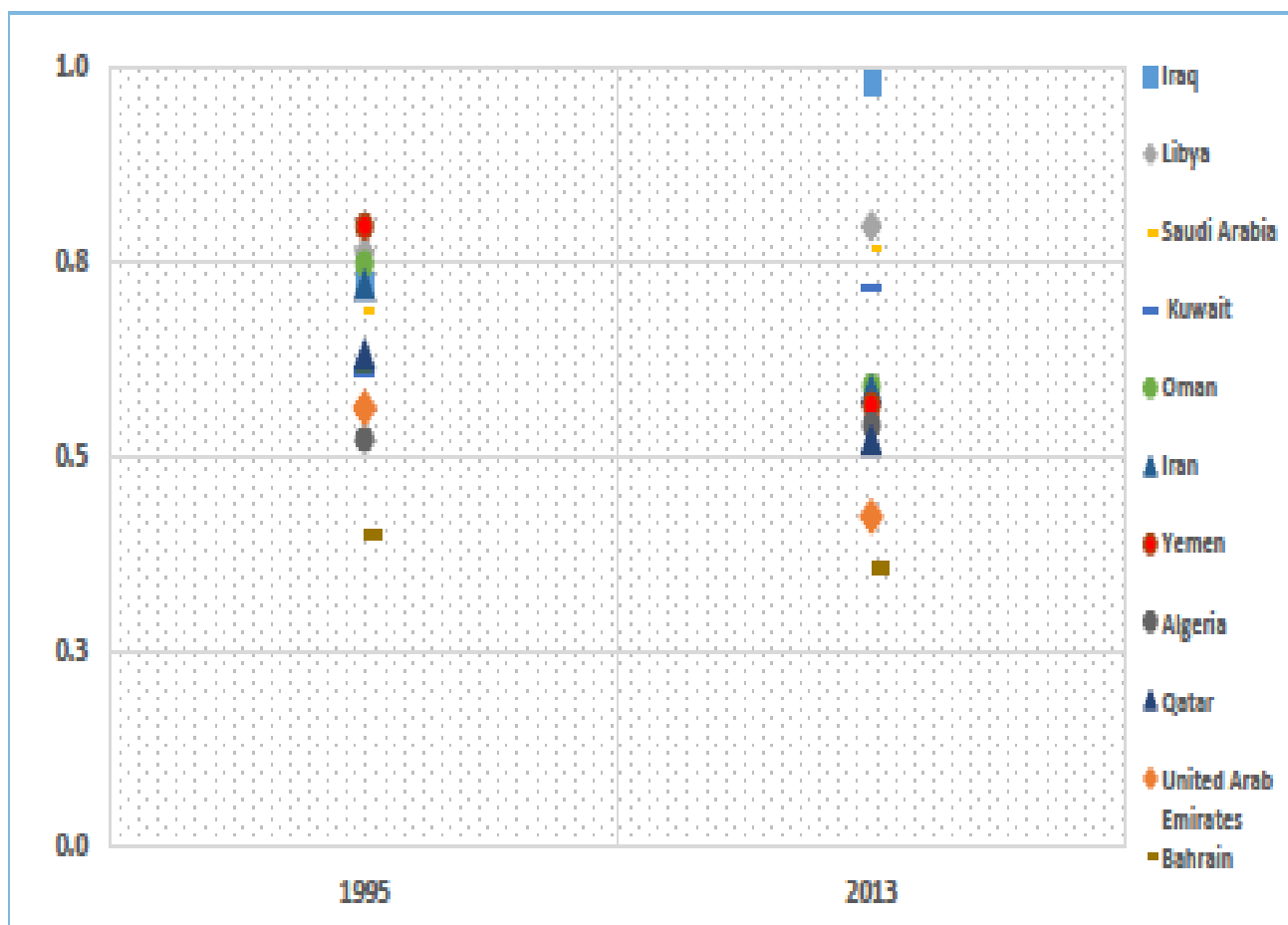


The Myth of Iraqi Oil Wealth - II

OPEC (excluding Iran) per capita net oil export revenues

Country	Nominal (\$)					Real (2014\$)				
	2013	2014	2015	2016	Jan-Feb	2013	2014	2015	2016	Jan-Feb
					2015					2015
Algeria	\$1,541	\$1,326	--	--	\$98	\$1,565	\$1,326	--	--	\$98
Angola	\$1,933	\$1,674	--	--	\$136	\$1,964	\$1,674	--	--	\$136
Ecuador	\$656	\$693	--	--	\$57	\$666	\$693	--	--	\$56
Iran	--	--	--	--	--	--	--	--	--	--
Iraq	\$2,727	\$2,682	--	--	\$217	\$2,771	\$2,682	--	--	\$217
Kuwait	\$29,061	\$25,362	--	--	\$2,037	\$29,529	\$25,362	--	--	\$2,035
Libya	\$4,248	\$1,250	--	--	\$47	\$4,317	\$1,250	--	--	\$47
Nigeria	\$529	\$483	--	--	\$39	\$538	\$483	--	--	\$39
Qatar	\$40,770	\$36,013	--	--	\$2,768	\$41,427	\$36,013	--	--	\$2,765
Saudi Arabia	\$9,053	\$7,900	--	--	\$621	\$9,199	\$7,900	--	--	\$620
UAE	\$10,442	\$9,435	--	--	\$732	\$10,610	\$9,435	--	--	\$731
Venezuela	\$2,366	\$2,016	--	--	\$165	\$2,404	\$2,016	--	--	\$165
OPEC	\$2,514	\$2,186	\$1,114	\$1,481	\$172	\$2,554	\$2,186	\$1,113	\$1,439	\$172

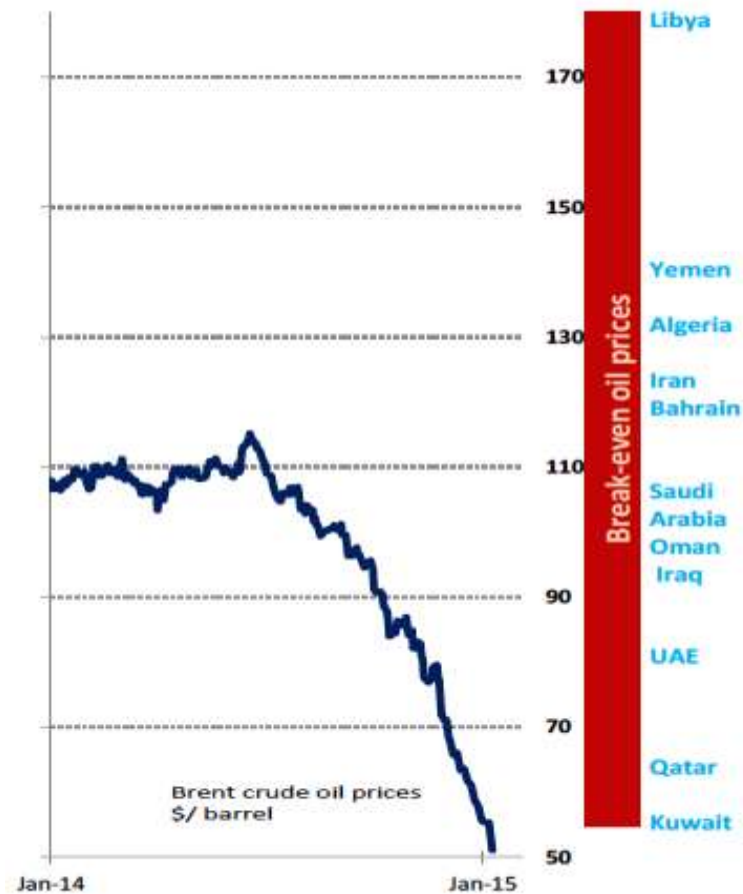
World Bank Concentration Index on Petroleum(4/15)



Source: UNCTAD. Note: Concentration index is the Herfindahl-Hirschmann index that ranges from 0 to 1. Close to 1 indicates more concentrated market. Number of products is based on SITC, Revision 3 commodity classification at 3-digit group level. This figure includes only those products that are greater than 100,000 dollars or more than 0.3 per cent of the country's or country group's total exports or imports. The maximum number of products is 261.

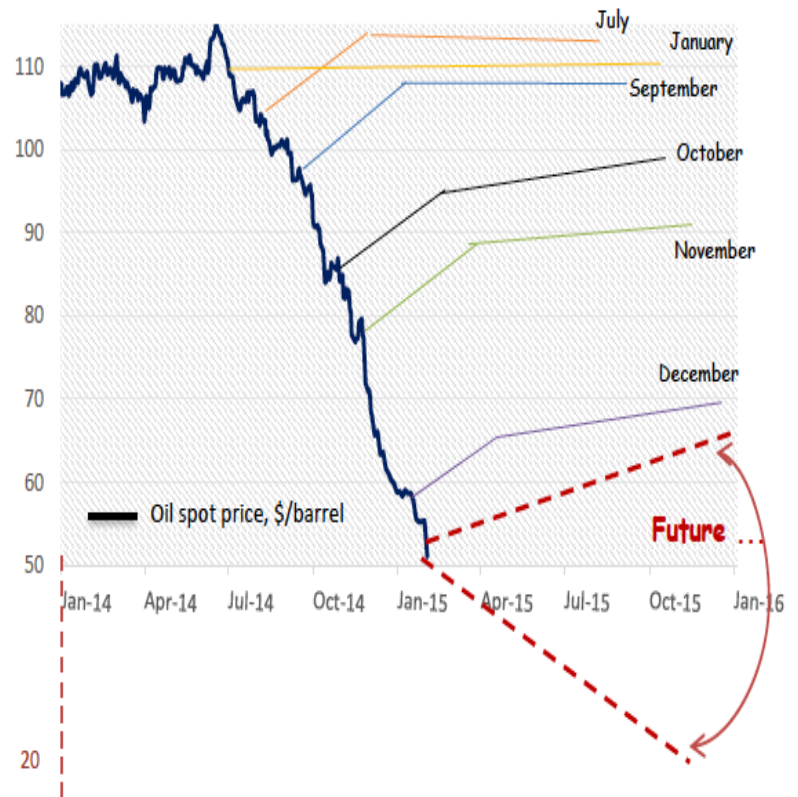
Oil Price Cuts and Break Even Levels

Figure 1. Break-even oil prices



Source: World Bank and IMF.

Figure 2. Oil prices forecasts in 2014 (Brent crude)



Source: The Economist and other international forecasters.

Impact of the Oil Price Crisis in Iraq and Mena 2014-2017

	Change in oil trade balance (US\$ mln)	Change in oil trade balance (% GDP)	Change in fiscal balance (US\$ mln)	Change in fiscal balance (% GDP)
Bahrain	-29	-0.1	-2,602	-7.7
Kuwait	-30,051	-16.2	-40,050	-21.9
Oman	-12,235	-14.9	-12,868	-15.2
Qatar	-8,741	-4.1	-19,193	-8.9
Saudi Arabia	-63,082	-8.2	-103,114	-15.1
United Arab Emirates	-39,440	-9.6	-41,655	-10.0
Iran	-17,739	-4.4	-8,648	-1.9
Iraq	-34,894	-14.1	-34,504	-14.9
Libya	-8,599	-14.7	-15,427	-26.9
Yemen	-2,628	-6.1	-1,970	-4.7
Egypt	1,504	0.5	...	...
Tunisia	292	0.6	935	2.0
Jordan	997	2.2	...	...

Source: World Bank staff estimates .The assumptions of \$65 Brent crude oil and no policy change are used for projections. Oil trade balance is net oil exports.

international oil prices have literally collapsed, reaching a level below \$50 per barrel (Brent crude) in early January, a drop of 50 percent since their peak in mid-June 2014. We make the following assumptions about the future price of oil: (i) The price will average \$65 - Brent p/b in 2015; (ii) a higher price \$78 – Brent p/b will be used for comparison analysis.¹ As with other economic variables, there is uncertainty associated with the future price of oil, which adds to the error involved in projections. We assume no change in the quantity of oil imported or exported (in 2014) and calculate the impact as the effect of the change in price. The data for 2015 -2017 in the figures and tables are projections. These projections are based on statistical information available through early January 2015.

Energy Vulnerability in Iraq

Iraq petroleum infrastructure

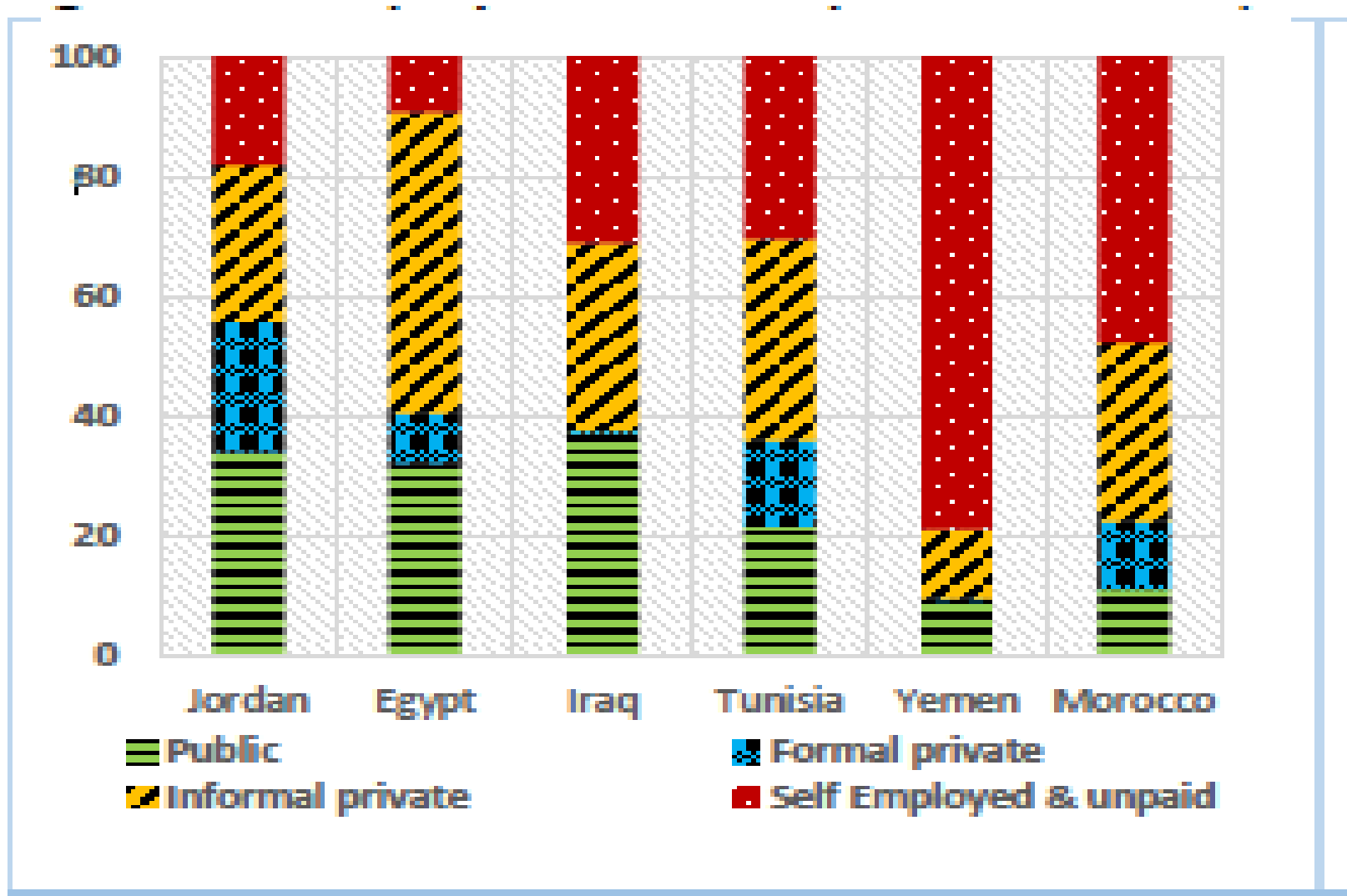


The Continuing Employment Crisis

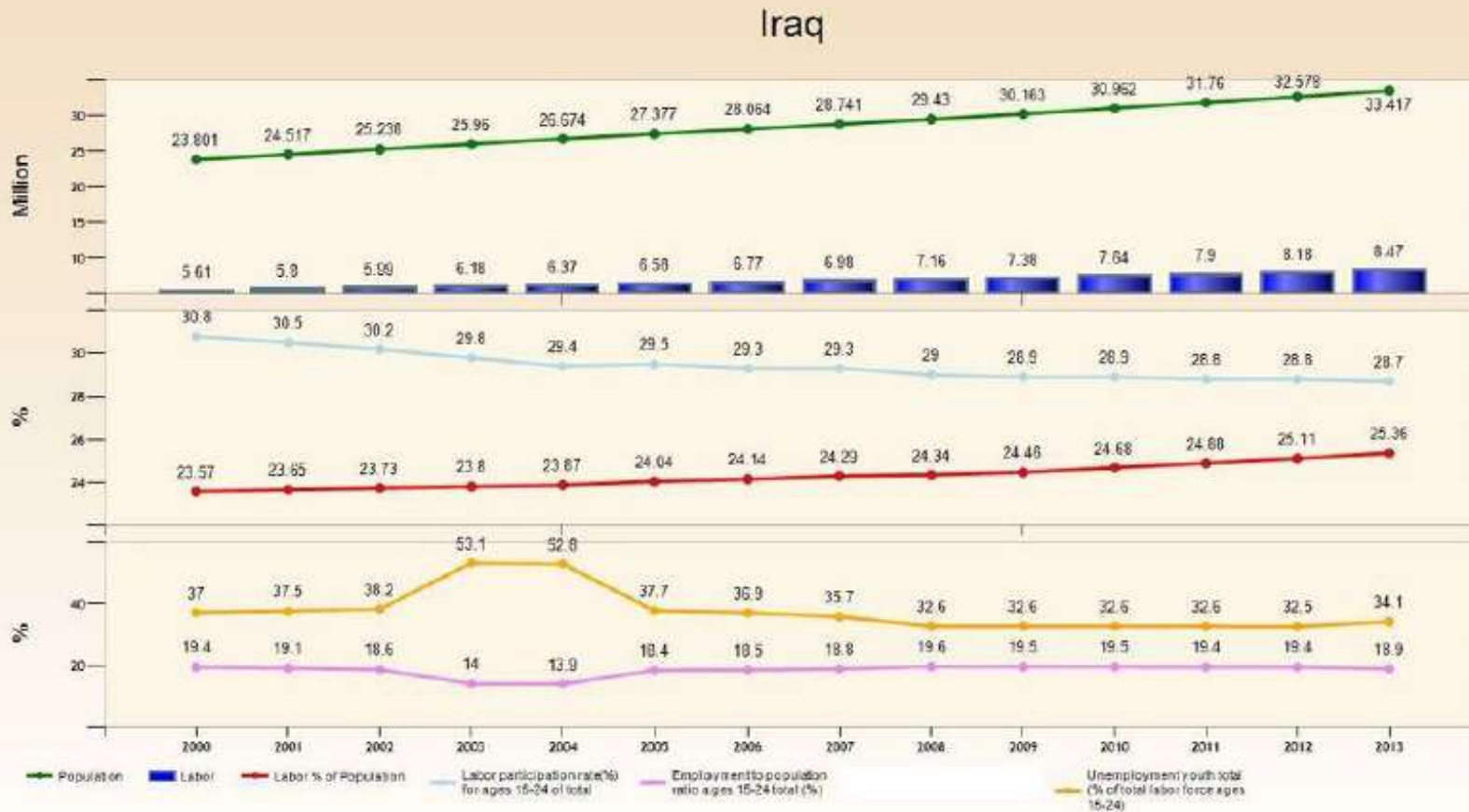
The Ongoing Employment Crisis

- GDP data are 2004, employment data are 2008.
- Labor force was 8.9 million in 2010. Now well over 9 million of 37.1 million. (No estimate of disguised unemployment; child labor.)
- Major flow of new labor every year. In 2010, 332,194 males and 322,010 females entered labor force.
- Very young population at 2.93% growth rate in 2015, with 40.25% at 0-14 years of age and 18.98% at 15.24%.
- Meaningful Youth unemployment is probably above 25%. May be 1.6 to 2.0+ times national average.
- 69.7% urbanized, growing at 3% per year.
- Agriculture is 3.3% of GDP and 21.6% of labor force (6.5X GDP).
- Industry (largely Petroleum) is 65.6% of GDP and (largely unproductive state industries) are 21.6% of labor force
- Services are 32.2% of GDP and 59.8% of labor force (largely government and security services)

World Bank on Employment (4/15)

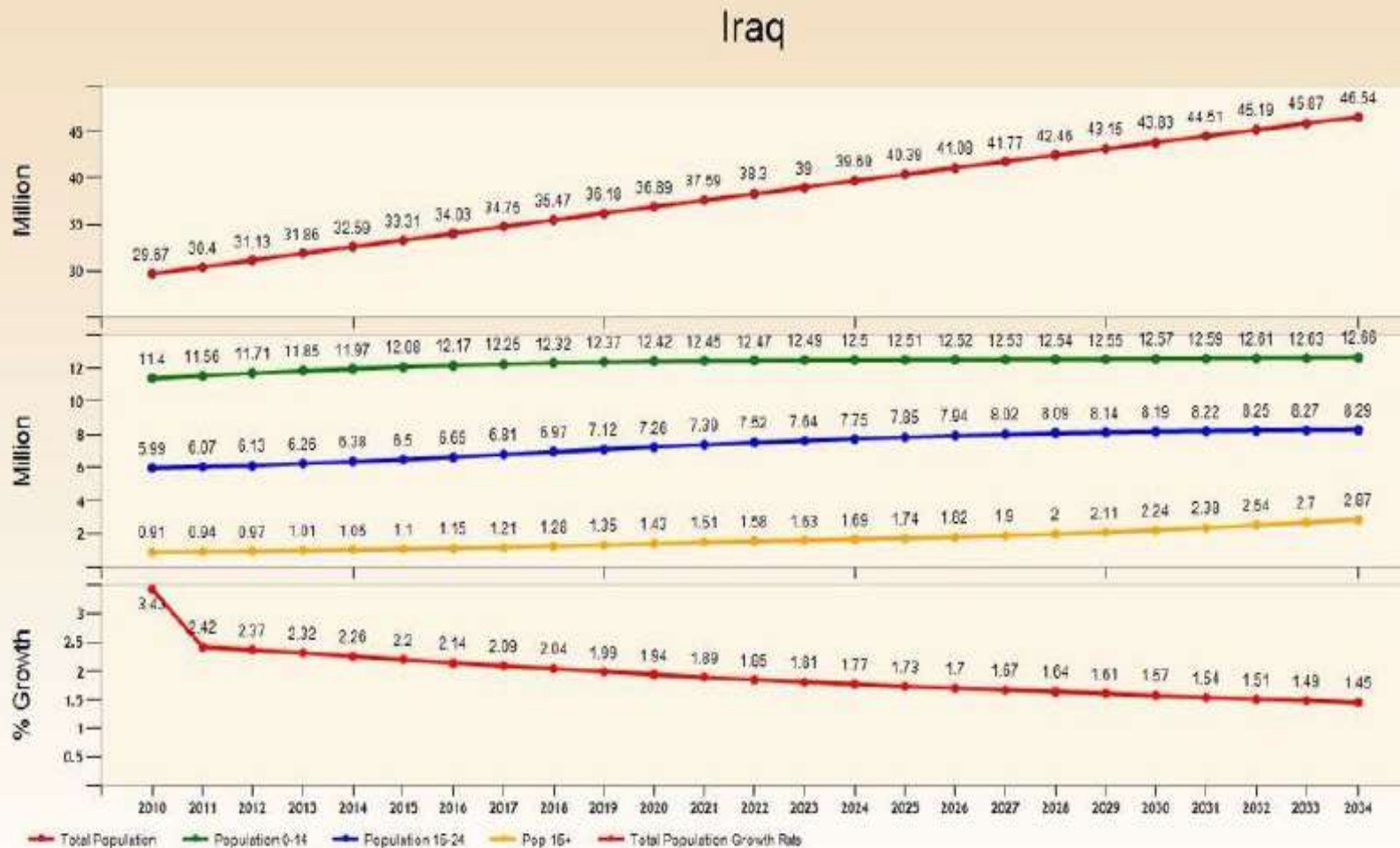


Iraq: Labor Force vs. Population: 2000-2013



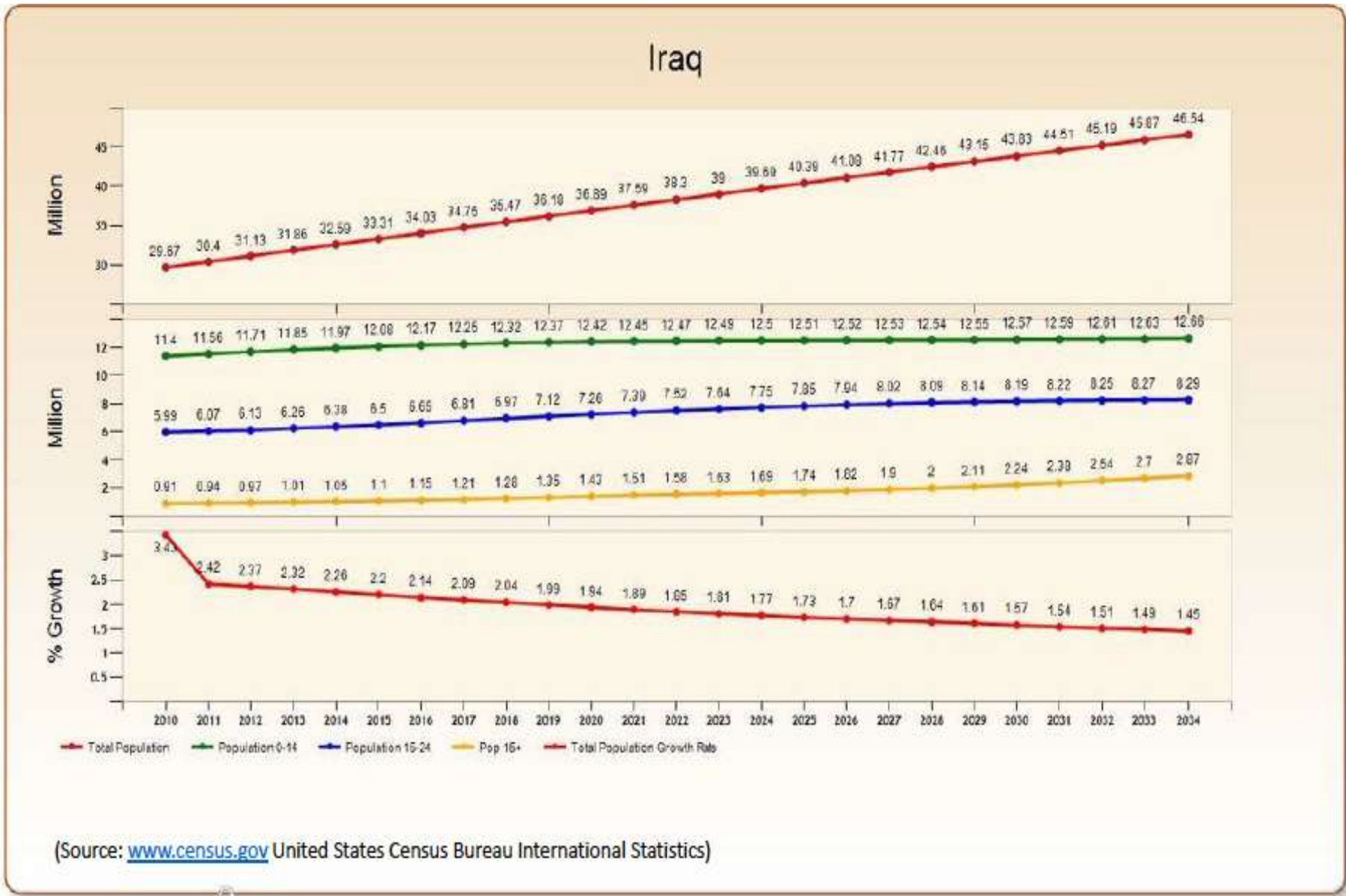
(Source: World Bank, ILO)

Iraq: Growth of Labor Force: 2010-2034



(Source: www.census.gov United States Census Bureau International Statistics)

Iraq: Total Population Growth vs. Youth : 2010-2034

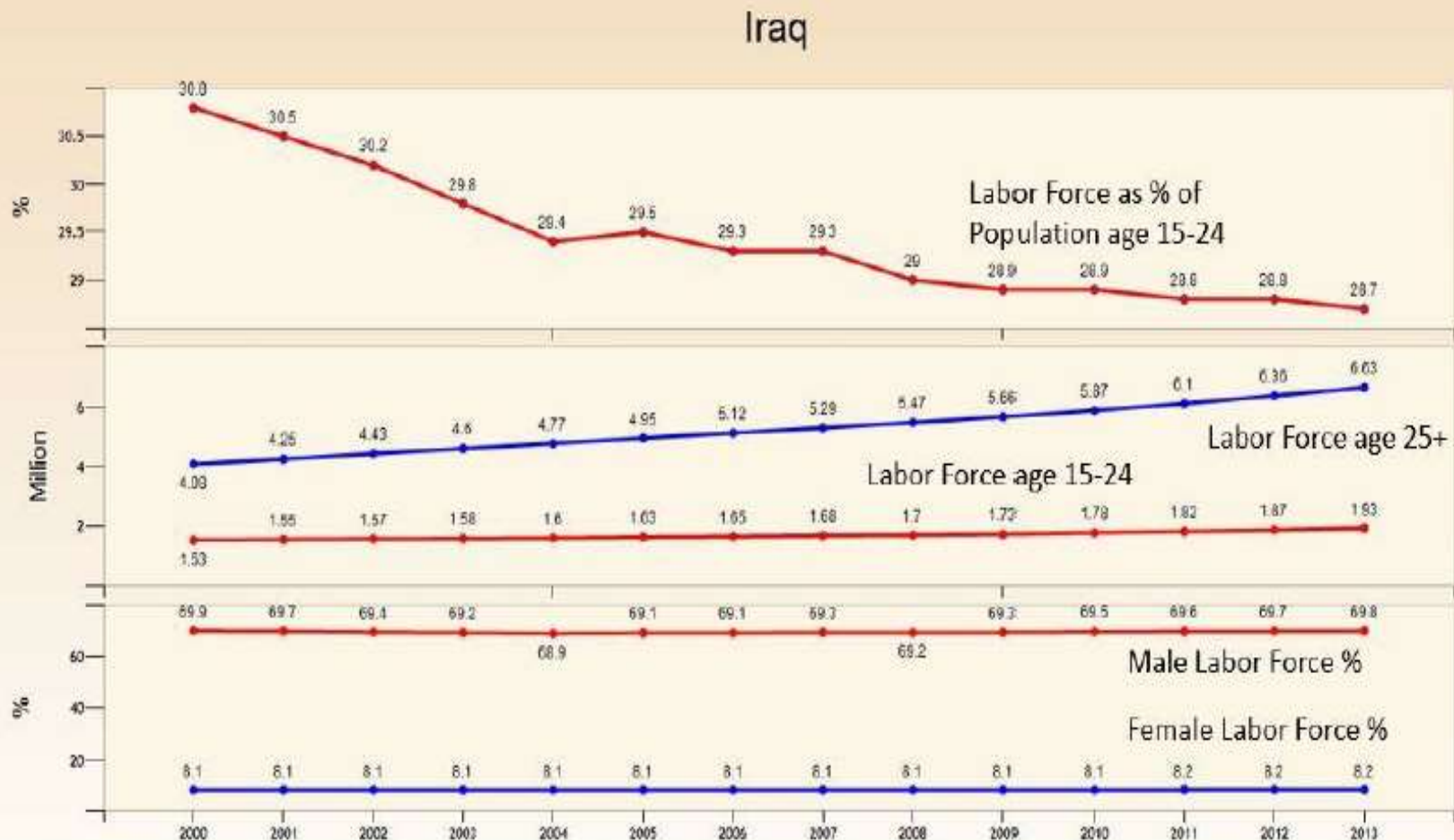


(Source: www.census.gov United States Census Bureau International Statistics)

The Problems of Youth

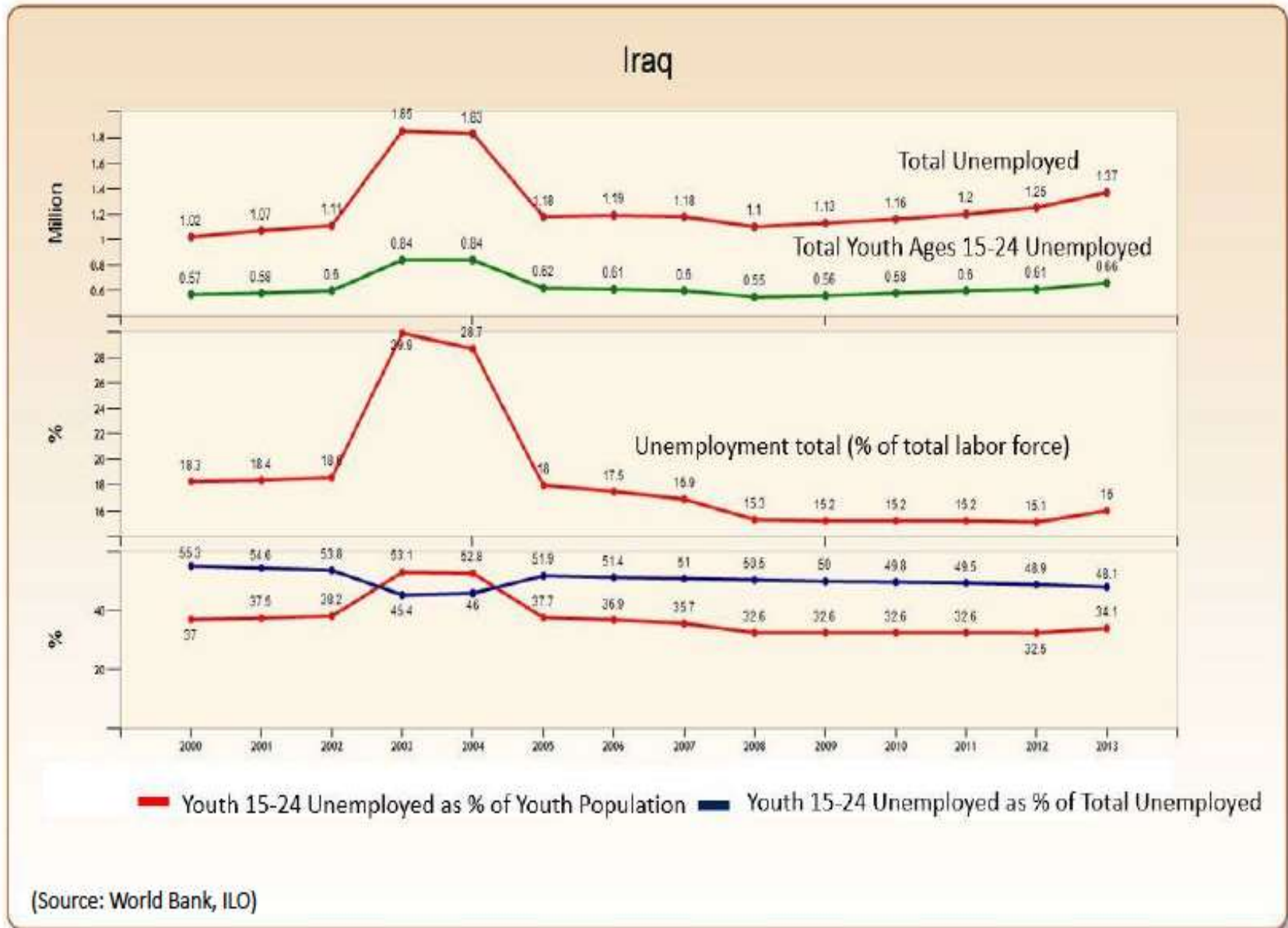
- **Major flow of new labor every year. In 2010, 332,194 males and 322,010 females reached age where enter labor force.**
- **Young males face critical unemployment and under employment problems. Probably in excess of 25-30%. Women increasingly face marginalization.**
- **Career prospects, job satisfaction limited. Turbulence in education limits future.**
- **Earning enough to marry, buy a home, a growing problem.**
- **Mix of Iraq's problems alienates young men.**
- **Easy for militias, extremists to recruit and hire. Collapse of government security forces, corruption a challenge in getting men for government security services.**
- **Employment and earnings problems most critical in West, urban slums, but growing in Kurdish and other areas.**

Iraq: Youth Pressure on Labor Force: 2000-2013

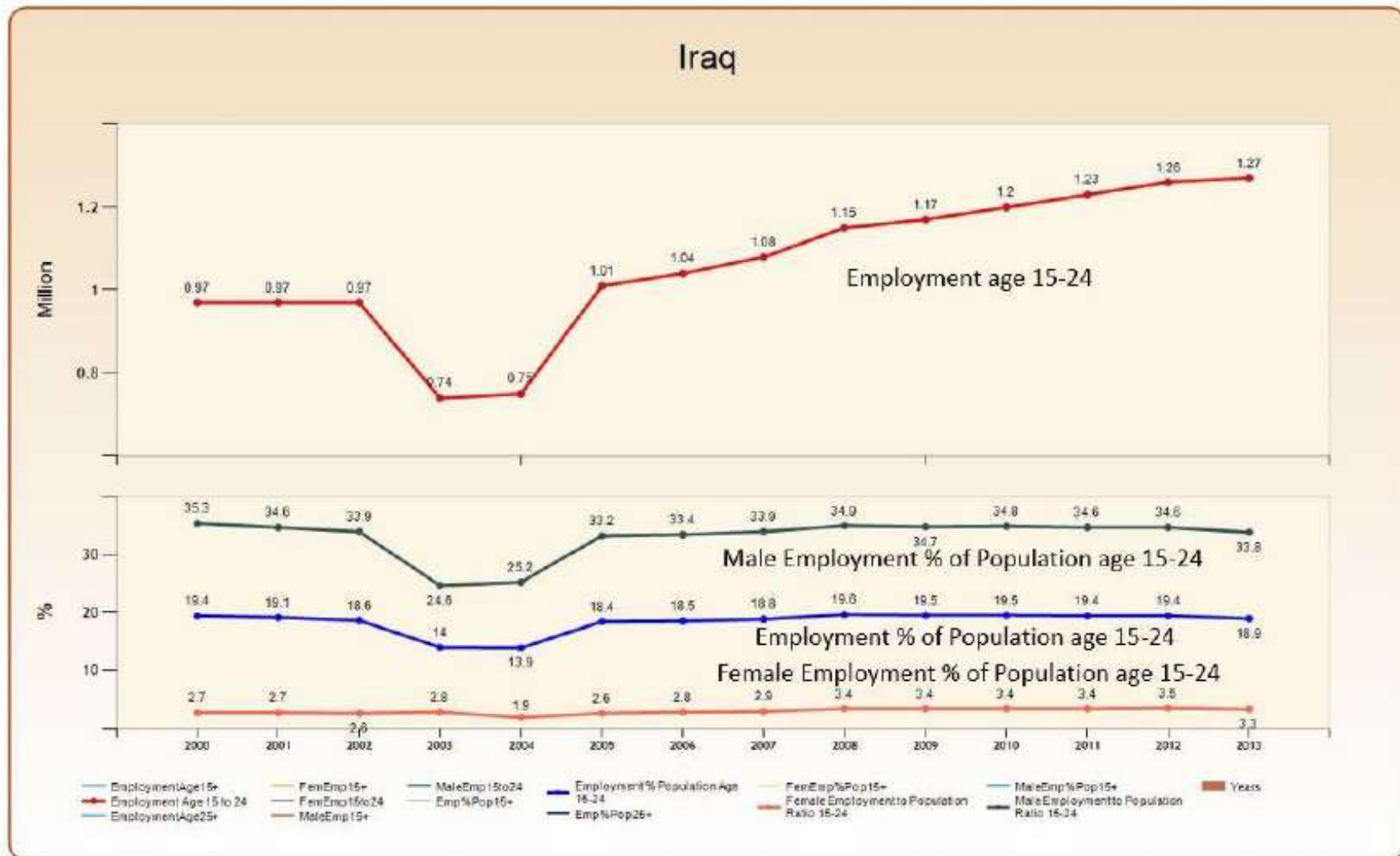


(Source: World Bank, ILO)

Iraq: Patterns in Youth Unemployment: 2000-2010



Iraq: Male vs. Female Employment: 2000-2010



(Source: World Bank, ILO)

Source: Dr.. Abdullah Toukan using his SIRA Model (Strategic and International Risk Assessment Model).Data Base. Any questions can be directed to abdullah.toukan@siracenter.org.

Al-Bayan Center on Employment Data (4/15)

- According to the Ministry of Planning's studies in 2013 the latest estimate for Iraq's total population is 35.1 million.
- Of these 20 million are classed as adults capable of work, between the ages of 15 and 65.
- The actual size of the labor force is around 8.5 million, a low figure due to the fact that female participation is only 15%.
- The government has 3.5 million permanent civilian employees and 1 million on fixed term contracts.
- In addition, the security forces of the Defence and Interior ministries total 1.5 million.
- The total number of government employees is therefore 6 million out of a total labor force of 8.5 million.
- Additionally around 1 million are in receipt of social welfare but not in employment. Only a small number of employees are in the private sector and given that the rate of unemployment is 16% and that around 500,000 enter the labor force every year, there is huge pressure on the government to find a solution to the employment crisis.
- Iraq's population is young, 40% are under the age of 15 and the rate of population growth is 2.6%, double the world average, with the total population expected to hit 80 million by 2050.
- Access to education and female participation in the workforce are increasing steadily, meaning that the demand for jobs in the coming years will rise.

Al-Bayan Center on State Employment Crisis (4/15)

- **Any observer will know that government employment already suffers from two major problems: overstaffing and inefficiency.**
- **Two thirds of the Iraqi budget goes towards salaries and expenses, a number that is not sustainable with lower oil prices.**
- **In every single department of the state there is considerable overstaffing, and productivity is extremely low.**
- **The endemic issue of corruption compounds the state's problems, and appointments are based on the political and sectarian quota systems in operation, with no due attention to whether that person is the right one for the job.**
- **There is no culture of reviews, evaluation, or professional development. In fact, government employment is a job for life as almost nobody is ever fired or made redundant, rather they are moved from one department to another, even if they are incompetent.**
- **Because government employment guarantees a pension and a job for life, there is high expectation and demand to be employed by the state.**

The State Sector Disease – Employment and Spending

Negative Economic Impact of a Swollen State and State Industries

- **The public sector in Iraq is large in proportion to the economy by any standard. The size of the public sector, measured by public-spending-to-gross domestic product (GDP) ratio, is one of the highest in the region, even though it is volatile.**
- **The public sector in Iraq is the largest employer. Staffing of the public sector is estimated at approximately 2.8 million, with just over 2 million employed as civilians (including some 623,000 teachers), approximately 263,000 in the armed forces, and at least 500,000 working in state-owned enterprises.**
- **According to the 2007 World Bank policy note, staffing of the public sector increased from 1.2 million in 2003 to approximately 2.8 million in 2007, with just over 2 million employed as civilians (including some 623,000 teachers), approximately 263,000 in the armed forces, and at least 500,000 working in state-owned enterprises.**
- **Similarly, in the KRG, the public sector is too large and costly. The civil service in the KRG was composed of 586,502 employees in 2007, divided into 40 ministries, and a number of independent agencies.**
- **Total public sector employment in KRG accounts for about 14.3 percent of the population and 24 percent of the total labor force. This ranks well above the regional average.**

State Owned Enterprises

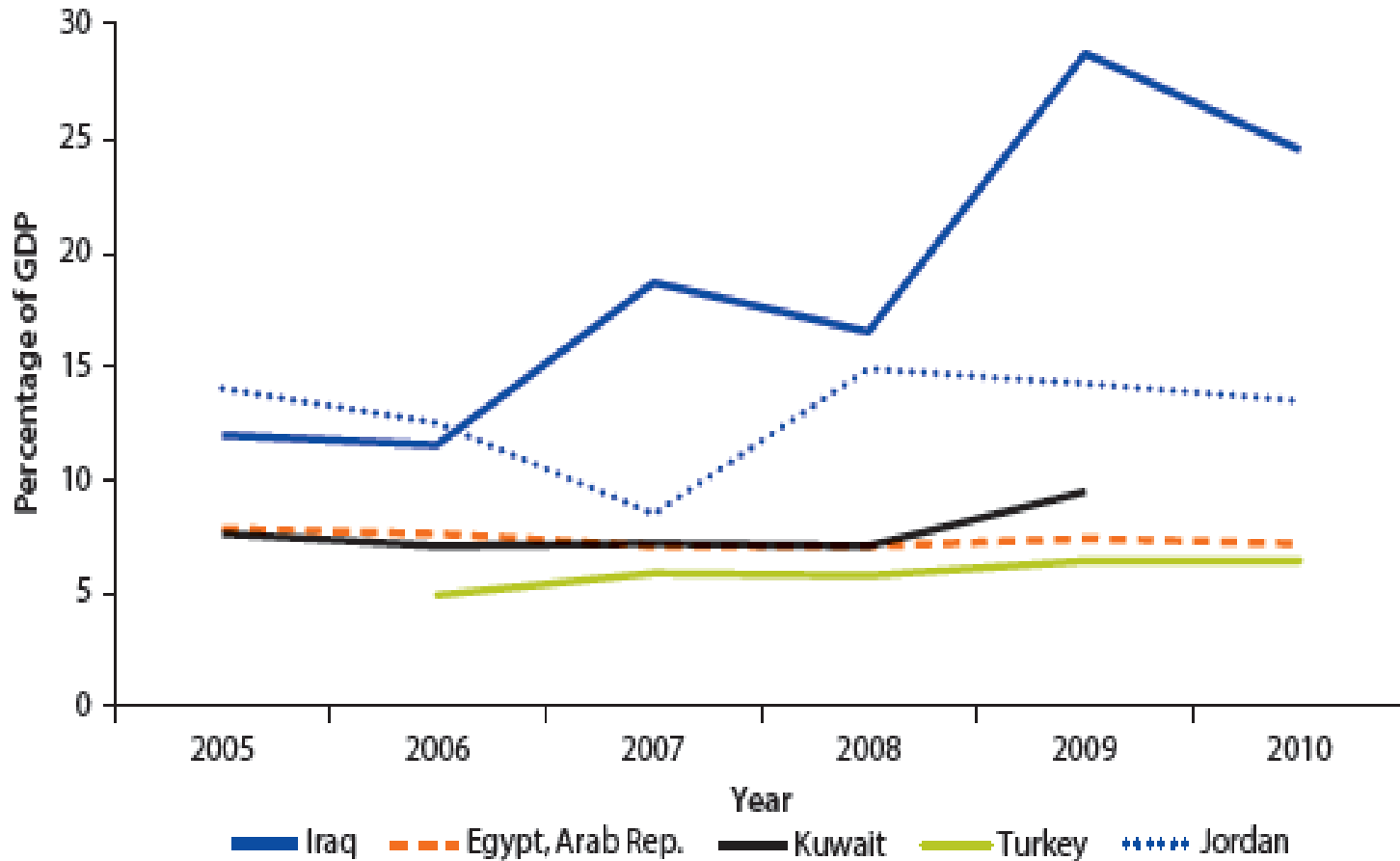
	2007	2008	2009	2010
Transfers to state-owned enterprises (US\$ million)	905	2,560	2,906	2,564
Percentage of GDP	1.6	2.7	4.4	3.2

Source: Ministry of Finance, Budget Execution Reports.

- These funds have been mainly used for covering SOE salaries and other employment benefits. Essential service-delivering sectors such as health, education, water, and sanitation have been allocated annual funds that were less than the amounts transferred for nonperforming SOEs.
- In addition, there are other hidden and off-budget forms of SOE finances. For example, in 2006 and 2007, it is believed that a part of the “Advances Account” which reached ID 12 trillion was used to pay for SOE wages. In 2008 and 2009, SOE wages were paid through loans exceeding ID 2 trillion.
- SOEs in Iraq include a large variety of public entities, including ministries, directorates/departments, and bodies. SOEs are structured in various holdings, regional branches, and factories.
- There are 177 SOEs, distributed among ministries, with the Ministry of Industry & Minerals holding the largest share (67), followed by Oil (16), Finance (13), and Construction and Housing (11).
- While many SOEs have restarted operations after years of damage and looting, a significant number remain inoperable. However, many continue to keep workers on the payroll even though they are not operational and are not producing goods or services. Employment by SOEs, according to MoF’s Federal Budget Law FY2010, stands at around 633,000, twice as much as that recorded in 2005.
- In Iraq, the public sector provides 43% of total jobs and almost 60% of overall full-time employment, and the employees in state-owned companies make up about 20 percent of total public employment. In the Ministry of Industry and Minerals, about 37% of the employees are considered to be above ideal staffing levels.
- The private sector accounts for 25% of part-time employment with wages being lower than in public sector jobs. The dominant public sector in Iraq is hindering the development of market

Far Too Costly A State Sector

Figure 2.6 Compensation of Employees, 2005–10



Source: World Bank, World Development Indicators, 2013.

The Ongoing Budget Crisis

The Ongoing Budget Crisis I

- **Iraq is pursuing a series of emergency measures to finance its 2015 budget, following years of poor governance and unchecked spending that led to a financial crisis now made worse by low oil prices and high military spending demands.**
- **Security costs and paying for personnel costs of swollen state and SOE sectors consume much of budget.**
- **No stable structure of governance and political basis for timely approval of budget, execution, review.**
- **Major gap in ability to tie plans to what can be executed, auditing of actual process of execution and effectiveness.**
- **Anti-corruption measures and poor structure of governance leads to major problems in executing budgets, but does not reduce the impact of corruption.**
- **97% of government revenues are based on oil sales and tax and other very revenues limited**
- **Drop in oil revenues placing major new constraints on government. Creating serious budget deficits.**
- **Unclear that reforms will really make a difference: Cutting personnel costs may raise unemployment, not aid development or stability.**

The Ongoing Budget Crisis II

- **Iraq's 2015 budget, which passed Parliament at the end of January, authorizes more than \$99 billion in spending.**
- **85% of revenue (\$66 billion) is to come from oil exports, based on an assumption that an average of 3.3 million barrels per day (bpd) will be sold at \$56 per barrel. Rates have since plunged to the mid \$40's.**
- **Iraq is falling short so far this year.**
- **Even if those oil sales are achieved (at \$56/barrel), there will still be a deficit.**
- **After making politically difficult spending cuts and efforts to raise non-oil revenues, the government is still anticipating a deficit of more than \$21 billion, most of which is supposed to be financed by borrowing.**
- **Iraqi commercial banks simply do not have enough capital to lend the amounts called for in the budget; all told, the government's actual ability to borrow could fall more than \$10 billion short of the budget's assumptions.**
- **The government is planning to indirectly borrow from the country's foreign currency reserves, in a plan described Wednesday in Baghdad by Central Bank Governor Ali al-Alaq.**
- **The move could create a risk to the credibility of the Central Bank of Iraq (CBI) and the stability of Iraq's currency, according to international economists who have long monitored Iraq's finances.**

The Ongoing Budget Crisis III

- However, Iraqi commercial banks simply do not have enough capital to lend the amounts called for in the budget.
- The government's actual ability to borrow could fall more than \$10 billion short of the budget's assumptions.
- The idea for much of the financing is to sell bonds to the banks. But the banks lack the capital.
- *Former Iraqi Finance Minister Ali Allawi said: ““Basically, the budget is put together without any coherence, without any understanding as to its implications and significance on macroeconomic policy. It is just an accounting mechanism for the government to distribute its largesse. Things got out of control because of this underlying illusion that this revenue stream is continuously on the upswing. The facts of history have not really borne that out.”*
- In the current atmosphere of crisis, Iraq has been living week-to-week, with virtually no rainy-day fund; now the Development Fund for Iraq (DFI), an Iraqi-controlled account at the Federal Reserve Bank of New York that collects the country's oil revenue and has functioned as something of a national savings account, has dipped to \$1 billion, according to two officials with access to the data.

Raiding Foreign Currency Reserves - I

- **The CBI's lending plan appears to be a response to these constraints.**
- **Iraqi commercial banks will buy government bonds and then sell them to the CBI on secondary markets.**
- **The cash infusion from the CBI will then allow the banks to give more cash to the government, in exchange for more bonds.**
- **It is a "triangle scheme" that was functionally equivalent to a direct loan from the CBI to the government.**
- **It is a plan aimed at making it less obvious that the government is using its foreign currency reserves to finance their budget.**
- **Central banks typically avoid using their foreign currency reserves to directly support government spending because they are needed to support the sovereign currency.**
- **Iraqi dinars have value largely because the CBI will accept them in exchange for dollars; if the CBI's reserves shrink too much, it would risk losing the ability to make the large currency transactions required to stabilize the dinar's value, which has barely fluctuated since 2007.**
- **Iraq's foreign currency reserves dropped from \$77 billion at the end of 2013, according to the IMF, to about \$65 billion at the end of 2014.**
- **The falling reserves were a byproduct of the government's changing spending patterns when it came to financing imports (mainly weapons).**

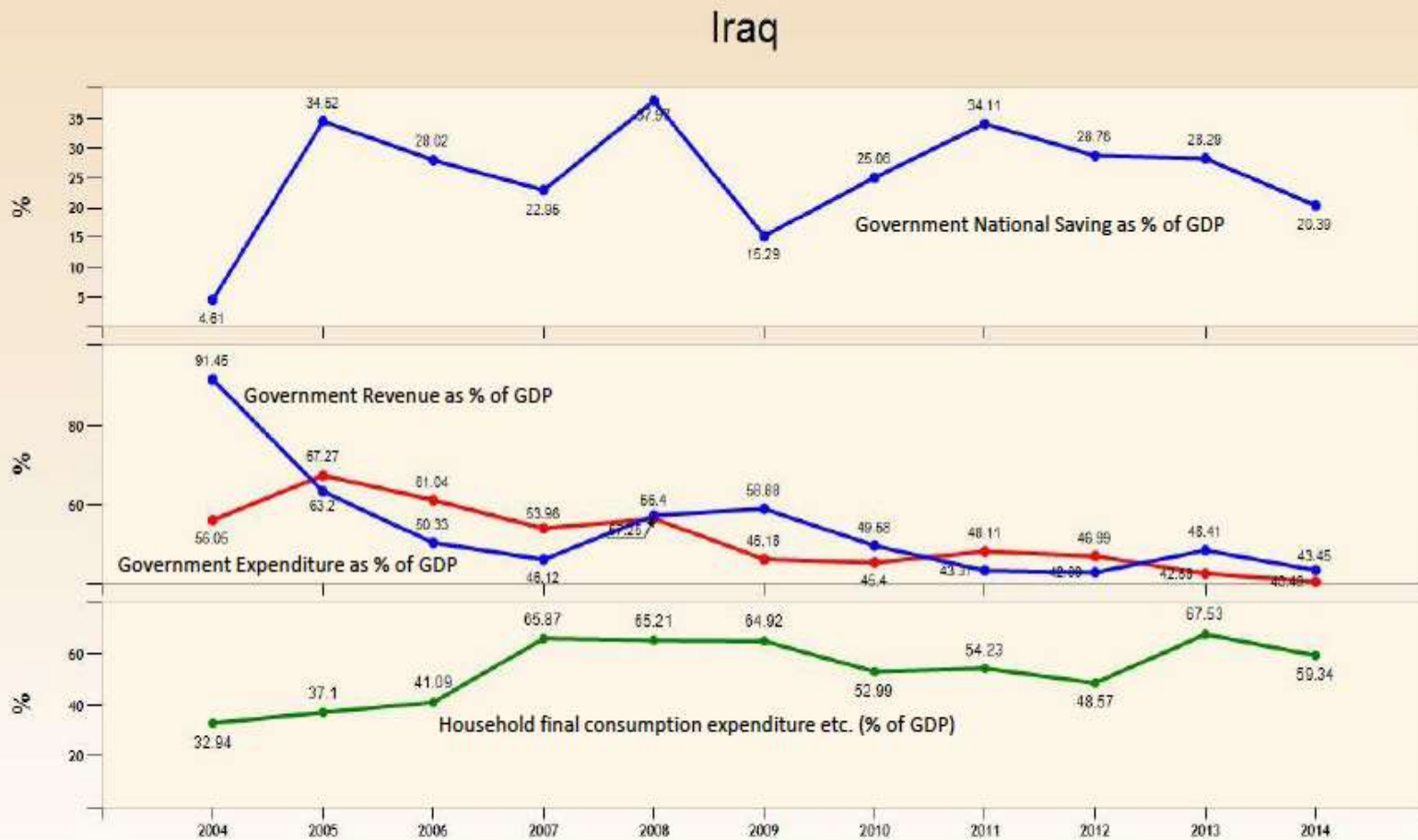
Raiding Foreign Currency Reserves - II

- By contrast, the new CBI bond-buying plan is a large step closer to using currency reserves to actively support government spending.
- The \$65 billion in currency reserves is a level that many international economists consider healthy. For now, the CBI can likely absorb a further hit to its reserves without much impact on the broader economy.
- Iraqi and western financial experts worry that such CBI intervention will be repeated partly because some Iraqi leaders do not understand the possible consequences.
- "Some people think the Central Bank's reserves are government savings," Allawi said. "There is very, very poor – catastrophically poor – economic understanding on the part of government, Parliament, policymakers. You would be shocked how poor it is."
- **Even so, Iraq might not have a choice. The 2015 budget is already 16 percent smaller than the 2013 budget, which also governed state spending for 2014 due to political disputes that prevented passage of last year's budget.**
- The government needs to fund a massive military effort against a well resourced insurgency and provide for millions of displaced people and refugees.
- But, "cutting more is not a good solution, and borrowing from the CBI is not a good solution either."

Negotiating with Oil Companies

- **There is no stable structure of governance and political basis for timely approval of budget, execution, review.**
- **The Oil Ministry is also trying to negotiate with international oil companies (IOCs) to reduce its immediate payment obligations.**
- **The negotiations apparently have the potential to alter the basic structure of IOC contracts.**
- **Any changes that link IOC payments to revenues – rather than a flat fee for production – has the potential to significantly change the contract.**

Government Spending and Revenues Dominate the GDP



(Source: IMF, World Bank)

Budgets Dominate GDP and Are Oil Revenue (and Earlier Aid) Driven

Figure 1.7 Government Spending, 2005–12

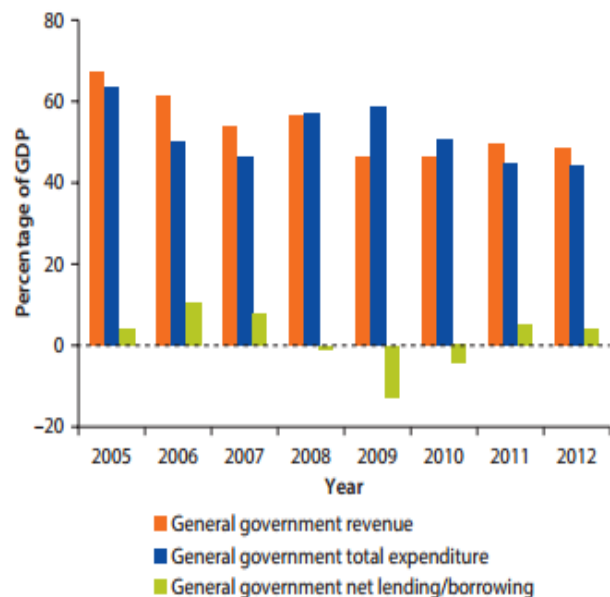
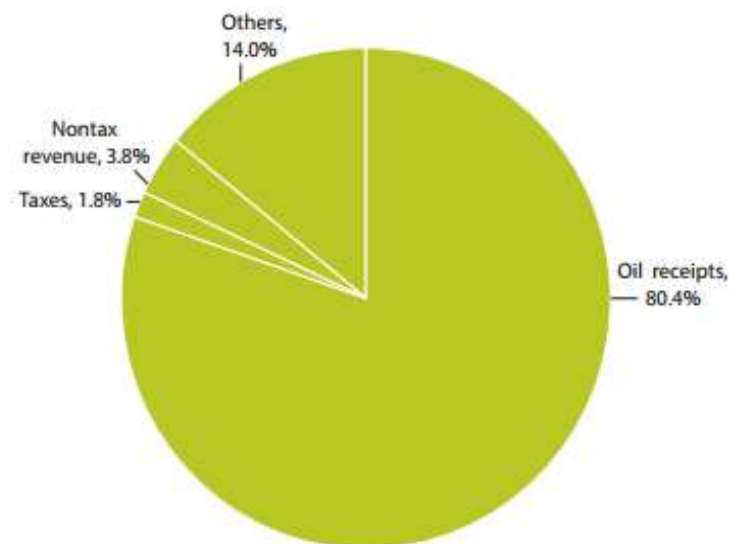


Figure 1.6 Sources of Total Revenues, Average, 2005–12



General Public Services

Reflecting how bloated the government is, the general public services budget item is by far the largest spending category, accounting for about a third of total public expenditure (or 17% of GDP) in Iraq. Included in this category are spending on the executive, legislative, and external affairs, public debt transactions, transfers of a general character between different levels of government, and other general services.

Defense and Security

Spending on defense and security is also disproportionately large. Defense and public order and safety (including police services, fire protection services, law courts, prisons, and other services) together accounted for 16 percent of total expenditure (or 9.2 % of GDP). Given the current security situation, exceptional efforts may be needed. Still, even in such circumstances, policy makers should make sure that none of their resources go to waste. As Iraq gains stability and security over time, opportunities may exist for further budgetary savings over the medium- to long term, with this component providing fiscal room for further reorientation of spending toward capital investment or social services.

Budgets By Function: 2005-2011

Table 2.4 Economic Composition of Government Expenditure, 2005-11

ID billion, unless otherwise indicated

	2005		2006		2007		2008		2009		2010		2011
	Original Budget	Estimated Actuals	Original Budget	Estimated Actuals	Estimated	Actuals	Estimated	Actuals	Estimated	Actuals	Estimated	Actuals	Original Budget
					Original Budget	Actuals (BSA)	Original Budget	Actuals (BSA)	Original Budget	Actuals (MOF)	Original Budget	Actuals (MOF)	
Compensation for Employees	5,538	6,421	8,365	8,739	10,296	13,369	12,695	20,081	21,280	21,643	23,264	20,633	28,032
<i>of which:</i>	—	—	—	—	—	—	—	—	—	—	—	—	—
Defense	839	—	1,371	—	1,819	1,606	2,009	2,194	2,364	2,284	2,720	2,607	4,070
Public Order and Safety	1,125	—	2,355	—	2,807	3,297	4,068	4,396	5,835	5,301	6,363	5,256	6,969
Education	1,582	—	1,953	—	2,488	—	2,869	4,592	6,337	6,910	6,334	6,026	8,427
KRG	1,049	—	1,509	—	1,500	—	1,500	2,789	2,701	3,406	3,211	2,382	3,870
Pensions and Other Retirement Benefits	2,552	2,765	3,976	2,608	3,924	2,299	4,357	2,854	4,598	3,293	5,644	6,252	6,382
<i>of which:</i>	—	—	—	—	—	—	—	—	—	—	—	—	—
KRG	331	—	348	—	300	—	300	—	690	—	727	1,668	953
Use of Goods and Services	7,129	6,935	11,033	7,698	8,012	4,913	7,874	8,091	9,167	4,955	11,818	10,260	12,226
<i>of which:</i>	—	—	—	—	—	—	—	—	—	—	—	—	—
KRG	433	—	371	—	275	—	200	—	1,174	1,149	1,525	2,220	815
Interest	150	86	486	438	551	620	760	670	689	385	1,072	917	1,416
Subsidies	499	268	1,634	677	1,726	1,514	2,326	3,623	3,432	1,572	2,904	2,557	1,093
<i>of which:</i>	—	—	—	—	—	—	—	—	—	—	—	—	—
Agriculture Subsidies	300	241	—	176	—	307	633	—	334	34	390	269	642
Electricity Subsidies	—	—	—	—	—	500	463	299	1,348	1,109	1,600	1,666	—
Industry and Minerals Subsidies	—	—	—	—	—	—	—	—	853	—	77	13	—
KRG Subsidies	—	—	197	—	200	—	235	190	286	286	300	300	293
Other Subsidies (General Public Services)	—	—	1,437	502	1,526	608	933	3,623	184	15	219	38	159

table continues next page

World Bank on 2015 Economic and Budget Impact (1/15)

The impact of falling oil prices: The major impact will be seen on fiscal and current account balances: The World Bank estimates that the fiscal deficit will rise to about 20 percent of GDP in 2015 from about 6 percent of GDP in 2014; and the oil trade surplus will be 14 percent of GDP. Real GDP growth will decline to about 1.5 percent in 2015, remarkably low for a country that should still be in reconstruction-driven growth. Given Iraq's lack of capital-market access and existing debt service obligations, the current account deficit implies a large financing gap, assuming unchanged policy on central bank reserves. As of December 2014, Iraq's gross international reserves amount to \$69.1 billion. hampered reconstruction and investment, which resulted in lower-than-foreseen oil production growth and hence slower economic growth .

Poverty: As various consumer prices remain administered in Iraq, the impact on poverty will be mainly through the fiscal impact. Since northern Iraq is the main land transit route to the entire country, the increase in transport costs as a result of the ISIS crisis is affecting most non-oil merchandise trade. In particular, the cost of the universal Public Distribution System (PDS) ("food ration") is expected to increase. Since this program is seen as non-negotiable, the food price increase will be reflected in the fiscal impact.

Exchange rate: Iraq pursues a policy of a de facto peg to the U.S. Dollar, and therefore monetary policy is constrained in tackling the current shock. The Central Bank of Iraq (CBI) had kept the Dinar steady through January 2009. In 2014, the nominal exchange rate in the official market remained stable against the U.S. Dollar at 1,166 IQD/1 USD, but the rate in the parallel market increased. The CBI has recently taken steps to simplify foreign exchange market regulations, but has not eliminated all existing exchange restrictions and the multiple currency practice. With the peg, fiscal policy carries the burden of macroeconomic stabilization, but in this case does not have the space to do so.

A draft 2015 budget was presented to the Cabinet at the end of November based on an oil price of \$70 per barrel and prioritizing salaries, military spending, and humanitarian relief. The budget showed a deficit of \$39 billion, or 17 percent of GDP. As this was considered infeasible, the government is revising the budget and has focused instead on a freeze in hiring and rooting out the most glaring expenditure abuses (notably with the identification of 50,000 "ghost soldiers"). The rapprochement with the Kurdish Regional Government (KRG) on northern oil exports, both for KRG own-sourced oil exports and transit through KRG for oil from Kirkuk, will also relieve some pressure. From the perspective of the global oil market, the reopening of the northern export route adds 550,000 barrels per day of crude supply, though part of this figure represents existing KRG exports moving out of the grey market, as well as changes in the composition of Iraq's total exports.

Government spending: The most likely impact of lower oil prices on government spending would be through a reduction in capital spending by restricting the number of investments, which would return the public-sector borrowing requirement to the 2014 range (i.e. 4-8 percent of GDP). The government would seek to increase reliance on external financing for its capital program (especially through export credit agencies and bilateral/multilateral finance and aid from donors on humanitarian grounds). The government has sought a delay in its final reparation payments to Kuwait, which would defer nearly \$5 billion of commitments. Even under optimistic external funding scenarios, none of these options can sustain the full capital program. The remaining financing buffers are central bank reserves, the domestic banking system, and the state pension fund. Tapping any of these sources (more than they are currently doing) raises fundamental questions about the integrity of already weak fiscal institutions.

World Bank on 2015 Economic and Budget Impact

Key Economic Indicators

	2013	2014e	2015f
Real GDP Growth (%)	4.2	-0.5	-1.0
Inflation Rate (%)	1.9	2.2	3.0
Fiscal Balance (% of GDP)	-5.9	-4.9	-10.6
Current Account Balance (% of GDP)	2.1	-2.8	-8.3

Economic growth declined in 2014 due to multiple shocks. During 2014, Iraq was affected adversely both by the continuing Islamic State (IS) insurgency and the sharp decline in the price of oil, the country's main source of public revenues. Real GDP contracted by 0.5 percent. The non-oil sectors of the economy were also affected by the prevailing insecurity which caused the destruction of infrastructure, impeded access to fuel and electricity, destroyed business confidence, and disrupted internal trade and transport. Non-oil GDP growth declined by 5.2 percent in 2014.

The current account balance worsened during 2014 while the fiscal deficit stayed high. The current account balance deteriorated from a surplus of 2.1 percent of GDP in 2013 to a deficit of 2.8 percent in 2014 mostly due to falling oil prices. Reserves declined from over US\$78 billion at end-2013 to about US\$65 billion at end-2014. Iraq operated without an approved budget for 2014. Instead, spending was funded on the basis of 2013 actual disbursements plus *ad hoc* additional commitments approved by the Cabinet. As the year progressed, security spending took precedence over all other discretionary items, which were frozen. By year end, the fiscal deficit amounted to 5 percent of GDP, lower than in 2013 but still quite high.

Near term prospects are challenging. The ongoing insurgency will keep disrupting economic activity and diverting resources which could have been spent on poverty and development objectives to military ones. Meanwhile, high dependence on oil revenues renders the economy vulnerable to low oil prices. Based on these two factors, we expect real GDP to decline further by 1 percent in 2015. We expect the current account deficit to grow considerably larger, reaching 8.3 percent of GDP, and the fiscal deficit to more than double to 10.6 percent of GDP.

In addition to economic and security challenges, Iraq also faces a humanitarian crisis. As a result of the ongoing conflict with the insurgent IS group, 17,073 Iraqis died and 23,126 were injured in 2014—the highest levels since 2006. In addition, 2.1 million persons have been displaced and some 250,000 Syrian refugees have flooded into the country. All this poses a major humanitarian crisis which the Government is hard pressed to meet. The standard of living has deteriorated and a noticeable share of the population has fallen into poverty or is vulnerable to falling into poverty.

Al-Bayan Center on 2016 Budget Level (8/18/15)

- Austerity measures and cost-cutting for some government expenses have helped but they are not enough to reduce the large deficit. The continuing war with daesh requires significant spending on defence and security, at the same time that oil wells, borders, and territory are still outside government control.
- Given that 97% of government revenues are based on oil sales and that taxes, and income from other sectors is unlikely to develop in the coming months, it is realistic to assume that the income side of the budget is almost identical to the revenues generated from oil exports. The oil export agreement with the KRG has effectively been abandoned since June and it is unwise of the Federal government to build in any expected revenues from northern oil sales for 2016.
- This leaves a simple projection of oil exports from the south and the expected average price of oil for 2016...it would be reasonable to expect an average of 3m bpd for exports in 2016...a selling price between \$45 and \$50 seems sensible.
- At \$45 total projected revenues come in at \$49.275bn and at \$50 they are \$54.75bn. A possible best case scenario of generating 10% of total government revenue from non-oil sources, and oil at \$50 gives a figure of \$60.83bn. An unrealistic projection of 3.6m bpd including northern fields,
- gives \$73bn on 90% oil-based revenues. In Iraqi dinars this works out at 58tn IQD to 69.6tn IQD, assuming an exchange rate of \$1 = 1,160 IQD...it would be prudent to plan for total government revenues as coming in under 70tn IQD.
- On the expenditure side it is unlikely that the government would be able to make any significant cuts due to the pressures of the war and the need to improve public services on the back of nationwide protests. Any
- savings in government expenses that PM Abadi's reforms will bring in will be diverted to other expenditure rather than to reduce overall expenditure.
- It may be possible to freeze 2016 expenditure level at the 2015 level, so that it does not increase beyond 120tn IQD. This will require a freezing of all current ministerial and departmental spending, and almost no new investment in public services.
- So planning for revenues of 70tn IQD at most, and expenditure of 120tn IQD at least, leaves a minimum deficit of 50tn IQD. Accepting that a large deficit is certain will help to plan for how to overcome it.
- The government may choose to pursue a mix of borrowing, whether through bond sales or foreign loans, sales of gold reserves, increase of the money supply, and the use of the foreign cash reserves. Each of these will likely increase the rate of inflation, so the government will need to counteract this.

Possible Budget Reforms

- **Revising and reducing the salary scale for the government sector, as well as the allocations and benefits.**
- **Ending the phenomenon of ‘phantom employees’. This will help to save \$5 billion for the budget.**
- **Ending the policy of using employment in government positions as a general model for job creation, and utilizing the salaries of ‘phantom employees’ to cover the expenses of volunteers in the war against ISIS.**
- **Reducing the authorities and disbursements of the federal ministries and granting executive authority to the governorates, as well as relying on international companies to audit accounts and on administrative companies to monitor the progress of projects according to the contracted schedules, with adherence to international controls and conditions.**
- **Inviting the private sector to compete for projects that used to be monopolized by companies in the public sector, and providing tax exemptions to megaprojects.**
- **Reviewing the banking system and supporting investment banks to become partners in small and medium sized enterprises, as well as supporting these enterprises with soft loans and guaranteeing companies’ assets.**
- **Inviting investment companies to the secure governorates and facilitating the attraction of capital.**

Economic and Social Infrastructure Challenges

Economic and Social Infrastructure Challenges

- **War and poor planning and budget execution affect all aspects of physical infrastructure in the West. Performance mixed in rest of country.**
- **Crisis in electric power triggered upheavals and demonstrations this summer.**
- **Major progress in communications, but not a clear indicator of help to stability.**
- **Financial and banking sectors have faced sharply growing pressure in 2014.**
- **Education and medical expenditure levels have risen, but no clear indications that actual services are adequate.**
- **Major gap in ability to tie plans to what can be executed, auditing of actual process of execution and effectiveness.**
- **Local police, rule of law poor in most of country. Perception of local security mixed, but problem even in Basra.**
- **Progress in transportation sector, dams, other physical infrastructure uncertain**
- **Near collapse in ISIS occupied areas in the West.**

35 + Years of Crisis Have A Broad Economic Impact

- 1. Electric power**
- 2. Education**
- 3. Medical services**
- 4. Water distribution, support for agriculture**
- 5. Affordable food distribution, rationing**
- 6. Transportation infrastructure, protection, and freedom of movement**
- 7. Reliable financial services, banking**
- 8. Functional government offices**
- 9. Affordable corruption (?)**
- 10. Local security, police activity, rule of law.**
- 11. Safe access to places of worship**
- 12. Protection of property rights**

World Bank Estimate of Key Human Impacts: 2000-2013

Table 1.1 Poverty and Social Indicators, 2000, 2005, and Latest Data

	2000	2005	Latest data ^a
Poverty			
Poverty headcount ratio at \$1.25 a day (PPP) (% of population) ^b	...	...	<2
Poverty headcount ratio at \$2 a day (PPP) (% of population) ^b	...	...	8
Poverty headcount ratio at national poverty line (% of population)	...	...	19.8
Poverty headcount ratio at rural poverty line (% of rural population)	...	...	30.6
Poverty headcount ratio at urban poverty line (% of urban population)	...	...	14.8
Employment/Unemployment			
Employment in agriculture (% of total employment)	...	29.7	23.4
Employment in industry (% of total employment)	...	17.7	18.2
Employment in services (% of total employment)	...	52.5	58.3
Unemployment, total (% of total labor force)	...	18	17.5
Internally displaced persons (number, high estimate)	700,000	1,300,000	2,764,000
Education			
Primary completion rate, total (% of relevant age group)	55.6	78.6	66.3
School enrollment, primary (% gross)	95.4	102.1	107.5
School enrollment, primary (% net)	87.4	90.9	91.8
School enrollment, secondary (% gross)	37.5	47.7	53.1
School enrollment, secondary (% net)	32.3	40.4	44.5
Health			
Life expectancy at birth, total (years)	70.7	68.5	68
Births attended by skilled health staff (% of total)	72.1	88.5	79.7
Mortality rate, under-5 (per 1,000)	42.8	40.7	31
Maternal mortality ratio (modeled estimate, per 100,000 live births)	84	82	63
Immunization, diphtheria (% of children ages 12–23 months)	78	65	69
Improved sanitation facilities (% of population with access)	69	71	73
Improved sanitation facilities, rural (% of rural population with access)	54	61	79.8
Improved sanitation facilities, urban (% of urban population with access)	76	76	86
Improved water source (% of population with access)	80	80	79
Improved water source, rural (% of rural population with access)	49	53	66.9
Improved water source, urban (% of urban population with access)	95	93	94

Source: World Bank, World Development Indicators (WDI), 2013.

Note: PPP = public-private partnership.

a. Latest data refer to the following years: health (2011); education (2007); poverty (2012); and employment/unemployment (2008).

b. Preliminary results of the 2012 Household Survey.

Food and Power Subsidy Challenges

IMF Estimate of Impact -I

- ...the conflict with ISIS is undermining the distribution of in-kind food subsidies through the Public Distribution System, the main food vehicle, and may therefore accelerate reform towards more efficient social safety nets such as cash transfers. Explicit recording of subsidies on the government budget as a line item would improve transparency and facilitate reform.
- The main food subsidy mechanism in Iraq is the Public Distribution System (PDS)... a ration card system through which the government provides a list of subsidized food commodities to the vast majority of the population, benefiting over seven million Iraqi households.
- The ration card covers disbursed quantities for a number of commodities: wheat flour (nine kilograms/card/person/month), rice (three kilograms), sugar (two kilograms), vegetable oil (one liter), and children's milk (three packs; 450 grams each).
- The government purchases local crops from farmers after each season at administered prices, and sells them to beneficiaries through the ration cards at subsidized prices. Locally administered prices are determined by the Ministry of Agriculture and Cabinet, with the cost accounting maintained by the Ministry of Trade. Quantities imported are determined by the shortfall between the volumes needed for the PDS basket and local production. The system makes use of silos and warehouses to maintain inventories.
- **Food subsidies amounted to 1.8 percent of GDP in 2014. Subsidies are calculated as the The cost of the PDS recorded in the budget stood at ID 4.8 trillion (1.8 percent of GDP) in 2014, and makes up over 60 percent of the total cost of the entire social safety net system.**
- **Most commodities are imported or have sizable import content, with wheat purchases being the most costly. Wheat subsidies comprise over 60 percent of total food subsidies under the PDS due to its particularly low selling price, with slightly over half of all wheat purchases being imported.**
- **...the government's purchase price paid to local farmers is almost double the import price**, as a way to encourage farmers to grow wheat. In the case of rice, two distinct domestic varieties exist, with the higher quality's purchase price paid to farmers set above import prices, and the lower quality's purchase price set marginally below the import price. The local administered selling price is set at less than half of 1 percent of the purchase price, on average
- Excess subsidized quantities reportedly find their way to the black market where they are resold at a profit margin.
- ...The ISIS insurgency since mid-2014 is undermining the coverage of the PDS. The intensification of the conflict with ISIS has negatively affected the coverage of the distribution system, impacting the disbursement of some products to eligible households in areas under ISIS control. ISIS' smuggling and abuse of the system has also been reported.

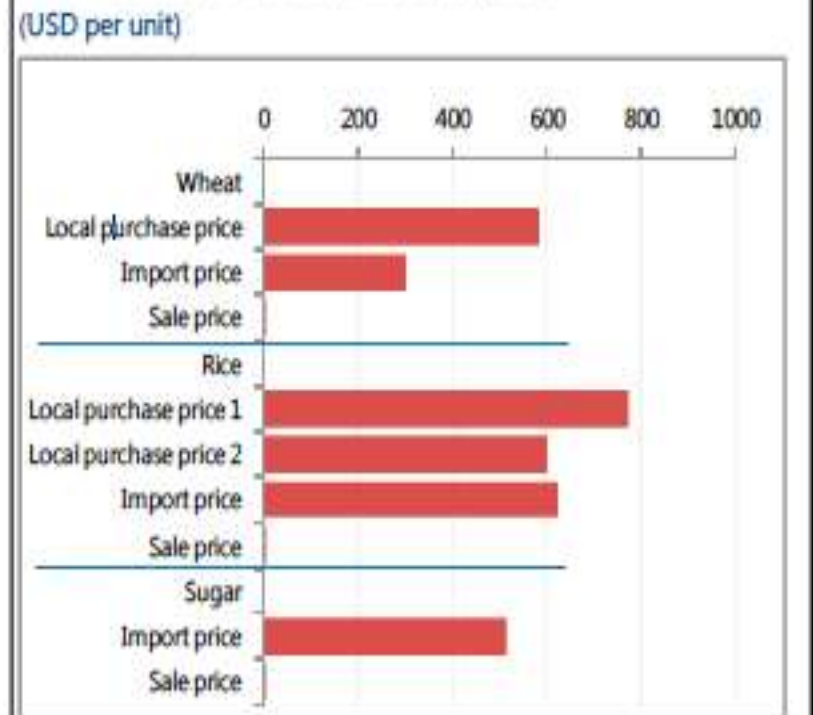
IMF Estimate of Impact -II

Food Subsidies Under the Public Distribution System (PDS)



Source: Ministry of Finance.

Prices for selected food commodities, 2014



Source: Ministry of Trade.

...food and electricity subsidies in Iraq...with subsidies on fuels, they make up for the bulk of subsidies, for a total subsidy cost at **least about 9 percent of GDP (2014), of which 1.8 percent from food, 3.4 percent on electricity, and 3.6 percent on fuels according to staff estimates.**

These figures may actually be conservative—according to the authorities, energy subsidy alone accounts for about 13 percent of GDP.

Electricity as a Case Study

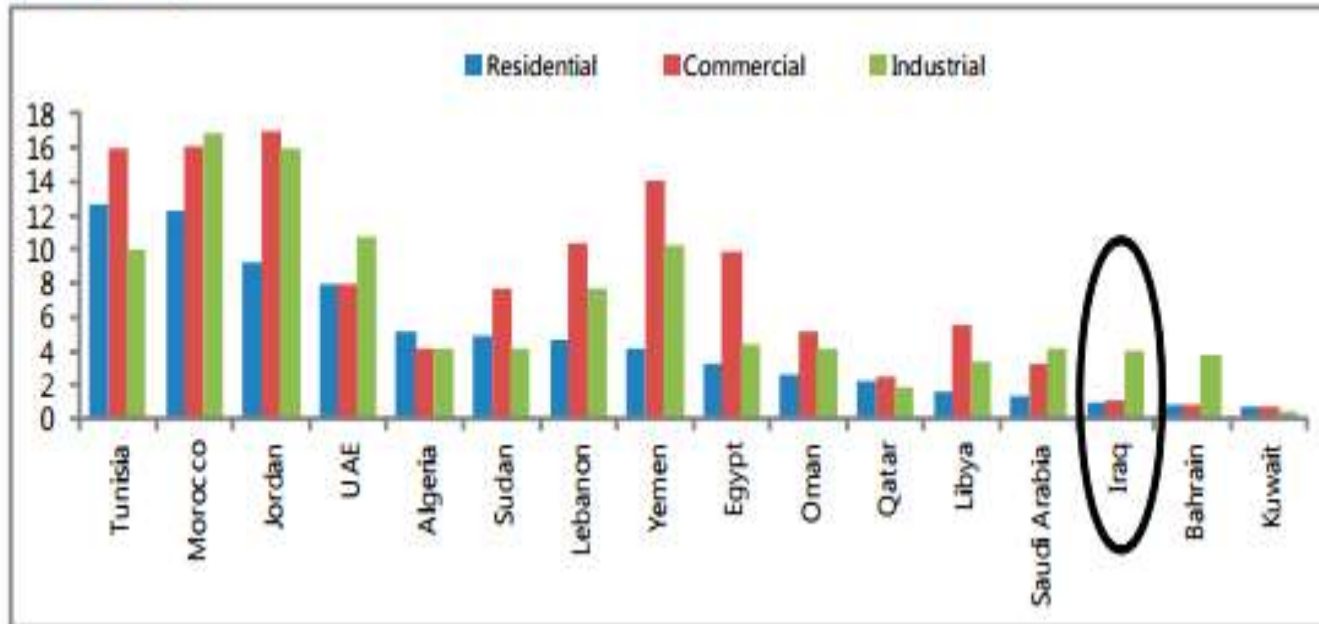
The Electric Power Challenge

- **Critical to popular satisfaction.**
- **Climate is a major problem, but shortfalls also sharply affect development and employment.**
- **Long history of unkept promises.**
- **Crisis in electric power triggered upheavals and demonstrations this summer**
High generation, investment, and distribution costs, grossly underpriced.
- **Sharply increased demand offsets growth in capacity.**
- **Major problems with distribution losses offset generation gains.**
- **Unclear can quickly solve. Need gas supplies for new generators.**
- **Serious cost burden for poor, those who rely on small generators.**

IMF-Gross Underpricing of Electricity

Cross-Country Comparison of Electricity Prices, 2014¹

(In US\$ / KWH)



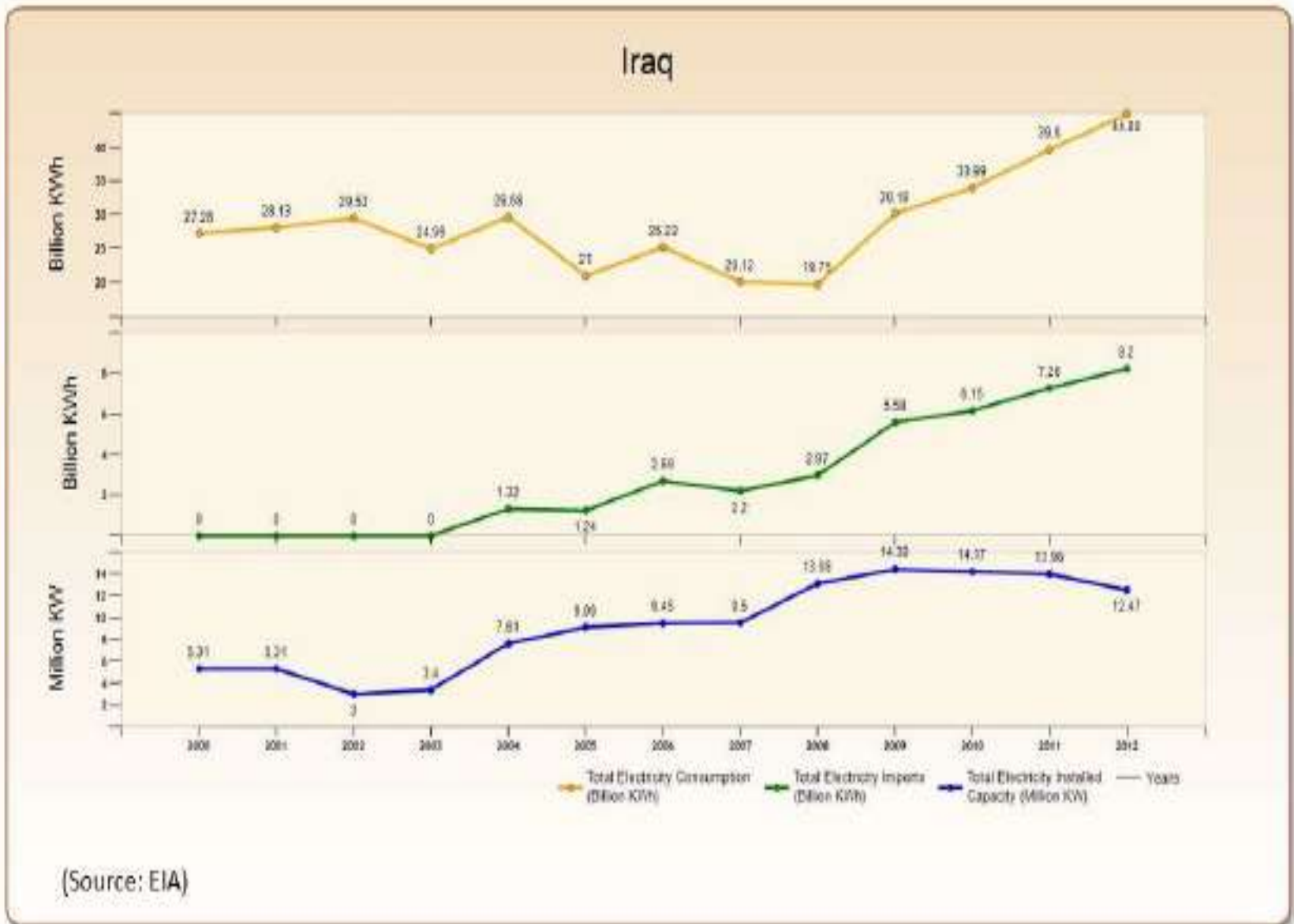
¹ Residential prices based on a 500 KWH average monthly consumption; Commercial prices on 1,500 KWH, and Industrial prices on a 30,000 KWH average monthly consumption.

Source: RCREEE.

Electricity pricing is progressive in Iraq, but revenues are weak given currently administered low tariff rates. Tariff rates for light users of electricity (up to 1000 KWH) are roughly ID 10 (\$0.009) per KWH, and the structure is progressive, with tariffs rising to ID 50 per KWH for the largest consumers. Nevertheless, overall revenues are low, covering only 10 percent of total production costs. Currently, Iraq is ranked among the cheapest Arab countries in the Middle East in terms of electricity prices.

IMF, August 2015 IMF Report on Iraq (<http://www.imf.org/external/pubs/ft/scr/2015/cr15236.pdf>).

Iraq – Electric Power Generation: 2000-2012



Source: Dr.. Abdullah Toukan using his SIRA Model (Strategic and International Risk Assessment Model).Data Base. Any questions can be directed to abdullah.toukan@siracenter.org

EIA Power is Rising But... II

Iraq's electricity supply totaled 66 billion kilowatt-hours (kWh) in 2012, of which 58 billion kWh was generated from domestic power plants and 8 billion kWh was imported from Iran and Turkey. Electricity net generation in Iraq grew by an annual average of 13% from 2008 to 2012, recovering from the 2003 dip in electricity generation with the start of the Iraq war. Although generation in Iraq has increased, distribution losses have also increased. From 2005 to 2012, distribution losses averaged 36% of total electricity supply. Iraq's distribution system, outside the Iraqi Kurdistan Region, has deteriorated because of poor design, lack of maintenance, and electricity theft, resulting in large distribution losses, low voltage levels, and frequent disconnections.³⁷

Iraq has struggled to meet its power needs during the Iraq war and for the postwar period. Like many developing countries in the Middle East and North Africa, Iraq faces a sharply rising demand for power. From 2003 to 2011, power outages lasting 16 to 22 hours per day were common. Although many parts of Iraq, outside the Iraqi Kurdistan Region, still suffer from power blackouts and load shedding particularly during the summer, the problem has been reduced somewhat as both on-grid and off-grid generation capacity has increased, along with electricity imports from Iran and from Turkish electricity barges (floating power plants) in the Persian Gulf.³⁸

Peak summer demand has typically exceeded actual generation by almost 50%, causing power shortages that have sparked protests, particularly in southern Iraq.³⁹ Iraqi households and businesses must rely on expensive off-grid, private diesel-fueled generators to rectify the shortfall, with those in Baghdad alone providing an additional 1 gigawatt (GW) of capacity.⁴⁰ A study of Iraq's electricity sector shows that about \$40 billion in revenue is lost each year because the country lacks the electricity supply needed to stimulate more business activity from various economic sectors, including agriculture, commerce, and tourism.⁴¹

Iraq has made significant strides to increase its generation capacity over the past few years. At the end of 2013, the Middle East Economic Survey estimated that Iraq's (Baghdad) electricity generation capacity reached 9.77 GW,⁴² an increase from 7 GW in 2012.⁴³ Most recent electricity projects in Iraq have focused on installing turbines that were purchased in 2008 but sat in storage for a few years. In 2008, Iraq purchased 74 turbines, with a total capacity of 10.2 GW, but no progress in installation was made until recently because of budgetary, contracting, and political difficulties. Iraq's Ministry of Electricity has also allowed foreign oil companies to construct small electricity plants to power their oil and natural gas operations.

Electricity generation in the Iraqi Kurdistan Region has typically been much more reliable, and power outages there have not been a problem. KRG is also embarking on an ambitious electricity expansion plan, aiming to double its power generation capacity from its current 4 GW to 8.6 GW by the end of 2016.⁴⁴

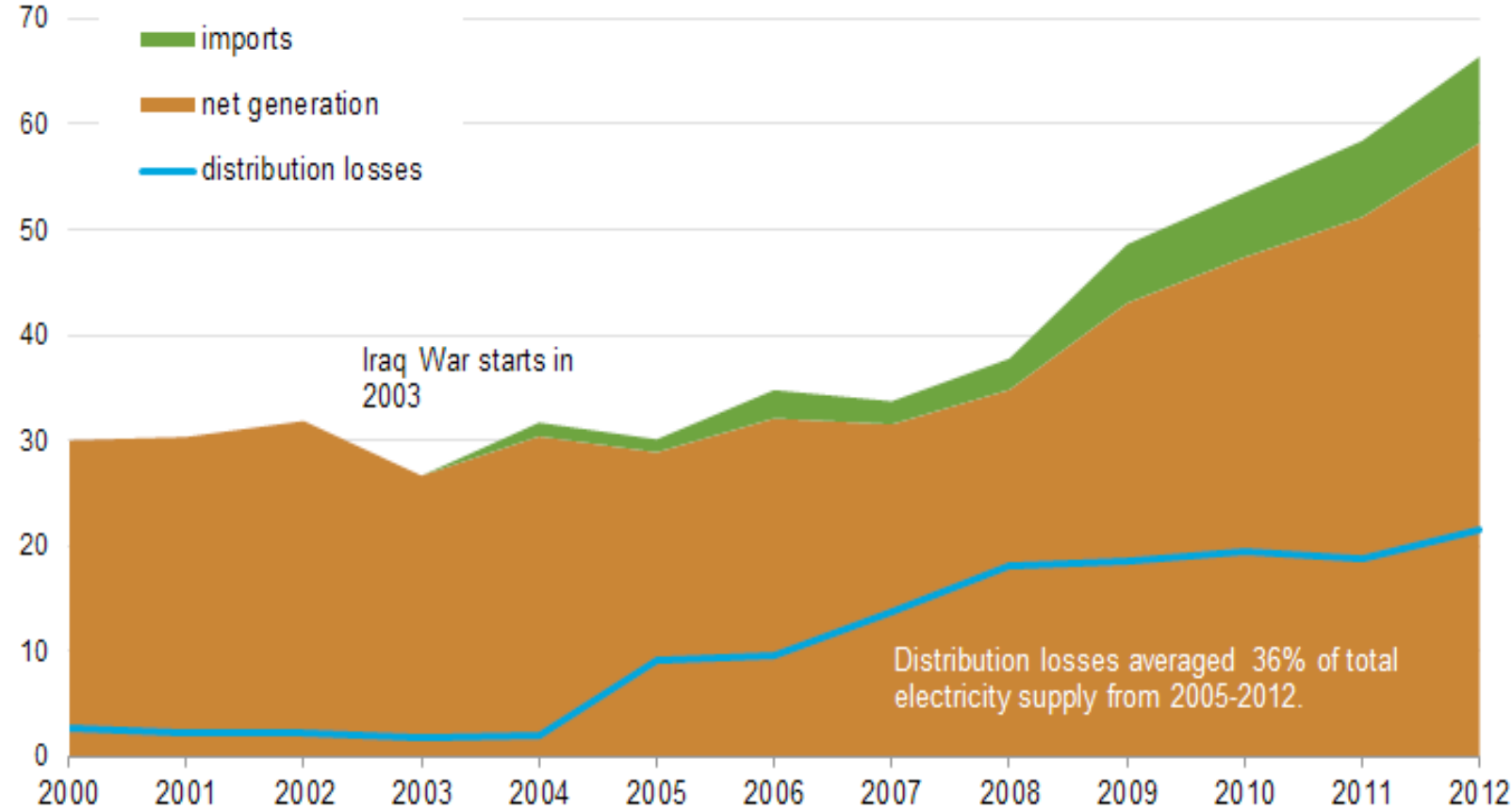
Iraq's Ministry of Electricity's master plan set a target to install 24.4 GW of new generating capacity between 2012 and 2017. The plan is similar to Iraq's Integrated National Energy Strategy (INES), released in 2013. INES proposes to increase generation capacity in Iraq (outside of the Iraqi Kurdistan Region) by 22 GW in 2016 from 7 GW in 2012 by adding steam and gas turbines that are also capable of running on fuel oil in case of natural gas shortages. The additional 22 GW in 2016 is the estimated amount needed to meet summer peak demand while allowing for a 15% reserve margin.⁴⁵ Iraq plans to spend at least \$27 billion by 2017 on developing its electricity sector, with about half of the money to be spent on upgrading the transmission and distribution systems. Iraq hopes to stop importing electricity by the end of 2016 if these expansions are made.

One major bottleneck that Iraq faces in achieving its goals is the delayed enhancements to the natural gas infrastructure that are needed to support the electricity expansion. The electricity expansion plan is expected to be fueled primarily by natural gas-powered turbines. Most current Iraqi natural gas production is flared, and pipelines will need to be built to bring natural gas, which would otherwise be flared, to future power plants. The delayed start-up of the Basrah Gas Company project and delayed development of oil fields have contributed to electricity expansion plans falling behind schedule.

EIA Power is Rising But.... I

Figure 4. Electricity net generation, imports, and distribution losses in Iraq

billion kilowatthours



Source: U.S. Energy Information Administration

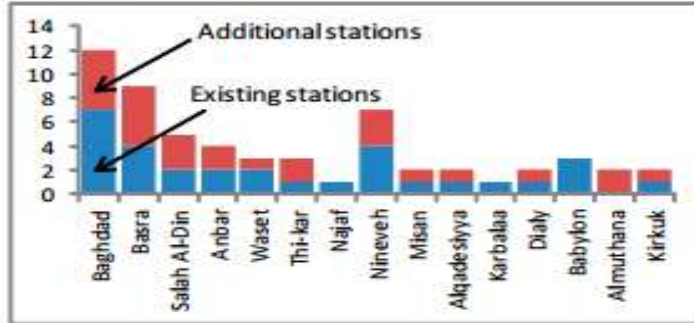
EIA, "Iraq,": www.eia.gov/beta/international/analysis.cfm?iso=IRQ, January 30, 2015.

IMF-Electricity Supply vs. Demand

Current and Prospective Transmission and Distribution Requirements to Meet Electricity Demand by 2020

Transmission Grid: Current number of stations and new required additions to the network until 2020.

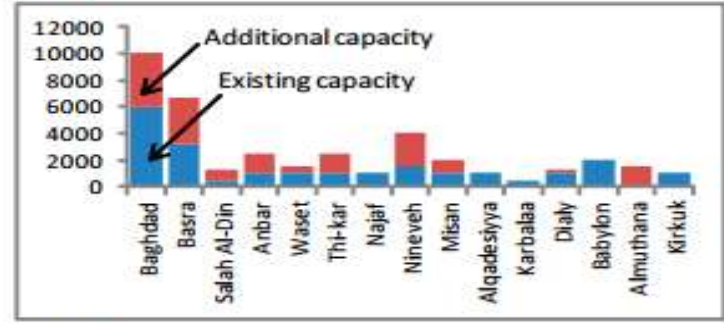
(Number)



Source: Ministry of Electricity

Transmission Grid: Current Installed Capacity and new required additions to the network until 2020.

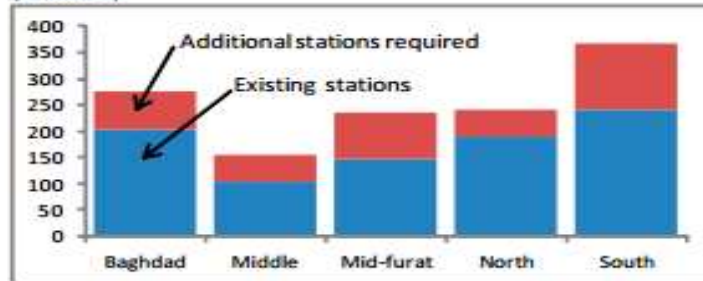
(MVA)



Source: Ministry of Electricity

Distribution: Medium-power network: Current number of stations and new required additions to the network until 2020.

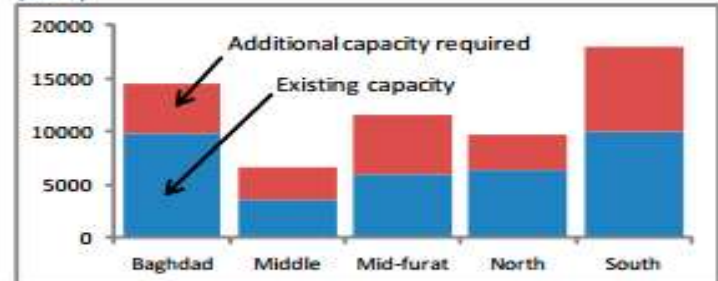
(Number)



Source: Ministry of Electricity

Distribution: Medium-power network: Current installed capacity and new required additions to the network until 2020.

(MVA)



Source: Ministry of Electricity

IMF, August 2015 IMF Report on Iraq (<http://www.imf.org/external/pubs/ft/scr/2015/cr15236.pdf>).

IMF- Continuing Shortfalls Electricity

The government controls the electricity sector in Iraq. The government owns the 24 companies operating across the electricity sector (chart). Electricity generated is sold to transmission companies. The transmission phase includes two key networks: Ultra-high voltage network (400 Kilovolt), and high-voltage network (132 Kilovolts) that links the ultra-high network to distribution networks. Electric power is then bought by distribution companies, who sell it to end-consumers at administered tariff rates set by the Ministry of Electricity (MoE) through a distribution sector comprising two networks (medium-and low-power).

Iraq's electricity production has increased over the years. Consumption demand has also grown strongly, driven by the government sector which is now the second largest consumer after households.

Shifts in the structure of the economy help explain changes in sectoral consumption patterns for electricity.

Electricity production is affected by significant losses, poor distribution networks, lack of production inputs, and reliance on liquid versus gas fuel. Production is not sufficient to meet demand for energy, leading to blackouts.

Electricity generation costs are high amid production cost rigidities and large fuel input and import content. Electricity production costs doubled within a span of just three years (2011–13). As a result, subsidies are large and rising. The cost to subsidize electricity almost tripled from 2011 to 2013, with the total electricity subsidy bill estimated by staff at ID 9 trillion in 2014 (3.4 percent of GDP and 8 percent of total budget expenditure).

The electricity sector is affected by several financial issues: Non-payment of electricity tariffs by consumers, Ministry of Oil-Ministry of Electricity cross-debt, inadequate coverage of electricity subsidies by the federal budget, and investment in recent years favored production capacity over transmission and distribution.

The expected cost of rehabilitation and expansion of the electricity sector in the coming years is high. The MoE estimates the cost of expanding the electricity sector to meet rising electricity/power demand over the next five years at \$25 billion. Of this, \$6.7 billion would be needed for additional electricity generation, \$8.6 billion for transmission, and \$9.6 billion for distribution. However, international investment—so far mostly financed by donors such as the Japan International Cooperation Agency—remains very limited, as poor security conditions keep away international investors.

...The authorities are planning to reform electricity tariffs Under the current tariff structure, subsidies are projected to rise to ID 10 trillion (5 percent of GDP) in 2015 and about ID 18 trillion (5.4 percent of GDP) by 2020. The authorities recognize that this subsidy level is unsustainable financially, but also that it prevents adequate investment in the sector and ultimately does not allow meeting the growing demand. As a first step to address subsidies, the government intends to raise the tariff structure and make it more progressive by introducing new consumption brackets for high-end users. This is designed to minimize the social impact on poor segments, for example on low-income households (where the tariff increase will only be marginal on the two lowest consumption brackets).

Tariff increases will be steep for the government sector. A previous attempt to raise tariffs in the first half of 2015 had to be abandoned as Parliament increased the original tariff structure proposal by the MoE, thus generating political backlash and rejection of the reform. The proposal currently under consideration is closer to the MoE original proposal and hence more realistic

IMF, **August 2015 IMF Report on Iraq** (<http://www.imf.org/external/pubs/ft/scr/2015/cr15236.pdf>).

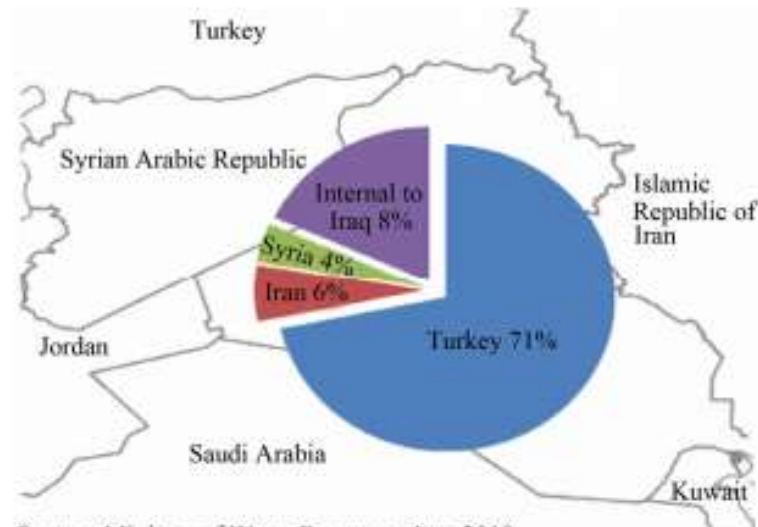
(Uncertain) Water Challenges

Water Challenges

- The combination of population growth and limited environmental awareness effectively limits water resource management in Iraq.
- Also, climate shifts seem to be a growing source of drought in rain-dependent areas.
- ISIS and extremist threat to major dams with serious potential economic consequences.
- Turkey and Iran have dams, water projects potentially affecting Iraqi rivers, but scale is uncertain and climate also a factor.
- Data on access to potable water, and water distributed to home uncertain – especially after the recent rise of turmoil and IDPs around the country.
- The Euphrates, Tigris, Shat Al Arab rivers are the main sources of water in the country. However, almost 92% of their sources lie in neighboring countries.



Figure 2. Climate zones of Iraq.

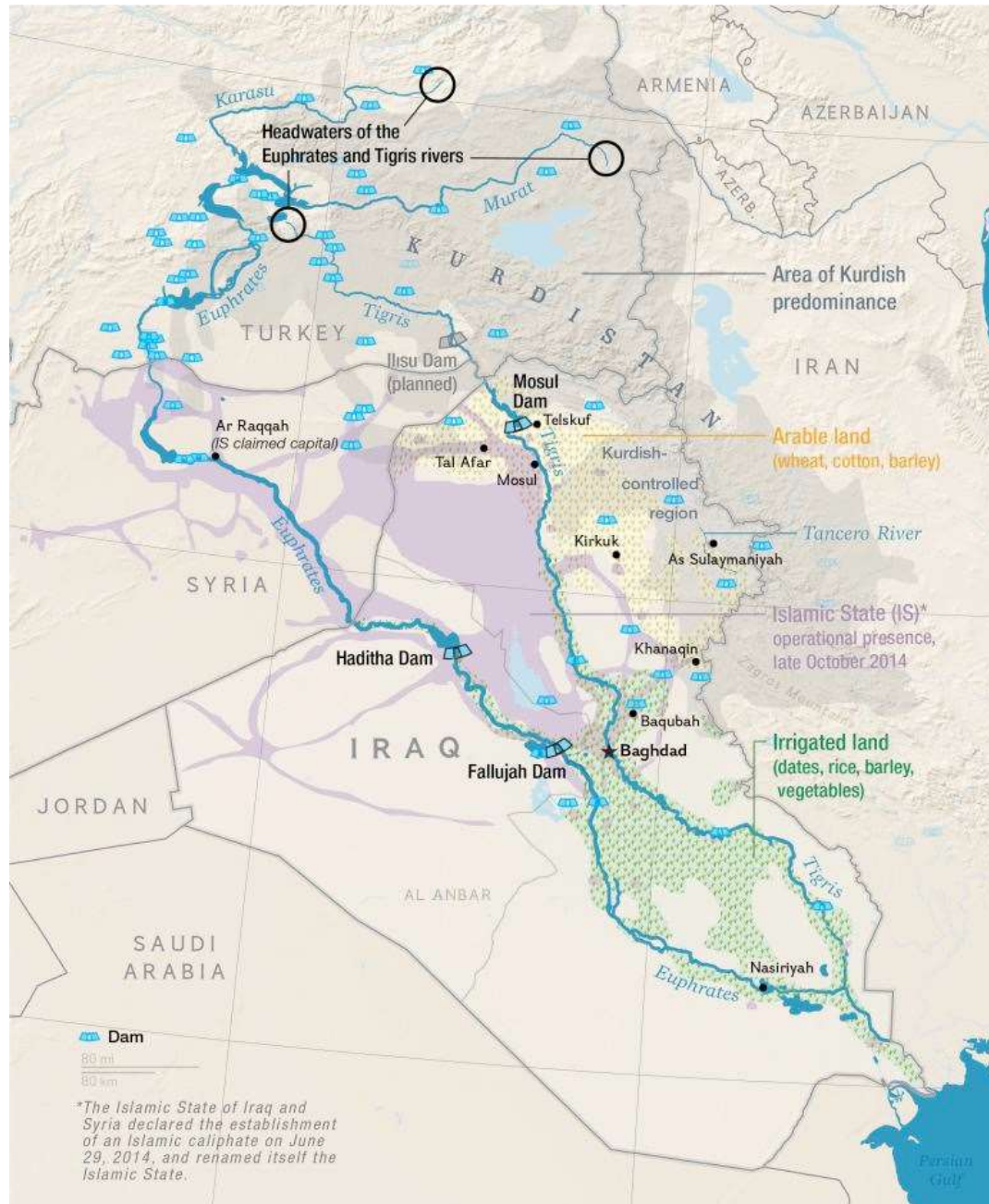


Source: Ministry of Water Resources Iraq 2010

Figure 6. Sources of water for the Tigris and Euphrates Rivers (MWR, 2010).

Water, Conflict, and Agriculture

Source:
<https://www.google.com/search?q=ira+water+resources+map&tbm=isch&bo=u&source=univ&sa=X&ved=0CB4QsARqFQoTCPG1nt-h4scCfcg1PgodxUsC8w#imgrc=EuakB3e464Mr2M%3A>



Turkey, Iran, and Iraq

Since 2007, Iraq has suffered from drought conditions that have diminished the productivity of croplands and devastated livestock populations.

...Ensuring adequate supplies of water for drinking, agriculture, and other uses therefore remains a pressing, long-term problem for Iraq, and one with regional political implications.

Iraq depends primarily on surface water, predominately from the Tigris and Euphrates Rivers, to meet its needs. In a typical year, precipitation in Iraq contributes little to its surface water, with annual precipitation averaging just 8.5 inches (but ranging from 47 inches in the Kurdistan Region to less than 4 inches in most of the south). While some of Iraq's surface water originates in Syria and Iran, most comes from Turkey, where the average annual precipitation exceeds 23 inches.

Since the mid 1970s, Turkey has been planning and developing the Southeastern Anatolia Project, which includes 22 dams, 19 power plants, and numerous networks of irrigation canals within the Tigris-Euphrates basins. The entire project is scheduled for completion in 2023. The largest of the dams, the Ilisu, is being built on the Tigris and is expected to be completed in mid-2014.

Turkey asserts that the dam will help Iraq by limiting the amount of water flowing downstream during the flood season, while increasing it during droughts. However, environmentalists and others in Iraq are concerned that the dam will further cut Iraq's water supply and stop the rebuilding of the country's marshes, which were heavily depleted during the Saddam era.

Iran has its own ambitious program for building dams, including on tributaries of the Tigris River. In mid-2013, 135 new dams were under construction throughout the country. One of them, Bakhtiari Dam, was being built in the Zagros Mountains of southwestern Iran and reportedly will be the world's tallest concrete dam. Precipitation in the area averages about 44 inches annually.

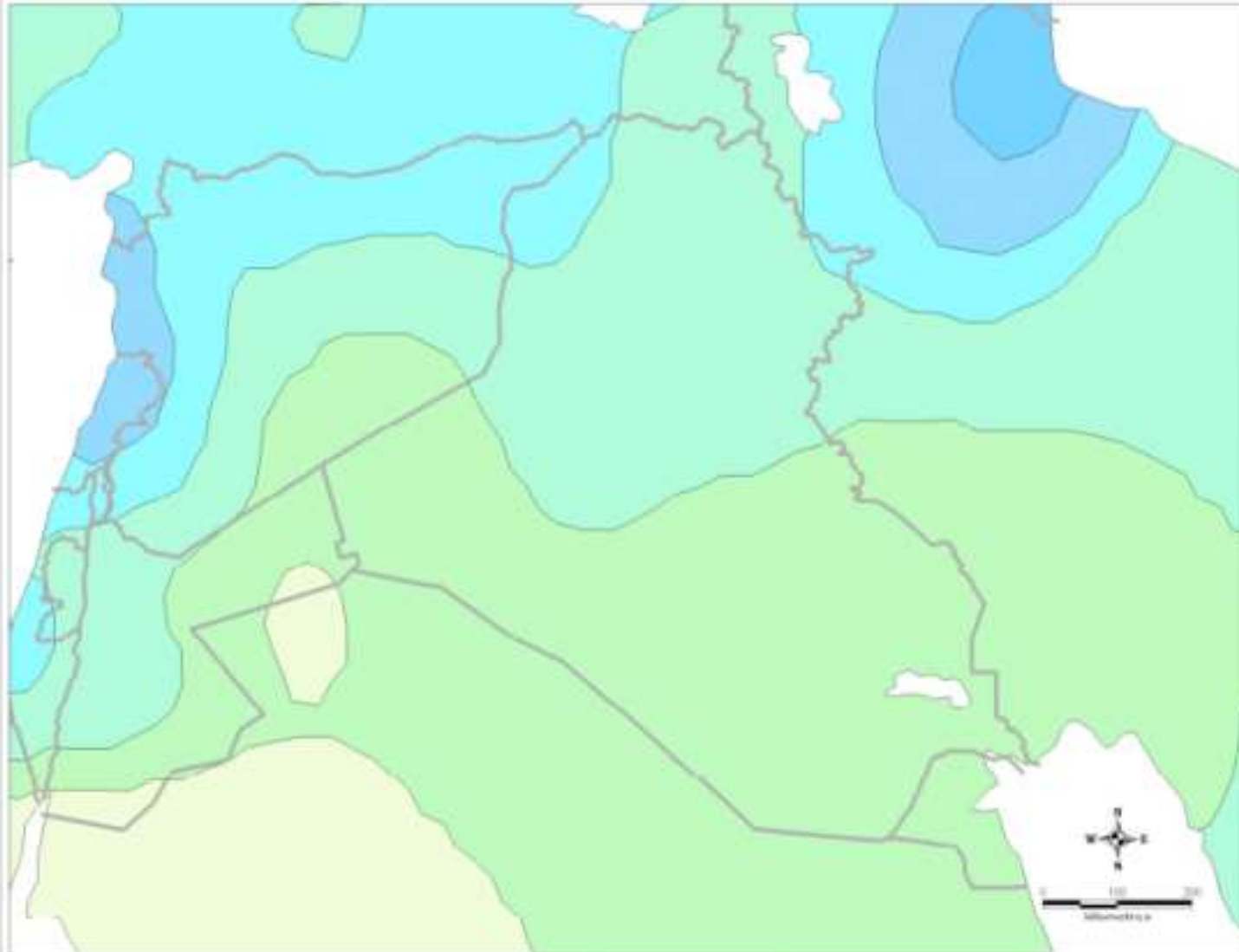
If unimpeded, the waters of the Bakhtiari River eventually flow to the Shatt al-Arab, the withering, increasingly saline waterway along Iraq's southern-most border with Iran. Various Iraqi provincial leaders and members of the CoR have criticized Iran for already reducing river flows into Iraq.

In mid-July, the Governor of Diyala reportedly accused Iran of committing "a crime against humanity and a violation of traditions and divine religions" for allegedly drying up a river that enters Diyala from Iran.

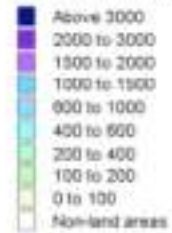
Al-Ansari: The Need for Action

- The gap between supply and demand is increasing. The supply will be 43 and 17.61 BCM in 2015 and 2025 respectively while current demand is estimated between 66.8 to 77 BCM.
- In addition Tigris and Euphrates discharges will continue to decrease with time and be much lower by 2040.
- Iraqi government needs to take quick, prudent and firm action as a high priority. The action should address the following points:
 1. **Strategic Water Management Vision:** Such a plan should be the outcome of the work of the Ministry of Water Resources, Water Resources staff at Universities, private sector, NGO's and representatives of regional and International organizations concerned. It should include improving the efficiency of distribution networks specially diversion and supply down to the point of use which is most cost effective and Irrigation modernization using suitable techniques. Present techniques should be very restricted and new less water consuming techniques should be adopted. Rehabilitation of infrastructure which should cover dams, barrages and pumping stations is also required.
 2. Defining institutional agenda including employment and training should be well planned. Supply and demand should be considered. In this context new nonconventional water resources (water harvesting, treated waste water) should be considered and evaluated. Inter-ministerial coordination is very important. More decentralization, including budget in irrigation, water supply and sanitation sectors to be practiced.
 3. **Regional cooperation and coordination:** Defining institutional and technical needs for cooperation is to be set. Cooperation on trans-boundary resources should be taken seriously. Iraq, Turkey, Iran and Syria are to coordinate their efforts to reach reasonable agreements with riparian countries on water quotas. UN organizations (e.g. UNEP, UNDP, UNESCO etc.) and International institutions and organizations (FAO, WMO etc.) and universities should be approached to benefit from their experiences and expertise.
 4. **Modernization of irrigation and drainage system:** Institutions should reflect decentralization, autonomy and farmer empowerment and private investment in the agricultural sector should be enhanced. Public awareness program for farmers to use new suitable techniques in irrigation (drip irrigation and sprinkler irrigation) must be considered.
 5. **Maintenance and restoring Distribution and collection networks** should be maintained and restored and new projects should be put in practice.
 6. **Research and Development:** Research should be encouraged to import new technologies in water resources and agriculture which suits Iraq environment. Training programs for technicians, engineers and decision makers about up to date technologies should be well planned and executed and projects of pioneer nature which help in augmenting water resources, developing land productivity, minimizing water use and consumption.

IRAQ AND NEIGHBOURING COUNTRIES - MEAN ANNUAL PRECIPITATION



Mean annual precipitation (mm)

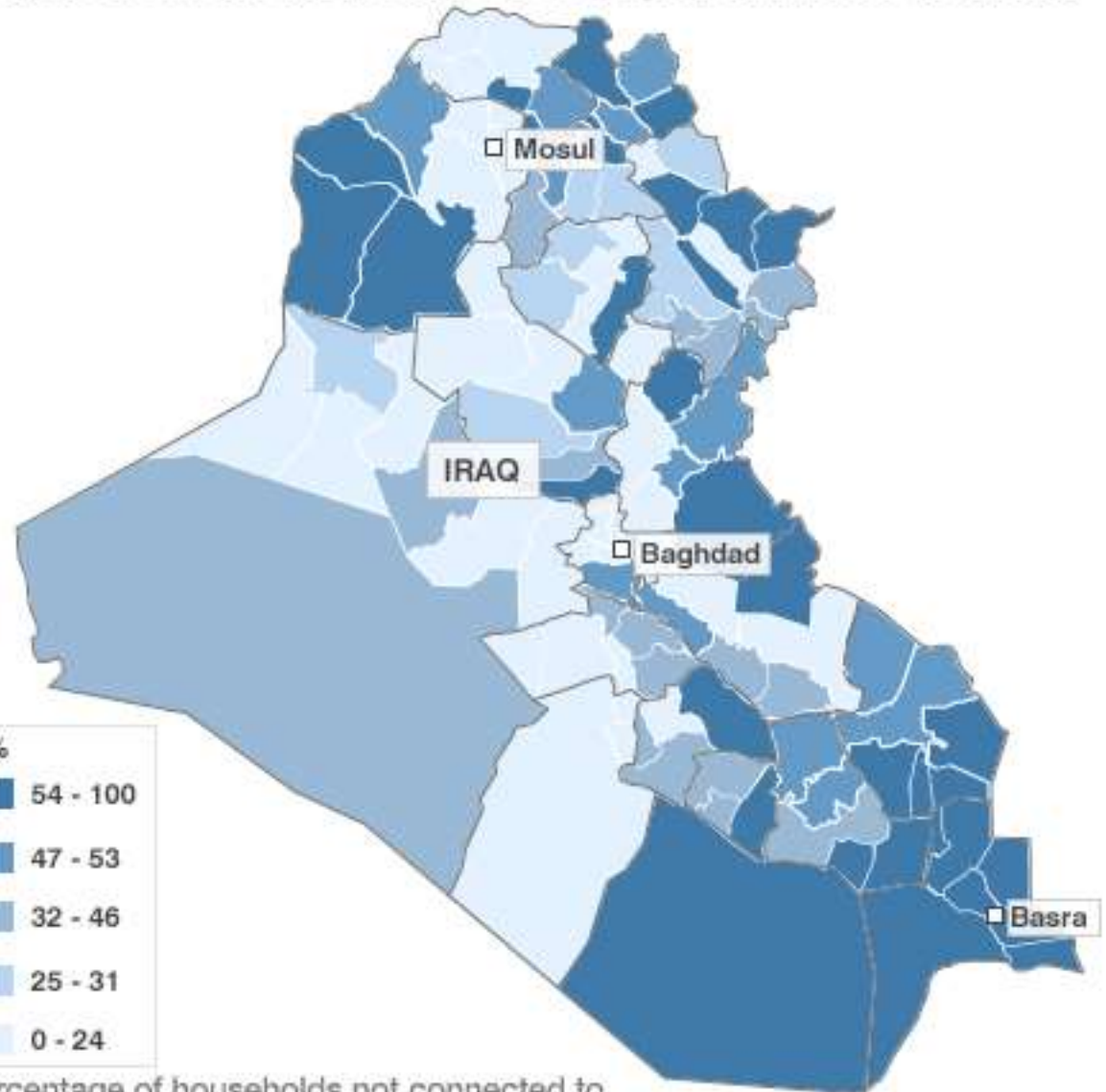


Source: UNEP GRID and Climate Research Unit of the University of East Anglia (UEA/CRU), United Kingdom

The depiction and use of boundaries, geographic names and related data shown here are not warranted to be error free nor do they necessarily imply official endorsement or acceptance by the United Nations.

Access to Water network

Iraqi households not connected to general water network



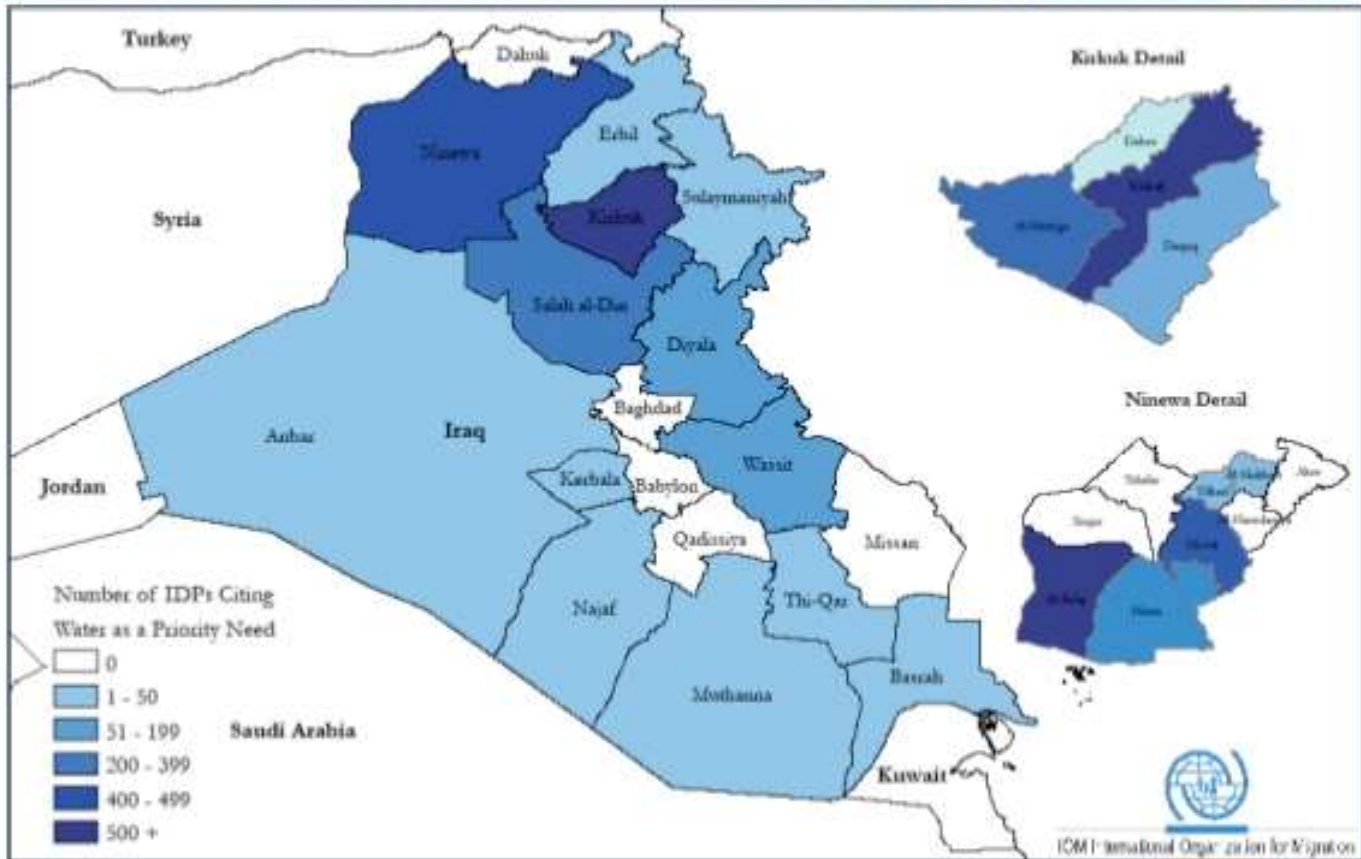
Percentage of households not connected to the general water network

Source: OCHA 2007

Source:
https://www.google.com/search?q=iraq+water+resources+map&tbm=isch&tbo=u&source=univ&sa=X&ved=0CB4QsARqFQoTCPG1nt-h4scFCg1PgodxUsC8w#imgdii=mAwK_CMCuHclhM%3A%3BmAwK_CMCuHclhM%3A%3BsJmPBQUmHYgmMM%3A&imgsrc=mAwK_CMCuHclhM%3A

IDP Water Concerns

Iraq – Water Needs 2008 - 2010



IOM International Organization for Migration

IOM, July 2010

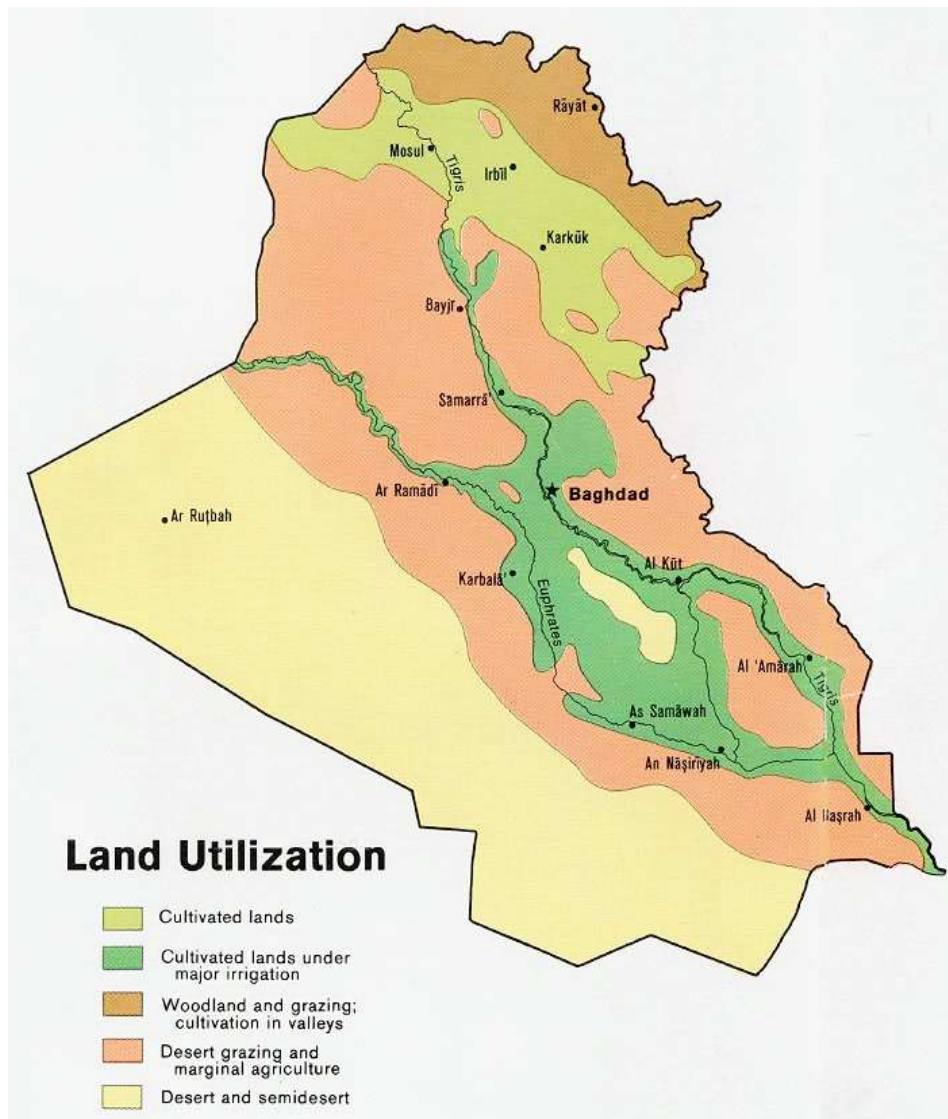
1 July 2013

www.escwa.un.org

6

Agricultural Production Challenges

Agriculture



- Limited development after fall of monarchy, grossly distorted during post 1991 UN sanctions. Agriculture is 3.3% of GDP and 21.6% of labor force.
- Highest birth rates? Impact on urban migration?
- Need capital for productivity, processing, distribution – few people on land.
- Wheat, barley, rice, vegetables, dates, cotton; cattle, sheep, poultry
- Concentrated in area south of Samara and east.
- Rain dependent in north and irrigation dependent in south.
- Uncertain future water.

Agriculture Challenges - I

- **Step child in Iraq's development history since fall of monarchy.**
- **Impact on employment and, population is far greater than contribution to GDP.**
- **Long history of undercapitalization of farms, poor distribution and processing.**
- **Much lower incomes than for urban areas, industrial, state, and service sectors.**
- **State has attempted counter productive controls, incentives, subsidy payments in past.**
- **Fertilizer, insecticide issues.**
- **Relies too much on wasteful irrigation in much of country.**
- **Population growth leads to too many working the land, but also contributed to hyperurbanization.**
- **High vulnerability.**

Agriculture Challenges - II

- **The poor performance of the agricultural sector and lack of employment prospects drive migration to the urban areas.**
- **This generates weight on service delivery and increases urban poverty.**
- **Subsidy program seriously distorts markets, demands for efficiency**
- **Population growth combined with the need to produce more food from a limited and shrinking resource base of land and water have led to farming systems that tend to maximize short-term returns at the expense of long-term sustainability.**
- **The recent intensification of violence in Iraq coincided with wheat planting, although did not hurt crop in 2015.**
- **If farmers are displaced, or unable to venture to their fields, this will have consequences for medium-term food security.**
- **Food security conditions are likely to worsen with large number of IDPs putting strain on hosting communities, in particular in the KR-I.**
- **Impact of government choices and timely action on key crops like dates and wheat.**

Wheat and Food Security

Iraq has produced a near record wheat crop in spite of the disruption of ISIS. More importantly available supplies of domestic wheat are higher this summer than during the summer of 2014.

More available wheat, does not, by itself ensure enhanced food security, and recent indications from the GoI indicate that domestic wheat purchases coupled with the decision to halt wheat imports could lead to extremely wasteful practices, and unnecessary spending.

During May- July 2014 the Ministry of Trade purchased approximately 3.2 MMT of wheat from Iraq producers, however as around 1.0 MMT of this wheat was in ISIS controlled areas The Ministry did not have access to the wheat. This reduced 2014/15 available domestic supplies to around 2.2 MMT.

During May- July 2015 the Ministry of Trade purchased approximately 3.0 MMT of wheat from Iraq producers. All of this wheat is available, and represents a 36% increase in domestic wheat supplies as compared with last year.

Iraq additionally imported around 700 TMT of wheat during 2014/15, which brought total wheat supplies available to meet Public Distribution System (PDS) requirements to around 3.0 MMT. PDS wheat requirements exceed 4.7 MMT --- so from the supply standpoint it appears that PDS wheat requirements were not met, and averaged only 64% of requirements. This figure is in line with data obtained from Ministry sources showing the PDS operating at around 50% during the first six months of 2015, and anecdotal information that PDS wheat deliveries during the second half of 2014 were near requirement levels.

The PDS shortfall has been almost entirely in imported wheat as imports have fallen from an average level of around 2.3 MMT in recent years to 700 TMT this year.

Iraq has announced that it will not import wheat and will rely upon domestic production for PDS supplies-- as domestic supplies will be around 3.0 MMT this suggests that PDS wheat/flour requirements will not be met over the coming 12 months.

The lack of imports represents a deeper problem, as 2/3 of domestic production is "soft" wheat, lacking the protein and gluten levels required for Iraqi bread. Without imported wheat blended with the domestic wheat it is likely that the domestic wheat will find few willing to utilize it. If this is the case then the as much as 2/3 of the 3.0 MMT purchased could end up as animal feed. With Iraq paying producers \$600/MT for low quality wheat, with a world market value of around \$200/MT, this represent a huge waste of resources.

Rising private sector flour imports, and the reality that most eligible PDS recipients due not rely upon the PDS have mitigated the PDS wheat/flour shortages of the last 6 months. This contrast with the Minister's views that the PDS is keeping food prices in check.

Iraq doesn't subsidize flour, what happens is that a lot of cheap PDS flour is available in the market place, which bakers blend with imported flour. The actual situation is that flour prices have remained stable while PDS wheat/flour supplies have fallen by 40-50%, debunking the argument that the PDS stabilizes food prices.

Wheat production across southern Iraq increased as compared with 2014. If farmers faced water shortages, it was not due to lack of water, poor planning and management likely the problem.

Date Production and Sales

“Recession in the marketing of Iraqi dates has affected all farmers due to the lack of sufficient planning aimed at including dates in the food industry projects, such as canned dates, or at converting dates to other forms of goods, such as sugar, wine, pickles and jam.”

He said, “The canning and manufacturing efforts of the Iraqi Dates for Processing & Marketing Co. [IDP&MC] are not enough in light of the large quantities of dates produced, which amount to 200,000 tons per year, according to Ministry of Industry statistics.”

Older statistics indicated Iraq used to produce 881,000 tons per year in the 1990s. It seems that, at the time, IDP&MC did not face any problem marketing those quantities.

Al-Monitor’s tour in the [agricultural products](#) market in the city of Karbala showed only canned dates from Iran, [Saudi Arabia](#) and Turkey.

Saad al-Azari, a food trader in Karbala, told Al-Monitor, “Fresh Iraqi dates are directly bought from farmers who only sell them during the reaping period, namely in July, August and September. Such dates are consumed within a few days, but local canned dates remain scarce in the Iraqi market.”

He added, “Dates are stacked in stores and sports stadiums every year amid the absence of adequate opportunities to manufacture or export them.”

Suffered vandalism during the uprising against [President Saddam Hussein's](#) regime in 1991, following the Iraqi [invasion of Kuwait](#). The Iraqi army bulldozed dozens of orchards and hundreds of palm trees when rebels hid in forests. Also, palm groves in Basra and the border cities underwent major sabotage operations during the [Iran-Iraq War](#) (1980-88), and orchards full of palms are now either suffering from neglect or being washed away and turned into residential areas. The groves also have been damaged by the [spread of pests](#).

Number of palm trees in Iraq decreased from 30 million trees in the 1960s to 16 million trees in 2014, according to the Ministries of Agriculture and Planning.

Fawzi Turki, an agricultural engineer from Babylon, inherited five groves of palm trees from his family. “The groves are receding at a worrying pace, given the absence of government support for farmers and the [absence of laws](#) that deter their abuse,” Turki told Al-Monitor.

Turki suggested “encouraging food products that rely on dates instead of keeping the latter stacked in stores and then being exported at low prices.”








[Iraq’s many palm trees](#) do not qualify it as the first-ranking country when it comes to quality... [canning factories](#) are still primitive and scarce. Meanwhile, Iraqi citizens consume dates but do not grow palm trees.

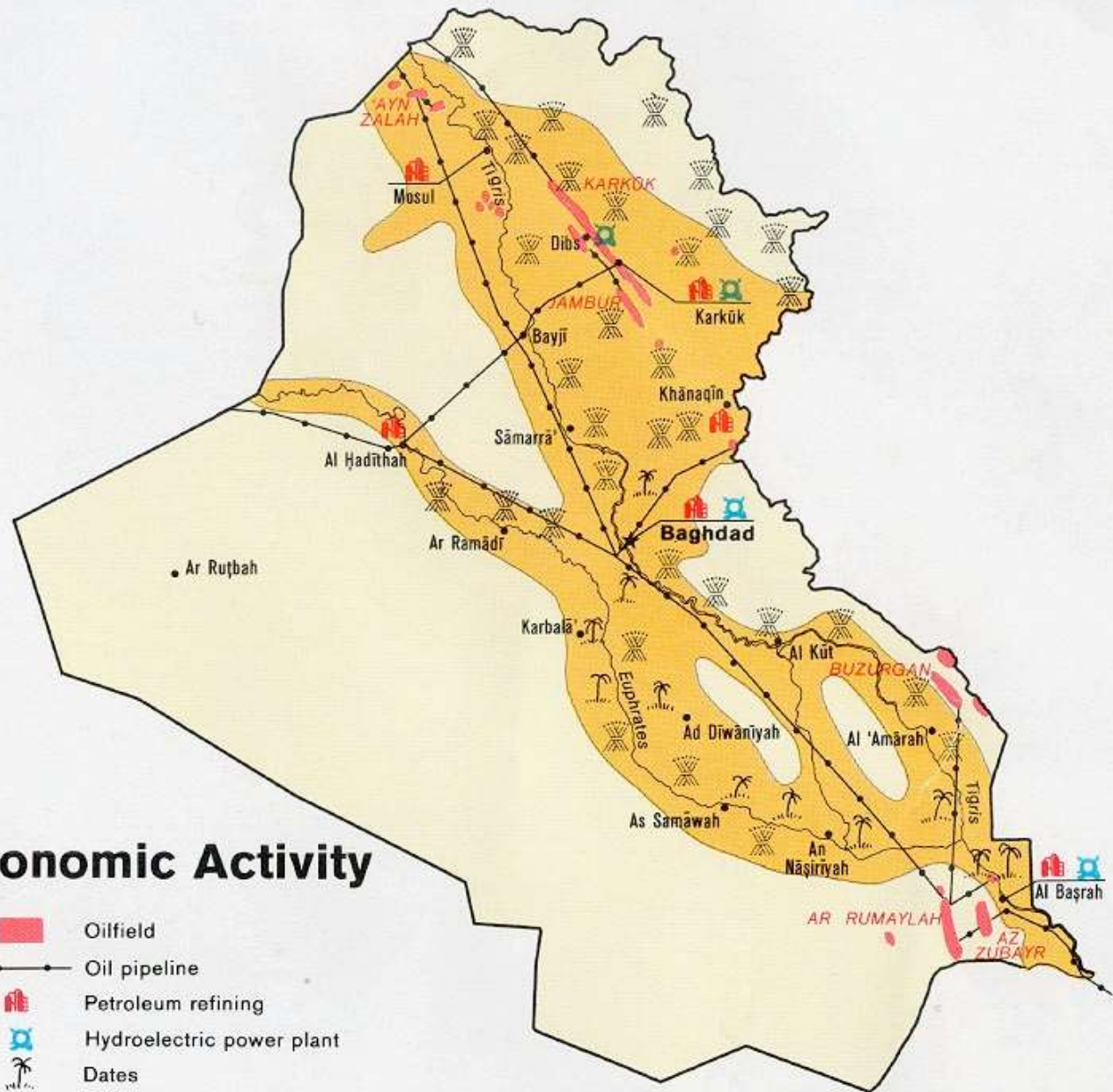
Read more: <http://www.al-monitor.com/pulse/originals/2015/08/iraq-dates-production-packaging-palm-trees-orchards.html#ixzz3loHel9fi>

Overall Economic Activity

Source:
https://www.google.com/search?q=iraq+agriculture+map&tbm=isch&imgil=ck3QZg3QZW_LIM%253A%253BIyRIU0ryI7YDMM%253Bhttp%25253A%25252F%25252Fwww.fao.org%25252Fag%25252Fagp%25252Fagpc%25252Fdoc%25252FCounprof%25252Fraq%25252FIraq.html&source=iu&pf=m&fir=c3QZg3QZW_LIM%253A%252ClyRIU0ryI7YDMM%252C__&biw=1909&bih=1157&usg=__eyheJ0EU0g9XAhij9vIT Y3SXihA%3D&ved=0CCwQyjdqFQoTClK55KKY4scCFcjYHg od8FoKfg&ei=AhtsVYKwNsi xe_C1qfAH#imgrc=73CUVe iW5a13HM%3A&usg=__eyheJ0EU0g9XAhij9vITY3SXihA %3D

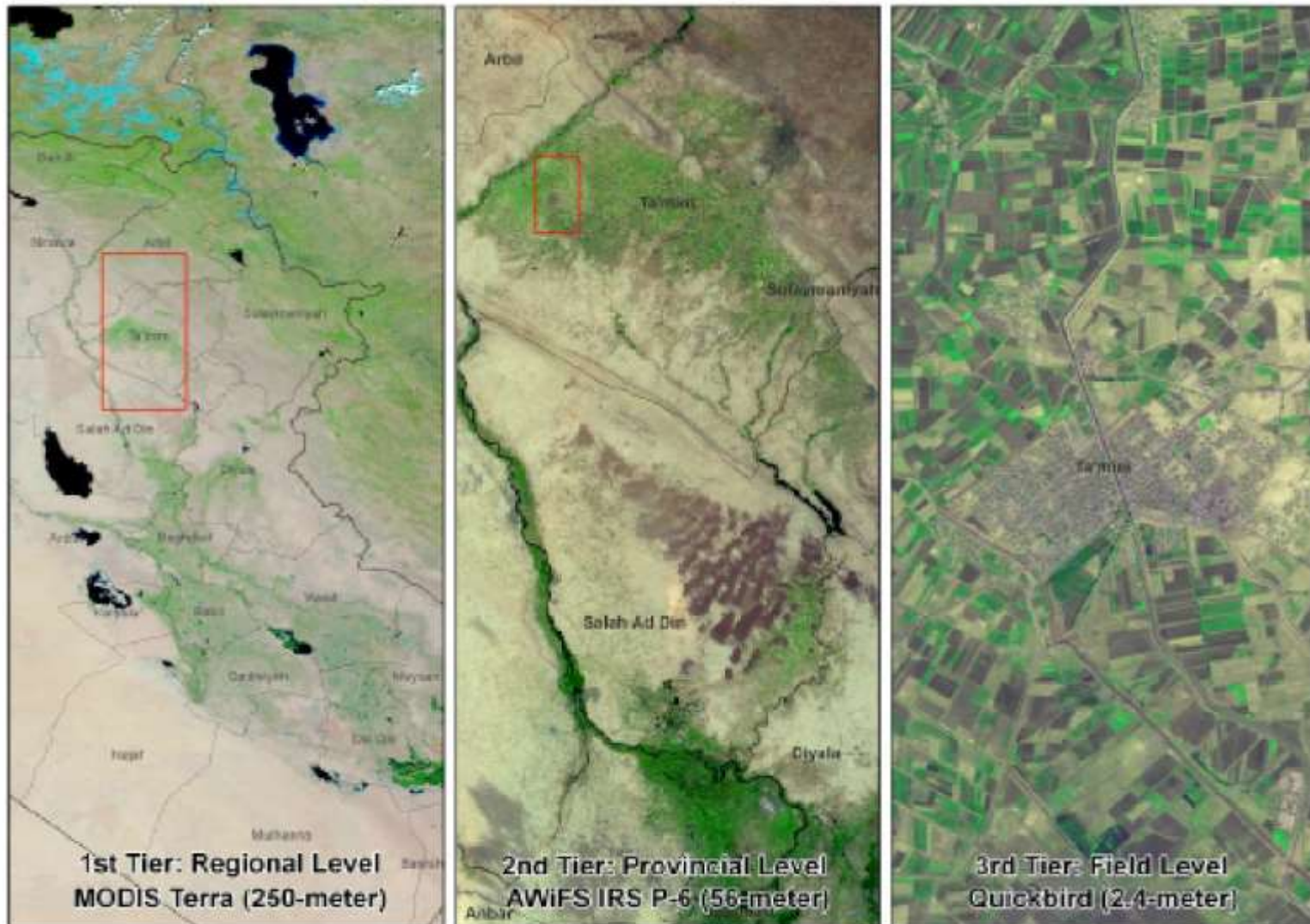
Economic Activity

-  Oilfield
-  Oil pipeline
-  Petroleum refining
-  Hydroelectric power plant
-  Dates
-  Grains
-  Livestock and livestock products



Intensity Where it Counts

Three Tier Agricultural Monitoring: Regional to Local Scale



Major Constraints on Productivity

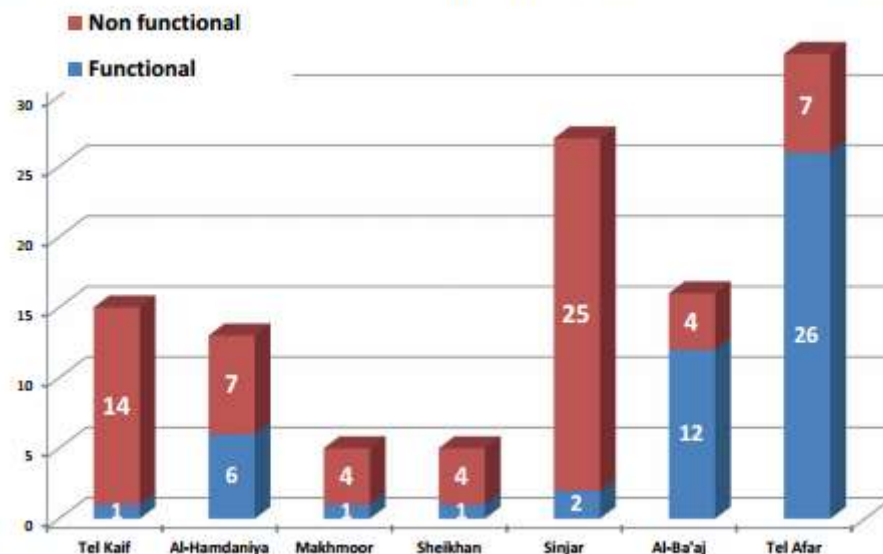
- **Restricted access to land due to violence**
- **Lack of Capital and meaningful government policy, pricing, aid to distribution and marketing**
- **Pressure on land in safe areas because of population growth**
- **Internal population displacement**
- **Reduced availability and increased cost of farming inputs**
- **Physical damage to land, farming equipment and infrastructure including storage facilities**
- **Disruption of markets**
- **Major problems in government wheat purchases, handling of subsidies,**
- **Increased cost of and reduced access to animal feed sources**
- **Reduced veterinary supplies and services**
- **Reliance on low technology irrigation, wasteful use of water.**

Health Care System

Health System Impacts

- In many areas, the health infrastructure and access to health services have been disrupted due to the conflict. In the security-compromised governorates of Anbar, Diyala, Kirkuk, Ninewa and Salah-al Din a number of health facilities have been damaged by bombing and shelling.
- In active conflict zones, service delivery problems caused by damaged infrastructure are compounded by interruptions in the supply of medicines and by fuel shortages which have contributed to the disruption of electricity and water supplies to hospitals, health centers and vaccine stores.
- Staff shortages are also adding to the difficulties in providing adequate health care. Around 50% of the specialized health care staff has left Anbar, Diyala, Ninewa and Salah-al Din since June 2014.
- At present, many health facilities across Anbar, Diyala, Kirkuk, Ninewa and Salah-al-Din are experiencing frequent shortages of staff, electricity, medical supplies and/or water.
- Since July, the routine immunization program has been severely disrupted. An estimated 80% of health facilities are not functional in the conflict-affected area of Sinjar due to a combination of a lack of health personnel and medical supplies (see figure 1.3).

Figure 1.3 Status of functioning health facilities in Ninewa Governorate



Source: WHO Regional Office for Iraq

Access to Health Services

- **Health system functioning has been severely disrupted across much of the country due to the ongoing conflict. Access to health services is thus problematic for many Iraqis, both in the government- controlled areas and in the AOG-controlled areas where international aid organizations are working to deliver essential services to the civilian population under difficult circumstances.**
- **For many, the barriers to access are also financial: many of Iraq's 1.8 million IDPs cannot afford expensive health care as their financial resources and reserves are used up in securing more basic items such food and shelter.**
- **On top of the problems caused by extensive infrastructure damage, many health facilities are struggling to maintain basic service levels due to supply issues.**
- **Availability of key health resources, including medicines and medical supplies, have been compromised due to road inaccessibility, particularly in the wake of major disruption to the health supply chain from Baghdad in June.**
- **Fuel shortages have also contributed to further disruption in the supply of electricity and water to hospitals, health centers and vaccine stores, particularly in active conflict zones.**
- **As a result of population displacements, many health-care facilities are having to operate with much reduced staffing levels, as low as 50% in some areas.**

Health Situation in the Kurdistan Region of Iraq (

- In north-eastern parts of Iraq, the health system has been struggling to cope with the pressures caused by the arrival of almost a quarter of a million Syrian refugees over the past two years.
- These pressures are now being compounded by the additional influx of IDPs, many of whom originate from the north-western parts of the Ninewa Governorate and who fled from armed opposition forces when they took control of Tal Afar.
- While health indicators for the Kurdistan Region are generally better than those for the rest of Iraq, catering for an additional 550 000 people (Syrian refugees and new IDPs) is stretching the capacity of the region's hospitals and primary health care facilities well beyond their capacity.
- This is likely to translate into an increased threat of infectious disease outbreaks (due to the strain placed housing, water supply and sanitation services and the disruption to routine immunization programs), greater maternal and child mortality and morbidity (due to reduced access to basic health care, immunization and emergency obstetric care) and compromised care for those with chronic diseases, disabilities and mental health problems.

WHO Health Sector Priorities and Recommendations

- **Restore emergency and essential primary and secondary health services, including medical referral services and ensure availability of life-saving emergency services for the affected populations**
- **Provide reproductive health care, especially safe deliveries, obstetric and neonatal care.**
- **Ensure continuity of treatment of chronic conditions and noncommunicable diseases.**
- **Procure, store and distribute life-saving and essential medicines and supplies.**
- **Provision of safe drinking water, adequate sanitation and hygiene facilities.**
- **Strengthen preparedness for, prevention and management of, the most common infectious diseases (diarrhoeal diseases, respiratory tract infections), and prepare for the upcoming winter season.**
- **Ensure availability of integrated vaccination services, with a focus on measles and polio.**
- **Address child health, including referral and care of children with medical complications of severe acute malnutrition.**
- **Disseminate public health risk communications to the public.**
- **Provide protection for health-care workers and health facilities in conflict zones.**
- **Ensure appropriate access, joint planning and an integrated approach to the response by working with other priority clusters, in particular the Protection, Shelter, Water, Sanitation and Hygiene (WASH) and Camp Coordination and Camp Management (CCCM) clusters.**

World Bank and CIA Overviews

World Bank – March 2015

Iraq's economy suffers from structural weaknesses. The public sector is very large even by regional standards, government and state-owned enterprises employ approximately half of the labor force, but the quality of public services has been weak. The non-oil sector represents only 46% of the economy and services.

Construction, transport, and a small agricultural sector are highly dependent on government spending and thus on oil revenues. Unemployment is high. Demographic pressure is strong, with 41% of the population under 15 years. The labor force needs training on basic skills. The business environment is weak. Poor governance, inconsistent regulations, and security issues keep Iraq at low ratings of global rankings for doing business.

The economy remains extremely vulnerable to the country's ongoing security problems, which impede investment and inhibit private economic activity. Furthermore, high dependence on the oil sector is making the economy more vulnerable to declining oil prices.

The non-oil sector represents only 46% of the economy and services. Non-oil growth has deteriorated since the start of the conflict due to the destruction of infrastructure, impeded access to fuel and electricity, low business confidence, and disruption in trade. Non-oil GDP growth declined by 5.2% in 2014.

In 2015, real GDP growth is projected to decline by 1% due to lower oil prices and the impact of the conflict.

The prevailing insecurity has seriously hampered trade and investment, and disrupted northern oil exports for most of 2014. Due to the regional conflict, the economy contracted by 0.5% in 2014, from 4.2% growth in 2013, despite better than expected oil exports from the south (Basra). Economic diversification remains a challenge for the Iraqi government to promote income creating opportunities for the majority of the Iraqi population.

The (now grossly dated) 2012 household survey indicates that Iraq's headcount poverty was reduced by about 4 percentage points during 2007-12, and national poverty fell from 23.6% in 2007, to 19.8% in 2012. However, poverty reduction has been spatially uneven.

In Baghdad, by far the most populous governorate in the nation, poverty did not change significantly, while in the (KRG), poverty declined, albeit at a small rate. In contrast, poverty increased sharply in five governorates – Nineveh in the north and Qadisiya, Thi Qar, Missan and Muthanna in the south.

CIA – September 2015

During 2014, worsening security and financial stability throughout Iraq—driven by an ongoing insurgency, decreasing oil prices, and political upheaval—decreased the prospects for improving the country's economic environment and securing much-needed foreign investment. Long-term fiscal health, a strengthened investment climate, and sustained improvements in the overall standard of living still depend on the central government passing major policy reforms.

Iraq's largely state-run economy is dominated by the oil sector, which provides more than 90% of government revenue and 80% of foreign exchange earnings. Oil exports in 2014 remained relatively flat at 2.4 million barrels per day on average, despite new production coming online at the West Qurna 2 and Badrah oilfields, because repeated attacks on the Iraq-Turkey pipeline reduced export capacity. During the second half of 2014, government revenues decreased as global oil prices fell by more than 30%.

Iraq's contracts with major oil companies have the potential to further expand oil exports and revenues, but Iraq will need to make significant upgrades to its oil processing, pipeline, and export infrastructure to enable these deals to reach their economic potential.

The Iraqi Kurdistan Region's (IKR) autonomous Kurdistan Regional Government (KRG) passed its own oil law in 2007, and has directly signed about 50 contracts to develop IKR energy reserves. The federal government has disputed the legal authority of the KRG to conclude most of these contracts, some of which are also in areas with unresolved administrative boundaries in dispute between the federal and regional government.

In December, the federal government and the KRG agreed to sell oil exports from Kurdish-controlled oil fields under the federal oil ministry, in exchange for the central government paying \$1 billion to the Kurdish Peshmerga forces and resuming budget transfers to the KRG that amount to 17% of Iraq's national budget. Iraq is making slow progress enacting laws and developing the institutions needed to implement economic policy, and political reforms are still needed to assuage investors' concerns regarding the uncertain business climate.

The government of Iraq is eager to attract additional foreign direct investment, but it faces a number of obstacles, including a tenuous political system and concerns about security and societal stability. Rampant corruption, outdated infrastructure, insufficient essential services, skilled labor shortages, and antiquated commercial laws stifle investment and continue to constrain growth of private, nonoil sectors.

Under the Iraqi Constitution, some competencies relevant to the overall investment climate are either shared by the federal government and the regions or are devolved entirely to local governments. Investment in the IKR operates within the framework of the Kurdistan Region Investment Law (Law 4 of 2006) and the Kurdistan Board of Investment, which is designed to provide incentives to help economic development in areas under the authority of the KRG. Inflation has remained under control since 2006.

However, Iraqi leaders remain hard pressed to translate macroeconomic gains into an improved standard of living for the Iraqi populace. Unemployment remains a problem throughout the country despite a bloated public sector. Encouraging private enterprise through deregulation would make it easier for Iraqi citizens and foreign investors to start new businesses. Rooting out corruption and implementing reforms - such as restructuring banks and developing the private sector - would be important steps in this direction

CIA, "Iraq," *World Factbook*, September 4, 2015, <https://www.cia.gov/library/publications/the-world-factbook/geos/iz.html>

IMF, *August 2015 IMF Report on Iraq* (<http://www.imf.org/external/pubs/ft/scr/2015/cr15236.pdf>).