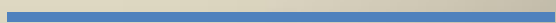
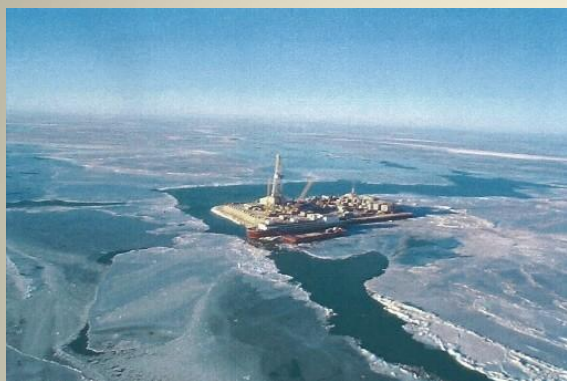


# ақ жол (White Road)

**Next Steps for US Policy  
in Greater Central Asia**



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## Next Steps for US Policy in Greater Central Asia

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# Glossary



(Source: “Countries and Regions in Central Asia,” Map, *One World - Nations Online*, <http://www.nationsonline.org/oneworld/map/central-asia-map.htm> (accessed March 2, 2013))

## Central Asia

Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan

## Greater Central Asia

Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan

## Caspian States

Azerbaijan, Iran, Kazakhstan, Russia, and Turkmenistan

# Acronyms

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<b>ADB</b>	Asian Development Bank
<b>ADEMBA</b>	State Agency for Alternative and Renewable Energy Sources
<b>AFNS</b>	Afghan National Security Forces
<b>AIC</b>	Azerbaijan Investment Company
<b>AIDS</b>	Acquired Immune Deficiency Syndrome
<b>APA</b>	Azeri Press Agency
<b>bcm</b>	billion cubic meters
<b>BOMCA</b>	Border Management Program in Central Asia
<b>BP</b>	British Petroleum
<b>BTC</b>	Baku-Tbilisi-Ceyhan pipeline
<b>BTE</b>	Baku-Tbilisi-Erzurum
<b>CACI</b>	Central Asia Counternarcotics Initiative
<b>CAMECO</b>	Canadian Mining and Energy Corporation
<b>CANWFZ</b>	Central Asian Nuclear Weapon Free Zone
<b>CAREC</b>	Central Asia Regional Economic Cooperation program
<b>CDB</b>	China Development Bank
<b>CGNPC</b>	China Guangdong Nuclear Power Group Holding Co., Ltd.
<b>CIS</b>	Commonwealth of Independent States
<b>CNNC</b>	China National Nuclear Corporation
<b>COR</b>	Contracting Officer's Representative
<b>CPC</b>	Caspian Pipeline Consortium
<b>CSO</b>	Civil Society Organizations
<b>CSTO</b>	Collective Security Treaty Organization
<b>CVD</b>	Cardiovascular Diseases
<b>DAC</b>	Development Assistance Committee
<b>DOD</b>	Department of Defense
<b>EAEC</b>	Eurasian Economic Community
<b>EBRD</b>	European Bank for Research and Development
<b>ECO</b>	Economic Cooperation Organization
<b>ECOTA</b>	Economic Cooperation Organization Trade Agreement
<b>ECU</b>	Eurasian Customs Union
<b>EEC</b>	Eurasian Economic Commission
<b>EITI</b>	Extractive Industries Transparency Initiative
<b>ENI</b>	Ente Nazionale Idrocarburi (Italy)
<b>ETIM</b>	East Turkestan Islamic Movement
<b>EU</b>	European Union
<b>EurAsEC (EAEC)</b>	Eurasian Economic Community
<b>FDI</b>	Foreign Direct Investment
<b>FLEX</b>	Future Leaders Exchange
<b>FSU</b>	Former Soviet Union
<b>GAO</b>	Government Accountability Office
<b>GDP</b>	Gross Domestic Product

<b>GHI</b>	global horizontal irradiance
<b>GIDC</b>	Gas Infrastructure Development Cess
<b>GWh</b>	gigawatt hour
<b>GWOT</b>	Global War on Terror
<b>HDI</b>	Human Development Index
<b>HEU</b>	High-Enriched Uranium
<b>HIV</b>	Human Immunodeficiency Virus
<b>IAEA</b>	International Atomic Energy Association
<b>ICAS</b>	Interstate Council on the Problems of the Aral Sea Basin
<b>ICWC</b>	Inter-State Commission for Water Coordination
<b>IDP</b>	Internally Displaced Peoples
<b>IFAS</b>	International Fund of the Aral Sea
<b>IMF</b>	International Monetary Fund
<b>IMU</b>	Islamic Movement of Uzbekistan
<b>IP</b>	Iran-Pakistan natural gas pipeline
<b>IREX</b>	International Exchanges and Research Board
<b>IT</b>	Information Technology
<b>KCGP</b>	Kazakhstan China Gas Pipeline
<b>KCTS</b>	Kazakhstan Caspian Transportation System
<b>KSSR</b>	Soviet Socialist Republic of Kazakhstan
<b>kWh</b>	kilowatt hour
<b>LEU</b>	Low-Enriched Uranium
<b>m/s</b>	meters per second
<b>MDR-TB</b>	Multi-Drug Resistant Tuberculosis
<b>MES</b>	Ministry of Education and Sciences
<b>MFN</b>	Most Favored Nations
<b>MOE</b>	Ministry of Education
<b>MW</b>	megawatt
<b>NATO</b>	North Atlantic Treaty Organization
<b>NDN</b>	Northern Distribution Network
<b>NGO</b>	Non-Governmental Organization
<b>NIS</b>	Nazarbayev Intellectual Schools
<b>OCCRP</b>	Organized Crime and Corruption Reporting Project
<b>ODA</b>	Official Development Assistance
<b>OECD</b>	Organization for Economic Cooperation and Development
<b>OIC</b>	Organization of the Islamic Conference
<b>OPEC</b>	Organization of the Petroleum Exporting Countries
<b>OSCE</b>	Organization for Security and Cooperation in Europe
<b>PISA</b>	Programme for International Student Assessment
<b>PKK</b>	Kurdistan Workers' Party
<b>PPP</b>	Private Public Partnerships
<b>PSA</b>	Production Sharing Agreement
<b>REEEP</b>	Renewable Energy & Energy Efficiency Partnership
<b>RTA</b>	Regional Trade Agreement
<b>SCO</b>	Shanghai Cooperation Organization
<b>SME</b>	Small and Medium Range Enterprises

<b>SOFAR</b>	State Oil Fund of the Azerbaijan Republic
<b>TANAP</b>	Trans-Anatolian Gas Pipeline
<b>TANAP</b>	Trans-Anatolia Pipeline
<b>TAP</b>	Trans-Adriatic Pipeline
<b>TAPI</b>	Turkmenistan-Afghanistan-Pakistan-India natural gas pipeline
<b>TB</b>	Tuberculosis
<b>TCM</b>	Trillion Cubic Meters
<b>TEA</b>	Teaching Excellence and Achievement Program
<b>TIP</b>	Turkistan Islamic Party
<b>TIRSP</b>	Trade and Investment Reform Support Program
<b>TRI</b>	Trade Restrictiveness Index
<b>TTAC</b>	Turkmenistan-Tajikistan-Afghanistan-China
<b>UAS</b>	Uzen-Atyrau-Samara
<b>UDHR</b>	Universal Declaration of Human Rights
<b>UN</b>	United Nations
<b>UNAID</b>	Joint United Nations Program on HIV/AIDS
<b>UNDP</b>	United Nations Development Program
<b>UNESCO</b>	United Nations Educational, Scientific, and Social Organization
<b>UNHCR</b>	United Nations High Commissioner for Refugees
<b>UNICEF</b>	United Nations Children's Fund
<b>UNODC</b>	United Nations Office on Drugs and Crime
<b>US</b>	United States
<b>USAID</b>	United States Agency for International Development
<b>USSR</b>	Soviet Union
<b>WB</b>	World Bank
<b>WHO</b>	World Health Organization
<b>WTO</b>	World Trade Organization
<b>XDR-TB</b>	Extensively Drug Resistant Tuberculosis

# Introduction

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Displayed on roadside billboards and monuments across Central Asia are the words “white road” (ақ жол), wishing countrymen and travelers a safe journey as they traverse the vast, harsh terrain. Pronounced “Aq Jol” in Kazakh and Kyrgyz and “Oq Yol” in Uzbek, the regional expression serves both as a blessing and a metaphor for life.<sup>1</sup> At the most basic level, “white road” symbolizes a clear road. However, in a broader sense, the expression alludes to a smooth path in whatever endeavor one may attempt. The words, therefore, serve as a fitting metaphor for the US promotion of a stable and prosperous path forward for the region. The policy options presented in this report aim to advance US relations with Central Asia while paving a “white road” to regional security, economic stability, and social progress.

For centuries Central Asia served as a middle land for the Eurasian continent—influenced by the great powers of its periphery. While the Silk Road helped integrate Central Asia into the early world trade network, other periods in history, such as the invasions of Genghis Kahn and the Soviet Union’s expansion, undermined the autonomy of the region. Throughout most of the 20<sup>th</sup> century, Central Asia was divided into five Soviet republics under the direct control of the Soviet Union and was cut off from the international economic system. Many of the institutions, infrastructures, and social issues of the independent Central Asian Republics are remnants of the Soviet era. Legacies of this era hinder Central Asia’s growth in areas such as economic diversification, education, and the renewable energy sector, among other outdated forms of economic capacity. To this day, Central Asia is struggling to emerge from the highly ingrained Soviet legacies that plague the economic, political, and social sectors of its republics.

Today, over two decades after its independence from Soviet control, the region has gained new global importance. Central Asia has emerged as a major, long-term supplier of crucial natural resources—oil, gas, uranium, and other important minerals—for a wide range of industries. The region is also currently essential to US and NATO operations in Afghanistan, providing transfer and fly-over access to the country. These economic and security factors place Central Asia at the crossroads of a silent power struggle between the US, Europe, Russia, and China, which all have distinct agendas for extending their influence in the region well after the current war in Afghanistan ends. This nexus of clashing “great power” interests stems from

Russia's view of the region as its own backyard, Europe's keenness for the region's natural gas and democratization, and China's insatiable appetite for natural resources and its desire to secure its westernmost provinces. Despite these external pressures and involvements, the Central Asian republics are seeking global integration in a manner that will allow for increased international recognition of their autonomy. However, as the region attempts to unify and integrate into the global economy, its relations with these larger powers will become increasingly important.

The US is vested in the political, economic, and social stability of Central Asia largely due to its involvement in Afghanistan. As the 2014 date for the withdrawal of US troops from Afghanistan approaches, there will be increasing international attention on the country's security and ability to combat terrorism, as well as its economic stability. It is crucial that the Greater Central Asian states, as neighbors to Afghanistan, maintain their current political stability and strive for further economic growth through economic liberalization in order to better integrate Afghanistan into a regional network that will enhance its security and development. For this to happen, the nations of Greater Central Asia need to resolve disputes of their own, secure their borders, continue to liberalize trade, and elevate their level of human capital, among other goals. The US is in a unique position to implement policies that further these aims. Because of its approaching transition from a military presence to a diplomatic influence, the US has the opportunity to encourage cooperation between the countries of Greater Central Asia and the regional players—Russia, China, Europe, and the US itself—for the long-term stability of the region as a whole.

# Executive Summary

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Secretary of State Hillary Clinton made clear Central Asia's renewed importance to the United States with her proposal of a "New Silk Road", which aims to stabilize Afghanistan through connecting it to the rest of Central Asia. For a number of reasons, having to do with both natural resources and global security, this region has become a new focus for major powers Russia, China, the European Union, and the US.

The emphasis of this report is placed on the energy producing countries Azerbaijan, Turkmenistan and Kazakhstan. As all three seek to become more central global energy suppliers, the capacity of these states to develop the regional economy will be integral to the "New Silk Road" strategy. However, US policy must navigate between its varying interests in Central Asia, its relations with China and Russia, which border the region and have their own specific agendas, and its commitment to human rights.

The papers included in this report are divided into four sections, providing comprehensive information on major issues and considerations relevant to US policy in Greater Central Asia. The first section takes up security issues of geographic, political and economic importance. Issues include the rising influence of neighboring China, concerns over unsecure borders, and drug trafficking as connected to terrorist organizations. These display a need for regional cooperation to affect lasting change. Politically, the Nagorno-Karabakh conflict and the politics of proposed pipelines act as barriers to regional cohesion. Economically, the vital resources of uranium and water are discussed as their sale and availability affect larger international objectives of security and human rights.

The second section evaluates the economic situation of Central Asia in terms of its functional ability to stabilize Afghanistan. Diversification to non-resource products as well as greater integration into regional and international trade networks are discussed as needed to create a solid platform for stability. Renewable energy is recognized as an underutilized resource of great importance. Finally, the economics section evaluates the current situation in Afghanistan providing insight into how current US aid could better prepare Afghanistan for the shift from aid to trade.

The third section assesses social conditions, which are known to be in contradiction with international standards for human rights. While Russia and China place less importance on human rights in their negotiations with the region, the US' aid policy is tied human rights standards. Environmental issues, public health, and education are all additional aspects of US concerns for developing the region. US investment in human capital to help citizens become more involved in the economy is also fueled by the Arab Spring and recognition of a similar potential here.

The fourth section provides an overview of policy actions the US should take to address these targeted interests. The US should encourage regional cooperation for border security and the development of energy infrastructure. The US should work to promote regional economic integration that includes Afghanistan through the diversification of markets and attention to current US aid practices with Afghanistan. Additionally, the US must balance these investments with attention to social conditions, namely, electoral legitimacy, environmental, public health and human rights concerns, as well as education.

In conclusion, this report provides the next steps for the US Department of State to develop a comprehensive strategy to pursue the US' many interests in Central Asia. In implementation, the US must work with proximal powers, Russia and China, to secure borders and ensure stability. It must encourage regional economic integration and remain committed to long-term stability where a continued presence is established diplomatically rather than militarily. Concerns for human rights must remain a priority, predicated by the US' interest and investment in people. Central Asia has the potential to be an economically integrated, thriving region where educated citizens run a diverse economy. The success in establishing such a Central Asia will reflect not only on the region, but also on the US in its critical transition in regional involvement from a military presence to a diplomatic partner. These policies aim to make that road clear, and further US commitment to the journey.

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## Security

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*Security in Central Asia is an increasing focal point to US foreign policy interests, specifically international market access to natural resources and the long-term stability in Afghanistan following the 2014 US/NATO withdrawal. There is potential in the Central Asian states to address these policy areas. The significant natural gas, oil, and uranium reserves in the states can satiate international demands. The natural resource infrastructure projects in Central Asia have the capacity to link Afghanistan to regional economic and political frameworks. However, there is a particular fragility in Central Asia concerning security. Specifically, China's foreign policy in Central Asia, illicit drug trafficking, Azerbaijan-Armenia conflicts in Nagorno-Karabakh, the viability of pipeline projects, nuclear proliferation, and border tensions over water resources have the capacity to undermine US interests. The US can curtail these risks through bilateral diplomatic relations with Central Asian states, international partnerships, and careful economic investments.*

# Just Right of Center:

China and the Geopolitical Continuum in Central Asia

Alexander Leo Kuehl

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### **Abstract**

China's foreign policy in Central Asia demands US attention, as peace and security in the region are contingent on three primary subsets: governance, economics, and foreign affairs.<sup>2</sup> China perpetuates autocratic governance in the region through its bilateral political relations, compromises the economic potential of Central Asia through its natural resource projects, and drives a wedge in Central Asia's regional and international affairs through its intergovernmental organization – the Shanghai Cooperation Organization (SCO). In turn, the state-society relations of Central Asia are porous to terrorism, economic conditions foster a still internationally dependent society, and state governments avoid autonomous and auxiliary intergovernmental institutions. There is increasing priority in addressing these issues in Central Asia; the peace and security in this region is imperative to ensure long-term stability after the US/NATO 2014 Afghanistan withdrawal. This report details the security risks in China's Central Asian affairs, and raises policy considerations that can curtail the implications.

## **I. Introduction**

US foreign policy in the Central Asian countries of Kazakhstan, Turkmenistan, Uzbekistan, Kyrgyzstan, and Tajikistan prioritizes peace and security. In this light, China's increasing pull on Central Asia to its geopolitical sphere needs to be evaluated. China currently has US\$10 billion invested in Central Asia,<sup>3</sup> imports over 10% of its oil and gas resources from the region,<sup>4</sup> and heads the Shanghai Cooperation Organization (SCO) that expanded over two-fold in regional state membership since 2001. There is a firm Chinese “fait accompli,” an irreversible presence in the region.<sup>5</sup> Chinese foreign policy trends have the capacity to undermine US security interests in Central Asia. First, China's bilateral relations with the Central Asian state leaders perpetuate autocratic governance in the region. In turn, human rights violations and an absence of democratic governance create state-society relations vulnerable to proliferating terrorism currently situated in Afghanistan. Second, China's natural resource projects in the region hinder the economic potential of Central Asia and Afghanistan. This runs counter to US aspirations of a ‘New Silk Road’ that ties Afghanistan to the Central Asian economic infrastructure to ensure long-term independent stability.<sup>6</sup> Last, Beijing's pervasive rise through the SCO compromises the effectiveness of auxiliary intergovernmental institutions and viability of an autonomous Central Asian organization. In effect, the SCO counters US leverage over the region in the North Atlantic Treaty Organization (NATO) and Organization for Security and Cooperation in Europe (OSCE) and fragments Central Asian state foreign affairs. In the face of the 2014 Afghanistan withdrawal, Washington cannot acquiesce to the SCO's policies. However, it is not necessary to perceive China's “geopolitical influence as a purely zero-sum endeavor,” as peace and security in Central Asia has a shared importance in the vested interests of the US and China.<sup>7</sup>

## **II. China – Central Asia Bilateral Relations**

China's bilateral relations with Central Asian state leaders preserve autocratic governance in the region through purporting a common security threat and entrenching clientelism. Kazakhstan President Nursultan Nazarbayev, Uzbekistan President Islam Karimov, and Tajikistan President Emomali Rahmonov have remained leaders of their respective states since the dissolution of the Soviet Union. They politicize Chinese claims that an Islamic terrorist incursion from the Turkic ethnic group Uighur population is an imminent security threat in order

to receive economic compensation. This dynamic is evident in Tajikistan and Kyrgyzstan. Each government advertises its vulnerability to Islamic militant movements to receive outside military and economic assistance.<sup>8</sup> China is quick to direct its resources to its bordering states. Tajikistan is subject to the cross border activities of terrorist organizations stationed in Afghanistan and 400,000 Uighurs span Kyrgyzstan and Kazakhstan.<sup>9</sup> It follows that China is the leading foreign investor in Tajikistan and Kyrgyzstan.<sup>10</sup> In these proceedings, Central Asian human rights and democratic governance violations are never addressed. The bilateral relations primarily serve surface-level self-interests. This is clear in recent events in Kazakhstan and Uzbekistan.

On May 30<sup>th</sup>, 2012, 14 of the 15 border guards stationed at the Sary Bokter outpost in the Almaty Oblast, Kazakhstan region bordering China were discovered dead in the burned-out barracks.<sup>11</sup> The remaining border guard was missing.<sup>12</sup> Immediately on June 1<sup>st</sup>, Kazakh President Nazarbayev stated that the killings were ““a terrorist act”” without further specification of the perpetrators.<sup>13</sup> In December 2012, the missing border control guard was sentenced to life for the killings.<sup>14</sup> Nazarbayev’s accusations were not substantive, considering the outpost was temporarily constructed to counter herb-pickers that illegally crossed the Kazakh border from China.<sup>15</sup> Moreover, the only border guard that escaped the killings was missing. The highest authority in Kazakhstan seized the event as an opportunity to render a domestic terrorist threat, and attract foreign engagement.

In May 2005 violent events erupted in Andijan, Uzbekistan after peaceful civilian protests for 23 businessmen on trial for Islamic extremism.<sup>16</sup> The unarmed populace of several thousand flanked by civilians wielding weapons occupied the square in front of the regional government administrative building to protest long-time injustices and economic hardships.<sup>17</sup> Government forces fired shots into the crowd without warning or discrimination, leaving an estimated 700 civilians dead.<sup>18</sup> Tashkent refuted the international backlash, insisting that only 187 civilians, mostly terrorists, criminals, and government security forces died.<sup>19</sup> The government claimed the shots were a response to 20 minutes of civilian fire and that the protestors were Islamic militants striving to establish a caliphate.<sup>20</sup> Zhang Deguang, the current Chinese Secretary General of the SCO, designated the event as a terrorist attack against the Uzbek government.<sup>21</sup> This sanction allowed Tashkent to vehemently deny European Union (EU) and US allegations and requests for investigation. The Uzbek government knew China stood behind the Islamic terrorist rhetoric with economic support.

China contributes to instilling a common fear throughout Central Asia, a modern ‘Red Scare’ that exists on account of the global war on terror (GWOT). The events at Andijan were in response to Tashkent’s judicial authoritarianism in the face of an Islamic terrorist threat. The populace rebellion was suppressed through GWOT justifications, and met with Chinese approval that further legitimizes the autocratic regime. These cyclical state-society relations will inevitably give rise to another civil uprising, consequential authoritarian brutality, and an endorsement from China. The same inputs are present in Kazakhstan. The inherent human rights and democratic governance violations in Central Asian state-society relations threaten to incite terrorism.

### ***Background: China – Central Asia Bilateral Relations***

The present bilateral relations that exist between China and Central Asia emerge from Soviet legacies. The dissolution of the Soviet Union in 1991 led to persisting communist rule and new-found autonomy in the governance of former Central Asian satellite states. These factors foster autocratic regimes, as particularly evident in Kazakhstan, Tajikistan, and Uzbekistan. China was anxious to engage its reinvented western neighbors to resolve security concerns involving the Uighur population. The Xinjiang Uighur Autonomous Region lies in mainland China, bordering Kazakhstan, Kyrgyzstan, and Tajikistan.<sup>22</sup> In the interwar years, the territory revolted against the Republic of China, eventually creating the brief East Turkestan Republic, an independent Islamic state later enveloped by China in 1934.<sup>23</sup> The northern reaches were a Soviet satellite from 1945-1949, adopting the name the Second East Turkestan Republic, before being consumed by Chinese Communist control.<sup>24</sup> The Uighur separatist and nationalist movements persisted within China’s borders through the 1990s as China tirelessly prevented Xinjiang from becoming the sixth Central Asian state of East Turkestan.<sup>25</sup> China took advantage of the recently autocratic and inherently vulnerable post-Soviet Central Asian states in settling western border disputes to consolidate against the Uighur state. China signed agreements with Kazakhstan, Tajikistan, and Kyrgyzstan in 1994, 1996, and 2002, respectively.<sup>26</sup>

The 9/11 terrorist attacks and subsequent US-led GWOT substantiated prior Chinese claims that the movements were terrorist organizations.<sup>27</sup> In 2002, the United Nations (UN) placed the East Turkestan Islamic Movement (ETIM) on its list of terrorist organizations, and the US Treasury followed suit in 2002.<sup>28</sup> China harnesses the GWOT to categorize Uighur peaceful

political activism and forms of religious practice as terrorist activity.<sup>29</sup> Additionally, China situates the Uighur threat in its ideology concerning the government-declared ‘Three Evils’ of separatism, religious extremism, and terrorism.<sup>30</sup>

China’s historic concern with the Uighur population stems from its desire to protect Sino territory and trade routes. Uighur upheaval in its western Xinjiang province threatens stability in China and eastern province access to over-land trade routes necessary to exchange manufactured items and natural resources with Central Asia. It presents an enticing alternative to the oft tumultuous maritime routes. Sizable Uighur diasporas in Central Asian states present an additional hurdle. Considering the transnational nature of this issue, China is committed to the economic development of its western provinces and bordering states to satiate Uighur discontent. Specifically, Beijing’s Great Western Development Project, initiated in 2000, aims to reduce socioeconomic disparities between China’s eastern and western provinces.<sup>31</sup> In addition, China relies on pressuring Central Asian leaders to prevent the movements within their own borders through displaying a common security threat and clientelism.

### ***US Interests: China – Central Asia Bilateral Relations***

The state-society relations that exist between the autocratic Central Asian regimes and the subjected civil society are rife, and threaten to foster terrorist organizations. There are three formidable terrorist organizations that originate in Central Asia and currently operate in Afghanistan. Jund al-Khilafah, the Turkistan Islamic Party (TIP), and the Islamic Movement of Uzbekistan (IMU) have ties to Kazakhstan, Xinjiang, and Uzbekistan, respectively.<sup>32</sup> While there is insufficient evidence of operational bases in the Central Asian states, the terrorist organizations’ commitment to return to their homeland is strong.<sup>33</sup> There are established connections of these terrorist organizations in Afghanistan to Central Asia. The 2005 Andijan incident demonstrates that society is inclined to turn towards a radical non-state actor if the state subjugates them.”<sup>34</sup>

The Central Asian terrorist organizations operating from Afghanistan demonstrate ties and threats to their native lands. Jund al-Khilafah conducted three separate attacks in the Kazakh cities Atyrau, Taraz, and Almaty in 2011 and the transit of militants and funds to the 200-300 Kazakh militants fighting in Afghanistan originates in Kazakhstan.<sup>35</sup> TIP maintains 300-500 fighters, with a portion of Uighurs from the Xinjiang Province.<sup>36</sup> There is only one confirmed

instance of a TIP fighter returning to Xinjiang from training in Afghanistan or Pakistan and conducting an attack.<sup>37</sup> This resulted in the death of ten Han Chinese pedestrians in Kashgar, China.<sup>38</sup> The IMU's involvement in Central Asia and Uzbekistan has remained stagnant since 2004, although it continues its operations in Afghanistan, assisting the Taliban in seizing control of the northern territories.<sup>39</sup>

It is in US interest to prevent Central Asian states from becoming a terrorist haven. If a long-standing Central Asian state leader fell amid social upheaval, the resulting power-vacuum could allow a terrorist organization to establish a new base or series of bases. Central Asian states, like Kazakhstan and Turkmenistan, have small populations and large tracts of uninhabited and poorly monitored land. A terrorist network bridging Afghanistan-Pakistan and Central Asia is a distinct possibility. There is already speculation that the IMU and auxiliary militant groups are stationed in Kazakhstan, using the country as a “‘terminal’ linking Europe, Central Asia, and Afghanistan.”<sup>40</sup> The terrorist threat could proliferate throughout Central Asia and internationally after the US/NATO 2014 Afghanistan withdrawal.

Aside from China's hand in perpetuating autocratic governance in Central Asia, its bilateral affairs limit US political leverage. Washington often turns to “soft power” strategies in easing state-society tensions in Central Asia, specifically attaching “conditional demands” to the distribution of funds to governments including civil society promotion and anti-corruption initiatives.<sup>41</sup> This political leverage through the International Monetary Fund and the WB is hurt, as Central Asian state leaders turn to a Chinese government that does not require conditionality agreements. Negative state-society relations threaten to persist if there is no incentive to change course.

### **III. China's Natural Resource Projects**

China's natural resource projects jeopardize regional economic potential in greater Central Asia through extensive pipeline projects. Specifically, the viability of the Turkmenistan–Afghanistan–Pakistan–India (TAPI) natural gas pipeline is at risk due to China's existing Turkmenistan–Xinjiang pipeline and plans to construct the Turkmenistan–Afghanistan–Tajikistan–China pipeline. The Turkmenistan–Xinjiang natural gas pipeline commenced operations in December 2009, transiting Uzbekistan, Kazakhstan, and Sino western provinces before terminating in Beijing.<sup>42</sup> This pipeline extracts the same resources that will supply the

TAPI. While Turkmen holds of natural gas resources are sufficient to support both pipelines, production needs to increase immediately if the TAPI is to remain conceivable.<sup>43</sup> At a 2012 SCO Summit in Beijing, Afghanistan President Hamid Karzai met with Chinese President Hu Jintao and head of the China National Petroleum Corporation (CNPC)<sup>1</sup> Jiang Jiemin to discuss the new Turkmenistan - China natural gas pipeline.<sup>44</sup> There is already an agreement in place between CNPC and the Turkmenistan firm Turkmennebitgaz to double current export levels to China by providing 65 billion cubic meters (bcm) of natural gas from the Bagtyarlyk and South Yolotan natural gas fields to China per annum by 2014.<sup>45</sup> It is possible that this pipeline will facilitate the increased export of this natural gas.<sup>46</sup> Construction is set for 2014, which coincides with the planned construction of the TAPI.<sup>47</sup> Turkmenistan currently produces 66 bcm of natural gas, retaining 16 bcm for domestic consumption and exporting 50 bcm.<sup>48</sup> In 2010, Turkmenistan exported 10 bcm to Russia and 20 bcm to Iran.<sup>49</sup> Considering that Turkmenistan agreed to provide 65 bcm per annum to China, this leaves Turkmenistan with a production deficit of 45 bcm. This is not conducive to the December 2010 TAPI pipeline intergovernmental agreement reached between each of the transit states, which dictated Turkmenistan export 33 bcm of natural gas: 5 bcm to Afghanistan, and 14 bcm to both Pakistan and India.<sup>50</sup>

The new Turkmenistan – Afghanistan – Tajikistan – China pipeline has the capacity to redirect necessary foreign investment from the projected US\$8 billion TAPI on account that the pipeline offers a relatively secure investment venture.<sup>51</sup> It circumvents the volatile southern Pashtun provinces in Afghanistan in contrast with the TAPI pipeline route through Afghanistan's southern reaches to the equally unstable Pakistan.<sup>52</sup> In addition, the Iran–Pakistan (IP) pipeline attracts Chinese investment, threatening to advance the construction process ahead of the TAPI. Iran already constructed a 600 mile long stretch from its South Pars gas field to the border to supply Pakistan with the desired 21.5 million cubic meters of natural gas per day by the end of 2014.<sup>53</sup> Pakistan recently confirmed it will complete the section that lies in its borders.<sup>54</sup> Iran possesses the earth's second largest natural gas reserve, so the TAPI is not necessary to meet Pakistan's energy demands.<sup>55</sup> Although China recently backed out of financing the project due to US pressure, it remains a strong potential investor considering India's security hesitations in financing the pipeline.<sup>56</sup> Islamabad supports China's involvement in the IP, considering its

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<sup>1</sup> Chinese state-owned oil and gas corporation

excellent diplomatic relations relative to India and the prospect of transit fees and infrastructure projects for Pakistan.<sup>57</sup> China is a potential third transit state in the IP over India.

### ***Background: China's Natural Resource Projects***

It is necessary to turn to China's natural resource projects in the South China Sea and Africa to understand the Sino pivot towards Central Asia. There is increasing Chinese demand for natural gas and oil resources. In 2010, China's import of natural gas totaled 30 – 40 bcm, with projected increases to 50 – 60 bcm in 2015 and 80 – 90 bcm in 2020.<sup>58</sup> China is currently the second largest oil consumer internationally and is expected to be the largest net importer of oil come 2020, with net imports increasing from 5 million barrels per day in 2011 to 13 million in 2035.<sup>59</sup> This demand increase will depend on Central Asia's 2 billion tons of oil and 3 trillion cubic meters of natural gas reserves that amount to 8% and 4.3% of the total world supply, respectively.<sup>60</sup> The turn to Central Asian resources is due, in part, to escalating tensions in the South China Sea.

The South China Sea and Central Asia represent “new energy frontier[s]” to China.<sup>61</sup> China has aspirations of decreasing its dependence on natural resources from the tumultuous Middle East in favor of proximate natural resource stability. Recent events in the South China Sea threatens to limit the ‘energy frontiers’ available to China. The Philippines, China, Vietnam, Taiwan, Malaysia, and Brunei contest natural resource rights and international trade routes in the 1.4 million square mile expanse in the Pacific Ocean.<sup>62</sup> The South China Sea namesake is the only clear delineation of sovereign claims, yet the Chinese Foreign Ministry's claim that it possesses “‘undisputed’” sovereignty over the South China Sea is idealistic.<sup>63</sup> The UN Exclusive Economic Zones demarcation for the littoral states is in constant flux, as each state competes for the estimated 7 billion barrels of oil reserves and 900 trillion cubic feet of natural gas supply in the sea.<sup>64</sup> India's state-run Oil and Natural Gas Corporation recently partnered with Vietnam's Petro Vietnam to develop oil resources in the disputed sea, and the militarization campaign in the Philippines, Vietnam, and Malaysia aims to protect state access to natural resources.<sup>65</sup> The propensity for conflict in the South China Sea limits China's access to the frontier's natural resources, and even threatens to curtail the import of natural resources from distant frontiers. Global oil tanker shipments passing through the South China Sea amount to 50% of the

international total.<sup>66</sup> China will continue to increase its hold on natural resource projects in Central Asia considering the relative access stability along this energy frontier.

China's natural resource foreign policy in Africa signals warnings to the increasing natural resource projects in Central Asia. Africa holds just 9-10% of world oil supply, yet China relies on the continent for 30% of its crude oil imports.<sup>67</sup> To reiterate, Central Asia holds 8% of world oil supply and supplies over 10% of China's crude oil and natural gas imports. These import figures from Africa and Central Asia are secured as part of a larger trade relationship with China. In 2003, China became the second largest oil importer, after the US. In 2009 China surpassed the US as Africa's largest trading partner.<sup>68</sup> In 2010, China surpassed the EU as Central Asia's largest trading partner.<sup>69</sup> In Africa the natural resource trade contributes to 90% of the trade capital with China.<sup>70</sup> These common figures in Africa and Central Asia are no coincidence, and indicate that China will increase natural resource extraction in Central Asia.

### ***US Interests: China's Natural Resource Projects***

Central Asia is necessary to ensure the stability of Afghanistan. Focus needs to turn to economic development. In terms of Afghanistan assuming autonomous security responsibility, there needs to be a commitment to former US Secretary of State Hillary Clinton's vision of a "New Silk Road."<sup>71</sup> Underlining this strategy is the US aspiration for "regional economic connectivity."<sup>72</sup> If Afghanistan is "integrated into the economic life of the region," the state will be able to attract private investment, pursue advantageous development of its mineral resources, and provide economic opportunities for its citizens.<sup>73</sup> Pipelines, specifically the proposed TAPI natural gas pipeline, serve to catalyze this connection.

The US supports implementation of the TAPI. The pipeline connects Turkmenistan's vast supply of natural gas with market demand in India and grants Afghanistan and Pakistan sustained income through transit fees.<sup>74</sup> International concerns centering on the security risks in routing the pipeline through Afghanistan are legitimate, but fail to realize the positive relations between economics and security. Linking Afghanistan to a regional economic network the scale of the TAPI will instill a vested economic interest in Central Asia to protect Afghanistan. In the least, the TAPI transit states will share this commitment and work towards alleviating political tensions.<sup>75</sup> In turn, a secure state and positive economic outlook will attract private investments that can further development Afghanistan. The US backs the diversification of Turkmenistan's

natural gas pipelines. Increasing the natural gas production capabilities in Turkmenistan will allow the state to distance its dependence on China and reach auxiliary states, specifically Pakistan and India. China already demonstrated its proclivity to derail pipeline diversification efforts. The 2009 the Turkmenistan – Xinjiang gas pipeline compromised the Nabucco pipeline to the EU.<sup>76</sup> The US opposes the IP natural gas pipeline on account that the project undermines the TAPI and violates international sanctions against Iran.<sup>77</sup>

#### **IV. The Shanghai Cooperation Organization**

The SCO is “the main multilateral vehicle for Chinese regional efforts.”<sup>78</sup> It is comprised of the member states Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, China, and Russia. The observer states include Afghanistan, India, Iran, Mongolia, and Pakistan with Belarus and Sri Lanka as dialogue partners. The US requested observer status but was denied. There is a unique duality in the functioning of the SCO, as it is a “powerfully symbolic, but institutionally empty actor.”<sup>79</sup> There are significant international and regional repercussions of this policy. Since its infancy in 1996, the SCO has functioned as an arm of its creator - the People’s Republic of China. It represents China’s ‘symbolic’ geopolitical sway in Central Asia, effectively limiting the role of auxiliary intergovernmental institutions. The ‘institutional emptiness’ of the organization minimizes the possibility of an autonomous Central Asian organization.

China places the SCO on a pedestal, as it stands to uniquely represent an intergovernmental institution that does not “infringe on its members’ sovereignty.”<sup>80</sup> China disseminates this image vis-à-vis NATO and OSCE, presenting itself as an alternative intergovernmental organization. China distances the SCO from NATO with non-intervention in human rights. The 2000 Dushanbe Declaration, issued by the SCO predecessor Shanghai Five, states “the organization was opposed to any intervention undertaken without UN approval and interference in internal affairs under the pretext of defending human rights.”<sup>81</sup> Prior to this statement, NATO demonstrated its willingness to intervene in sovereign affairs on account of human rights violations in the 1999 airstrikes against Serbia.<sup>82</sup> The strikes came in response to the absence of provisions, medical care, and security for the innocents in the Serbia-Albania conflict over Kosovo.<sup>83</sup> State leaders in Central Asia turn to the SCO over NATO to avoid charges on its blatant human rights violations. In a similar respect, China separates the SCO from the OSCE with non-intervention in democratic affairs. The SCO provides economic, security and

military development assistance to Central Asia sans a democratic agenda.<sup>84</sup> In contrast, the OSCE upholds “a comprehensive approach to security that encompasses politico-military, environmental and economic, and human aspects.”<sup>85</sup> The different intentions of each organization are evident in the 1999-2000 parliamentary and presidential elections in Kazakhstan, Kyrgyzstan, Uzbekistan, and Tajikistan.<sup>86</sup> The OSCE did not recognize legitimacy in the elections, but each head of state assumed its position in the governing authority of the SCO.<sup>87</sup> State leaders in Central Asia preserve their positions through autocratic governance, so interacting with the SCO poses an insignificant threat relative to the OSCE. The SCO’s increasing geopolitical influence over Central Asia coincides with a decreasing NATO and OSCE presence.

Unlike NATO, the SCO maintains negligible financial resources and no collective military forces.<sup>88</sup> It lacks defined security objectives and priorities, and is void of a pragmatic mission statement.<sup>89</sup> The SCO intentionally exists only to serve Beijing’s geopolitical interests, “to institutionalize its legitimacy in the region.”<sup>90</sup> In this absence of outward intentions, Central Asian leaders consequentially leverage membership in the SCO to serve their state interests. Russia participates in the SCO on a geopolitical basis, Kazakhstan pursues an economic agenda, and Kyrgyzstan, Tajikistan, and Uzbekistan focus on counterterrorism and regional stability.<sup>91</sup> The latter states are discontent with the SCO’s non-involvement in settling water and hydroelectric disputes in the border regions.<sup>92</sup> The conflicting Central Asian state interests and the SCO’s inability to remedy the differences adversely affect cohesion efforts in Central Asia.

### ***Background: The Shanghai Cooperation Organization***

The SCO is exclusively China’s intergovernmental organization, serving varying Sino interests in Central Asia throughout its existence. The SCO is an “axis of convenience,”<sup>93</sup> considering that the selection and retention of member states is on a geopolitical, as opposed to merit, basis.<sup>94</sup> This criterion emerged with the Shanghai Five’s inception in 1996. The dissolution of the Soviet Union in 1991 led to the Commonwealth of Independent States absorbing every Central Asian state.<sup>95</sup> This prompted China to form the Shanghai Five, expanding its sphere of influence to resolve border disagreements with Central Asia states through multilateral forums and bilateral agreements.<sup>96</sup> In turn, the states perceived China as the creditor to their survival as they were able to remain independent.<sup>97</sup> Still, the borders hold only a

one-way delineation with China continuing to exert its physical and ideological influence outward. The territorial treaties were never published, raising concerns that they are merely temporary.<sup>98</sup> China violates the demilitarization agreements on its borders, conducting exercises in the region to protect its majority Uighur western Xinjiang province.<sup>99</sup> China invokes the SCO's early border settlements, "threatening to undermine the very foundations of the new states" if Central Asia resists the campaign against the Uighurs.<sup>100</sup> China, through the SCO, presents itself as an economic and diplomatic partner to Central Asia but places contingent limits centering on the protection of Sino territory.<sup>101</sup> The SCO operates through this quid pro quo.

The ineffectiveness of security structures in combating terrorist activity in Central Asia points to China's unilateral intentions in its creation: to protect Sino borders and veil SCO expansion. IMU incursions cut across the Tajik and Kyrgyz borders in 1999 and 2000, prompting Uzbekistan's membership in the Shanghai Five in 2001, forming the SCO.<sup>102</sup> The US GWOT and designation of the ETIM as a terrorist organization led to an increasing counterterrorism and security agenda in the SCO.<sup>103</sup> In 2003 annual military simulation exercises primarily between Russia, China, and Kazakhstan commenced.<sup>104</sup> The Regional Anti-Terrorist Structure was created in 2004 as a forum to discuss counterterrorism and exchange sensitive information in the field, although the limited successes owe to bilateral relations.<sup>105</sup> In 2005 the SCO and Russia-led Collective Security Treaty Organization (CSTO) initiated joint military exercises, or Peace Missions that amounted to limited transnational interaction.<sup>106</sup> The influx of these institutions gave the SCO a misperceived legitimacy, prompting the inclusion of Mongolia, Iran, India, and Pakistan as associate member/observer states.<sup>107</sup>

### ***US Interests: The Shanghai Cooperation Organization***

The SCO limits US leverage through NATO and the OSCE over Central Asia. The regional authority of these institutions is undermined by the SCO. This places pressure on the US to unilaterally insert itself in Central Asia in the face of the 2014 US/NATO Afghanistan withdrawal. Subsequent US visibility in the affairs of Central Asia incites anti-US sentiments in the SCO and in Central Asia itself. In contrast, Central Asian states are not in a position to autonomously resist the OSCE, as it is the largest regional security organization in the world,

encompassing 57 participating states across Europe, Asia<sup>2</sup>, and North America, and 11 co-operation states across the Mediterranean region, Asia, and Australia.<sup>108</sup> The SCO instills the opposition, and lifts Washington's ability to influence Central Asia through the intergovernmental institution. In the July, 2005 Astana SCO summit, the SCO demanded the US restrict the length of its military presence in Central Asia.<sup>109</sup> Following the 2005 Andijan events, Tashkent ordered the closure of the US base at Karshi-Khanabad.<sup>110</sup> Kyrgyzstan pressured Washington to close the US Manas Transit Center after China allegedly offered financial compensation to the state to offset the rent revenues Kyrgyzstan collects from the US base.<sup>111</sup> This is an out-standing offer, as China rejects a US military presence near the Xinjiang province.<sup>112</sup> The US is unable to afford these rejections from Central Asia. The Manas Transit Center is an "entry and exit point for virtually all coalition forces in Afghanistan."<sup>113</sup> Protecting the movement of troops and non-lethal supplies over Kyrgyzstan's border to Afghanistan is a priority through 2014.<sup>114</sup> The Northern Distribution Network (NDN) is a logistic supply line through Central Asia, converging in Uzbekistan prior to crossing over to Afghanistan to support present US/NATO operations. The US Transportation Command estimates that 40% of all sustainment cargo transits the NDN.<sup>115</sup> Uzbekistan's resistance to a US presence can severely limit these figures.

Long-term stability in Afghanistan is dependent on political and economic assistance from Central Asia. There is encouraging Central Asian state bilateral assistance to Afghanistan, but the SCO is unable and unwilling to harness member state resources to form an effective aid package. Kazakhstan extends humanitarian assistance to Afghanistan, and Uzbekistan and Tajikistan support their co-ethnics in the northern provinces. These reconstruction efforts exist outside the SCO framework, despite Afghanistan's desire to interact with the intergovernmental organization to usher in long-term stability. In 2006, President Karzai voiced that Afghanistan "belonged to the region in which the SCO was situated. Afghanistan has no other solutions and cannot exist outside of this region."<sup>116</sup> This statement was only met with non-substantive SCO discussions and messages of intent. The US cannot depend on the SCO to coordinate peace and security initiatives in Afghanistan after 2014.

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<sup>2</sup> Including Central Asia

## V. Policy Considerations

### *China – Central Asia Bilateral Relations*

China relies on purporting a Uighur security threat and clientelism in Central Asia to secure its borders. This upholds autocratic governance in the states that leads to human rights violations and an absence of democracy. The resulting state-society relations threaten to incite terrorism in Central Asia. These bilateral relations are resilient to outside intervention that relies on conditional demands. The US faces two main considerations in disrupting this trend: countering clientelism with clientelism and building democracy.

In the GWOT the US relied on clientelism, as US political recognition of Central Asian state leaders was exchanged for political and security cooperation in Afghanistan affairs. These short-term stability strategies allowed Washington unfettered access to Afghanistan. The US maintains sufficient experience and resources to participate in clientelism practices. In 2009, former Kyrgyz President Kurmanbek Bakiyev threatened to close the Manas Transit Center.<sup>117</sup> In response the US settled on a five year agreement with the state to increase rent payments from US\$17 million to US\$60 million per year to keep operations.<sup>118</sup> However, these practices are not dependable. Kyrgyz President Almazbek Atambaev is firm in his refusal to extend the operational lease agreement at the Manas Transit Center that expires in 2014.<sup>119</sup> This date precedes the US/NATO withdrawal from Afghanistan and will compromise logistics of exiting the military and maintaining a supervisory position.<sup>120</sup> The US is currently in negotiations with Kyrgyzstan to extend the lease.<sup>121</sup> Negotiating with autocratic leaders in Central Asia incurs political and economic costs.<sup>122</sup> Long-term stability through democratic institutions should be considered by the US in its bilateral relations with the states. China is immune to instating this switch due to its existing economic ties and geographic proximity.

External foreign policies in Central Asia have accustomed “local elites to frame external engagement on security and democracy as antithetical.”<sup>123</sup> The US may start its efforts to implement democratic institutions with strong diplomatic statements suggesting that democracy is returning to the fore-front of its foreign policy with Central Asia. This suggests that democracy is not “a smokescreen for ulterior motives.”<sup>124</sup> Long-term security in Central Asia and Afghanistan is dependent on initial democratic institutions. US pressure to reform at the highest political level risks ousting an autocratic leader to open the political office to terrorist organizations that thrive in the fragile state-society relations. Instead, building a civil society

through investments in democratic governance, public health programs, economic assistance, and English language training, may lead to the formation of a democratic opposition to the authoritarian incumbent.<sup>125</sup> In 2010, total US assistance to Central Asia was a mere 3% (US\$436.24 million) of what was spent in Afghanistan (US\$14.78 billion).<sup>126</sup> The US is already transitioning to expecting legitimate elections. US Secretary of State John Kerry admits there were US compromises in the “propriety of the process” of the 2004 Afghanistan elections that will not stand in 2014.<sup>127</sup> The US may consider the same approach to upcoming elections in the Central Asian states.

### *China's Natural Resource Projects*

China's pipeline projects in Central Asia undermine the TAPI natural gas pipeline that could spur economic potential in Central Asia and Afghanistan. The existing Turkmenistan – Xinjiang pipeline and plans to construct the Turkmenistan – Afghanistan – Tajikistan – China and IP pipelines strains Turkmenistan's natural gas production capabilities and redirects foreign investment necessary to the TAPI. In response, the US may weigh three primary policy considerations: economic sanctions, facilitating US government and private sector investment, and diplomacy in Beijing.

Pakistan is signing a US\$500 million agreement with Iran to complete the IP natural gas pipeline in its borders despite US threats of international sanctions.<sup>128</sup> Pakistan is forging ahead due to US delay in implementing power projects in Pakistan.<sup>129</sup> The state is currently experiencing a power crisis, coping with a national grid that is unable to meet over 1/3 of Pakistan's energy requirements.<sup>130</sup> There are estimates that 3-4% of GDP is lost to these shortages.<sup>131</sup> The IP has the capacity to generate over half of the existing shortages.<sup>132</sup> In this situation, sanctions do not deter Pakistan. US sanctions on Iran pressured the state to look to Pakistan to export its natural gas resources. Sanctions against China, in participating in the IP, run a similar risk of prompting increased resource extraction from greater Central Asia. The US may consider taking advantage of Pakistan's power and financial deficits by financing the construction of the TAPI in the state's borders.

Facilitating US private sector led investment in Central Asia has the capacity to retard the state's incorporation into the Chinese economy.<sup>133</sup> There is an increasing trend in the privatization of Central Asian state assets. The Turkmen economy is almost exclusively under

state control, but Turkmen President Gurbanguly Berdymukhammedov announced a privatization program in 2012 set to continue to 2016.<sup>134</sup> The US can prepare in the event that state energy assets open to privatization.<sup>135</sup> Secretary of State Kerry has called for the American business sector to pursue more long-term contracts for natural resources in Africa. This will generate economic benefits for the US and counter a market China currently dominates.<sup>136</sup> The US may consider applying this strategy to Central Asia to increase competition to Chinese natural resource projects and develop the natural resource production capabilities in Central Asia.

US diplomacy in Beijing relative to its natural resource projects in Central Asia can focus on increasing China's interest in the security of its pipelines. China responds positively to security and political threats to natural resources. In 2012, China assumed a larger diplomatic role in the Sudan – South Sudan conflict after the latter ceased crude oil production in refusing to pay the former inflated fees to use their oil pipelines.<sup>137</sup> China, the largest foreign investor in Sudanese oil, wants to ensure that the dispute is resolved in order to protect the natural resource export.<sup>138</sup> China already appears to be transitioning its foreign policy in Afghanistan. In September 2012, Chinese security chief Zhou Yongkang visited Kabul, marking the first visit to the state by a senior Chinese leader in nearly five decades.<sup>139</sup> Yongkang discussed border security, terrorism, and support for Afghan police.<sup>140</sup> Metallurgical Corporation of China's (MCC) US\$3 billion deal to develop Afghanistan's Aynak copper mine is the major catalyst.<sup>141</sup> The US should consider emphasizing the terrorist threats in Central Asia that can disrupt China's pipelines to prompt a Chinese security presence.

### *The Shanghai Cooperation Organization*

The SCO serves primarily as a Sino intergovernmental institution. China is not a member of OSCE or NATO and instead extends its foreign policy to the SCO, perpetuating strong geopolitics and institutional emptiness. This results in limiting auxiliary intergovernmental institutions and an autonomous Central Asian organization, respectively. The SCO destabilizes US accessibility to the region that traditionally relies on intergovernmental institutions and transparent Central Asian state foreign policies. The US may consider two policy approaches to reversing the SCO's adverse influence on Central Asia: exert increasing influence in Central

Asia through OSCE and NATO or advocate for an autonomous Central Asian organization through bilateral diplomacy.

Reorienting Central Asian states to the west through OSCE and NATO is conceivable considering China's absence and the states' presence in both intergovernmental institutions. This approach risks leading to a zero-sum paradigm in China-US politics. Apparent SCO opposition to the US, NATO, and OSCE is a secondary consequence to China's primary aims of securing its borders from political threats and opening its borders to economic benefits. Aggressive policy to the US is not in the economic interests of China.<sup>142</sup> Moreover, it is evident that the SCO is severely limited in its capacity to wager a real security and political counter to the west.

US bilateral diplomacy with Kazakhstan aimed to establish an autonomous Central Asian organization is a viable consideration. The 1994 Pentagon strategy to East Asia implemented an "integrate but hedge" foreign policy.<sup>143</sup> This evokes President Ronald Reagan's "trust but verify" foreign policy to the Soviet Union.<sup>144</sup> Directly contesting China may result in reciprocal actions, as the nuclear arms race in the Cold War reveals. The Pentagon strategy counterbalanced China's rise through strengthening relations with India.<sup>145</sup> This same strategy could be applied by strengthening ties to Kazakhstan to check the SCO. Additionally, President Nazarbayev 2007 proposal of a Central Asian Union to utilize the regions food, energy resources and market demand to become self-sustaining<sup>146</sup> parallels US interest in a "New Silk Road".<sup>147</sup> Kazakhstan aspires to imitate the European Union structure, with a project to meet political, economic, and security concerns in Central Asia.<sup>148</sup> However, President Karimov resists this initiative, arguing that the socioeconomic disparities between Central Asian states are too great to form a union.<sup>149</sup> Instead, Uzbekistan seeks bilateral economic agreements.<sup>150</sup>

Kazakhstan recurrently demonstrates its potential to assume a regional and international role in intergovernmental diplomacy and security measures in greater Central Asia. Present US relations with Kazakhstan are the "deepest and broadest of all countries in Central Asia."<sup>151</sup> Kazakhstan perceives itself as in a pivotal position. Former Kazakh Minister of Foreign Affairs Marat Tazhin situates Kazakhstan at the "crossroads of geopolitical platforms."<sup>152</sup> Specifically, Kazakhstan's relative geographic position, natural resource wealth, and membership in SCO, CSTO, and NATO carries his view that each intergovernmental institution can "find a common denominator and develop dialogue," as it relates to regional security and cooperation in Afghanistan.<sup>153</sup> Kazakhstan maintains the Kazbat battalion (later elevated to the Kazbrig

brigade), the only Central Asian state peacekeeping force.<sup>154</sup> It served in Iraq between 2003 and 2008.<sup>155</sup> In addition, Kazakhstan supports the NDN and Afghanistan's National Security Forces.<sup>156</sup> On a larger security scale, Kazakhstan strives to establish a Nuclear Weapons Free Zone in Central Asia and host an international nuclear fuel bank.<sup>157</sup> The US may consider entering bilateral discussions with Nazarbayev to urge Kazakhstan to renew its call to create the Central Asian Union and potentially include Afghanistan in this intergovernmental organization to form the 'New Silk Road.'

## **VI. Conclusion**

At 'just right of center' in the Eurasian landmass lies China, bordering three of the five Central Asian states that span the center of the two continents. This geographic distinction applies to the geopolitical continuum facing Central Asia: the opposite pulls of the US and China. In the areas of peace and security, China currently exerts a relatively greater influence than the US on Central Asia. Specifically, China's foreign policy in governance, economics, and foreign affairs in the region encompasses bilateral political relations, natural resource projects, and the SCO. In turn, China perpetuates autocratic governance, undermines economic potential, and causes interstate and transnational divisions in Central Asia. It is in US interests to address these breaches to peace and security to prevent terrorism, economic dependence, and inaccessibility of intergovernmental institutions and fragmentation of foreign affairs in Central Asia. These risks influence the long-term stability in Afghanistan following the 2014 US/NATO withdrawal. The US may curtail the implications of China's foreign policy in Central Asia through focusing on select policy areas: democratic institutions, US government and private sector natural resource investments, diplomacy in Beijing, and an autonomous Central Asian organization. It is in the US' capacity to readjust the geopolitical continuum in Central Asia.

# Drug Trade Symbolic of Greater Security Concerns in Central Asia

Claire Robbins

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### Abstract

Drug trafficking in Central Asia is a security concern regionally and internationally as it strengthens terrorist and organized crime groups. The direct or indirect complicity of Central Asian states in the drug trade additionally perpetuates weak governance and undermines the legitimacy of state law enforcement efforts. With Central Asian republics struggling to meet the needs of their populations, non-state actors, strengthened by the drug trade, may step in to fill needs unmet by the state. The international community has demonstrated their commitment to improving security in the region and reducing the flow of drugs, specifically through border security initiatives. While these offer the international community direct influence on the region, the compromised condition of the state apparatus frequently undermines program effectiveness. With the US withdrawal from Afghanistan looming, the threat that non-state actors pose to the stability of Central Asia is uncertain and the need for effective border initiatives is increasingly urgent. A revitalized international effort aimed at securing borders and improving state institutions may result in a renewed commitment by Central Asian states to address corruption and meet international goals for reducing drug flows. A partnership between the US and Russia, who hold common interests in the region, could be an influential and effective collaboration.

## I. Introduction

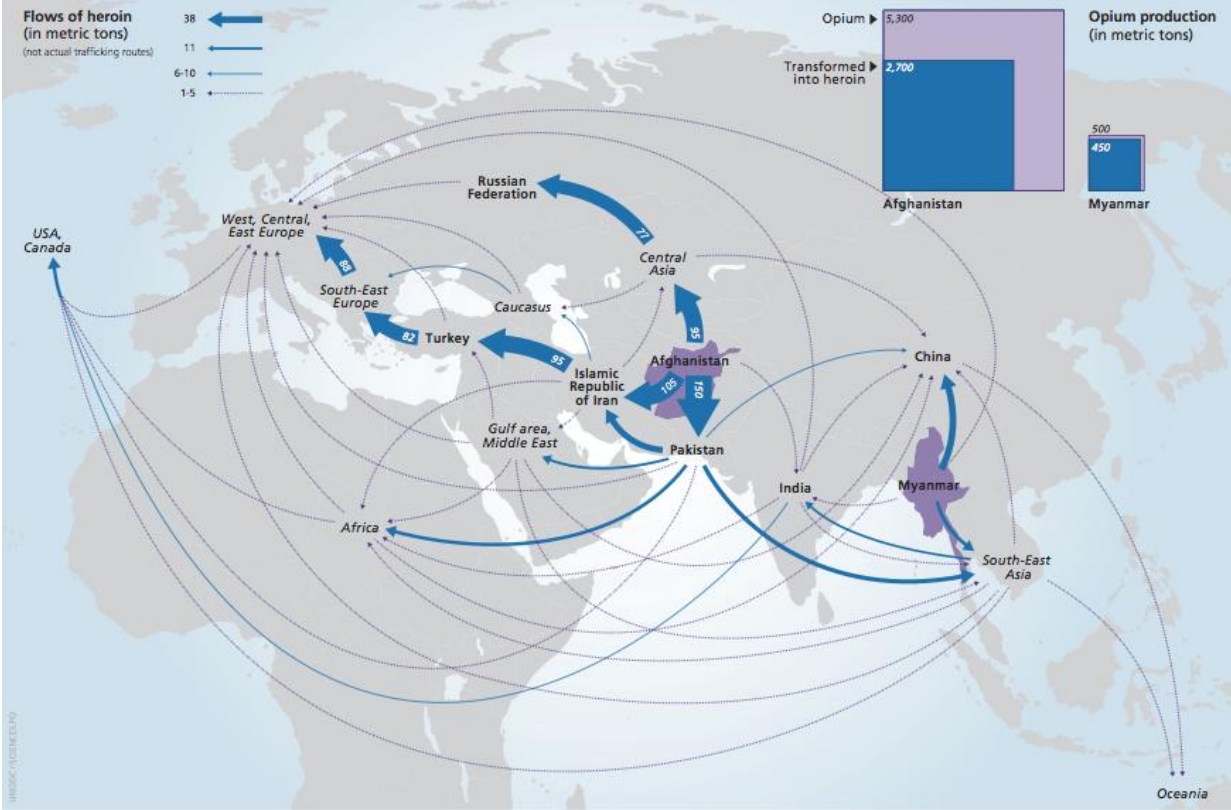
In recent years Central Asia has gained influence and agency on the international stage because of its abundant natural resources and its proximity to Afghanistan. As the international community coordinates and competes for influence in the region, the presence of a thriving drug trade threatens to undermine positive transitions towards good governance and an integrated regional security strategy. Due to its proximity to Afghanistan, the world's largest opium producer, Central Asia has become an important transit route for drugs destined for Russia and Western Europe. The drug trade in Central Asia is a concern for the US for two primary reasons. The direct or indirect involvement of the Central Asian states in the drug trade undermines the legitimacy of state law enforcement efforts and the effectiveness of international border security initiatives. Furthermore, government complicity in the trade dilutes state power while simultaneously strengthening the influence of non-state actors such as organized crime and terrorist groups. In Central Asia, where social and political oppression of the population by the state is widespread, the presence of alterative challenges to power that hold potential for gaining political legitimacy among communities is of particular concern to the immediate stability of each state and the region as a whole.

## II. Background

In 2011, global opium production amounted to 7,000 tons, nearly 90% of which was produced in Afghanistan.<sup>158</sup> The primary markets for Afghan opium, and heroin (a derivative of opium), are Russia and Western Europe with a developing market in China as well as South and Southeast Asia. The drugs are delivered from Afghanistan to the destination countries along a variety of routes (see **Figure 1**). The Northern Route connects Afghanistan to Russia by a network of pathways that run through Central Asia.<sup>159</sup> In 2010, an estimated 25% of the 380 tons of heroin produced in Afghanistan were trafficked through Central Asia along the Northern Route. In the same year, 35-40 tons of raw opium were trafficked across borders, destined exclusively for Central Asian markets, signaling an increase in the number of consumers in Central Asia.<sup>160</sup>

Although Central Asia's primary role in the trade remains as a transit region, the large presence of drugs and their routes through several major cities (e.g. Astana; see **Figure 2**) has

contributed to an increase in illicit use. Central Asia as a region experienced a 17-fold increase in drug use from 1990 to 2002, the majority of which can be attributed to heroin injecting users.<sup>161</sup>



**Figure 1:** Global heroin flows of Asian origins (Source: UNODC)<sup>1</sup>

In addition to the highly addictive nature of opium and heroin, there is a lethal connection between injecting drug users and HIV. In 2010, injecting drug users accounted for approximately one third of new HIV infections reported globally. Heroin use in Central Asia has led to an increase in the number of HIV cases, specifically in male injecting drug users of working age.<sup>162</sup> In the last decade, the number of registered HIV cases in Central Asia has increased 19-fold, from 1,641 in 2000 to 30,993 in late 2008.<sup>163</sup> Overall, drug addiction and the resulting health consequences contribute to productivity losses and costs of care that the developing republics of Central Asia struggle to combat.



**Figure 2:** Heroin trafficking routes through Central Asia (Source: UNODC)<sup>164</sup>

Drugs enter Central Asia through Afghanistan’s borders with Tajikistan, Uzbekistan and Turkmenistan (see **Figure 2**). Tajikistan’s border represents the primary point of entry, accounting for 85% of opiate flows into Central Asia in 2010.<sup>165</sup> The mountainous geography of the Tajik-Afghan border makes it the most ideal and undisturbed transit route. Train transportation is the preferred means of transport across the Uzbek-Afghan border and, under the cover of darkness, the river serves as an additional place for drug traffickers to cross. The border with Turkmenistan is the least preferred transit route. The flat geography of this border makes it easier to monitor and Turkmenistan border security regularly patrols the areas beyond the official border crossings.<sup>166</sup> Once the drugs enter Tajikistan they are typically transported on pathways towards Uzbekistan and Kyrgyzstan. The border between Tajikistan and Uzbekistan is particularly vulnerable to drug trafficking due to high levels of vehicle traffic at the border crossing.<sup>167</sup> Two thirds of total heroin exported from Uzbekistan and Kyrgyzstan are trafficked through Kazakhstan towards Russia.<sup>168</sup>

## *The Threat of Non-State Actors*

### *Organized Crime*

An understanding of drug flows reveals the porous nature of regional borders in Central Asia. Cross border trafficking is conducted by organized crime groups who rely heavily on clans to facilitate the trade. Large organized crime groups associated with the drug trade through Central Asia pose a security threat to the region because they are natural partners with terrorist organizations seeking to gain monetarily from the drug trade. In addition, organized crime groups challenge and weaken the rule of law of the state. Organized crime poses a particular threat in countries that experience widespread poverty and social and political oppression like many of the Central Asian republics.<sup>169</sup> Organized crime can have a detrimental effect on the state if it can create bonds with a larger portion of the population than the state. These bonds are strengthened when criminal groups provide employment and the prospect of upwards mobility to groups that are often marginalized. As a result these organized criminal groups can also gain political legitimacy among local communities.<sup>170</sup>

The drug network that spans Central Asia has evolved in recent years, utilizing one of the oldest organizational structures in Central Asia, the clan. Clans are family based organizations with shared rules, norms and practices. Clans were a principal feature of Central Asian society long before the Soviet era and the connection and commitment of clans was strengthened under Soviet rule. Upon the dissolution of the Soviet Union clans played an important role in shaping the organizational structure of the new Central Asian states.<sup>171</sup> In the young nations of Central Asia where many states have struggled to meet the needs of their populations, the clan structure has often proven more efficient at providing for the people.

Clans have become an essential component of the drug trade in Central Asia in part because the allegiances between them surpass the existence of the states they occupy and the borders that divide them. Specifically, clans are ideal for facilitating trade across borders. In 2009, there were twenty identified drug trafficking groups conducting operations in Tajikistan.<sup>172</sup> Many of these groups rely on the family and ethnic ties that connect villages in Tajikistan with those just across the border in Afghanistan. In Turkmenistan, the presence of roughly one million ethnic Turkmen in the Hirat, Badghis and Faryab provinces of Afghanistan helps to facilitate the trade across the border with Afghanistan and a similar connection exists between the Turkmen border with Iran.<sup>173</sup>

## *Terrorism*

In addition to the fragmentation of state power created by organized crime and clan participation in trafficking, the drug trade presents a security threat to Central Asia and the greater international community because of the monetary and organizational support it provides to terrorist organizations based in Afghanistan. The Islamic Movement of Uzbekistan (IMU) is the largest and most well-known terrorist organization associated with Central Asia. The IMU seeks to overthrow the Uzbek regime and establish an Islamic state. Prior to 2001 the IMU was active in Central Asia, however, following the events of September 11, 2001 the IMU shifted its focus to Afghanistan and Pakistan where it collaborated with the Taliban and the Tehrik-e Taliban Pakistan to attack U.S. and coalition soldiers in Afghanistan.<sup>174</sup> Jund al Khilafah and the Turkistan Islamic Party (TIP) are two additional militant groups with ties to Central Asia that are currently based in Afghanistan. Jund al Khilafah targets Kazakhstan while the TIP poses a threat to China. It is estimated that Jund al-Khilafah has two hundred to three hundred Kazakhstani militants in Afghanistan and Pakistan.<sup>175</sup>

The flow of illicit funds generated by drug trafficking is a source of concern for those interested in preventing the rise and spread of terrorist groups like the IMU, Jund al Khilafah and the TIP. The Afghan counternarcotics minister, Zarar Ahmad Muqbil, estimated that in 2012 the Taliban took in at least US\$155 million from its involvement in poppy cultivation.<sup>176</sup> Although the Afghan Taliban are the most well known beneficiaries of Afghan opium, it is widely suspected that other terrorist groups are benefiting as well. The US Office on Drugs and Crime (UNODC) has noted the involvement of the IMU with opiate trafficking.<sup>177</sup> The IMU has a stronghold in the Tavildara Valley, one of the main transit routes for drugs leaving Afghanistan. In addition, the IMU controls a group of mountain passes connecting Tajikistan, Kyrgyzstan and Uzbekistan. The increased involvement of the IMU in the transit operations of the drug trade make the organization not only a terrorist threat, but places the IMU in the category of a transnational criminal organization.<sup>178</sup> This flow of funds between Central Asia and the terrorist organizations beyond its borders not only strengthens these non-state actors but also highlights weaknesses in the capacity of the Central Asian states to respond.

The UNODC notes a phenomenon called “drug dependency” in its 2010 report.<sup>179</sup> This dependency is unique because it refers to the reliance of governments on the financial flows generated by the drug trade. In Tajikistan, drug traffickers earned 31% (US\$4.58 billion) of the

national GDP from heroin trade profits while in Kyrgyzstan those involved in the trade earned 33% of national GDP.<sup>180</sup> For countries like Tajikistan and Uzbekistan that have struggled to recover financially after the 2008 financial crisis and who cannot rely on wealth from vast natural resources, drug money becomes a way for the leadership of these governments to pay off their inner circles and maintain power.<sup>181</sup>

Drug dependent economies, combined with an oppressive state regime, create a fertile political climate for insurgency and instability. This is the case in Tajikistan, where a lack of public services, widespread poverty, and harsh governmental repression of the Tajik population has contributed to a rise in frustrated migrant workers. As a result, a guerrilla group is emerging in Tajikistan, with some links to the IMU.<sup>182</sup> The US Department of State Annual Report to Congress on International Religious Freedom also notes that attempts by the Tajik government to address violent extremism and radicalization were counterproductive because many government measures simply restricted basic religious freedom and consequently drove the practice of religion underground.<sup>183</sup> There is evidence that the radicalized portion of these populations, most of which live in the Fergana Valley, have immigrated to join terrorist groups like the IMU, Al-Qaida, and Hizb ut-Tahrir.<sup>184</sup> The existence of criminal networks, known areas of border weakness, and the financial flows from the drug trade could contribute to the resurgence of Islamic movements upon US withdrawal from Afghanistan.

### *Border Security*

In response to the security threats posed by drug trafficking through Central Asia, the international community has launched a host of programs, initiatives and forums to combat the trade. A majority of these programs focus on border security. Border security programs have served as a way for Central Asian governments to demonstrate a commitment to reducing drug trafficking and they have also provided opportunities for the international community to influence and improve security efforts in the region. Three players contribute to the majority of programs operating in Central Asia today; the European Union, the Organization for Security and Cooperation in Europe, and the US.

Beginning in 2003 the European Union (EU) started extending border management assistance through the Border Management Program in Central Asia (BOMCA). The goals of BOMCA include training border guards, bolstering border crossings by providing technology

and infrastructure, and encouraging states to collaborate with their neighbors to develop a regional strategy to secure borders. The program is funded by the EU and the US Development Program coordinates the operations on the ground through five in-country teams.<sup>185</sup>

The Organization for Security and Cooperation in Europe (OSCE) has taken the lead in security sector reform and border management assistance in Central Asia. This focus represents a recent shift in OSCE efforts in Central Asia away from human rights and democracy. This shift came after the OSCE experienced criticism from Central Asian Presidents for pursuing “unbalanced activities.”<sup>186</sup> This change of focus by the OSCE represents the delicate nature of international involvement in the region and demonstrates how border security initiatives remain one of the least contested ways the international community can influence governance in Central Asia.<sup>187</sup>

The US has a number of border aid programs that it operates in the region. The Department of State transfers equipment through the Export Control and Related Border Security Program while the Department of Defense has trained special forces to serve in “sensitive frontier regions.” The US Agency for International Development has sponsored customs reform and training programs and the Department of Justice has worked on drug enforcement measures at strategic ports of entry in the region.<sup>188</sup> In addition to these visible programs, the US also contributes more discreetly by funding international organizations including the International Organization for Migration and the UNODC. While other actors focus on training, the US continues to spend a majority of its efforts on infrastructure and meeting the equipment needs of border authorities. In recent years the US has focused extensive resources along Central Asia’s borders with Afghanistan.<sup>189</sup>

One US program that has gained international attention is the Central Asia Counternarcotics Initiative (CACI). In collaboration with the UNODC and the Drug Enforcement Administration the primary goal of the CACI is to disrupt criminal networks involved in the production and transport of illegal drugs through Central Asia.<sup>190</sup> The CACI has experienced criticism from Russia, which is wary that the program is simply a cover for the US to ensure an extended paramilitary presence upon withdrawal from Afghanistan in 2014.<sup>191</sup>

## ***Criminalization of the State***

Despite border security and counter-narcotics initiatives, seizures of drugs continue to be low compared to the overall drug flow. The direct or indirect involvement of Central Asian states in the drug trade continues to undermine progress and attempts to foster regional cooperation. In 2010 an estimated 70-75 tons of heroin reached Kazakhstan from Afghanistan, signaling the persistence of the trade in spite of border initiatives.<sup>192</sup> State involvement in the drug trade is a concern for the US because it weakens the legitimacy of the Central Asian governments by compromising their interests and thwarting the ability of the state to combat the rising threat of non-state actors involved in the trade.

The States of Central Asia have been criticized for superficially addressing drug trafficking only when pressured by the international community. Furthermore, many commentators have speculated that narcotics control efforts, specifically those of the EU, are exploited by the Central Asian governments to eliminate rivals who challenge government interests in the trade.<sup>193</sup> To explain how large quantities of narcotics continue to flow across Central Asia, experts separate the trade into three categories: green, black and red.<sup>194</sup> The green category represents trafficking organized by Islamist groups and constitutes a small share of total drug profits. The black category also makes up a small share of total drug profits and represents trafficking by small criminal groups or individuals. The red sector represents trafficking operations run by large organized crime groups. While both the green and black categories rely on corruption and bribery primarily at the lower levels, red trafficking is based on a well-organized “pyramidal hierarchy that guarantees the smooth operation of the transport chain and distribution network.”<sup>195</sup> In an effort to respond to international pressure Central Asian states focus counter-narcotics initiatives on the green and black sectors of the trade, leaving the red sector virtually undisturbed.

## ***Involvement in the Trade, A State-By-State Analysis***

### ***Kyrgyzstan***

It should be noted that while not all Central Asian governments have the same level of involvement in the drug trade, corruption is a common theme that undermines greater security efforts. In addition to the challenges of geography and finances, Kyrgyzstan has long experienced a connection between politics and the drug trade. Between 1995 and 2005 known

drug barons occupied seats in the Kyrgyz parliament.<sup>196</sup> More recently, it is suspected that the violence in southern Kyrgyzstan that accompanied former President Kurmanbek Bakiyev's fall from power in May 2010 was fueled in part by drug gangs fearful of losing their connection to political authority. The connection between these drug gangs and Bakiyev is highlighted by his decision to abolish Kyrgyzstan's drug control agency in 2009.<sup>197</sup>

### *Tajikistan*

Tajikistan is the primary transit country for opiates along the Northern route. As a result, the country intercepts more Afghan heroin than all other Central Asian countries combined.<sup>198</sup> In 2010, Tajikistan confiscated 985 kg of heroin and 744 kg of opium.<sup>199</sup> Despite drug seizures, efforts remain tainted by the presence of corruption. In 2010, twenty-five of the forty-three corruption crimes registered in Tajikistan were in the office of the Prosecutor General. Furthermore, high-ranking officials involved with border and drug control efforts are frequently arrested for their complicity in the trade, some of them going unpunished.<sup>200</sup>

### *Turkmenistan*

In Turkmenistan, President Gurbanguly Berdimukhammedov has established the State Counter Narcotics Service as well as the National Program for Combating Illegal Drug Trafficking and Assistance to Drug Psychotropic Substance Addicts. Through changes in its legislation, Turkmenistan has advised its criminal code in a way that prioritizes treatment of drug addicts over punishment. This is a positive step in reducing the criminalization of addicts, a measure that does little to treat the user and reduce demand.<sup>201</sup>

In Turkmenistan, corruption runs from senior officials at the top to border guards on the ground. High-ranking border service officers and military personnel are often rebuked for smuggling across borders. The Chairman of the state-controlled "Dayhan" Bank was known to be involved in the sale and consumption of opium.<sup>202</sup> Corrupt behavior demonstrated at the top paired with a weak economy and the low salaries of law enforcement personnel perpetuate corrupt behavior and the acceptance of bribes at the borders.

## *Uzbekistan*

Uzbekistan has proven a willing partner to the US and the UNODC programs in the region. In addition, Uzbekistan collaborates with BOMCA and Russia through the Collective Security Treaty Organization (CSTO).<sup>203</sup> Uzbekistan shares borders with every Central Asian republic and Afghanistan. Despite this, Uzbekistan's distrust of the law enforcement of its neighbors has created an obstacle for regional collaboration. While Uzbekistan is skeptical of its neighbors, the Uzbek government experiences corruption at all levels. A "pyramid of corruption" exists, involving poorly paid police officers at the bottom and powerful public officials at the top.<sup>204</sup>

## *Kazakhstan*

Kazakhstan has developed a variety of programs to comply with UN law governing counter-narcotics strategies and it has taken steps to reform its Committee on Combating Drugs to include treatment responsibility over incarceration for drug-addicted criminals.<sup>205</sup> This is an important shift, as in the past many Central Asian states have taken to criminalizing users rather than investing in treatment programs. Furthermore, in 2010 the International Narcotics Control Strategy Report found no cases of corruption among senior government officials in Kazakhstan.<sup>206</sup> Furthermore, Kazakhstan has demonstrated its role as a mediator in the region by hosting the Central Asian Regional Information Coordination Center, an organization that coordinates information sharing as well as counternarcotics efforts of organizations such as the CSTO of Russia and the Shanghai Cooperation Organization (SCO).<sup>207</sup>

## *US-Russia Disputes*

The Central Asian republics are not the only states involved in preventing a regional collaboration on the drug trade and border security. Tension and distrust between the US and Russia has also undermined regional security efforts. The CACI, the US' most recent counter-narcotics initiative in the region, has struggled to gain adequate support from Russia and the Central Asian republics. Moscow is suspicious of the plan, considering it a cover for a concealed US paramilitary presence in the region.<sup>208</sup> Furthermore, analysts suspect that Moscow has put pressure on Central Asian leaders to resist the plan in order to give Russia time to create its own alternative.<sup>209</sup> This competition between the US and Russia is effectively undermining attempts

at a regional security strategy that would benefit both the US and Russian security interests in the region.

### ***US Interests***

As the US plans to withdraw troops from Afghanistan in 2014, there is potential that terrorist groups active in the region could attempt to widen the scope of their operations. Although the gravity of this threat is disputed, the host of programs and initiatives surrounding border security and counter-narcotics efforts in Central Asia demonstrate that the international community considers the threats posed by the drug trade to be legitimate concerns. Furthermore, as the presence of US forces in the region will diminish significantly in 2014, a dependable and transparent relationship between the Central Asian states and the US is paramount towards ensuring continued cooperation in the region. In an address at the Paris Pact Ministerial Meeting in Vienna, Deputy US Secretary of State William Burns articulated the importance of a dependable regional partnership. “It is imperative that we work together to improve Afghanistan’s ability to attack drug production, neighboring states’ ability to attack drug distribution, and consumer states’ ability to address drug abuse.” Secretary Burn’s sentiment highlights US acknowledgment of key threats posed by the trade and a commitment to US support.<sup>210</sup>

### **III. Policy Considerations**

Collaborative efforts to combat drug trafficking in Asia have existed for at least a century. In 1909 the SCO brought together the US, Great Britain, China, Japan and Russia to discuss opium trafficking across Asia.<sup>211</sup> Although the most recent border and counter-narcotics programs are often undermined by corruption, these programs represent the most direct means for the international community to influence governance without forcibly separating criminal networks from their contacts within the state structure.

#### ***Partnership with Russia***

Both the US and Russia have similar security concerns in Central Asia. As the US continues to operate anti-drug efforts such as the CACI, collaboration with Russia may be a valuable partnership to ensure the success of regional programs and to demonstrate a level of

cooperation and partnership that the Central Asian states can recreate between them. The US can work towards strengthening the potential for such collaboration with Russia in a number of ways.

The US military presence in Central Asia is a point of tension with Russia, and a lack of transparency about the long-term goals of the US in the region has contributed to anxieties from Moscow. Transparency and open discussions between the US and Russia about the US military presence in the region after 2014 could prove effective in stimulating a move towards collaborative security efforts. The US can achieve this by hosting open discussions with Russia about its goals and commitments to the region, specifically with regards to military presence.

US leadership through transparency could also strengthen the potential for the US and Russia to collaborate on a broader regional drug control strategy that includes all five Central Asian republics and Afghanistan. Such collaboration would combine the resources of the US with the experience and proximity of Russia, sending a strong message to the Central Asian states about the commitment of the international community in the region.

### ***Addressing the Source***

The success of a border security or counter-narcotics initiative is largely determined by the role of border guards and customs officials on the ground. The presence of a lucrative drug trade in Central Asia combined with widespread poverty and low wages adds incentives for border and customs officials to engage in corrupt behavior. As the US continues to fund border security programs, direct budget support for the salaries of border and customs officials could be an effective way to strengthen these programs.<sup>212</sup> There is the potential that these funds could be diverted or engulfed into the corrupt system, however, focusing efforts on working with individuals could also be a beneficial and effective way for the US to strengthen the agency of society and to improve opportunities for upward mobility.

### ***Utilizing Local Expertise***

From a distance it is difficult for the US to monitor its border and counter-narcotics initiatives. Involving non-governmental organizations (NGO) in addition to local clan and religious leaders in the monitoring and evaluation of border programs could be a valuable way for the US to expand its partnerships in the region.<sup>213</sup> In addition, this strategy would increase community engagement and a sense of local ownership for regional programs. In pursuing

partnerships with NGOs and community leaders there is potential to upset Central Asian governments who may see these collaborations as a threat to state autonomy. To avoid this, a strategy grounded in transparency and open communication with Central Asian governments would be most effective.

### ***Considering Demand***

While border security programs focus exclusively on combating the transport of narcotics across borders, a focus on reducing demand provides an alternative approach to combating the trade and reducing the crime associated with it. Central Asia is not a primary destination country for illicit drugs. Despite this, the persistent flow of drugs through the region in the last few decades has contributed to a growing number of injecting drug users and, consequently, a dramatic increase in HIV. The Central Asian governments are poorly equipped to deal with a growing health epidemic, and the strategy of criminalizing rather than treating drug users does little to quell drug demand. A US emphasis on encouraging treatment programs rather than the criminalization of addicts would be a powerful way for the US to influence the health situation in Central Asia. In addition, US support for treatment programs would be a powerful way to improve the effectiveness of state institutions and repair the loss of legitimacy that many of these institutions have faced as a result of corruption. A number of Central Asian governments have already taken steps towards implementing treatment programs as an alternative to criminalization.

## **IV. Conclusion**

The presence of the drug trade in Central Asia is a concern for the US and the international community because it strengthens organized crime and terrorist groups while simultaneously eroding the legitimacy of state institutions and the state's ability to respond to threats. A partnership that combines the resources and expertise of the US and Russia represents a promising strategy towards improving regional border security and counter-narcotics initiatives in Central Asia. Furthermore, this partnership would provide a strong framework to encourage regional cooperation between the states of Central Asia. In addition, strategies such as ensuring proper pay for border guards and customs officials and utilizing the expertise of community

members to monitor border programs will strengthen state institutions and encourage good governance.

Currently, US relations with Central Asia are restricted by a need to maintain secure transit routes for US military operations in Afghanistan. However, the 2014 withdrawal of US troops will offer a critical opportunity for the US to reevaluate and expand its focus in the region to include domestic and regional problems. This shift in involvement will give the US more leverage to assert its concerns, offer support and demonstrate its sustained commitment to the growth of Central Asia.<sup>214</sup>

# Security Concerns in Nagorno-Karabakh

## Implications for Regional Stability and Economic Growth

Rachel Beck

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### **Abstract**

There are two major concerns for regional security in relation to Nagorno-Karabakh. First, violence could escalate between Azerbaijan and Armenia if a settlement is not reached, leading to heightened conflict and instability with either country. The likelihood of such an event is increased by the Azeri population's growing dissatisfaction with its government on issues of corruption and limits on human freedoms. Without addressing these issues, Azeris or those living in Karabakh may feel the need to demonstrate their position through the use of force. Second, the unresolved situation in Karabakh leaves it vulnerable to interference from outside forces. Thus, Karabakh could potentially become a black hole for local extremism or international terrorist groups, as well as become vulnerable to violence should relations between Iran and Israel deteriorate. These issues then threaten to disrupt the growing oil and gas industry in Central Asia, particularly the security of two major pipelines running from Azerbaijan to Turkey. The maintenance of this pipeline is crucial to improving the economies of Central Asia and the Southern Caucasus as well as diverting energy power away from Russia. However, democratic setbacks in Azerbaijan have weakened the probability of a peaceful settlement.

## I. Introduction

Ongoing instability in Nagorno-Karabakh, a disputed region between Azerbaijan and Armenia, presents a threat to regional security that many of the major powers, including the US, the European Union, and Russia, would like to see resolved. If a resolution is not reached, Karabakh could become a power vacuum and a vulnerable site for the spread of extremism. Additionally, both governments have demonstrated their control of the region via repression and extremist ideology; being the first to propose a democratic resolution could signify giving up some of this control. Yet if this political stalemate continues and violence resurges, energy security in Central Asia could be threatened considering the Baku-Tbilisi-Ceyhan (BTC) pipeline passes just a few kilometers away from the Karabakh border.<sup>215</sup> Border skirmishes are frequent, the most recent of which killed two Azeri soldiers, and have the potential to inflate the conflict into a full-scale war.<sup>216</sup> For these reasons, resolving the Nagorno-Karabakh dispute is in the interest of both local powers with a stake in pipeline politics as well as global powers committed to maintaining stability in an already politically volatile region.

## II. Nagorno-Karabakh Today

Nagorno-Karabakh currently claims a central territory of approximately 5,000 km<sup>2</sup>, some of which is held by Azerbaijan, as well as 12,000 km<sup>2</sup> of “occupied land” in the mountains between Karabakh and Armenia above the Caspian Sea.<sup>217</sup> The lack of trade relations and restricted transport access (there are no civilian airports) has reinforced Karabakh’s isolation. Since trade is limited, most inhabitants are subsistence farmers, although the once high wheat yields have declined in recent years due to a lack of strong seed varieties and poor agricultural equipment. Karabakh’s sole export is hydropower, harnessed from the mountains. The region has enough electricity to meet its own needs as well as export to Armenia, this region holds a unique position in regional relations; it is geographically isolated yet serves as the main link between Central Asia and the Caucasus.

Karabakh’s ownership is hotly contested between Armenia and Azerbaijan. However, it is not stable enough to become its own autonomous entity as it relies heavily on the Armenian government for support. Because of its political isolation, Karabakh receives little foreign aid despite the poor living conditions of its large refugee population. The Armenia Fund is the largest group actively building infrastructure in the area, while the Azeri government has

remained uninvolved in this capacity. In addition, Karabakh is financially dependent on trade with Armenia despite technically belonging to Azerbaijan; this relationship reinforces the deep ties between Yerevan and Karabakh. Viewed in this context, Azerbaijan's claim to the territory is somewhat tenuous.

### III. History of the Conflict

The Nagorno-Karabakh conflict is the longest-running unresolved dispute in the former Soviet Union and has displaced more than one million people in the last twenty years.<sup>218</sup> In 1989, Moscow decided to claim direct control over the mountainous region between Azerbaijan and



Figure 1: Nagorno-Karabakh Occupation (Source: Wikimedia Atlas of the World)

Armenia, more commonly known as Karabakh (see **Figure 1**).<sup>219</sup> During this year, multiple rallies and demonstrations broke out in response to this shift in power, the worst of which were in Baku and resulted in the death of more than one hundred Azeris and Armenians.<sup>220</sup> Eventually the region declared independence from Azerbaijan in 1991, igniting a civil war that lasted four years and terminated in a cease-fire agreement in 1994. Both sides claim the territory as their own; Azerbaijan on the ground of historic borders, and Armenia by reasoning of self-determination.<sup>221</sup> No peace treaty has ever been signed, leading the situation to stagnate as a frozen conflict.

The conflict that took place from February 1988 to May 1994 inflicted significant damages on both the Azeris and Armenians. During the beginning of the conflict, Nagorno-Karabakh's parliament voted in favor of uniting with Armenia, but the enclave's Azeri population boycotted and a referendum in favor of independence was passed instead in 1988. In late winter 1992, inter-ethnic fighting erupted with mediation attempts made by several groups, including the Organization for Security and Co-operation in Europe (OSCE).<sup>222</sup> Armenians obtained full control of most of the Karabakh region by 1994, as well as approximately 9% of Azerbaijan's other territory. It is estimated that as many as 230,000 Armenians from Azerbaijan

and 800,000 Azeris from Armenia and Karabakh were displaced during the conflict.<sup>223</sup> Russia managed to broker a cease-fire agreement in May 1994 but frequent peace talks mediated by the OSCE Minsk group, composed of representatives from the US, France, and Russia, have failed to reach an official settlement in the years since.

Both sides have deeply vested interests in gaining control of Karabakh. On one side, the Armenians feel a deep personal connection to the region, particularly since President Sarkisian was the former defense minister of the unrecognized government of Karabakh. In addition, the Karabakh lobby's influence continues to grow within the Armenian government. In June 2004, Garnik Isagulian, an advisor to former President Kocharyan, stated that the country's next president should hail from Karabakh due to the critical importance of the region.<sup>224</sup> These connections illustrate the strong emotional attachment between Armenia and Karabakh, and their interest in preserving the military status quo. On the other side, the Azeris display a similar sense of pride about the region. Having approximately one sixth of Azeri land controlled by Armenians is humiliating to the government, and the refugees and internally displaced peoples (IDPs) present a major economic strain. Although many Azeris perceive a general international disregard for the conflict, the government considers resolution of the Karabakh dispute to be a top foreign policy concern. In August 2002, Aliyev offered restoration of economic relations in exchange for Armenian withdrawal from four occupied territories along the Iranian border. However, former President Kocharyan refused, leading most Azeris to believe that the Karabakh conflict can only be resolved with force.<sup>225</sup>

Several factors present obstacles to reaching a settlement between the two governments including mutual mistrust, a twenty-year history of violence, security issues, and refugees on both sides. Azerbaijan is insecure with a large Armenian population occupying its territory, while Armenians feel vulnerable surrounded by Azeris and Turks.<sup>226</sup> In addition, both countries currently harbor refugees who having been living with limited and government-taxed humanitarian assistance for years. The strongest attempt at compromise has originated not from either country but from Russia, such as President Medvedev's failed attempt to have the Document of Basic Principles signed in 2011.<sup>227</sup> Elements such as interim self-governance and international security guarantees signal a place for Karabakh in the international system without quite granting independence. Most importantly, these meetings demonstrate Russia's keen interest in settling the conflict, considering that President Medvedev edited the document

himself.<sup>228</sup> Yet for all the work and time that has gone into drafting this agreement, it is still only a framework document that would not resolve the conflict entirely.

#### **IV. Security in the Southern Caucasus**

Corruption and rights abuses in Azerbaijan are a rising concern in terms of regional stability, as widespread opposition to the government grows. In December 2012, the Organized Crime and Corruption Report Project (OCCRP) named President Aliyev the most corrupt “Person of the Year.” This judgment was made based on reports of the Aliyev family’s secret ownership stakes in major Azeri businesses and secretly acquired property abroad, as well as the administration’s failure to investigate the harassment and blackmail of an OCCRP journalist.<sup>229</sup> Aliyev’s government has also received scathing critiques from the OSCE for its poor record on freedom of speech, including arresting journalists, rights supporters, and protestors. These reports are backed by Human Rights Watch, which states “the government cracked down on all forms of protest and imprisoned dozens of youth activists after sham trials... [and] the atmosphere for journalists and other critics remained hostile” in 2011.<sup>230</sup> Further arrests were made surrounding Baku’s hosting of the 2012 Eurovision song contest, despite the government seeking to portray Azerbaijan as a cosmopolitan, European-style city. Restrictions on freedom of religion as well as torture and mistreatment during custody are also cited as illustrations of the Azeri government’s poor human rights record.

Allegations of corruption within the Azeri government surface frequently. In September 2012, Azerbaijan made international headlines when a former university rector, named Elshad Abdullayev, published a video taken from a secret camera of his negotiation to purchase a parliament seat prior to the elections in 2005. In the video, the lawmaker from the ruling Yeni Azerbaijan party, with whom he is negotiating, tells Abdullayev the seat is guaranteed provided he doubles his payment to Ramiz Mehdiyev, the presidential chief of staff. Abdullayev has also published seven other similar videos, implicating the official as the head of an extensive corruption ring, and more are threatened to be released.<sup>231</sup> No official action has yet been taken in regards to the allegations against Mehdiyev, who happens to chair the state anticorruption commission and is a major leader in Azerbaijan’s internal affairs. However, the Public Chamber, an organization of Azerbaijan’s mainstream opposition groups, has publicly demanded an investigation into Abdullayev’s claims.

This demand is just one example of the mounting unrest regarding Baku's corruption problem. January 2013 has been marked by multiple protests across the country, an unprecedented event in recent years. In January, more than twenty people were fined for participating in a peaceful rally to raise awareness of hazing and violence in the army and over a thousand shopkeepers demonstrated in Baku to protest sharp rent increases by business owners suspected of being connected to top government officials.<sup>232</sup> The most notable protest, however, took place in Ismayilli, in northwestern Azerbaijan, on January 23, when thousands of people gathered to protest the government's refusal to shut down a brothel allegedly housed in a local motel and reportedly owned by the son of Azerbaijan's minister for social welfare. During the rioting, protestors set fire to the motel, the local governor's residence, and several cars, to which the local police force responded with tear gas and water cannons.<sup>233</sup> In solidarity with the Ismayilli protests, supporters held a demonstration in Baku, where about forty participants were detained.<sup>234</sup> In addition to cronyism, citizens have also voiced concerns over the growing wealth gap in the nation, as Azerbaijan's oil wealth has failed to trickle down to the majority of the population.

These events are particularly relevant in light of October's upcoming elections. Authorities have sought to portray the recent protests as isolated incidents, but others see these events as a sign of a dissatisfied populace. Opposition political parties hope to use the protests to expand their electoral base and replace Aliyev as president. Yet there is concern over fairness since Aliyev has been accused by Western governments and human rights groups of rigging elections in the past.<sup>235</sup> In 2010, observers from the OSCE found the elections limiting in terms of media freedom and freedom of assembly, as well as providing an uneven playing field for competing candidates. In addition, almost a third of polling stations were rated bad or very bad, based on observations of problems such as ballot box stuffing.<sup>236</sup> With the authorities looking to clamp down on opposition groups, whom they see as inciting the recent protests, elections are unlikely to be any fairer this year. However, if elections continue to be restricted, Azerbaijan could see more demonstrations and violent outbursts in the following months, particularly since frustration have not been abated despite the recent arrests of protest leaders. Consequently, the risk of further retaliation from the populace continues to grow more likely.

## V. Regional Allies

Azerbaijan's hard power role in the Karabakh conflict is supported by its strong relationship with Israel. The two countries have had diplomatic relations since April 1992, shortly after Azerbaijan declared its independence from the Soviet Union. They share similar interests: both want to manage the spread of political Islam and limit Iran's influence. Israel has stated its support for Azerbaijan in Karabakh and other disputes, a position reinforced by the February 2012 sale of US\$1.6 billion worth of advanced weapons systems.<sup>237</sup> *Foreign Policy* later reported that Israel had signed an agreement to use Azerbaijan's airfields in the event of a military strike against Iran's nuclear facilities, although both countries have denied these claims.<sup>238</sup> Despite Azerbaijan's majority Muslim population, the government is deeply secular and Israel sees the Azeris as a great ally because they are a Muslim country willing to cooperate on strategic issues. In addition, Israel may empathize with Azerbaijan's tenuous relations with its neighboring countries. In return, "from Azerbaijan's view, Israel has been more understanding than European countries that have criticized Baku about rights abuses but that do not acknowledge the challenges on its borders or the difficulty in building a secular culture in a predominantly Muslim country."<sup>239</sup> Regardless of motive, Israel is prepared to support Azerbaijan in the event of escalated violence in Nagorno-Karabakh or conflict with Iran.

Turkey has also been a strong supporter of Azerbaijan, due to its common culture and history and shared interest in the BTC pipeline. Turkey supports the defense of Azerbaijan's territorial integrity, including maintaining its hold on Nagorno-Karabakh. In 1993, Turkey supported Azerbaijan in imposing a full economic embargo on Armenia and closed its Armenian borders, demanding that Armenia withdraw from Karabakh and the seven other occupied districts.<sup>240</sup> Turkey does not recognize the de facto government of the independent republic of Nagorno-Karabakh, and supports the OSCE Minsk Group as a mechanism for resolution of the conflict. Due to its historically strained relationship with Armenia as well as its economic ties to Azerbaijan via the BTC pipeline, Turkey is another strong ally that is likely to come to the aid of Baku in the event that relations surrounding Nagorno-Karabakh deteriorate.

Outside of Nagorno-Karabakh, Azerbaijan's relationship with Iran is the largest threat to regional security. Despite being two of only four Shia-majority Muslim countries in the world, tension between the neighbors has grown in recent years. One of the first countries to establish full diplomatic relations with Azerbaijan after its independence in 1991, Iran also established a

free visa regime for traveling Azeris.<sup>241</sup> However, Azerbaijan has avoided an open-border policy with Iran out of concern for a large influx of ethnic Azeris, who compose 16% of the Iranian population.<sup>242</sup> President Aliyev has also stated his support for the US sanctions against Iran, despite Azerbaijan's officially neutral position on the Iranian nuclear policy. In US diplomatic cables leaked by Wikileaks in November 2010, it came to light that in February of that year Aliyev had criticized European oil and gas companies for violating the sanction regime and accused Iran of financing radical Islamist groups.<sup>243</sup> Additionally, Iran's explicit support for Armenia has increased animosity between the two nations.

These tensions resulted in several confrontations between Azerbaijan and Iran in 2012. In March, Azeri authorities arrested twenty-two individuals suspected of participating in an Iranian-based attack on American and Israeli diplomats in Baku, although these allegations have yet to be substantiated. Two months later, a senior aide to Iran's supreme leader, Ayatollah Ali Khamenei, was denied entry at the airport in Baku, prompting the repositioning of Iranian warships in the Caspian.<sup>244</sup> Both sides frequently throw allegations at the other: last year, Azeris accused Iran of cyber-attacks against its government and news sites,<sup>245</sup> while Iranians accused Azerbaijan of operating Israeli drones to spy on Tehran.<sup>246</sup> Azerbaijan's close relationship with Israel is of major concern to the Iranian government, particularly since it fears Israel may use Azeri bases in exchange for the sale of weapons. Should conflict erupt between Israel and Iran, Azerbaijan will certainly be drawn in.

## VI. Energy Security and Pipeline Politics

There are two major pipelines originating in Azerbaijan. The BTC pipeline was completed in 2005 and connects the Caspian Sea to the Mediterranean, starting in Baku and ending in Ceyhan, Turkey. Totalling 1,768 kilometers in length, 443 kilometers of which travels through Azerbaijan, the pipeline carries approximately one million barrels of oil per day<sup>247</sup> (see **Figure 2**).<sup>248</sup> The construction of this pipeline was a major success for several reasons, including avoiding increasing oil traffic through the vulnerable Turkish Straits. Running parallel to this pipeline is the South Caucasus pipeline which connects the Shah Deniz oil fields in northern Azerbaijan to Turkey. For Azerbaijan in particular, both pipelines have been seen as a way to decrease dependence on Russia for oil and gas export routes, as well as to build economic and

political ties with Turkey and Western Europe. Yet despite assurances of their security, the ongoing Nagorno-Karabakh conflict threatens to jeopardize this security.<sup>249</sup>



**Figure 2:** BTC Pipeline (Source: U.S. Energy Information Administration)

There are many reasons to support the maintenance and security of the pipelines in Azerbaijan. Besides creating jobs and attracting foreign investment, the pipelines are a way for Azerbaijan to demonstrate its value as an energy power. The State Oil Fund of the Azerbaijan Republic (SOFAR), established by the Azeri government in 1999, was created to accumulate oil revenues and invest them into interest-generating bonds and stocks. SOFAR has been regarded as one of the most transparent and non-corrupt government institutions, a position reinforced by Azerbaijan's joining of the Extractive Industries Transparency Initiative (EITI), created by British Prime Minister Tony Blair.<sup>250</sup> These efforts demonstrate Azerbaijan's desire to grow as a major source of energy due their unique positioning between Central Asia and Eastern Europe.

However, opinions regarding the pipelines, specifically the BTC, remain divided. Supporters claim that the BTC's connection to the European economy will lead to improvements in democracy and human rights, as Azerbaijan seeks to demonstrate European values. Yet opponents argue oil and gas projects negatively impact progressive development since foreign countries and multinational oil companies have been accused of turning a blind eye to fraudulent elections and supporting the authoritarian regime for the sake of stability.<sup>251</sup> These foreign actors have little economic incentive to intervene in Azeri rule as long as they see the return of oil and gas profits. This is both a positive and negative for regional security. On one hand, outside actors

have a financial stake in maintaining pipeline security, but on the other hand, ignoring corrupt politics could lead to growing domestic instability as Azeris call for foreign accountability.

Security of these pipelines is not guaranteed. The BTC pipeline runs through steep mountains and over fourteen seismic faults, and passes dangerously close to several frozen conflicts. These include Nagorno-Karabakh but also South Ossetia, the North Caucasus, Abkhazia in northern Georgia, Armenian enclaves in southern Georgia, and separatist Kurdish regions in southeastern Turkey.<sup>252</sup> As a result, international terrorism poses a significant threat to pipeline security. In January 2006, explosions in North Ossetia cut off gas and electricity supplies to Georgia.<sup>253</sup> Then, in August 2008, the Kurdistan Workers' Party (PKK) claimed responsibility for an explosion and fire in eastern Turkey that shut down the BTC pipeline for nineteen days.<sup>254</sup> Additionally, locals in all three countries through which the pipeline runs staged frequent blockages during construction and illegal tapping attempts were discovered even before the pipeline opened in May 2005.<sup>255</sup> The Azeri government has actively cooperated with the US and NATO on border security and other terrorist issues, but these isolated incidents demonstrate the pipeline's vulnerability to local violence.<sup>256</sup> Additionally, there is a fear that Armenian forces could attempt to take hostage the portion of the BTC nearest to Nagorno-Karabakh as a bargaining tool in negotiations.

There is also the construction and security of as-yet-unbuilt pipelines to consider in Azerbaijan's role in Central Asian security. The first, Nabucco West, would connect Azerbaijan directly to European markets. This 1,300-kilometer pipeline would transport gas from the Turkey-Bulgaria border to Austria via Bulgaria, Romania, and Hungary, connecting to the US\$7 billion Trans-Anatolia pipeline (TANAP), which will be built across Turkish territory<sup>257</sup> (see **Figure 3**).<sup>258</sup> Nabucco West would benefit the EU as it looks to diminish its reliance on Russia, which provides a quarter of its natural gas. However, construction of the pipeline will need to begin quickly to compete with the construction of Russia's South Stream pipeline, potentially able to transport natural gas to the EU as early as 2014. Like the BTC and the South Caucasus, this pipeline project is important to those interested in decreasing dependence on Russia for oil and natural gas.



**Figure 3:** Proposed Nabucco & Trans-Caspian pipelines (Source: Wikimedia Commons)

The second, the Trans-Caspian gas pipeline (see **Figure 3**), is a proposed submarine pipeline that would run underneath the Caspian Sea, connecting Turkmenistan and Azerbaijan. If built, this project would transport Kazakh and Turkmen gas to Central Europe, bypassing both Russia and Iran. Construction of the Trans-Caspian has been up for debate since the late 1990s, due to Iranian and Russian opposition as well as contested claims surrounding territorial waters. However, the project was rekindled in 2006 due to gas disputes between Russia and the Ukraine. In February 2013, Azeri Energy Minister Natig Aliyev stated that the drafting of documents is almost complete and that contracts are waiting to be signed.<sup>259</sup> Although construction of the submarine portion of the pipeline may cost US\$1-2 billion alone, Minister Aliyev has stressed the importance of the project to Azeri interests. The EU and the US have also both given their explicit support for the project.<sup>260</sup> Tehran and Moscow have expressed concerns that pipeline construction poses an environmental threat to the Caspian Sea, and that the pipeline may violate territorial claims. However, these recent objections do not seem to be impeding implementation of the project.

## VII. Major Issues

Azerbaijan wants to be a major economic power, as evidenced by its flush of capital into developing Baku. It is in the best interest of the US and the EU to support this effort in order to keep the country as an ally. This includes demonstrating to Azerbaijan that other countries

consider it powerful. Former Secretary of State Hillary Clinton visited Baku in June 2012 during a trip to promote democracy in the Southern Caucasus.<sup>261</sup> Maintaining relations with Aliyev's administration has been particularly important to US foreign policy in recent years since the US relies on airfields in Azerbaijan to transport supplies in and out of Afghanistan while overland supply routes in Pakistan remain closed. Due to this relationship, the US has avoided commenting on Azerbaijan's corruption and human's rights abuses because the Azeris are seen as important economic and political allies, particularly against Iran. However, "State Department officials refused to respond to questions about friction between Azerbaijan and Iran, the US' relationship to Baku or implications for American or international security."<sup>262</sup> This reticence to openly embrace Azerbaijan is based on the fact that too strong of an attempt at friendship is sure to draw criticism from Armenian-American interest groups and human rights watch groups.

Other actors with a vested interest in Azerbaijan may be able to influence reconciliation efforts with Armenia. These countries include allies such as Israel and Turkey, as well as Azerbaijan's Caspian neighbors Kazakhstan and Turkmenistan. Since Israel values Azerbaijan's support as a Muslim country and due to its proximity to Iran, it is in Jerusalem's best interest that civil unrest does not disrupt the government and threaten their ally relationship. Similarly, Turkey needs Azerbaijan as an ally against Armenia and Russia, and both countries seek to increase their influence on the European stage. Finally, Kazakhstan and Turkmenistan each have a stake in the security of Azerbaijan's pipelines. Both countries will want to ensure the completion and maintenance of both Nabucco West and the Trans-Caspian pipeline, which will deliver their products to European markets. Any of these countries could provide incentives to encourage the Azeri government to reach a settlement in Karabakh as well as improve its civil society.

## **VIII. Conclusion**

At stake in the Karabakh conflict is both Azerbaijan's internal stability as well as the security of existing and planned pipeline projects in the region. Azerbaijan's current relationship with the US is strong, but could weaken if opposition to the Aliyev regime spreads and the US is forced to take a look at its economic relations with the country. Azerbaijan has invited American companies to develop Azeri oil reserves in order to foster a strong business relationship with the West. The Azeri government also accepts NATO training but has not openly stated its intention

to join, demonstrating Azerbaijan's unique position as a bridge between Europe and Asia. Brokering a legitimate agreement with Armenia will require the US and other allies to demonstrate a vested interest in helping Azerbaijan grow its economy, as well as assurances of security to protect against future border disputes. In order to achieve this, the US may have to continue to avoid directly commenting on Azerbaijan's corruption and human rights issues in the short-term. However, in the case that internal dissent should escalate and intervention becomes unavoidable, the US could use Azerbaijan's economic interests to force the government's hand into making some social policy concessions. Finding a permanent resolution to the frozen conflict in Nagorno-Karabakh is a first step toward guaranteeing security and development for the region.

# Turkmenistan and Kazakhstan: Pipeline Politics

Patrick Mullen

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### **Abstract**

Turkmenistan and Kazakhstan have emerged as major players in the world energy market. Their substantial quantities of hydrocarbons are still being developed, and provide the opportunity for nations to secure vast quantities of resources. These Central Asian states are strategically located between the western markets of Europe, and eastern markets of China, Pakistan, and India. US interest aligns with ensuring that US allies and the international market secure their equitable share of Turkmenistan and Kazakhstan's gas and oil.

## I. Introduction

Turkmenistan and Kazakhstan's vast quantities of natural gas and oil have the potential to impact global and regional markets, offsetting the degree of dependence many importers now have on OPEC and Russia. These resources, therefore, have caught the attention of the international community. Looking forward, the major issue for Turkmenistan and Kazakhstan will be deciding whom to sell their resources to. During the Soviet Era, both states' resources were sent north to Russia, and to this day major pipelines continue to run that direction. The Central Asian states have more options now, and can look to the EU, China, India, and Pakistan as major markets. Both Turkmenistan and Kazakhstan are landlocked countries which makes transportation networks more difficult to implement, and susceptible to political strife. Turkmenistan and Kazakhstan have implemented several transportation networks of pipelines and tanker ships to bypass the old Soviet system, and are in the means of negotiations for others. The US and its allies stand to benefit from several proposed projects, namely the Trans-Caspian, Turkmenistan-Afghanistan-Pakistan-India (TAPI), and the Kazakhstan Caspian Transportation System to the Baku-Tbilisi-Ceyhan (BTC) pipeline. Former US Secretary of State Hillary Clinton has stated that, "Energy cuts across the entirety of U.S. foreign policy. It's a matter of national security and global stability."<sup>263</sup> This statement especially rings true concerning Turkmenistan and Kazakhstan.

## II. Turkmenistan's Natural Gas

Major natural gas deposits have turned Turkmenistan into a focal point of the world energy supply. Turkmenistan's proven gas reserves at the start of 2012 were estimated at 24.3 trillion cubic meters (TCM), or 11.7% of the world's gas.<sup>264</sup> This places Turkmenistan with the fourth-largest gas reserves in the world after Russia, Iran, and Qatar. In 2001, Turkmenistan only had 2.6 TCM of proven natural gas reserves. By 2011, its reserves had grown to a formidable 13.4 TCM. From 2011 to 2012 Turkmenistan's reserves doubled due to the discovery of the South Yolotan, the second largest natural gas field in the world. The South Yolotan has been independently estimated to contain 13.1-21.2 trillion cubic meters (TCM) of natural gas.<sup>265</sup> Turkmenistan's huge gas finds have left production capabilities working to catch up.

Turkmenistan's natural gas production is currently only a fraction of its potential. At the start of 2012, it was only producing around 1.8% of the world's total natural gas (75 bcm).<sup>266</sup>

Turkmenistan has set a target of producing 250 bcm per year by 2030 which would make it the third largest producer behind Russia and the US, based on 2012 production levels.<sup>267</sup>

Turkmenistan’s recent discoveries have led many states, primarily the EU, China, India, and Pakistan, to take interest in its natural gas reserves. To serve these new markets, several pipeline projects are undergoing final negotiations or being upgraded, namely the Trans-Caspian, TAPI, and Turkmenistan-China (Central Asia-China) (see **Figure 1**).



**Figure 1:** “This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries, and to the name of any territory, city or area.” (Source: World Energy Outlook 2010 © OECD/IEA 2010, figure 17.19, page 537)

### *Turkmenistan’s Extraction Policies*

Turkmenistan has a policy of only allowing production sharing agreements (PSA) for offshore oil and gas development. Turkmenistan allows PSAs for offshore development to attract investment, as offshore extraction is more technically challenging. PSA contracts allow for companies to receive part of the product that they are mining. The alternative to PSAs are service contracts, which pay companies for their services in withdrawing the oil or gas. PSA’s are much more lucrative contracts as companies can sell the oil or gas they extract to states or on the international market. China’s state-owned China National Petroleum Corporation (CNPC) is the only company to receive an onshore agreement for a PSA, due to its large investments in the country.<sup>268</sup> Turkmenistan’s reluctance to allow PSAs for its onshore fields has decreased its foreign investment appeal; however states are still very eager to access Turkmenistan’s gas.<sup>269</sup>

### ***Turkmenistan-Russia***

Turkmenistan has been exporting natural gas to Russia through the Central Asia-Center pipeline network since 1992.<sup>270</sup> For many years Russia took advantage of being the main destination for Turkmenistan's gas by reselling Turkmen gas to Ukraine and European countries at inflated rates.<sup>271</sup> In 2009, Russia re-negotiated its contract with Turkmenistan to purchase only up to 30 bcm of natural gas per year<sup>272</sup> instead of around 70 bcm.<sup>273</sup> Russia has been purchasing around 10 bcm per year since 2009 due to low European demand for gas,<sup>274</sup> and stated that it will keep purchases at 10 bcm for 2013.<sup>275</sup> While Russia has decreased its purchases of Turkmen gas, it is in Russia's strategic interest to keep Turkmenistan's export pipelines flowing through its territory. Russia has a near monopoly on gas sales to Europe and does not want Turkmenistan to enter that market. In January 2013 Ukraine expressed interest in acquiring gas directly from Turkmenistan using the excess capacity in the Central-Asia Center network.<sup>276</sup> Russia has thus far not allowed direct sales of natural gas from Turkmenistan to Ukraine using the Central-Asia Center system, and Russia has opposed projects such as the Trans-Caspian that would send Turkmenistan's natural gas to Europe. Turkmenistan has sought to diversify its exports to decrease dependence on Russian sales, giving other players, such as the EU, China, India, and Pakistan a great opportunity to enter the market.

### ***Turkmenistan-Iran***

Turkmenistan has two natural gas pipelines travelling to Iran that each have a capacity of 14 bcm per year.<sup>277</sup> The Korpezhe-Kurt Kui Pipeline, built in 1997, was the first Central Asian gas pipeline to bypass Russia<sup>278</sup> and the Dauletabad-Khangiran Pipeline was completed in 2010.<sup>279</sup> Iran holds the world's second largest natural gas reserves, yet is a net gas importer due to underinvestment in infrastructure and sanctions.<sup>280</sup> Iran is far from an ideal export destination and owes Turkmenistan about US\$1 billion in outstanding payments for gas. In 2011, Turkmenistan exported 10.2 bcm of gas to Iran and decreased exports to about 6 bcm for 2012.<sup>281</sup> In December 2012, Turkmenistan stopped gas exports to Iran for the third time in the last 4 years. Gas flow re-started when Turkmenistan and Iran reached a deal where Iran pays for gas by the barter system, providing Turkmenistan with machinery and other goods.<sup>282</sup>

Iran purchases Turkmenistan's natural gas for domestic use in northern Iran and to fulfill its export contract to Turkey.<sup>283</sup> In 2011, Turkey relied on Iran to supply about 20% (8.4 bcm) of

its demand.<sup>284</sup> A direct route that would provide Turkey with gas from Turkmenistan would be ideal for Turkey's energy security. The proposed Trans-Caspian project from Turkmenistan to Azerbaijan would link up to existing pipeline networks and be able to directly supply Turkey with Turkmen gas.

### ***Turkmenistan-China***

As Russia and Iran have become less desirable markets for Turkmen gas, China has become a major export destination. China's natural gas demand is estimated to rise on average 6.1% per year, to reach a total of 500 bcm of gas per year in 2035.<sup>285</sup> The current Central Asia-China pipeline ships gas from Turkmenistan-Uzbekistan-Kazakhstan-China. In June 2012, China began discussions regarding a Turkmenistan-Tajikistan-Afghanistan-China pipeline.

### ***Central Asia-China Pipeline Network***

The Central Asia-China network currently has 2 pipelines that were completed in 2009, and a third is under construction. The two pipelines in operation have the capacity to transport 40 bcm per year,<sup>286</sup> with a third to be completed by 2015, adding an additional 30 bcm.<sup>287</sup> In late 2011, Turkmenistan and China revised their contract from 40 bcm<sup>288</sup> to 65 bcm per year;<sup>289</sup> however, Turkmenistan currently lacks the capability to export that much gas to China.<sup>290</sup> China understands that Turkmenistan's production levels will rise, and has worked to secure contracts for the future.

### ***Turkmenistan-Tajikistan-Afghanistan-China Pipeline***

China initiated discussions with Afghanistan concerning the Turkmenistan-Tajikistan-Afghanistan-China (TTAC) pipeline in June 2012. This development came as the US backed Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline is finalizing negotiations and attracting funding. The TTAC pipeline is in a preliminary planning stage but may emerge as a competitor to the TAPI. A main point of the TTAC is that it would travel through northern Afghanistan, whereas the TAPI pipeline is planned to travel through both the north and south of Afghanistan. Northern Afghanistan has traditionally been anti-Taliban while southern Afghanistan has been the historical homeland of the Taliban. The TTAC undermines the US vision of having a pipeline as a state building project for Afghanistan.

### *Turkmenistan-Azerbaijan/Europe: Trans-Caspian Pipeline*

With the proposed Trans-Caspian pipeline, Turkmenistan is looking to further expand its gas exports, Azerbaijan is interested in increasing its position as a key transit route of the Caspian, Turkey is eager to become a gas transit state while diversifying its gas imports, and the EU is desperate to find new gas to decrease its reliance on Russian imports. The proposed Trans-Caspian pipeline would go under the Caspian Sea from Turkmenistan to Baku, Azerbaijan. From Baku, the gas from Turkmenistan would flow through the current Baku-Tbilisi-Erzurum (BTE) pipeline and enter the recently approved Trans-Anatolian gas pipeline (TANAP), which will go across Turkey.<sup>291</sup> In western Turkey, the TANAP will meet up with either the Nabucco West or TAP pipeline, depending on who wins a contract in 2013, and will be sent to Europe.<sup>292</sup>

The Trans-Caspian gas pipeline can greatly improve energy security in the EU and Turkey. Negotiations concerning the Trans-Caspian pipeline have been ongoing since the late 1990's between Azerbaijan, Turkmenistan, and the EU. Russia and Iran have both expressed explicit opposition to the Trans-Caspian project. China is opposed to the pipeline, but leaves vocal condemnation to Russia and Iran.

The idea of a Trans-Caspian pipeline is strongly supported by the US. In 2007, the US Trade and Development Agency funded a feasibility study on a similar Trans-Caspian pipeline from Kazakhstan to Azerbaijan.<sup>293</sup> The US has publicly shown support for the Trans-Caspian pipeline, however, the US is not directly involved in negotiations regarding its construction.

### *Implications for EU Energy Security*

The Trans-Caspian pipeline is slated to transport 30 bcm of gas per year from Turkmenistan to Europe.<sup>294</sup> In September 2012, Turkmenistan's head of state stated, "The republic is interested in the soonest creation of the reliable network for the transportation of energy resources to various regions of the world, including Europe."<sup>295</sup> Gas from the Trans-Caspian pipeline has the potential to relieve the reliance that the EU has on Russian Gazprom gas. Russia's state owned company, Gazprom, provides Europe with a third of its gas, and thus has the ability to charge the EU high prices.<sup>296</sup> The EU suffered in 2006 and 2009 from Russian gas shut offs due to disputes regarding transit through Ukraine.<sup>297</sup> EU natural gas demand was estimated to be 527-531 bcm in 2010, and is predicted to stay fairly level at 479-538 bcm

through 2020.<sup>298</sup> Assuming a EU demand of 500 bcm, the 30 bcm from the Trans-Caspian pipeline would provide for 6% of EU gas.<sup>299</sup> The EU could negotiate for greater than 30 bcm as Turkmenistan is eager to produce 250 bcm yearly by 2030.

### *Implications for Turkish Energy Security*

Turkey is interested in the Trans-Caspian as an alternative to gas imports from Russia and Iran. Turkey produces about 8 bcm of gas per year and relies on imports to meet the rest of its demand.<sup>300</sup> In 2011, Turkey imported a total of 42.5 bcm, with 25 bcm from Russia, and 8.2 bcm from Iran.<sup>301</sup>

Turkey is a vital player in the transit of gas from the Trans-Caspian pipeline to Europe. Turkish Minister of Energy and Natural Resources, Taner Yildiz, stated in September 2012 that, “Turkey is ready to take an active part in the creation of such a system for the supply of Turkmenistan’s energy resources for the world market.”<sup>302</sup> Turkey has done this through the recently approved TANAP pipeline that will carry gas from Baku to western Turkey, where it can join either the proposed Nabucco West or Trans-Adriatic Pipeline (TAP).

### *Trans-Caspian Pipeline Negotiations: Turkmenistan-Azerbaijan-EU*

Negotiations concerning the Trans-Caspian pipeline have been ongoing since the 1990s, but renewed talks initiated by a mandate from the EU council began in September 2011.<sup>303</sup> By September 2012, the EU Energy Commissioner, the Turkmenistan Energy Minister, and the Azerbaijan Minister for Industry and Energy agreed that, concerning the Trans-Caspian pipeline, “the idea was an important part of efforts to reduce Europe's dependence on Russian gas supplies, and thus should be given new impetus.”<sup>304</sup> As of January 25, 2013, negotiations are continuing between Turkmenistan, Azerbaijan, and the EU.<sup>305</sup> Turkmenistan and Azerbaijan have several issues that must be resolved before negotiations on the Trans-Caspian can be finalized.

Turkmenistan and Azerbaijan each claimed the right to three Caspian oil fields after the collapse of the Soviet Union in 1991. The two states signed a bilateral agreement in 2008 to not develop one of the fields, the Kyapaz field, until the territorial dispute is solved.<sup>306</sup> After Turkmenistan stated in July 2012 that it would start scientifically sampling the Kyapaz field, the Azerbaijani Foreign Ministry stated that Baku “reserves the right to take steps to defend its

sovereign rights in the Caspian.”<sup>307</sup> Negotiations between Turkmenistan and Azerbaijan concerning the three fields have been going on for nearly 15 years without a clear solution.

Other issues facing the Trans-Caspian pipeline include Azerbaijan’s potential desire for singular control of the European gas market, and Turkmenistan’s need for assurance that it can sell its gas in Europe.<sup>308</sup> Azerbaijan is contracted to supply about 25 bcm yearly to Turkey and Europe through the newly approved TANAP pipeline.<sup>309</sup> Azerbaijan must receive assurances from Europe that there will be a market for both Azeri and Turkmen gas before proceeding with the Trans-Caspian pipeline. Former US Ambassador to Azerbaijan, Matthew Bryza, believes that the TANAP pipeline currently being built across Turkey must be completed before Turkmenistan will agree to the Trans-Caspian. Bryza believes that Turkmenistan wants concrete knowledge that it will be able to sell to Europe, as Turkmenistan fears a Russian retribution for going ahead with the Trans-Caspian pipeline. Bryza also stated that continued US and EU support are vital to push Turkmenistan to sign off on the Trans-Caspian.<sup>310</sup>

### *Opposition from Russia*

*“There are two main factors—the environment and the undetermined status of the Caspian Sea” --Russian ambassador to Turkmenistan, Aleksandr Blokhin.*<sup>311</sup>

Russia officially opposes the Trans-Caspian pipeline on the terms that it would be detrimental to the environment of the Caspian Sea and that the Caspian Sea has not been officially partitioned between its littoral states. The EU has financed an environmental impact assessment of the Trans-Caspian pipeline and concluded the pipeline would have the “lowest environmental impact compared to similar pipelines.”<sup>312</sup> The proposed pipeline travels only through Turkmenistan and Azerbaijan’s territorial waters. As such, Turkmenistan and Azerbaijan believe that they can bilaterally negotiate for the implementation of the project.<sup>313</sup>

Russia’s statements opposing the pipeline can be considered a red herring. Moscow sees the Trans-Caspian pipeline as a threat to its monopoly over gas sales to Europe. The Trans-Caspian pipeline is also a direct competitor to Russia’s Gazprom-sponsored South-Stream Pipeline to Europe that is to be completed by 2015.<sup>314</sup> The South-Stream project will supply 63 bcm of gas yearly and cause Europe to further rely on Russian gas.<sup>315</sup> The European Commission has recognized Russia’s monopolistic efforts and launched an anti-trust investigation into

Gazprom in September 2012.<sup>316</sup> The Trans-Caspian is vital for diversifying the EU's natural gas supply away from Russia.

### *Opposition from Iran*

Iran has also taken a direct stance against the Trans-Caspian pipeline, stating that the pipeline will hurt the environment of the Caspian Sea. However, Iran also has alternative reasons behind its opposition to the pipeline. Iran holds the second largest natural gas reserves in the world and sees the Trans-Caspian as a threat to future sales. The Trans-Caspian pipeline would also enable Turkmenistan to directly sell to Turkey, cutting out middleman revenue for Iran.

### *Opposition from China*

China is in accordance with Russia and Iran in opposition to the Trans-Caspian pipeline. China has been working to lock down gas contracts from Turkmenistan and views Europe as a direct competitor and threat to its Turkmen gas supply, particularly over the long-term.<sup>317</sup> China is also worried that Turkmenistan may increase its gas price if it finds another large market in the EU.<sup>318</sup> As China stands to lose from the Trans-Caspian, it may try and use its position as a major investor and financier in Turkmenistan to oppose the project.<sup>319</sup>

### ***Turkmenistan-Afghanistan-Pakistan-India (TAPI)***

*“The implementation of this project will give a powerful impetus to the social and economic development of all the participant countries.” --Baimurad Hojamukhamedov, Turkmenistan Deputy Prime Minister.<sup>320</sup>*

The Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline, if built, has the potential to provide the growing economies of Pakistan and India with substantial quantities of natural gas. The US has supported the TAPI pipeline since the 1990s as it provides gas to key allies, Pakistan and India. US State Department Assistant Secretary for the Bureau of South and Central Asian Affairs, Robert O. Blake Jr., has stated that, “The TAPI project is one of the most important regional integration projects, because it will provide Turkmen gas for the growing Indian market, but it will also provide very substantial transit revenues for Afghanistan and

Pakistan.”<sup>321</sup> Negotiations recommenced in September 2010 when Turkmenistan, Afghanistan, Pakistan, and India signed an initial framework agreement and began discussions on gas pricing.<sup>322</sup> In April 2012, the four parties reached an agreement on transit fees. In May 2012, Pakistan and India signed sale and purchase agreements with Turkmenistan.<sup>323</sup> In November 2012, Afghanistan decided to give up its share of gas from Turkmenistan, stating that Afghanistan currently does not need it.<sup>324</sup> This action is likely related to the country’s ongoing push to develop its own gas resources in the northwest, Faryab Province. Afghanistan will still benefit from the pipeline by receiving transit fees from both Pakistan and India.

The framework for the TAPI pipeline is set and ready for construction, contingent on attracting financing for the US\$7.6 billion project.<sup>325</sup> In late 2012, the TAPI pipeline consortium staged road shows in Singapore, New York, and London to attract financing for the project. If the final investment decision on funding can be secured early in 2013, the project may break ground in 2015 and be completed by 2018.<sup>326</sup>

### *Importance for Pakistan and India*

Pakistani President Asif Ali Zardari has called the TAPI pipeline “essential” and the start of a new era of cooperation regionally and inter-regionally.<sup>327</sup> Indian President Pranab Mukherjee has stated that, “This project is mutually beneficial for economic reasons. It is also important for bringing peace and development to our common region.”<sup>328</sup> India and Pakistan’s energy demands are rising rapidly. India’s energy usage is expected to rise 119% by 2035 from its 2009 levels.<sup>329</sup> Pakistan currently faces severe energy shortages, including a 20% gas shortage that will worsen with time.<sup>330</sup> The TAPI pipeline is an opportunity for Pakistan and India to secure gas reserves, and boost cooperation between the states.

### *Security Concerns: Afghanistan*

Concern over the security situation in post-2014 Afghanistan is the biggest threat to implementing the TAPI pipeline. Assistant Secretary Robert O. Blake Jr. believes that the US has been effectively transitioning the security to the Afghan National Security Forces (AFNS), and that the 2014 deadline will go over smoothly.<sup>331</sup> The US sees the TAPI project as an essential nation building opportunity for Afghanistan. China’s proposed project through Afghanistan, the Turkmenistan-Tajikistan-Afghanistan-China (TTAC) pipeline may emerge as a

more politically viable option due to decreased security concerns. It is important that the TAPI secure financing before an alternative project such as the TTAC can take its place.<sup>332</sup>

### *Opposition from China*

China does not condemn the TAPI pipeline; instead it has put forward plans for a competitor pipeline, the TTAC. By pushing for the TTAC, China can secure more gas and counter the TAPI, which would give Pakistan and India access to Turkmen gas. If the TAPI is built, Turkmenistan will have greater flexibility with gas pricing and avoid reliance on one primary buyer (China). The TAPI is an opportunity for Turkmenistan to enter in a multilateral agreement on gas sales, and may lead to greater integration for Turkmen gas sales on the international market. China is interested in keeping its position as the major market in East Asia, and thus will continue to seek an alternative to the TAPI.<sup>333</sup>

### *Iran-Pakistan-India: Alternative pipeline to supply Pakistan and India*

On January 30<sup>th</sup>, 2013, Pakistan approved a deal with Iran for the construction of the Iran-Pakistan gas pipeline.<sup>334</sup> A final engineering, procurement, and construction contract to begin the project should be signed by March 2013.<sup>335</sup> Pakistan has severe energy shortage issues, and sees the Iran-Pakistan gas pipeline as a solution. Pakistan will finance the US\$1.5 billion project with a US\$500 million loan from Iran, and the remaining US\$1 billion is to be raised by Pakistan through the gas infrastructure development cess<sup>336</sup>(GIDC), a tax on gas consumers for the construction of Pakistani gas pipelines.<sup>337</sup> However, a Pakistan court ruled that raising the funds through the GIDC was unlawful. Pakistan may also have troubles raising the remaining US\$1 billion due to sanctions regarding trade with Iran.<sup>338</sup> China and Russia have avoided financing the project due to the threat of sanctions from the US.<sup>339</sup> The US has threatened Pakistan with sanctions if it goes through with the Iran-Pakistan pipeline.<sup>340</sup>

Iran has been trying to extend the pipeline project to reach India as well.<sup>341</sup> India currently cites security concerns as a major reason for not signing on to the Iran-Pakistan pipeline.<sup>342</sup> Should the TAPI pipeline not be implemented, India may turn to the Iran-Pakistan pipeline for its natural gas. It is imperative that the TAPI secure financing and begin construction to keep India and Pakistan on board and to prevent them from purchasing Iranian gas.

## ***Policy Considerations for Turkmenistan***

### ***US options for implementing the Trans-Caspian Gas pipeline***

The US can use its diplomatic channels to make Turkmenistan and Azerbaijan recognize that the Trans-Caspian pipeline is a mutually beneficial project. The US may seek permission to become involved in the Trans-Caspian negotiations and send its ambassador to Turkmenistan and Azerbaijan to the meetings. While Turkey has sent representatives to meetings and publicly supports the Trans-Caspian, the US can urge Turkey to become more actively involved in the negotiations. US presence in negotiations may improve confidence in the project and counter Russian, Iranian, and Chinese opposition. However, bringing the US into negotiations may cause alarm and further opposition to the project from Russia, China, and Iran. Turkey may be a more neutral party to enter talks and push for the immediate implementation of the Trans-Caspian pipeline.

The US may offer to fund another feasibility study or implementation plan concerning the Trans-Caspian pipeline. In 2007, the US Trade and Development Agency funded a feasibility study for a similar Trans-Caspian pipeline from Kazakhstan to Azerbaijan. Should the US not be involved in direct negotiations, this is an option where the US can offer to lend its support in whatever is needed most.

### ***US options for addressing the TAPI gas pipeline***

The US can assist the financing of the TAPI pipeline by promoting the project with the Overseas Private Investment Corporation, US Trade and Development Agency, and other US organizations.

The US can continue to publicly support the pipeline, and calm fears about the stability of Afghanistan post-2014. The US can take a more assertive role in promoting the TAPI pipeline and opposing the Chinese TTAC pipeline. However, if the US takes a more active role in the pipeline, it may be viewed as an American project and targeted by terrorists. The US may want to use caution and support the pipeline, while making it clear that it is a Turkmen, Afghan, Pakistani, and Indian project, not American.

### III. Kazakhstan's Natural Gas and Oil

Kazakhstan holds substantial proven reserves of both oil and natural gas. However, Kazakhstan's oil industry is far more developed than its natural gas industry. At the start of 2012, its proven oil reserves were estimated at 30 billion barrels. This quantity places Kazakhstan as having the 11<sup>th</sup> highest reserves in the world, with 1.8% of the world's oil.<sup>343</sup> Its natural gas is estimated at 2.4 trillion cubic meters (TCM).<sup>344</sup> This leaves Kazakhstan with the 15<sup>th</sup> most gas reserves in the world, about 1% of the world's natural gas.<sup>345</sup>

Kazakhstan's original oil pipelines were built during the Soviet era to export resources to Russia.<sup>346</sup> Infrastructure has been expanded for exports to China, EU, and the global market.<sup>347</sup> Several oil and gas projects are under construction in Kazakhstan, with additional ventures in the works (see Figure 2). The US can work to ensure that Kazakh oil and gas continues flowing to its allies in Europe and to global markets.



**Figure 2:** “This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries, and to the name of any territory, city or area.” (Source: World Energy Outlook 2010 © OECD/IEA 2010, figure 17.19, page 537)

### Kazakh Policies for its Oil and Gas Industry

Kazakhstan is looking to amend its policies to boost foreign investment in its oil and gas sector and bring new technology into the country. Kazakhstan adopted a business unfriendly subsoil law in 2010 that halted new production sharing agreements (PSA) contracts, forcing companies to do joint ventures on fields with the Kazakh government oil companies.<sup>348</sup> The 2010

subsoil law also stated how resources extraction contracts could be abolished, which include, “a **subsoil** user does not agree to amend its contract “to restore the economic interests” of the state” and “there is a threat to national security.”<sup>349</sup> The 2010 subsoil law hurt investment, and Kazakhstan is in the process of revoking it. In 2013, Prime Minister Serik Akhmetov stated that production sharing licenses would now be issued for certain subsoil extraction, including oil, provided that investors transferred the latest technological expertise.<sup>350</sup> This is a policy that China has implemented to elevate its domestic technology.<sup>351</sup> Kazakhstan needs to import technology as it does not have the resources and expertise to independently conduct exploration work on new oil fields.<sup>352</sup> While it is eager to attract investment, foreign companies have recently abandoned Kazakh offshore oil and gas projects due to cost overruns and delays.<sup>353</sup> Thus far in 2013, Norway’s Statoil has given up exploration of the Abai field, and American firm ConocoPhillips is trying to sell its stake in the Kashagan oil field project. Kazakhstan has improved its business climate by allowing PSA’s in oil fields, but needs new strategies to retain investments.

## ***Kazakhstan’s Oil***

### *Kashagan Field*

Kazakhstan’s Kashagan field is believed to be the fifth largest oil field in the world with 7-9 billion barrels of primary recoverable reserves that could reach 13 billion barrels with secondary recovery gas injection.<sup>354</sup> The Kashagan field is to begin production in 2013, after delays set it back from its projected start date of 2005.<sup>355</sup>

### *Uzen-Atyrau-Samara Pipeline*

The Uzen-Atyrau-Samara (UAS) pipeline travels from the Kazakh oil field of Uzen to the Russian border where it connects to Russian controlled pipelines. In Russia, the pipelines go to the Black Sea where Kazakhstan can sell the oil on international markets. Kazakhstan exported nearly all of its oil with the UAS pipeline before the completion of the Caspian Pipeline Consortium.<sup>356</sup> Approximately 110 million barrels (16% of Kazakhstan’s total exports) are exported yearly through the UAS, but Kazakhstan has no plans to increase exports in this direction.<sup>357</sup> Kazakhstan is moving away from Russia by building transportation networks to China and the EU.

### *Caspian Pipeline Consortium*

The Caspian Pipeline Consortium (CPC) pipeline is a venue for Kazakh oil to reach international markets. The CPC was completed in 2001 and runs from Kazakhstan's Tengiz oil field, goes north around the Caspian Sea, and ends at the Russian Black Sea port of Novorossiysk.<sup>358</sup> From Novorossiysk, the oil is loaded onto tankers and sold on the international market. The pipeline carried 684,000 barrels of crude oil per day in 2011<sup>359</sup>, about a third of Kazakhstan's total production.<sup>360</sup> In 2011, The CPC decided to expand the pipeline to meet up with Kazakhstan's rising export potential. The expansion will occur in three phases, eventually increasing the potential output of the CPC to 1.4 million barrels per day by 2015.<sup>361</sup> While the CPC is a way for Kazakh oil to reach international markets, it is reliant on transit through Russia.

### *Kazakhstan Caspian Transportation System*

The Kazakhstan Caspian Transportation System (KCTS) is a proposed project to increase the amount of Kazakh oil available on the international market. The KCTS includes building a 600,000 barrel a day pipeline from western Kazakh oil fields to a proposed new oil terminal at Aktau on the Caspian Sea. From the Aktau terminal, oil would be taken by ship to Baku, Azerbaijan. The KCTS includes a transfer station in Baku where oil could be sent to the Baku-Tbilisi-Ceyhan (BTC) pipeline.<sup>362</sup> From the end of the BTC, oil can be sent via ship to Europe or be sold on the international market. In January 2011, the head of the National Company KazMunayGas, Kairegdy Kabyldin, stated that work on the KCTS would not begin until 2018. The reasoning being that, until 2018, Kazakhstan will be producing insufficient quantities of oil to make the project worthwhile. The KCTS is an excellent opportunity for Kazakhstan to become more independent in its oil exports by avoiding transit through Russia.

### *Baku-Tbilisi-Ceyhan Oil Pipeline*

Kazakhstan has previously used the Baku-Tbilisi-Ceyhan (BTC) pipeline to send oil to the international market. The Baku-Tbilisi-Ceyhan (BTC) pipeline travels from Baku, Azerbaijan, through Georgia, reaching the Turkish port of Ceyhan. Kazakhstan has no pipeline that connects to the BTC in Baku, but it can use tankers to ship oil there. In 2008, Kazakhstan signed a contract with the BTC Pipeline Company to supply up to 500,000 barrels a day for

Baku. In 2009, Kazakhstan began transporting oil through the BTC, but quickly halted exports when the BTC Pipeline Company increased its tariff on non-shareholders of the pipeline.<sup>363</sup> Kazakhstan's Oil and Gas Minister Sauat Mynbayev stated in October 2012 that Kazakhstan does not exclude oil exports via the BTC pipeline and that "Perhaps Kazakh oil will be supplied via the Baku-Tbilisi-Ceyhan pipeline, but on reasonable economic terms."<sup>364</sup> If Kazakhstan and the BTC Pipeline Company can negotiate a mutually accepted tariff rate, both parties will greatly benefit. Kazakhstan is interested in sending oil to the international market and to Europe, and the BTC pipeline has extra capacity to carry Kazakh oil.

### *Kazakhstan-China Oil Pipeline*

The Kazakhstan-China oil pipeline goes from Atyrau on the Caspian coast of Kazakhstan to northwest China. The pipeline was built in 2005 with a capacity of 73 million barrels of crude oil per year, but is being expanded to 147 million barrels per year by 2014.<sup>365</sup> Kazakhstan's state owned KazTransOil has stated that it will supply 102 million barrels of oil (about 20% of Kazakhstan's 2012 production) in 2014 through the pipeline.<sup>366</sup> China is reportedly paying premium prices for Kazakh oil from this pipeline.<sup>367</sup>

### *Kazakhstan-China Oil Swaps*

Kazakhstan presently lacks the ability to refine crude oil as its refineries are undergoing modernization that will be complete in 2016. In 2012, Kazakhstan turned to China instead of Russia for its oil swaps and received 190,000 barrels of refined oil, and is looking to greatly increase its swap to about 3,665,000 barrels in 2013.<sup>368</sup> Kazakhstan is in the process of building a pipeline to China to handle the increased oil swaps.<sup>369</sup> Kazakhstan is reliant on the oil swaps for its domestic oil consumption.<sup>370</sup>

## ***Kazakhstan's Natural Gas***

### *Future Gas Extraction Prospects*

Kazakhstan currently produces about 40 bcm of gas yearly.<sup>371</sup> Kazakhstan stated in 2012 that it aims to produce 110 bcm of natural gas annually by 2030. Much of that increase in gas production is predicted to come from secondary shale production from current fields.<sup>372</sup>

Kazakhstan's Minister of Industry and New Technologies Aset Isekeshev has stated that shale gas "is a promising innovation that is developing in the U.S." and that Kazakhstan would "study these technologies to see what effect they can have on the development of the Kazakh energy industry."<sup>373</sup> The US can use its technological expertise to aid the development of Kazakh shale production.

### *Kazakhstan China Gas Pipeline*

The Kazakhstan China Gas Pipeline (KCGP) network will expand Kazakhstan's domestic pipeline system and connect it to the existing Central-Asia China pipeline that runs from Turkmenistan to China. The KCGP will have a capacity of 10 bcm per year and is being built in two stages, the Beyneu-Bozoi Shymkent pipeline, and the Beineu-Shymkent pipeline.<sup>374</sup> The KCGP will send Kazakh gas to Turkmenistan's Central Asia-China gas pipeline<sup>375</sup> and to southern Kazakhstan, a location that has previously faced gas shortages.<sup>376</sup> This first section should be completed in 2013. The second section is being financed with a US\$1.8 billion loan from the China Development Bank (CDB).<sup>377</sup> The KCGP is a joint venture between the Kazakh state company KazMunayGaz and China's state owned energy corporation, China National Petroleum Corporation (CNPC).

## *Policy Considerations for Kazakhstan*

### *US Assistance in Shale Gas Production*

American and European companies can share their shale gas extraction techniques with Kazakhstan in return for production sharing agreements. This can be an effective way for US and EU countries to obtain lucrative contracts, and Kazakhstan to receive the technical assistance it needs for further gas extraction.

### *US support for the Kazakhstan Caspian Transportation System*

The KCTS is a great opportunity for Kazakhstan to increase its oil exports to the EU and international market. The US can offer to fund a project proposal or feasibility study on the KCTS through the US Trade and Development agency. While US financial and political support may help implementation, Russia may become opposed to the project if it views too much US involvement.

#### **IV. Conclusion: Turkmenistan and Kazakhstan**

As Turkmenistan turns away from exports to Russia and Iran, it is finding eager markets in China, Pakistan, India, and the EU. China has acknowledged the need to secure Turkmen gas, and already holds substantial contracts. Pakistan, India, and the EU have opportunities to catch up with the Trans-Caspian and TAPI pipelines if the security situation in Afghanistan can be improved. Currently Turkmenistan has bilateral “pipeline relations” with Russia and China. The Trans-Caspian and TAPI would, therefore, open the country to multilateral relations and thereby render it less isolated. Kazakhstan is still figuring out how to best manage its substantial quantities of oil and natural gas. After the 2010 subsoil law caused an investment scare, Kazakhstan has been looking for ways to attract new investment and to bring technology into the country. The country is highly dependent on foreign companies to develop its considerable resources, and it would be best, from the US perspective, if these were not dominated by firms from Russia and China. The US has the opportunity to enact policies that will be beneficial for its allies, and for the development of Turkmenistan and Kazakhstan.

# Security and Nuclear Energy in Kazakhstan

Conor Roberts

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### **Abstract**

Kazakhstan is building up its capacity in the nuclear fuel cycle. As the largest producer of uranium, it plays an integral role in the nuclear fuel market. However, the potential for the proliferation of nuclear technology or fissile material is important to US foreign policy in Central Asia and demonstrates the need for a dynamic policy based on up to date information on the development of this industry. Current US policy emphasizes close regulation of the industry through the IAEA and radiation detection equipment at the borders. Yet recent cuts to US non-proliferation efforts may be detrimental to US foreign policy. Predicated on this issue of non-proliferation, our political relations to Kazakhstan are strongly linked to past cooperation on nuclear matters. This can be leveraged as we work to increase international regulation on the both the nuclear industry inKazakhstan and the world uranium market as a whole.

## I. Introduction

Over the past decade Kazakhstan has leveraged its wealth of uranium reserves into a growing nuclear fuel industry that will affect the economy and security of the country for the foreseeable future. Issues associated with this particular industry demonstrate that caution and careful management are important. Potential risks include: the proliferation of nuclear technology, nuclear waste disposal, and political corruption. However, this industry is also important to Kazakhstan and Central Asian security for a number of reasons. The economic benefits of a nuclear industry for fossil fuel-rich Kazakhstan demonstrate an opportunity for economic diversification and foreign investment to develop it. Nuclear power will also improve the energy security of Kazakhstan as more fossil fuels can be exported East and West. In addition, the possibility of an international nuclear fuel bank based in Kazakhstan could increase its status as a leader in non-proliferation affairs. All of these factors are essential to regional stability and foreshadow the significance that nuclear power will have in Central Asia over the coming decades. Overall, Kazakhstan is one of the few countries in the world with major abundance of oil, gas, and uranium, making it a highly important energy resource nation for global markets, a status that will only grow with time as energy demands rise around the globe. Due to the dangerous potential of uranium enrichment and the geopolitical significance of Kazakhstan, the U.S. has a direct interest in the responsible development of this resource over both the short and long term future of the country.

## II. Context

### *Uranium Resources*

Kazakhstan currently has the second most uranium resources in the world amounting to 15% of total global reserves. Over the past four years the Kazakh atomic energy company KazAtomProm has increased production of uranium to overtake both Canada and Australia to capture 35% of the world market.<sup>378</sup> This expansion in production is the result of large foreign and domestic investment in the industry over the past decade. An increase in investment yielded an increase in uranium production from 3719 tonnes to 19,450 tonnes between 2004 and 2011 among the 17 operating mines in Kazakhstan (see **Figure 1**). Production has the capacity to increase to around 30,000 tonnes of mined uranium by 2018.<sup>379</sup> The primary benefits with the expansion of its uranium production are economic diversification from fossil fuel resources, as

Country	2004	2005	2006	2007	2008	2009	2010	2011
Kazakhstan	3719	4357	5279	6637	8521	14020	17803	19451
Canada	11597	11628	9862	9476	9000	10173	9783	9145
Australia	8982	9516	7593	8611	8430	7982	5900	5983
Niger	3282	3093	3434	3153	3032	3243	4198	4351
Namibia	3038	3147	3067	2879	4366	4626	4496	3528
Russia	3200	3431	3262	3413	3521	3564	3562	2993
Uzbekistan	2016	2300	2260	2320	2338	2429	2400	2500
USA	878	1039	1672	1654	1430	1453	1660	1537
Ukraine (est)	800	800	800	846	800	840	850	890
China (est)	750	750	750	712	769	750	827	885
Malawi						104	670	846
South Africa	755	674	534	539	655	563	583	582
India (est)	230	230	177	270	271	290	400	400
Brazil	300	110	190	299	330	345	148	265
Czech Republic	412	408	359	306	263	258	254	229
Romania (est)	90	90	90	77	77	75	77	77
Germany	77	94	65	41	0	0	0	52
Pakistan (est)	45	45	45	45	45	50	45	45
France	7	7	5	4	5	8	7	6
<b>total world</b>	<b>40 178</b>	<b>41 719</b>	<b>39 444</b>	<b>41 282</b>	<b>43 853</b>	<b>50 772</b>	<b>53 663</b>	<b>53 494</b>
<b>tonnes U<sub>3</sub>O<sub>8</sub></b>	<b>47 382</b>	<b>49 199</b>	<b>46 516</b>	<b>48 683</b>	<b>51 716</b>	<b>59 875</b>	<b>63 285</b>	<b>63 085</b>
<b>percentage of world demand</b>		<b>65%</b>	<b>63%</b>	<b>64%</b>	<b>68%</b>	<b>78%</b>	<b>78%</b>	<b>85%</b>

*WNA Market Report data*

**Figure 1:** Table of Global Uranium Production 2004-2011 (Source: <http://www.world-nuclear.org/info/inf23.html>)

well as access to nuclear technologies. Economic diversification remains an issue for Kazakhstan as the majority of foreign direct investment is confined to the resource extraction sectors of its economy.<sup>380</sup> While the extraction of uranium is still linked with the energy sector like oil and gas, the nuclear fuel process is extremely technical and not readily available to all nations. It is KazAtomProm's intention to leverage their significant uranium wealth to enter into this industry and become a major player in future of nuclear energy.

### *US Interests*

As the dominant global uranium exporter, Kazakhstan places itself as an important player in the industry. With the upcoming end to the Megatons to Megawatts program<sup>3</sup>, the US will become more dependent on global uranium reserves and prices to fuel its 104 nuclear reactors.<sup>381</sup>

<sup>3</sup> This is a program whereby Russian HEU was down-blended into low enriched uranium for US nuclear reactors. The program is scheduled to end in 2013.

It also shows the potential to invest in the industry over the coming years to meet domestic demands.

### *Kazakh Uranium Importing Countries*

Current global uranium and nuclear fuel production is less than demand.<sup>382</sup> Resource scarcity means higher prices and that demand for Kazakh uranium has increased over the past 10 years as many nuclear energy consuming countries look to acquire enough fuel for their reactors. It is no surprise that the massive increase in the cost of uranium between 2006 and 2008 (see **Figure 2**) corresponds to the large increase in foreign investment in Kazakhstan's mining and nuclear fuel capacities. Agreements completed with the Chinese Guangdong Nuclear Power Group Holdings (CGNPC) company, the largest nuclear energy company in China, are particularly significant for the future of the industry.<sup>383</sup> This is because China is expected to be the largest developer of domestic nuclear technology over the next 30 years. China projects that it will increase its nuclear energy output by 400 GWe by 2050, while even modest forecasts suggest it will "add 150 GWe over the next 30 years."<sup>384</sup> The need to diversify its energy sources beyond dirtier fossil fuel sources like coal demonstrates the potential for mature and clean energy sectors to fuel its economic growth. For this reason, it will rely heavily on its many joint ventures with Kazakhstan to establish this as one of its major energy industries over the coming decades.



**Figure 2:** Graph of the Price of Uranium 2001-2012 (Source: Matthew Weinschenk <http://www.wallstreetdaily.com/2012/04/26/uranium-price-forecast-the-nuclear-industrys-fundamental-shortage/>)

Despite the emphasis on the importance of the Chinese nuclear market, Kazakhstan wants to diversify its economic partners throughout the region.<sup>385</sup> The increasing global market for uranium and strategic partnerships with local nuclear energy producers, Russia, South Korea, and Japan, are integral to this balance. Both Russia and South Korea seek to export their reactor technologies to the developing world.<sup>386</sup> This is because the developing world, excluding China, will be the other major developer of nuclear energy over the coming decades.<sup>387</sup> Countries throughout the Middle East, South East Asia, and Latin America have begun to work with these major nuclear exporters to explore their potential for starting a nuclear program.<sup>388</sup> Additionally, both Russia and South Korea rely heavily on uranium from Kazakhstan for their domestic energy programs and have expanded current deals in line with future demands.<sup>389</sup> The situation for Japan is different. Since the Fukushima Daiichi nuclear disaster, Japan has shut down the majority of its fifty reactors and there is widespread disapproval of the technology.<sup>390</sup> However, current Prime Minister Shinzo Abe is a vocal proponent of the technology and Japan continues to import uranium from Kazakhstan. Also, many Japanese companies are still heavily involved in the Kazakhstan uranium market.<sup>391</sup> KazAtomProm even made a deal with the Japanese company Toshiba to buy 10% of American nuclear power company, Westinghouse.<sup>392</sup> This deal gives KazAtomProm a stake in one of the largest nuclear reactor producers in the world and more access to the international nuclear market. Overall, the current trend for nuclear energy and the Kazakhstan uranium sector will continue to increase in stature through foreign investment and demand.

### *US Interests*

As is the case with oil and gas, the US has an interest in helping make sure that Kazakhstan continues to supply the world market with its uranium. Though no serious threats have emerged to date, the US would work to prevent the takeover of major Kazakh uranium supply by powers, such as Russia and China. Economic diversification is also a stated goal of the Kazakh government, a convenient alignment of the two national interests. It is also important to note that the US is already invested in this industry, and strategic partnerships detailed in KazAtomProm's purchase of 10% of Westinghouse will extend US interests in Kazakh uranium and nuclear fuel production.

## *Domestic Development of Technology*

Kazakhstan intends to diversify its participation in the nuclear fuel cycle. This means that it wants to develop an industry beyond resource extraction. KazAtomProm has stated that its nuclear fuel cycle development strategy is:

To support the nuclear renaissance worldwide and, whilst also pursuing a concept of large-scale international cooperation, KAZATOMPROM also aims to achieve the goal of becoming a top vertically integrated transnational company, with a complete service package – from uranium production to nuclear fuel manufacturing and construction of power generation units.<sup>393</sup>

To clarify, KazAtomProm intends to develop the technology to extract and produce nuclear fuel, and eventually construct nuclear power plants. The reason for this is that the nuclear fuel industry is highly technical and raw uranium costs less than enriched uranium. The company intends to leverage its domestic uranium reserves through strategic partnerships and joint ventures with foreign companies to gain access to their technology. Currently, while KazAtomProm maintains a share in all nuclear exploration and technology in Kazakhstan, many large international companies, such as CAMECO (Canadian Mining and Energy Company), Uranium One, Areva, CGNPC, and China National Nuclear Corporation (CNNC), own significant portions of Kazakhstan's uranium mines.<sup>394</sup> Along with agreements to export uranium to each respective country, these agreements include deals to construct fuel fabrication facilities or uranium conversion plants.<sup>395</sup> These are important because they make up each step of the complicated nuclear fuel process. Each investment integrates KazAtomProm more into the nuclear fuel market and allows it to return a greater yield on uranium that is mined in Kazakhstan. The result is a large scale increase in the technical development of this sector in Kazakhstan and the evolution of a new nuclear power on the world stage.

The enrichment of nuclear fuel is the most controversial phase of the nuclear fuel cycle. Production of low-enriched uranium (LEU) to between 3 and 5% enrichment of the fissionable U-235 is required to produce nuclear viable uranium for most nuclear reactors.<sup>396</sup> However, this technology can also be upgraded to make weapons grade uranium at above 90% enrichment. For this reason there are very strict guidelines and management of this process around the globe. Despite this, Kazakhstan has access to this part of the fuel cycle as well. KazAtomProm currently has a 10% stake in an enrichment facility in Angarsk, Russia.<sup>397</sup> The deal means that KazAtomProm can continue to establish itself as a “top vertically integrated transnational

company” without developing the enrichment technology domestically that would worry the international community.

### *US Interests*

The current policy of KazAtomProm is in line with US interests in the region. Its increased involvement in the nuclear fuel cycle, without a domestic enrichment program, means that it remains less of a security threat. However, international regulation throughout the IAEA is integral to the control of this industry as protection against the proliferation of nuclear materials that are used in Kazakhstan.

### *The International Nuclear Fuel Bank*

Kazakhstan is the proposed site for the IAEA’s second international nuclear fuel bank.<sup>398</sup> The idea behind the bank is that member countries of the International Atomic Energy Association without the ability to enrich uranium can buy the fuel from the repository at the Ulba Metallurgical Plant.<sup>399</sup> The majority of these countries include the developing world, where there is a lot of potential for nuclear energy but little access to nuclear fuel.<sup>400</sup> It also includes countries such as Iran, whose developing enrichment technology is a threat to global security.<sup>401</sup> Continuing to develop this technology despite access to enriched uranium puts more pressure on Iran to change its policy. It also illustrates the leverage that Kazakhstan is developing on international nuclear policy. Kazakhstan even hosted nuclear weapons talks between Iran and the P5+1 (US, United Kingdom, France, Russia, China, and Germany) in 2013.<sup>402</sup> This was the first opportunity for Kazakhstan to host these talks and has been proposed by the Kazakh government in the past in an effort to play a mediator role between the sides. Therefore, Kazakhstan is using its opportunity to host this event and the nuclear fuel bank to increase its international profile and become one of the major players on global non-proliferation issues.

### *US Interests*

An international nuclear bank gives the US leverage against security threats such as Iran. It also allows the international community, through the IAEA, more access and regulatory power over the Kazakh nuclear industry that can counteract proven security threats throughout the former Soviet republics. Furthermore, it addresses the increasing global demand for energy as

developing nations will have greater access to nuclear fuel as a clean energy alternative to fossil fuels.

### *Development of the Domestic Nuclear Industry*

Kazakhstan does not currently have any nuclear power plants online. In a country where the majority of its electricity comes from fossil fuels<sup>403</sup>, the emerging nuclear power industry has a lot of potential. As a major exporter of oil and natural gas, nuclear power is one way to diversify its energy security and export more of its fossil fuel resources to foreign markets. The National Nuclear Center (NNC) projects the construction of “20 or more small reactors each of 50-100 MWe to supply dispersed towns” throughout Kazakhstan.<sup>404</sup> The development of this technology will come through a joint venture between Russian company, Atomstroyexport, and KazAtomProm. AtomStroyExport will construct the first two plants with KazAtomProm, and then allow it to use the technology to construct other plants in the future.<sup>405</sup> However, one major issue is that Kazakhstan does not have a fully integrated electric grid.<sup>406</sup> This means that it imports electricity from both the north and south of the country and that there is a general lack of infrastructure. With this in mind, the reality is that Kazakhstan will soon have the means to build these power plants and its overall capacity has the potential to transform its domestic electricity production from fossil fuels to predominantly nuclear in the coming decades.

Kazakhstan had one nuclear power plant that was constructed during the Soviet Era. Built in Aktau, on the Caspian Sea, it was used primarily for desalination. The present issue with the Aktau nuclear power plant has to do with decommissioning and also relocating the nuclear waste that it produced. Recent efforts transported the “plutonium-bearing spent fuel” used at the reactor to the more secure Semipalatinsk site in Eastern Kazakhstan.<sup>407</sup>

### *US Interests*

Kazakhstan’s large reserves of uranium and its intention to develop its nuclear capacities indicate that it is a viable option to provide aid in this sector. It should also be noted that nuclear energy production will increase international access to Kazakh reserves of oil and gas that are currently used for electricity production. Also, it remains an interest to regulate all nuclear materials produced in Kazakhstan, especially the regulation of plutonium that is currently stored at Semipalatinsk.

## ***Fukushima and the Future of Nuclear Energy***

The Fukushima Daiichi nuclear disaster has damaged the perception of nuclear power.<sup>408</sup> Two years have passed since the meltdown and a handful of developed countries have begun to reconsider the role that nuclear power will play in the future. Germany and Japan have both begun to shut down many of their plants, and Germany has even stated its intention to eliminate the programs entirely.<sup>409</sup> However, these visions are not in tune with their energy consumption and the “nuclear renaissance” is nowhere near disappearing. The reality of the nuclear industry is that the most interested parties are developing nations. Since the disaster, programs to develop and export the technology throughout China, India, Russia, and the Middle East demonstrate that it is still a viable technology. Even in countries such as Germany and Japan, nuclear energy cannot be dismissed so quickly. Their dependence on the technology assures that any transition to new energy sources will be extremely difficult.<sup>410</sup> For these reasons, nuclear power will continue to expand and benefit uranium producing nations like Kazakhstan. Projections over the next 20 years show that demand for nuclear fuel will increase, so the stability of the industry should remain to the benefit of Kazakhstan.

## ***US Interests***

The future of the nuclear industry around the world will define uranium demand and US interests in Kazakh uranium. Projected growth means that Kazakh uranium is even more important to US growth of its nuclear industry over the coming decades.

## ***Historical Non-proliferation of Kazakhstan***

Kazakhstan’s unique nuclear history during the Soviet era informs its current policies towards non-proliferation. While a part of the Soviet Union, Kazakhstan was the site of approximately 456 nuclear tests (116 above ground).<sup>411</sup> Longstanding degradation of the environment and local populace due to radiation exposure led to a strong anti-nuclear campaign called the Nevada-Semipalatinsk Anti-nuclear Movement. As a result, Kazakh president Nazerbayev was able to close Semipalatinsk and begin the rehabilitation of the region.<sup>412</sup> It was also the precursor to Kazakhstan signing the United Nations (UN) Non-proliferation Treaty (NPT) and the additional protocol, the elimination of its Soviet cache of nuclear weapons, as

well as the transport of its leftover HEU to the US and Russia.<sup>413</sup> All of these moves were accomplished in solidarity with the movement and in reference to what happened at Semipalatinsk.

Kazakhstan and Nazerbayev were also important instigators of the establishment of the Central Asian Nuclear Weapon Free Zone (CANWFZ).<sup>414</sup> Through CANWFZ, Kazakhstan established itself as a regional and potentially global leader on the issue of non-proliferation. To this point, Kazakhstan has continued to leverage its strong anti-nuclear stance to assume more prestigious international roles. In recent years Kazakhstan has been selected to chair many international organizations such as the Organization for Security and Cooperation in Europe (OSCE) and the Organization of the Islamic Conference (OIC).<sup>415</sup> It is even petitioning to become a rotating member of the UN Security Council in 2016.<sup>416</sup> The ambition of Kazakhstan to assume these roles demonstrates the potential influence it can have, especially throughout Central Asia in the context of non-proliferation. The opportunity to hold talks between Iran and the P5+1 group of nations (the US, the UK, France, China, Russia, and Germany) on the Iranian nuclear enrichment program will further these goals as well.<sup>417</sup> Having asked to mediate these talks in the past, this is Kazakhstan's opportunity to assume a fully international role in non-proliferation issues and will continue its ascending stature in international politics.

Despite Kazakhstan's role as a leader on non-proliferation issues, its history proves that the international community must still be wary of corruption. The most pressing issues of proliferation are propagation of enrichment technology or attempts to steal/sell previously enriched uranium. This is particularly true in former Soviet republics as there have been numerous attempts to sell nuclear materials to terrorist groups.<sup>418</sup> Kazakhstan is included in this list due to a reported plan to sell 1,350 tonnes of uranium ore to Iran against the UN sanctions in place.<sup>419</sup> For this reason the whole uranium industry in Kazakhstan remains a security threat until the threat of corruption is negated by international regulation.

### *US Interests*

The succession of Kazakh president Nursultan Nazerbayev is the most uncertain aspect of non-proliferation. Based on his historical track record in favor of nuclear non-proliferation and his acceptance of international safeguards, the current political structure in Kazakhstan implies that non-proliferation is an important issue in Kazakh politics. However, his successor is

unknown and the political system in Kazakhstan offers a lot of leeway to the president to change policy. Also, political corruption remains a primary concern as the potential for selling or stealing HEU continues to be a threat.

### **III. Policy Considerations**

Kazakhstan is one of the most import emerging countries with regards to global nuclear issues. Coupled with its growing regional prominence, the US should consider ways to involve itself with Kazakhstan that are mutually attractive to both governments in order to maintain strong relations.

The threat of non-proliferation is the most pressing concern to US policy in Kazakhstan. Potential theft of illegal nuclear materials is a proven threat throughout post-Soviet states and is strongly linked to the lack of transparency in the Kazakh government.

This industry is also important because Kazakhstan has the second largest uranium reserves in the world. Its influence will not dissipate as long as there is a demand for nuclear energy, as is projected over the next few decades. It is also important to consider US domestic uranium requirements and the extent to which it must depend on Kazakh reserves. While there are other large deposits of uranium (Australia and Canada, in particular), projected increases in demand and price will make it more expensive to maintain US reactors without worldwide investment and production.

US interests in the diversification of the nuclear industry coincide with the interests of the Kazakh government. Increased international influence in this market continues to develop the technical sectors of its economy. This development makes Kazakhstan a more powerful regional force that will become more regionally significant and applicable to US policy throughout Central Asia.

The potential nuclear fuel bank in Kazakhstan can further US interests throughout the world. It provides the US more leverage against ambitious nuclear programs such as Iran. Also, a fuel bank provides developing countries greater access to LEU that is not attainable right now.

## IV. Conclusion

The US has a distinct interest in the security of Kazakhstan's nuclear industry. The overarching potential for proliferation of nuclear materials in former Soviet Republics is a proven global security threat. The current US policy regulates the Kazakh nuclear industry through the IAEA and offers many areas to expand interests in the industry over the coming years. Kazakhstan has the opportunity to host the IAEA's nuclear fuel bank and become a major contributor to the expansion of nuclear energy to the developing world. This bank will also increase US leverage over countries that want enrichment technology, such as Iran. Additionally, Kazakhstan is able to use these resources and its unique nuclear history to assume an important role throughout the international community. Its recent attempts to become a chair on the UN Security Council and hosting the nuclear weapons talks between the P5+1 countries and Iran demonstrate its growing international stature.

Kazakhstan is poised to become a major participant in the international nuclear energy industry in the coming decades. Due in large part to its incredible reserves of uranium and its ability to develop the industry beyond its extraction and into more technical sectors, Kazakhstan will play an important role throughout the industry. Kazakhstan's intention to participate in every aspect of the nuclear fuel cycle means that it will benefit a lot more from its uranium reserves. It is currently the primary provider of uranium to the global market; therefore it is significant to global energy security. For this reason the US has interests in the industry beyond the issue of non-proliferation. KazAtomProm's purchase of a 10% stake in US nuclear company Westinghouse establishes the international scope of the nuclear industry and the growing connection between the US and Kazakhstan. With the most nuclear power plants (104 operating reactors) in the world and an end to the Megatons to Megawatts program, the US will soon become more linked to the global market for uranium. For this reason the US does not want Kazakhstan to be dominated by one regional power like China or Russia. Diversification is an interest to both the US and Kazakhstan, and through continued cooperation, the US should be able to maintain a healthy global market for uranium despite its increasing demand.

Nuclear energy is also one of the few clean and alternative energy sources to fossil fuels. The increasing threat of climate change coupled with the development of highly populated countries, like China and India, demonstrate its significance in the coming decades. It is in the US interests to make sure there is access to alternative energy resources such as uranium for the

foreseeable future. The nuclear industry is not going to disappear. For this reason, its potential in the developing world will make it and Kazakhstan more integral to the supply chain for nuclear fuel. Allies involved in the exportation of nuclear technology, such as South Korea, will also be highly dependent on their dealings with Kazakhstan. Based on this information it is important for the US to maintain a strong relationship with Kazakhstan and mitigate the potential threat of nuclear non-proliferation through regulation of the industry.

# Liquid Treasure

## Water Scarcity in Central Asia

Carl Coppernoll-Houston

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### **Abstract**

Water scarcity is one of most pressing problems facing Central Asia. The water shortage comes from there being only two major rivers in the region, the Syr Darya and the Amu Darya. The current crisis was initiated by the breakup of the Soviet Union as the Soviet system of water cooperation dissolved into competition for the increasingly scarce resource. The Soviet Union created an extensive irrigation system in the downstream countries of Turkmenistan, Uzbekistan, and Kazakhstan where cotton, a very water intensive crop, ruled supreme. The upstream states, Kyrgyzstan and Tajikistan, utilized their potential for hydroelectric power to create large dams to supply electricity. Now that all five countries are independent, conflict has arisen over who should get the water and when. This has increased regional tensions and left the region as a whole precariously close to war. Added to the problems of irrigation versus hydroelectricity, is climate change, which is affecting the glacial runoff that feeds the two great rivers. This final wrench could singlehandedly decide Central Asia's fate. However, if the countries of Central Asia can begin to work together, similar to their previous cooperation on the Rogun dam project, and improve their agricultural and irrigation techniques for efficiencies, the region could flourish into an energy powerhouse.



**Figure 1:** This map illustrates water allocation in Central Asia. The green highlights the irrigated fields, while the darker grey is the mountainous region above 2000 feet. The red shows the runoff in canals. The different ribbons of blue represent relative quantities of water. (Source: UNEP Environmental and Security in the AMU Darya Basin, 15)

## I. Introduction

Having a sufficient domestic water supply is crucial to the security and economic stability of a nation and region as a whole. Unquestionably Central Asia illustrates this fact. In this region, demand for water has outpaced its availability. With only two major rivers, the Syr Darya and the Amu Darya, this is not surprising. The regional supply is diminished by agriculture needs, hydroelectric needs, and the effects of climate change. The Syr Darya, which originates in the mountains of Kyrgyzstan, flows through Uzbekistan and Kazakhstan before arriving at the Aral Sea. The Amu Darya originates in the mountains of Tajikistan along the border between Uzbekistan and Afghanistan, flows into Turkmenistan, but, due to heavy withdrawals for agriculture, dries up before reaching the Aral Sea. Concern surrounding the conditions of these rivers poses regional economic and security dilemmas between upstream and downstream countries over which country should get access to the water and control of the water ways. The competition comes down to whether water should be used for irrigation or hydro-electricity. Destabilization of this key region could promote terrorism as the states shift towards a more conflict driven diplomacy that could lead to all out war. Water issues will be one of the deciding factors that determine modernization, growth, and long-term international stability in the region of Central Asia.

## II. Background—Soviet Disintegration

Central Asia's water problems stem from the break-up of the Soviet Union. When the Central Asian Republics were all under Moscow's control they got along quite amiably. The upstream countries, of Kyrgyzstan and Tajikistan, provided water to the downstream countries, of Kazakhstan, Turkmenistan and Uzbekistan, which returned the favor with artificially cheapened prices on agricultural products, natural gas and oil.<sup>420</sup> The water that was sent downstream, in return for food and energy, was primarily used for agriculture. In fact, it was the presence of large water reserves in the mountainous region of the upstream countries and the available land in the plains that was one of the main factors that prompted the development of large-scale irrigated agriculture in the region.<sup>421</sup> The Soviet Union also saw the region as an area that could produce hydroelectricity. It began the construction of water storage facilities, a large number of reservoirs and associated hydropower facilities. The added bonus of this hydroelectricity infrastructure was that it also served to regulate (or guarantee) the water flow for

irrigation needs.<sup>422</sup> Of course after independence this seemingly perfect system collapsed as Uzbekistan and Kazakhstan discovered they could sell the upstream countries energy at international market prices, as opposed to artificially cheap prices. They did not anticipate that this would change their water availability.<sup>423</sup> However, increased electricity prices affected the upstream countries and, as water was their main bargaining power, they began to treat it as a “resource,” demanding that the downstream countries pay for its availability.<sup>424</sup> Their once even exchange became disrupted, raising the commodity price of both electricity and water.

Unsurprisingly, the discrepancy between the various countries of Central Asia over the value and distribution of water has created tensions that are not new to this complex and varied region of the world. In regards to water, the leaders of the Central Asian countries continue with their usual policy of bickering rather than cooperating.<sup>425</sup> Before completely condemning Central Asia’s leadership it is important to note that there have been some multilateral arraignments over water in Central Asia since the collapse of the Soviet Union. “In February 1992, the newly independent riparian countries of the Syr Darya basin set up the Inter-State Commission for Water Coordination (ICWC). They agreed to keep the water allocation principles of the former USSR in place until a new system could be established, albeit without the funding for the infrastructure that had formerly come from Moscow.”<sup>426</sup> The treaty left 81% of the water to the downstream countries as the “water quotas were established when the whole system was operating in ‘irrigation mode.’”<sup>427</sup> This provided a short-term solution but did not fix the more systemic problems related to water distribution. The simple fact is that without the funding from Moscow, this plan was doomed from the start, especially since the most vital hydraulic structures, specifically the biggest reservoirs in the basin (including the Toktogul), were not put under the control of the ICWC. This de facto nationalized them for the individual riparian countries.<sup>428</sup> As soon as the reservoirs and dams were nationalized, working together as a group of states became rather moot. Still, the countries attempted to cooperate. They strengthened the treaties in 1998 with a trilateral treaty between Kyrgyzstan, Uzbekistan and Kazakhstan (Tajikistan joined in 1999), which allocated certain amounts of water to the downstream countries during certain periods of time.<sup>429</sup> While this seemed like an excellent arraignment, the 1998 trilateral water agreement between Kyrgyzstan, Kazakhstan and Uzbekistan unfortunately failed to solve the pressing problems the three nations face over water scarcity<sup>430</sup> and the treaty is hardly effective today. This makes it vital that the countries re-

evaluate the water quota agreements they previously made, establish new ones, and then actually abide by these agreements.

The Soviet Union's sudden disintegration turned an intrastate water basin into an international water basin overnight.<sup>431</sup> The basin of the Syr Darya river is more than just a water way and its water–energy–food nexus is viewed by the riparian countries in terms national security.<sup>432</sup> This stems in part because the Syr Darya river system is arguably less hegemonic than the Nile or the Tigris/Euphrates water systems and thus potentially more unstable politically. In the Syr Darya system the dominant economic and military powers (Uzbekistan and Kazakhstan), which also face the most severe water security risks, are located downstream; whereas the upstream country, in this case Kyrgyzstan, is in almost total physical control of the catchment's runoff.<sup>433</sup>

The failure of the Soviet-era system has led to unsustainable irrigation practices, artificially drawn borders, and environmental degradation. These “have accentuated the link between water and security, sharpening the regional hydro politics and increasing the chance of severe conflict in the coming years.”<sup>434</sup> This, coupled with China's rise and hunger for water, energy, land, and raw materials, is shaping the new Great Game—the geopolitical struggle, between large world powers and small regional actors, that has engulfed the region.<sup>435</sup> The US needs to care about this because a destabilized region would hinder energy trade, encourage other powers like China and Russia to hegemonize the region, and open up large uncontrolled areas that could be used by terrorists and extremists to establish bases of operations and cause more destabilization. The US is largely behind many of the other players in the great game. The European Union has already acknowledged that water is one of the greatest concerns in the Central Asia region and is the problem that creates many of the other issues that the region is facing, such as energy security and environmental issues.<sup>436</sup> Both the EU *and* China are interested in helping resolve the Central Asian water crisis in order to increase stability. China is working on improving agriculture techniques while the EU is working on improving water management.<sup>437</sup> Of course, even as China offers Central Asia assistance, there is still hope and opportunity for the US to impact the region. The Shanghai Cooperation Organization, China's pet project in the region, perpetuates the status quo and is not adjusting to the changing situation. It is postponing the water crisis in Central Asia rather than dealing with it.<sup>438</sup> This leaves Central Asia vulnerable to inaction and exploitation.

## *Stability Issues*

The availability of water impacts political and economic stability. Its importance as a resource cannot be understated as water is closely tied to food, energy, and climate change. This connection has taken it beyond just an economic issue to a security concern as well.<sup>439</sup> Central Asia is one of the regions at the center of a global water security challenge “at a time when water is poised to outstrip oil as the world’s scarcest vital resource.” In a sense, the continent of Asia as a whole faces a water crisis that directly affects regional peace and stability along with the region’s continued growth in agriculture, industry, and services.<sup>440</sup> The shortages of water threaten to intensify intrastate and interstate tensions in Asia along with intensifying the increasing threats of food insecurity, hindering rapid economic growth, promoting unemployment, and triggering large-scale migrations within and across the regions international borders<sup>441</sup>. The gravity of these afore mentioned issues cannot be understated as water issues could ultimately culminate in a horribly destabilizing war.

One of the most obvious ways that stability is crippled by water security is through the potential for “water wars.”<sup>442</sup> “Water wars” refer to instances of conflict between two countries or regions caused by an unfair distribution of water availability. For example one country may control headwaters of rivers or have reservoirs/large sources of water within its territory. Its ability to export water, treating it like a resource, gives it leverage over water-scarce countries. Viewing water as a commodity in a region where it is not widely accessible creates an environment where conflict may arise.<sup>443</sup> However, recent statistical data on international river basin conflict and cooperation suggest that, while international disputes over water scarcity are quite common, so far none of these disputes has escalated into war.<sup>444</sup> That being said, this is expected to change as the population of the world grows and all resources become scarcer.<sup>445</sup>

For water availability, Central Asia as a region is in a critical position geographically and politically as geographically there are few water sources in Central Asia. When the Soviet Union fell twenty years ago, water distribution in Central Asia became a source of conflict.<sup>446</sup> One of the most prominent examples of this conflict emerged in 2010 from a dispute between Kyrgyzstan and Kazakhstan. Kazakhstan was worried that the uprising and instability occurring in Kyrgyzstan at the time might spread to Kazakhstan. In response to this fear, Kazakhstan closed its border with Kyrgyzstan. The Kyrgyz retaliated by diverting the flow of the Talas River, thereby eliminating a major source of water for irrigation use in Kazakhstan.<sup>447</sup> After the

water was shut off Kazakhstan quickly relented and re-opened its border. This crisis illustrates the considerable leverage that water rich countries in Central Asia have in political negotiations and exemplifies the vulnerable position water-scarce states find themselves in. Due to the geography of Central Asia, the potential for upstream countries to mandate political favors or situations in return for access to water is a concerning possibility, elevating what would be a humanitarian concern to a security threat.

Recently, a water conflict between Kyrgyzstan and Tajikistan and other Central Asia nations has arisen in negotiations over building and upgrading existing dams. The upstream countries of Kyrgyzstan and Tajikistan control the water that affects Turkmenistan, Uzbekistan and Kazakhstan. The dams proposed by Kyrgyzstan and Tajikistan, such as the Rogun dam, have sparked a water row between the countries of Central Asia. This issue of water security is paramount for the downstream countries as they are highly dependent on using water for irrigation which affects food security and foreign exchange. The system of reservoirs and cascades on the Amu and Syr Darya rivers and their tributaries places most of the larger reservoirs in the upstream countries. Downstream countries are almost solely reliant on trans-boundary water sources with over 90% of Turkmenistan's and Uzbekistan's water supply originating outside their borders.<sup>448</sup> In response to the dam proposals, Uzbekistan has threatened to retaliate for "diminished transboundary flows."<sup>449</sup> It is threats like these that pose the biggest challenge for stability in the region.



**Figure 2:** This map illustrates the agriculture and irrigation effects of the Amu Darya river basin. The orange shaded areas are where environmental degradation is already happening, and the yellow areas indicate at risk regions for dust storms. (Source: UNEP Environment and Security in the Amu Darya Basin, 38-39.)

## *Agriculture*

The division of water for energy vs. agricultural purposes is a major debate in Central Asia at the moment. The simple solution would be to store water during the winter and release it during the summer, which would allow crops to grow and electricity to be produced. The problem is that electricity is most often used to heat homes during the cold winter months.<sup>450</sup> During the Soviet era, the downstream countries supplied the upstream countries with gas and coal in the winter to allow them to generate power with other means besides hydro-electricity.<sup>451</sup> “Today, at the center of the water tensions are the competing demands of large scale irrigated farming in Uzbekistan, Turkmenistan, and Kazakhstan and the plans of upstream Tajikistan and Kyrgyzstan to expand their hydropower-generating capacities.”<sup>452</sup> These water goals by the upstream countries are diametrically opposed to the downstream water demands and interests. Kyrgyzstan has, since 1991, sought to hold onto water from spring to autumn and release this water in the winter to spring months for hydropower production when its people’s demand for electricity is highest due to the cold temperatures of the region. On the other hand, the downstream countries of Uzbekistan and Kazakhstan, by far the largest consumers of irrigation water in the Syr Darya basin, are interested in obtaining sufficient amounts of water during the growing season from April to September so their cash crop, cotton, can grow.<sup>453</sup> The excessive consumption of water for agricultural purposes is the leading cause of Central Asia’s water crisis.

Ultimately, “agriculture accounts for 92% of all water withdrawals in Central Asia”<sup>454</sup>. Even more specifically and astonishing are the individual countries’ withdrawals of water for agriculture purposes versus domestic and industrial purposes. Kazakhstan is the least impacted as it only uses 91% of water withdrawals on agriculture, compared to Tajikistan, which uses 95%, and both Uzbekistan and Kyrgyzstan, which use 96%. Most impressive is Turkmenistan, which uses nearly 99% of water its expenditure for agriculture.<sup>455</sup> These are some shockingly high numbers that really illustrate the problem. It is difficult to negotiate a treaty against such high numbers. The upstream countries now have even more leverage in these negotiations, which is necessary as they are much poorer and weaker in terms of power on a general level. The fact that they control the life blood of another nation gives them power, and at the same time, raises the stakes for the entire situation.

One of the main issues in the Syr Darya basin stems from the coordination of the management of the Naryn/Syr Darya cascade of reservoirs. These reservoirs are located entirely in Kyrgyzstan. The handling of these reservoirs with regards to the trade-offs between consumptive water use for downstream irrigation in summer and non-consumptive use for upstream energy production in Kyrgyzstan's winters is both noteworthy and problematic.<sup>456</sup> The problems of the Syr Darya are similar to that of the Amu Darya.

The most important issues which need to be addressed for management of the regional water and energy system along the Amu Darya basin are: the volume and timing of water release; regional and export energy market development; payment of maintaining and operating infrastructure and water shed conditions benefiting several users in the basin; major infrastructure shared by several countries; projects with a transboundary impact.<sup>457</sup>

The country that needs these water negotiations to work the most is Uzbekistan, where a vast majority of farmland is irrigated, specifically for cotton.<sup>458</sup>

Like Uzbekistan, Kazakhstan also faces several inter-related water challenges. It is primarily concerned with ensuring access to sufficient amounts of river water for irrigation in the summer, and with controlled water flow in the winter months to avoid catastrophic flooding. However, Kazakhstan does differ significantly from Uzbekistan in terms of water needs. Uzbekistan is likely facing a rural population increase by 60% from 1991-2020, while Kazakhstan faces no population pressure in the agricultural sector as its agricultural population is expected to decline by approximately 16% over the next 10 years.<sup>459</sup> Since Kazakhstan is not as reliant on Kyrgyzstan's water, it has paid for it with more regularity and has had much more benign rhetoric where water is concerned.<sup>460</sup> While Kazakhstan is not being squeezed by Kyrgyzstan as much as Uzbekistan, it is still facing intense water stresses. The other culprit affecting Kazakhstan is China, which is having a negative impact on Kazakhstan's water supply. Two other major water ways that go into Kazakhstan are the Ili and Irtyish rivers. Even though Kazakhstan has a treaty with China over those waterways, China is stealing more than the allocated amount from Kazakhstan's water from the Ili and Irtyish.<sup>461</sup> This further illustrates the complexities of the problems of water in Central Asia. Agricultural needs are one of the main culprits of this and in both river basins excessive irrigation projects by the downstream countries place pressure on the water availability for all.

## *Hydroelectricity Needs*

Many of the problems around water usage in Central Asia stem from the need for hydroelectric power from the upstream states, Kyrgyzstan and Tajikistan. “Even though Kyrgyzstan and Tajikistan have attempted to become self-sufficient in energy, both countries have continued to be unable to meet their winter peak demands.” With no alternative energy resources, and very few other natural resources for bartering, the high potential for hydro-electric power production is incredibly alluring. It therefore seems perfectly understandable that Kyrgyzstan and Tajikistan hope to revive the former Soviet plans to construct further hydro-electric power infrastructure. For Kyrgyzstan these are the Kambarata I and II power stations, which would be located on the Naryn tributary of the Syr Darya River. In Tajikistan, the Rogun reservoir and the Sangtuda I and II power stations would be located on the Vakhsh tributary in the Amu Darya river basin.<sup>462</sup> Once again, the great game is being played in Central Asia. Uzbekistan does not support Tajikistan or Kyrgyzstan in their bids to build more hydro-electric dams. Yet Uzbekistan’s argument is weak by itself, so it has gone looking for support. Its main efforts in finding support have been leveled at Kazakhstan. However, the only reason Kazakhstan agreed to support Uzbekistan’s opposition was to receive Uzbekistan’s support for Kazakhstan to host an Organization for Security and Co-operation in Europe (OSCE) summit in 2010.<sup>463</sup> The geopolitical power politics further complicates a difficult scenario and additionally illustrates the need for cooperation by the Central Asian states, not rivalry.

The need for more cooperation is even more abundantly clear with the Rogun reservoir and dam project. One of the problems with this project lies in how big this reservoir and dam should be. If Tajikistan constructs the Rogun reservoir to its largest possible capacity (Stage 3), Tajikistan could have complete control over the Vakhsh, a main tributary to the Amu Darya, thereby strengthening its hand in potential water treaty negotiations. This would put it in a similar position to Kyrgyzstan with regards to disputes over water allocations, as Kyrgyzstan has a similar amount of power in the Syr Darya basin. Of course it also means that the recurring inequity of water allocation between Tajikistan, Uzbekistan, and Turkmenistan during periods of water scarcity could be aggravated. However, if the constructing of the Rogun reservoir is put on a more modest scale (to Stage 1 or Stage 2), there appears to be no such threat to the downstream riparian states in terms of water scarcity or security. In fact, the resulting cascade production would allow more water to be stored during the winter months, implying that more

would be available for irrigation in the summer.<sup>464</sup> While this is an ideal solution, it is just the tip of the iceberg in terms of problems with the Rogun project.

Other problems include the environmental and social impacts that the dam would have. The creation of the reservoir would displace some 63 villages and thus must be taken into account.<sup>465</sup> Even assuming these other impacts are mitigating, there is still the one big danger that dwarfs the rest. The proposed Rogun project has been started in a seismically volatile area and it is believed to be on a fault.<sup>466</sup> If this cannot be handled properly then the dam could become a time bomb waiting to cause massive destruction for the downstream countries if the earth moves at the wrong time. One bright spot in this dreary look into the dangers of the Rogun dam project is that there appears to be some cooperation and coordination with all of the riparian states. The WB was asked by the Tajik government to do a study on the problems of the Rogun project and it has begun that process. On top of that, just recently the five Central Asian states met in Almaty for the third information-sharing and consultation meeting on the Assessment Studies for the Rogun project.<sup>467</sup> By meeting at the table for the third time and planning future conferences, the Central Asian states are indicating the gravity of this project and the desire for everyone to leave a winner. The US must push such cooperation to occur more often in this region of the world.

There is an added urgency when dealing with water issues in Central Asia because these problems are already causing conflict and have the potential to cause an all out war. This is especially worrisome for the US as it is readying a military withdrawal from the region. Since the situation is already very precarious, this could have a worsening affect. As recently as of September of 2012, “President Islam Karimov of Uzbekistan indicated that efforts by Kyrgyzstan and Tajikistan to build hydroelectric power stations on rivers that flowed into Uzbekistan and Kazakhstan could ‘spark war’.”<sup>468</sup> Much of the conflict that exists today in the region is because of the desire, and need, of the upstream countries of Kyrgyzstan and Tajikistan to increase the hydro-electrical power supply. After the breakup of the Soviet Union, Kirgizstan’s hydropower share of energy went up to 90% of total energy production.<sup>469</sup> This massive jump meant that Kyrgyzstan is now almost completely reliant on hydro-electricity to keep people warm during the cold winter months. This of course leads to major tensions with the downstream countries as they feel they are being forgotten by the upstream countries which are only releasing water to power their hydroelectric dams.<sup>470</sup>

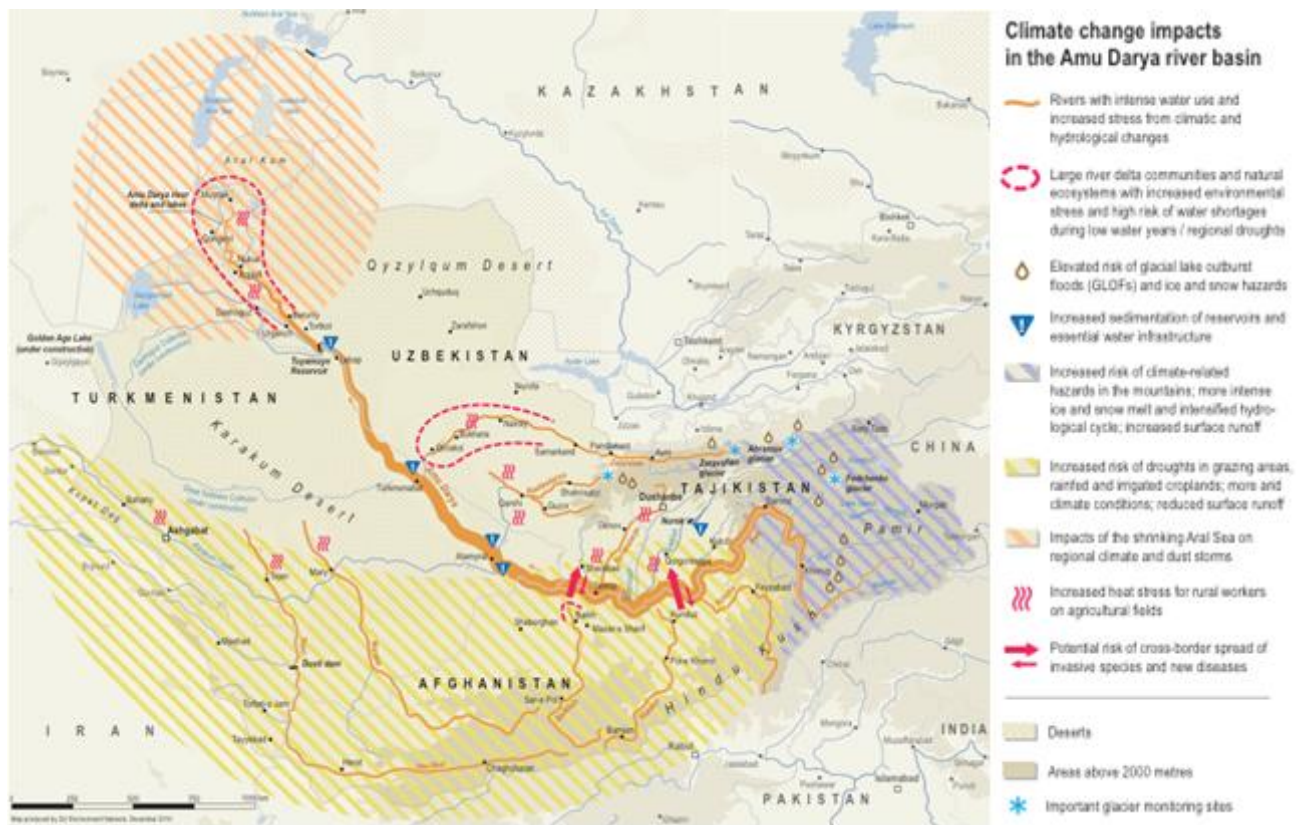
The construction of new hydroelectric dams in the upstream countries of Kyrgyzstan and Tajikistan is the main threat to the previous state of affairs that had been “working” since independence from the Soviet Union.<sup>471</sup> The general disinterest in changing the existing conditions over the years has made this such a complex problem that is difficult to deal with now.<sup>472</sup> The status quo offers disillusioned stability and the system is not working. Unfortunately it has also not yet failed entirely, which leaves an air of hope and possibility that in reality does not exist. The status quo is most simply defined as the regions continuation of functioning as if it was still part of one mega country, the Soviet Union. An example of one of the problems that have stemmed from the split up of the Soviet Union is the fact that pumping stations and reservoirs lie halfway in one country and halfway in another. For example the Qarshi pumping cascade lay across the Turkmen-Uzbek border. These pumps are vitally important to the region as they provide “drinking water for around 2 million people, 1 million tons of cereals and .5 million tons of cotton”. Luckily this specific reservoir issue appears to be under control as an agreement was reached over this issue by Turkmenistan and Uzbekistan.<sup>473</sup>

Even if the situation is under control right now, it does not mean it will be fine tomorrow. On the other side of the situation is a problem that has still not been solved, the Zarafshan Basin conflict. The Zarafshan Basin lies in both Tajikistan and Uzbekistan, again a result of artificially drawn borders. Tajikistan wants to construct hydropower plants in the basin, which worries Uzbekistan as it depends on that basin for agriculture.<sup>474</sup> This sharing worked fine when the countries were both part of the same nation; but they are not anymore and they do not even want to be. This status quo of pretending to still be a part of the Soviet Union must come to an end, and if it is not changed in some way, conflict will soon follow.

### *Climate Change*

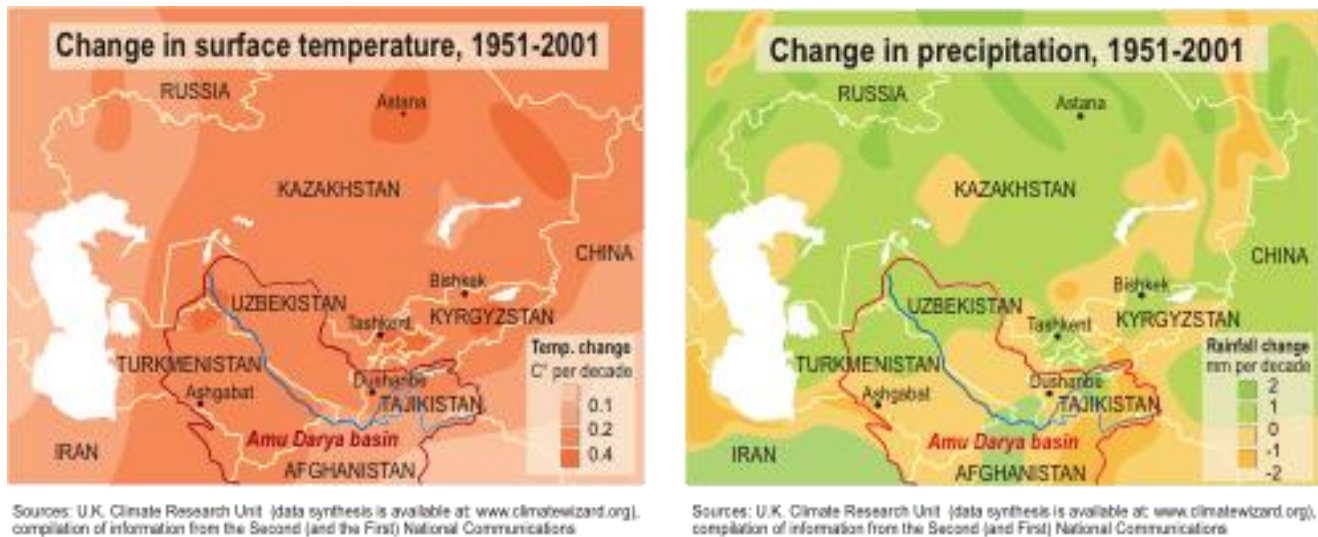
Of all of the problems that water security/scarcity has created in the region, none is more alarming than the changes that are taking place on the earth as a whole due to climate change. As tiresome and dangerous as the lack of water treaties, or new hydroelectric projects are in the issue of stability in the region, control of these issues lies in the power of the states. With climate change it is infinitely more complicated. The Syr Darya and the Amu Darya start as glacial melts and expand into enormous rivers that provide the life blood to all of Central Asia. As the temperature rises, ice changes to water and water evaporates. As those glaciers start

disappearing at a growing rate, water scarcity becomes an increasing concern for Central Asia. “The climate change trends suggests that glacial melts for the Syr Darya will increase during the winter and spring months but fall off dramatically during summer, which is when it is most used to grow cotton”.<sup>475</sup> The implication here is that the crisis that is already gripping the region of Central Asia will get worse. As water becomes more and more scarce and the competition between the upstream and downstream countries increases, the stakes as a whole will rise. If Uzbekistan, Turkmenistan and Kazakhstan lose more of the water that they need for cotton, they will become more and more desperate and apprehensive about any treaty changes that may occur. This will also make them less willing to compromise over hydro-electric needs of the upstream states of Kyrgyzstan and Tajikistan.



**Figure 3:** This map best illustrates the complexities of the climate change impact in Central Asia. The blue shaded area is the glacial melt to be aware of. The yellow shaded region signifies they are most susceptible to drought. (Source: UNEP Environment and Security in the Amu Darya Basin, 29.)

In Central Asia temperatures are projected to rise by around two to three degrees centigrade over the next 50 years. Obviously such an increase in temperatures could have significantly adverse consequences for the region. Unfortunately, some of these are happening already. The main impact is again on glacial melt as, with a rise in temperatures, there is an increased risk of glacier-lake formation and sudden outburst floods. This could lead to the shrinking of glaciers in the mountains which would change the hydrology of climate-sensitive



**Figure 4:** This graphic illustrates the changes that have already happened in the region, and illustrate the potential for disaster. (Source: UNEP Environment and Security in the Amu Darya Basin, 32.)

river basins. This would also lead to changes in the ecosystem as a whole and could cause crop failure and drought.<sup>476</sup> It does not help that the region is very perceptible to drought and, thus, any changes in the overall system could spell its doom.<sup>477</sup> As the temperatures rise, the problems of Central Asia will only worsen.

Ultimately, climate change compounds every water related problem that the region of Central Asia is already facing. As demand for water rises, due to population growth, greater needs for agricultural purposes, and more hydropower use, the water supply is dwindling.<sup>478</sup> While this is a long-term problem of the region, the area is in such a precarious position that even the slightest of changes could destabilize the region and cause it to erupt in violence, an event that would ultimately hurt all parties involved.

### III. Policy Considerations

All of these numerous problems paint a picture of a region in dire need of help. Central Asia has great potential but it must overcome these water issues first. Unfortunately, all of these issues are extremely complex and do not offer easy, apparent solutions. However, there is opportunity to still make a difference. The focus must be on the agriculture sector as that needs help regardless of whether the dams get built. As most of the problems stem from an outdated Soviet system, that is where the focus should be on. For example the current irrigation systems are in need of renovation and are a cause of water loss and inefficiency.<sup>479</sup> Improving the irrigation system is the best way to start mitigating the affects of water scarcity. Central Asian states need to upgrade their current irrigation systems to a drip-feed irrigation system.<sup>480</sup> Additionally, some potential irrigation improvements could include “lining canals and ditches with concrete or newer synthetic materials,” as well as, “repairing or replacing Soviet-era equipment.”<sup>481</sup> However, these changes will not be made any time soon without the assistance of some form of direct foreign investment, perhaps from the US.

### IV. Conclusion

Water is a major concern and limiting factor for Central Asia’s future development as water scarcity threatens the stability of the entire region. Negotiations over water is heightening tension between the Central Asian states and raising the possibility of military confrontations. The main problems stem from the old Soviet system that the region inherited after the behemoth broke up in 1991. This system encouraged cooperation between the five republics but now, as they are no longer forced to work together, the countries have differing agendas. The upstream nations of Kyrgyzstan and Tajikistan need to store water using their massive hydroelectric dams during the summer months to be released for adequate electricity production during the winter months in order to keep their people warm. The problem is that the downstream countries of Kazakhstan, Turkmenistan and Uzbekistan need water to be released during the summer months to supply their farmers with the water that they need to grow their water-intensive crops, such as cotton. This crisis is compounded by climate change that is affecting the glacial melt that supplies the two main water ways of the region, the Syr Darya and Amu Darya. With an insufficient water supply, the countries of Central Asia will struggle to support their growing populations and economies and will continue to fall short of their potential. It will only be

through increased cooperation and extensive public works aimed at improving water efficiency that this crisis will start to be averted. Ultimately, water is a key building block to life and prosperity in Central Asia.

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# Economics

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*Energy is an ever-present factor in the discussions on the economic position of the Greater Central Asian states of the Caspian region. However, the dominance of oil and natural gas in the region could ultimately hinder its long-term viability. Agriculture, industry, and information technology all have great potential but lack liberal economic reforms. Intra-regional trade and transport stagnates in a fractured state without unified policies. Wind, solar, and geothermal sources that could greatly improve power generation remain largely untapped. Meanwhile, the US withdrawal from Afghanistan in 2014 raises questions about the role of the Caspian states in integrating the country into the Greater Central Asian community. In overcoming the obstacles and challenges ahead, diversification and liberalization will be essential in the Caspian states and Afghanistan. The US can serve as a pivotal ally in helping them unite and helping to solidify the Greater Central Asian region's economy.*

# Economic Diversification

## Economic Stability in Central Asia

Richard (Dusty) Wight

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### **Abstract**

Azerbaijan, Kazakhstan, and Turkmenistan rely heavily on their oil and natural gas resources for economic growth. As global energy demand steadily increases, these Central Asian economies have experienced impressive growth, but their reliance on natural resources is unsustainable. Policies geared towards economic liberalization have been considered in all three countries, but implementation of these reforms has been slow and reforms lack realistic goals. Azerbaijan, Kazakhstan, and Turkmenistan hold potential for diversification in their agricultural, industrial, petrochemicals, textiles, and information technology sectors. For economic diversification to occur, Azerbaijan, Kazakhstan, and Turkmenistan must increase human capital, encourage greater foreign direct investment, support small and medium range enterprises, and adopt more liberal economic reforms. Many of these goals can be achieved with support from the US and international institutions.

## I. Introduction

Economic Diversification in Central Asia is important to the region's oil and natural gas industries, in order to provide greater global energy security. The US' interest in developing the region depends upon these natural resources as they serve as an alternative to the Organization of the Petroleum Exporting Countries (OPEC) and Russian supply. International interests and investments into oil and natural gas development have led Azerbaijan, Kazakhstan, and Turkmenistan to rely disproportionately on these sectors of their economy for prosperity, growth, and development. Turkmenistan generates nearly 50% of its economic output from its oil and natural gas sectors.<sup>482</sup> In light of the global economic crisis in 2008, which caused a decrease in economic growth, and the volatile nature of global oil prices, it is important to recognize that Azerbaijan, Kazakhstan, and Turkmenistan cannot rely solely on their energy sectors for sustainable and long-term development. They must instead diversify their economies for the purpose of becoming more resistant to global recessions and market fluctuations. If global oil and natural gas prices were to drastically fall, the effects on these economies would be devastating and likely destabilizing. Such economic destabilization could have far reaching consequences. These would include ripple effects, particularly in Afghanistan, whose fragile economy would suffer considerably, but also in global energy markets due to the potential loss or reduction of non-OPEC oil and gas supply.

Economic diversification amongst sectors such as agriculture, industry, textile production, and services would effectively decrease the percentage of economic output that the energy sector has and thus render the economies of these states more flexible and adaptable to varied conditions. For Azerbaijan, Kazakhstan, and Turkmenistan, diversification can come through attracting foreign investors in areas of the economy apart from natural resources, increasing emphasis on human capital, improving access to and support for small and medium range enterprises, and through creating a more open and liberalized economy. Azerbaijan, Kazakhstan, and Turkmenistan have taken steps towards reaching these diversification goals. Each country emphasizes the development of non-oil and non-natural gas sectors as important to future economic stability, but they have been slow to support the actual development of other sectors.

Azerbaijan, Kazakhstan and Turkmenistan have each established foundations that could lead to greater economic diversification, but each may also require further support from the

international community. For example, Azerbaijan, Kazakhstan, and Turkmenistan already have a formal education system that attempts to ensure literacy for all adults. Yet each country struggles to support institutions of higher learning that allow graduates of secondary and post-secondary levels of education to contribute to key national industries. The US could help by encouraging educational exchanges of youth in these countries, while still ensuring the return of their human capital to their home country. Given these roles, economic diversification is attainable. Nakyat Bashimov, the ex-ambassador of Kyrgyzstan to India stated, “I want to believe that Kazakhstan can gradually transform its political system and wisely use its oil revenues for the development of non-oil sectors of the economy.”<sup>483</sup> With assistance from the US, Bashimov’s hopes could in time become a reality.

## II. Azerbaijan

Although Azerbaijan’s economic dependence on oil has decreased from 2006 to 2009, moving from 62% of GDP to 37% of GDP respectively, levels have begun to rise again, raising oil rents up 42% in 2011.<sup>484</sup> The reduction in oil rents in 2009 can be correlated with the economic crisis that began in 2008. However, the increase in oil rents in 2011 signifies Azerbaijan’s return to economic reliance on the energy sector. The effect, seen in the form of a reduction of oil as a percentage in GDP in 2009, was not due to diversification, but instead related to the volatility of an economy dependent upon the highly fluctuating markets of natural resources.<sup>485</sup> The return of oil’s centrality to the national economy is reinforced by the response of leaders who were angered by the fall in 2012 oil production below forecasted levels.

Azerbaijan’s economy, being primarily reliant upon its oil industry, has not seen substantial growth over the last three years. In 2011 Azerbaijan’s GDP was US\$63.4 billion with a growth rate of 1% that slowed to about 0.2% by the end of the year.<sup>486</sup> This leaves Azerbaijan significantly behind developed countries, such as the US, in terms of GDP. Azerbaijan’s GDP is represented as follows: agriculture 5.5%, industry 62.1%, and services 32.4%. Both the industrial and services sectors are heavily dominated by the energy industry<sup>487</sup>, as oil rents as a percentage of GDP were 42%.<sup>488</sup>

One aspect relating to diversification is economic freedom, or liberalization. According to the 2013 Index of Economic Freedom, Azerbaijan ranks 88<sup>th</sup> in the world’s mostly unfree category.<sup>489</sup> Yet poverty has been greatly reduced in Azerbaijan, from 49.6% of the population in

2001 to 15.8% of the population in 2008.<sup>490</sup> This reduction in poverty does imply that citizens have greater access to income, and further economic freedoms. Privatization of the agriculture sector has been achieved, and there has been significant encouragement for small and medium private companies. However, HDI in Azerbaijan is still low, at 0.731 and ranking 76 out of the 187 countries. Slightly below Europe's regional average, Azerbaijan's numbers are brought down by income inequalities.<sup>491</sup> Some of these inequalities could be alleviated through greater opportunity for citizens in a more diversified economy. As most income generation is concentrated around its energy sector, Azerbaijan has other options for expanding its economy.<sup>492</sup>

Economic reforms in Azerbaijan have attempted to address the lack of diversification. Beginning in the early 1990's, Azerbaijan began moving from a command economy under Soviet control to a more open economy with greater competition and more private sector involvement. Recently, Azerbaijan has adopted more open economic policies. One of these policies allows companies to invest in Azerbaijan through a green field project, a project that does not require any prior development and is not constrained.<sup>493</sup> Moreover, Azerbaijan has continued to de-nationalize state-owned enterprises. This has led to a rapid expansion of the private sector accounting for nearly 85% of the country's GDP, and employing nearly 70% of the workforce in Azerbaijan.<sup>494</sup> However, the majority of the energy sector is still under government control. At this time Azerbaijan is also partaking in a second wave of privatization focused on medium and large-scale enterprises in specific sectors. These sectors include transport, communication, and chemical engineering.<sup>495</sup> As Azerbaijan begins to expand the privatization of medium and large-scale businesses, it is also attempting to ease the difficulty with which small businesses can be established. One example of these efforts is the creation of "one-stop shops," which are institutions that can provide citizens with easy access to government resources.<sup>496</sup> This easy access allows Azerbaijan to cut down on the cost of paperwork, while also decreasing the time it takes for citizens to set up new businesses. Many of these market reforms have served to smooth over some areas of the economy, fostering greater efficiency.<sup>497</sup>

Azerbaijan has also taken more direct steps to ensure economic diversification. In 2006, President Ilham Aliyev issued a decree promoting investment activity. A section of this decree included the arrangements to establish the Azerbaijan Investment Company (AIC). The AIC seeks to expand the economy by focusing on investment in non-oil sectors of the economy.<sup>498</sup>

Part of the AIC's duties include partnering with foreign and domestic investors to provide easy investment transitions, additional financial support, and greater insurance through more comprehensive exit strategies.<sup>499</sup> Another strategy that Azerbaijan is pursuing in order to foster development is to focus in developing individual regions. Azerbaijan has divided the country into 10 separate sections in order to pinpoint which non-oil sectors may be worth the investment, while focusing publicity to expand these markets on the participation of local citizens and investors.<sup>500</sup> Azerbaijan has also used its state oil fund to finance youth study abroad programs as a means for improving human capital.<sup>501</sup> These steps highlight initiatives to creating a more diverse economy through enhanced human capital development, encouraging foreign investment, and gradually liberalizing its economy.

While these actions have shown some success and demonstrate Azerbaijan's commitment to long-term sustainable growth, there is still much that can be done. Azerbaijan has relatively low rates of attendance for pre-school and higher education, and institutions such as the WB have questioned the quality of education.<sup>502</sup> Additionally, FDI has not grown and, as seen from Azerbaijan's "Doing Business" rank, 67th out of the 185 countries ranked in 2013, Azerbaijan needs to place greater emphasis on attracting foreign investment.<sup>503</sup> Efforts to liberalize its economy, through greater support for small and medium range enterprises (SME), have not been large enough to stimulate greater stability of a private sector outside of energy. A liberalized economy, including the support of the SME's is already offered via WB financial report and could be bolstered by U.S. engagement.<sup>504</sup>

### **III. Kazakhstan**

Kazakhstan's oil rents have remained fairly constant since 2006, fluctuating between 20-28% of GDP, witnessing only a slight dip during the global financial crisis. Kazakhstan has not put forth great efforts to diversify the economy, which can be seen from the constant GDP share that oil rents inhabits at around 20-25%.<sup>505</sup> As development of the oil sector continues, it would be wise to develop other non-oil sectors in order to maintain, or preferably, decrease oil rents from 20-25% of GDP.

Economic diversification is even more important in Kazakhstan because of its reliance on the oil sector. In 2011 their GDP was 188 billion USD. The 7.5% growth rate since 2011 is directly tied to the price of oil and displays the energy markets vulnerability to oil volatility.<sup>506</sup>

The country's GDP is divided primarily between: agriculture 5.2%, Industry 37.9%, and services 56.9%. Compared to Azerbaijan a greater share of economic output is found in the service sector. However, many of these positions are again related to energy<sup>507</sup> and about 22% of Kazakhstan's GDP in 2010 was in oil rents.<sup>508</sup> Kazakhstan's placement at 68th in the 2013 Index of Economic Freedom places it in the moderately free category and suggests a need a greater commitment to liberalization.<sup>509</sup> Economic diversification could help to reduce income inequality, which factors in to Kazakhstan's fall in HDI to 0.745. Although higher than Azerbaijan this figure is still below the regional average of Europe.<sup>510</sup> Indicators such as HDI and poverty reduction are important because they will improve as Kazakhstan continues its efforts to diversify its economy. Including a greater number of its citizens in its economy will result in greater competition of varying markets and stability. Kazakhstan also places as an upper middle-income country by HDI. However, it lacks a strong middle class and a wide range of economic opportunity. Kazakhstan therefore has room to grow and diversify by investing in their citizens.<sup>511</sup>

Kazakhstan's reforms have been slow, and in some instances regressive. However, desire to move away from the command and control structure that was implemented during the Soviet era has encouraged Kazakhstan to continue attempts toward revitalizing its economy. Growth in Kazakhstan is difficult to sustain outside of the energy sector. The government has implemented policies concerning greater economic liberalization in an effort to allow greater privatization,<sup>512</sup> yet much of Kazakhstan's construction, mining, and energy sectors remain state owned.<sup>513</sup> Kazakhstan has also made greater efforts to support small and medium ranged enterprises through establishing an institutional framework containing agencies best equipped to assist small and medium enterprises with policy implementation.<sup>514</sup>

Kazakhstan began working with foreign companies such as British Petroleum (BP) and Eni as early as 1993.<sup>515</sup> These companies helped develop the infrastructure to tap into some of Kazakhstan's vital oil reserves and to transport these reserves to world markets. However, some of these companies have scaled down their investment due to difficulties working with Kazakhstan's policies. One example can be seen in the development of the Kashagan consortium. Kazakhstan began working with the consortium, which included foreign oil companies BP, Eni, and Shell, to develop the Kashagan field.<sup>516</sup> The original estimated cost of the fields development was US\$27 billion, but that estimate was later increased to US\$60 billion USD. The government then postponed the project because of environmental violations on the

part of the foreign investors.<sup>517</sup> Although it was a recognizably financially responsible move on the part of Kazakhstan to ensure the success of the project without harming the environment, this worried potential investors interested in the region. Fear of monetary commitment with unsubstantiated results discouraged investors from working with the Kazak government. Furthermore, in 2007, president Nazarbayev signed legislation allowing the government of Kazakhstan to adjust or annul any contract deemed a threat to national security. Although this legislation has not led to any such annulments, it was viewed as an instance of resource nationalism and caused Kazakhstan's foreign investment to fall.<sup>518</sup> Although these incidents were purely focused on the oil sector, the number of investors interested in non-oil sectors investments also declined as confidence in investment returns for all sectors dropped. There are also heavy restrictions on the hiring of expatriate staff, meaning that investing companies may have great difficulty placing employees in Kazakhstan with the technical knowledge to train Kazaks.<sup>519</sup> These difficulties with foreign investors prove that although Kazakhstan has successfully reformed its investment policies there still remain flaws and discrepancies that must be worked out before investors take greater risks in non-oil sectors of the economy.

Aside from difficulties in market reform for FDI, Kazakhstan's investment in human capital is not substantial. Many pupils do not get a chance to move on to the university level, which inhibits their ability to gain career applicable skills. Students who do not pass the test required to get into the major universities in Kazakhstan are unable to take equivalent exams for European or OECD colleges. This lack of preparation for higher education greatly reduces the country's competitiveness.<sup>520</sup> Teaching English may be required to successfully increase human capital in Kazakhstan as English is commonly used in the international community for business and trade.<sup>521</sup> Teaching English could be fostered by the US through programs similar to the English teaching program facilitated by the Peace Corps. Thus far, Kazakhstan's efforts to increase their human capital have lacked the vigor that is required for greater economic diversification.

#### **IV. Turkmenistan**

Turkmenistan's dependence on the energy sector experienced a deep decline from 30% of GDP in 2006 to 16% in 2009, only recovering slightly to 19% in 2010.<sup>522</sup> This experience illustrates the importance of economic diversification because of the instability of global market

prices. However, Turkmenistan, unlike Azerbaijan and Kazakhstan, has a favorable amount of natural gas yet to be tapped. In 2010, Turkmenistan received rents of up to 24% of GDP from its natural gas extraction and export industry.<sup>523</sup> China, along with other private and national investors, has taken an interest in the area and is investing in critical infrastructure that would allow for greater extraction and export capabilities of Turkmenistan's natural gas.

Turkmenistan's growing natural gas industry is deepening its dependence on the energy sector for economic growth and stabilization.<sup>524</sup> It is in Turkmenistan's interest to bolster areas of its economy outside of the natural gas sector, in order to prevent massive shocks such as those seen from 2006 to 2009.

Economic diversification is very relevant for Turkmenistan as its GDP was a low US\$28.06 billion in 2011 by WB Estimate. Although harnessing a smaller GDP than either Kazakhstan or Azerbaijan, Turkmenistan boasts an impressive growth rate of 9.9%.<sup>525</sup> Still, with a relatively small GDP, expanding to non-natural gas sectors of the economy could result in double-digit growth rates. Turkmenistan's economy is most commonly measured in three separate sectors, which are: agriculture 7.9%, industry 24.5%, and 67.6% services.<sup>526</sup> Although the latter two categories make up the largest percentage of GDP, the agricultural sector employs nearly half of the population at 48.2%.<sup>527</sup> Additionally, although the service sectors are growing, many of these new jobs are being created by the oil and natural gas development in Turkmenistan,<sup>528</sup> increased by the relative rise in oil rents from 20% in 2011 and natural gas rents were 24%.<sup>529</sup> Poverty in Turkmenistan is claimed to be at 20% with warnings from WB officials of a greater poverty risk.<sup>530</sup> Furthermore, Turkmenistan's rank in the 2013 Index of Economic Freedom is 169, placing it in the repressed category.<sup>531</sup> This lack of freedom is further noted in Turkmenistan's HDI rank of 0.686 placing it well below the regional average, and gives it a rank of 102 out of 187 countries.<sup>532</sup> With both a poor rating in economic freedom and high poverty statistics it is clear that Turkmenistan suffers from a general lack of liberalization, preventing its citizens from prospering and diversifying the economy. Additionally Turkmenistan's lack of transparency to international institutions should be remedied before economic diversification can be attained.

Following the change in Turkmenistan's government from President Niyazov to Berdimuhamedov in 2006 were a number of economic reforms intended to foster greater economic diversification and development. Turkmenistan's government intended to foster

private sector development, with an ultimate goal of increasing the size of non-oil sector GDP to 70% by 2020.<sup>533</sup> The government of Turkmenistan, under Berdimuhamedov, unified the national exchange under a single currency in 2009, allowing for greater ease of economic transactions domestically.<sup>534</sup> The government also introduced a new foreign investment law in 2009 that established a framework for investors, and slightly liberalized the closed economy of Turkmenistan.<sup>535</sup> Furthermore, the ban on international banking operations of commercial banks was lifted so that competitive banking practices could be realized.<sup>536</sup> The commitment to greater economic development displayed by the government through these reforms is a promising start towards more stable economic diversification. Although lagging behind policies similarly found in Azerbaijan and Kazakhstan, the successes of Azerbaijan and Kazakhstan may prove as proof that these economic reforms will also be successful in Turkmenistan.

However, despite these listed reforms, the government of Turkmenistan has done little in the way of actually implementing the reforms established through these legislative decisions, continues to favor the industries of a few “friendly” countries, and emphasizes the state owned banks.<sup>537</sup> These flaws emphasize the seemingly more open, yet still relatively closed nature of Turkmenistan’s economy. The US may be able to entice Turkmenistan to become more open through dialogue and the use of agreements such as bilateral investment treaties, which at this time the US does not have with Turkmenistan. Perhaps it would be in US interests to establish one in order to foster FDI from US based corporations, while simultaneously incentivizing the government of Turkmenistan to expand regional and global partnerships.

## **V. Policy Considerations**

In order to foster the greatest potential for stability through economic diversification the US should focus on four overall areas. These areas include, fostering human development, encouraging greater Foreign Direct Investment, increased access to financing for small and medium ranged enterprises, and economic liberalization.

Policy considerations involving human capital may vary between Azerbaijan, Kazakhstan, and Turkmenistan. An important focus in Azerbaijan should be in providing bilateral teaching partnerships in information technologies, as Azerbaijan is currently working to become a regional hub in this industry. In Kazakhstan, it may be in the US interest to use institutions, such as the Peace Corps, to assist in the teaching of English so that future graduates

will be more equipped to help Kazakhstan integrate into a world community. Stimulating a rise in human capital in all three countries might be done via emphasis on university exchanges to the US, with the guarantee that students who are taught in the US will return to work in their country of origin. This guarantee could be enforced via bi-lateral legal cooperation between the US and the countries of Azerbaijan, Kazakhstan, and Turkmenistan. These bi-lateral partnerships would help to increase the amount of human capital in these three countries, providing a wider base of knowledge for expansion into newer economic territory.

In order for the US to encourage Foreign Investment, it may be most beneficial to work more closely with the WB as it attempts to partner with the governing bodies of each country to enact more liberal economic policies. Through these reforms, investors will find outlets into newly developing sectors of Azerbaijan, Kazakhstan, and Turkmenistan's economies, including agriculture, information technology, and even petrochemicals. The US should focus on cooperating with Azerbaijan, Kazakhstan, and Turkmenistan to develop economic agreements that would ensure greater security for investors. More specifically, it would also be in the US interest to establish a bilateral investment treaty with Turkmenistan, effectively giving US companies a legal framework to pursue investments in Turkmenistan. At this time, foreign investment is focused on the energy sector, but with greater reform and guarantees such as bilateral investment treaties, it could encourage industrial expansion. Azerbaijan and Kazakhstan<sup>538</sup> both hold potential in the development of manufacturing and agriculture,<sup>539</sup> whereas Turkmenistan has also been trying to break into the chemical and petrochemical industry.<sup>540</sup>

Increased Access to financing for SME's can be influenced via the WB and IMF, but can also be implemented on smaller scales through micro financing institutions. If the US seeks to support WB investment into national banks under the condition that they provide greater financing assistance to small and medium range enterprises in the region. Investment in SME's would greatly reduce the dependence on oil sector revenues, as the current system in these countries does not provide for growth of SME's. It is also important to recognize that micro financing institutions can focus in greater detail on smaller sectors of the economy, thereby providing more sustainable growth of small and medium range enterprises. Over time, this support would show growth of non-oil sector enterprises, these enterprises would in turn help to support the economy in times of natural resource price fluctuations.

Finally, it is most difficult for the US to affect policy change in the realm of economic liberalization. One method the US could use would involve supporting Azerbaijan and Kazakhstan's accession to the WTO. Should these countries achieve WTO status, they would first need to provide believable economic reforms involving further opening of their economies both domestically and internationally. Along with continued investment as outlined in FDI, the economies would slowly continue to open over time to more of their citizens. Other potential policy options concern those policy options already mentioned, if the US provides support to SME, cooperates with Azerbaijan, Kazakhstan, and Turkmenistan to attract greater FDI, and encourages the development of human capital, it will become more appealing for the governments to liberalize the economy in these countries because liberalization would result in larger economic gains. Although it may be a slow process, US guidance towards economic liberalization will only speed up the diversification process and lead to ever more stable economies.

## **VI. Conclusion**

Azerbaijan, Kazakhstan, and Turkmenistan have remained very dependent upon their natural resource sectors for economic growth and prosperity. This practice is unsustainable and potentially dangerous to not only regional stability, but could have wide reaching effects on world energy markets and could very negatively effect major energy importers such as the EU and the US. Given the potential for disaster, it is important that the US increases support for Azerbaijan, Kazakhstan, and Turkmenistan as they pursue greater efforts to diversify their economies. Achieving the goal of diversification can begin with the strengthening of financial support for small and medium enterprises, emphasizing human capital increases through exchanges of students and information, economic agreements that call for sustained cooperation between the US and Central Asian economies, and positive reinforcement to economic liberalization. If the US can successfully retain these economic and political influences, it will benefit the economies of Azerbaijan, Kazakhstan, and Turkmenistan in the form of even greater emphasis on non-oil sectors. Building upon these non-oil sectors will ensure economic stability, which will then translate to regional stability. As global energy demands continue to grow, Central Asia is becoming an even more important source of oil and natural gas as it serves as a good alternative to OPEC and Russia. Stability in this region is connected to global stability. The

stability that would come from economic diversification would ensure the future of global energy markets, the national security of the US, and would raise the Central Asian states to a higher level of development that would benefit all of their citizens.

# Regional Trade Development

Su Min (Alana) Kim

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### Abstract

Azerbaijan, Kazakhstan, and Turkmenistan play a significant role in Greater Central Asia mainly due to their large energy-exporting sector. In spite of their vast energy resources, the regional trade development for Greater Central Asia has been stagnant. However, in order to incorporate Afghanistan successfully into the regional trade network, as envisioned by the US in its promotion of the “New Silk Road,” it is critical that Afghanistan’s neighboring countries cooperate to unify the region for the benefit of all. In doing so, the US can help the Central Asia establish strong regional relations and improved infrastructure.

## I. Introduction

Azerbaijan, Kazakhstan, and Turkmenistan are the main oil exporting countries in Greater Central Asia. Though they continuously benefit from oil revenues, their trade relies heavily on energy exports, and intra-regional trade is rather insignificant. Regional trade agreements to build a beneficial trade network will be crucial to Central Asia's long-term economic success, especially in upcoming years as the US' withdrawal from Afghanistan approaches. As the world focuses on the region's economic potential and its chance to make progress via economic integration, Azerbaijan, Kazakhstan, and Turkmenistan should be considered carefully. The US approach to the issue can benefit from an understanding of the trade relationships that currently exist in Greater Central Asia, including those relations with surrounding powers.

## II. Overview of the Status of Trade

### *Azerbaijan*

Since 2000, Azerbaijan has undergone significant economic growth due to oil exports. Azerbaijan's oil export revenues make up roughly 80% of its national exports. Domestic growth in non-export sectors, such as construction, banking, and real estate, accompany the growth from the export market.<sup>541</sup> However, fluctuating world oil prices and the 2008 recession have heavily influenced Azerbaijan's overall trade and economic performance because its economy overly depends on oil revenue.<sup>542</sup> While it remains a strong oil exporter to Italy, France, and Germany, as well as to the US and Turkey, Azerbaijan's trade of other resources with the members of the Commonwealth of Independent States (CIS)<sup>4</sup> has decreased in importance.<sup>543</sup> Even though Azerbaijan's overall trade turnover with CIS countries increased 1.5 fold between 2006 and 2010,<sup>544</sup> Azerbaijan's trade with CIS countries only constituted approximately 15% of its overall trade in 2011.<sup>545</sup> However, in the same year EU countries made up 50% of Azerbaijan's total trade turnover.<sup>546</sup> This is because the steady increase in Azerbaijan's oil exports to the EU continually makes a larger contribution. Also, it continues to maintain some trade relations with Russia and China through the importation of commodities such as machinery, equipment, and vehicles.<sup>547</sup> Azerbaijan, therefore, remains a strategic trading partner for many energy-importing

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<sup>4</sup> Commonwealth of Independent States includes Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Uzbekistan and Ukraine as of 2012.

countries throughout the EU and its potential growth in other trading commodities is considerable.

Azerbaijan's trade policies and conditions demonstrate some resistance to trade and economic liberalization. The country has a Tariff Trade Restrictiveness Index (TRI) of 5.3%, compared to the 4.4% average that is characteristic of Central Asian and Europe countries.<sup>548</sup> Azerbaijan ranked 62<sup>nd</sup> out of 125 countries surveyed by the WB for economic restrictiveness, with the 1<sup>st</sup> place country being the least restrictive.<sup>549</sup> In addition, Azerbaijan's underdeveloped trade facilitation ranked 89<sup>th</sup> place in the same set of countries.<sup>550</sup> These rankings indicate that Azerbaijan has significant tariff and non-tariff trade barriers, which can limit its trade expansion.

### ***Kazakhstan***

Kazakhstan has one of the largest economies in Central Asia and is the primary exporter of oil in the region.<sup>551</sup> Its vast fossil fuel, mineral, and metal reserves have supported its economic growth throughout the 2000s.<sup>552</sup> In 2008, Kazakhstan suffered a short-term decrease in trade due to the world economic crisis; however, it recovered quickly in 2010 when the world oil price went back up.<sup>553</sup> Kazakhstan's main trade partners are the EU, Russia, and China. In the last decade, however, trade with Russia has decreased while the EU and China have become increasingly important trade partners.<sup>554</sup> This pattern is similar to the case of Azerbaijan where oil dominates exports. While the EU and China seek foreign oil markets, Russia mainly imports agricultural products. Kazakhstan's agricultural sector is important because it is the only regional exporter of grain.<sup>555</sup> As a response to growing concerns over global food security, Kazakhstan banned wheat exports for five months in 2008 in order to secure domestic consumption, alarming neighboring Central Asian countries.<sup>556</sup> Moreover, in its attempts to protect domestic industries, Kazakhstan raised tariffs for import goods that are also domestically produced.<sup>557</sup> In other words, instead of focusing on the oil revenue, Kazakhstan acted to instate trade policies to strengthen its domestic economy and to establish its influence in regional and international trade.

In comparison with its neighbors in Greater Central Asia, Kazakhstan's trade policies are very liberal but the country shows weaknesses in trade facilitation. In 2010, Kazakhstan's TRI value recorded 2.1% and ranked 7<sup>th</sup> place among the WB's survey of 125 countries,<sup>558</sup> demonstrating its liberalized trade policies. On the other hand, its trade facilitation was ranked 62<sup>nd</sup> and seems to lack effective operation.<sup>559</sup> Kazakhstan's trade outcome, which reflects the

need for improvements to non-tariff trade barriers, also recorded low, at 88<sup>th</sup>, in the WB survey.<sup>560</sup> These rankings show that Kazakhstan still needs improvement in trade related policies, despite having high levels of liberalization regionally. This has the potential to change in the upcoming years. In 2010, to further its intra-regional trade relationships, Kazakhstan formed a customs union with Russia and Belarus.<sup>561</sup> The common external tariff and elimination of trade barriers between these three states<sup>562</sup> leaves the potential for reforms in Kazakhstan's trade policies and relations in the near future.

### *Turkmenistan*

Trade patterns and economic conditions in Turkmenistan are similar to Azerbaijan and Kazakhstan. A few of its key commodities are natural gas, oil, and cotton. Wheat, its other main crop, is only consumed domestically.<sup>563</sup> In the last decade, trading commodities of Turkmenistan remained largely the same but its trading relations have changed significantly. Similar to other Central Asian countries, China gained a large percentage of Turkmenistan's exports and Russia decreased in importance.<sup>564</sup> What distinguishes Turkmenistan from its neighbors is its growing relationship with nearby powers, Turkey and Iran. Iran is now Turkmenistan's most important trade partner<sup>565</sup> though the largest increase in imports has occurred in China and Turkey.<sup>566</sup> Meanwhile, the EU has decreased in its trade with Turkmenistan.<sup>567</sup> Turkmenistan shows similar changes in trade partners with the other two major regional oil exporters, Azerbaijan and Kazakhstan.

Between 2002 and 2012, Turkmenistan's proven natural gas reserves increased in order of magnitude to over 24 billion cubic meters, placing it among the top four reserve-holders in the world. Currently, it exports gas mainly to China on a bilateral basis. However, if the Trans-Caspian pipeline to Baku is built, Turkmenistan will become an important supplier to many other nations, including Turkey and the EU. As such, it would be a direct competitor with Russia.

It is difficult to assess Turkmen trade policies and the regime as a whole because much of its recent statistics and data remain unpublished and in the control of government authorities. The latest data on tariffs dates back to 2002 when Turkmenistan had relatively open trade compared to the regional average at the time.<sup>568</sup> The country's unwillingness to openly share its information obviously limits analysis of regional trade patterns and networks. Its geographical location is also of importance with regard to any goal related to regional economic integration, as

it shares borders with Iran and Afghanistan. Nuclear programs in Iran and upcoming US withdrawal from Afghanistan show that Turkmenistan can be a strategic source of peace and economic potential for the region.

## ***China***

China's trade relations with Greater Central Asia largely involve oil, natural gas, and mineral extraction. In the years between 2007 and 2010, Chinese exports to Central Asia<sup>5</sup> averaged at more than US\$7 billion leaving a Chinese trade surplus despite its large volume of oil and natural gas imports.<sup>569</sup> Though the growth in trade volume between China and Central Asia slowed down in recent years, it still remains a strong economic partner in the region. Through the economic influences of the Shanghai Cooperation Organization (SCO) and Chinese investment in infrastructure development that improves trade routes, China continues to maintain its presence in regional development.<sup>570</sup> However, remaining problems in current infrastructure and high tariffs pose a trade barrier that limits the potential for greater growth in their relations.<sup>571</sup> While Kazakhstan is the biggest recipient of Chinese Foreign Direct Investment (FDI), China has focused on numerous countries in Greater Central Asia as targets to make investments.<sup>572</sup> Through ongoing Chinese efforts to secure access to Central Asia's energy sources, China has arguably become the most important trade partner to Greater Central Asia.<sup>573</sup> Both in trade volume and investment, China demonstrates significant involvement in Greater Central Asia, especially in Kazakhstan, threatening Russia's economic influence in the region.

## ***Russia***

Russia and Kazakhstan are the key players in many regional organizational efforts to build an effective trade network. Not only is Russia a part of the EurAsEC and the SCO, it also shares political and social history with many Central Asian countries. The recent formation of the ECU can have big impacts on Russia's trade relations with not only Kazakhstan but the other Central Asian neighbors. Easier access to Kazakhstan via economic common space under the ECU can lead to improvement in trade routes. This geographical and economical interdependence between Russia and Central Asian countries means that Russia's accession to

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<sup>5</sup> Central Asia in this data includes Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan.

WTO in 2012 could influence similar decisions from Central Asian countries, which can alter regional trade dynamics greatly.

### ***European Union***

The geographical distance between the EU and Central Asia hinders its involvement in the region in sectors beyond energy.<sup>574</sup> The EU's effort to reduce its reliance on oil trade with Russia is turning Central Asia into a major alternative partner, especially Kazakhstan and Turkmenistan.<sup>575</sup> Some of the EU countries, Italy, France, and Germany, continue to be the key importers of Azerbaijan and Kazakhstan's oil.

The EU aims to help economic diversification in Central Asia and to strengthen regional economic integration.<sup>576</sup> In addition, the EU hopes to encourage advancement in the WTO application process in Kazakhstan and to persuade Turkmenistan to apply.<sup>577</sup> However, the EU places greater emphasis on cooperation in making political and social changes in Central Asia than it does on cooperation for trade purposes.

### **III. Regional Economic Integration**

Surround by the world's main economic powers – China, Russia, and EU – Central Asia has a high potential for growth and can serve as a political, economic, and social bridge between Europe and Eastern Asia. The region has already served as a great market for Chinese investment in recent years and a steady trading partner for the EU.

However, trade within Greater Central Asia has been limited. Central Asia is the only part of Asia that experienced significant downfall in regional trade since 1995.<sup>578</sup> In other words, despite the increase in trade between Central Asia and neighboring powers, Central Asian countries trade less and less amongst themselves. This is interesting because over the last two decades, since the independence of the former Soviet states, Central Asian countries have shown persistent efforts towards finding an effective method for regional economic integration via regional trade agreements.

In order to strengthen regional trade networks and relations, there have been many regional trade agreements and regional economic organization since the 1990s. Nonetheless, unorganized creation of bilateral and multilateral regional agreements of many Central Asian countries led to the “Spaghetti bowl effect”.<sup>579</sup> The metaphor refers to the complex webs of

regional groups that characterize Greater Central Asia. Yet, the numerous agreements signed between the countries over the years have had little impact on overall trade network. The Commonwealth of Independent States (CIS), the Eurasian Economic Community (EurAsEc), and the Economic Cooperation Organization (ECO) are three main regional organizations that emphasize regional trade cooperation as one of their goals.

### ***Commonwealth of Independent States***

The Commonwealth of Independent States, formed in 1991 after the fall of the former Soviet Union (FSU), started with Russia, Ukraine, and Belarus as an intergovernmental organization to promote regional cooperation in Central Asia.<sup>580</sup> Soon after its formation, nine other newly independent post-Soviet countries joined to complete the organization. The original function of the CIS was to facilitate regional cooperation to benefit members' economies, foreign relations, defense, immigration policies, environmental protection, and law enforcement.<sup>581</sup>

Through its regular meetings, the CIS developed a series of agreements regarding free trade, military cooperation, and criminal control<sup>582</sup> in order to advance regional peace and security. Despite its critical role in building a foundation for mutual efforts to further regional development, the CIS often failed to fully implement its agreements due to its lack of authoritative power<sup>583</sup> and the lack of trust between its members.<sup>584</sup> The CIS still exist and functions as an international organization today, though it lacks significant influence.

### ***Eurasian Economic Community and Eurasian Customs Union***

The Eurasian Economic Community (EurAsEc; also known as EAEC), signed in 2000 by the heads of Belarus, Kazakhstan, Kyrgyzstan, Russia, and Tajikistan, was formed to establish a free trade zone, a customs union, and a common economic space in the region.<sup>585</sup> Kazakhstan hoped this regional economic integration would help it achieve sustainable economic development and successful modernization of its economy through use of its export sector and geographic location.<sup>586</sup> Close economic relations with Russia and Belarus can help Kazakhstan obtain easier access to EU markets for market expansion. Kyrgyzstan and Tajikistan, on the other hand, seek socio-economic development<sup>587</sup> through cooperation with their fast growing neighbors. However, so far because the participating countries vary in their economic potentials

and their current condition, it has been difficult to implement any significant changes for growth.<sup>588</sup>

After idle progress during the first decade after its formation, three of EurAsEC members – Russia, Kazakhstan, and Belarus – took the first major step towards cooperation by forming the Eurasian Customs Union (ECU) in 2010. Formation of a customs union, unlike a regional trade agreement, required a settlement of common external tariffs while removing trade/non-trade barriers at the borders of the member states.<sup>589</sup> Placed into effect in 2011, this customs union was notably successful.<sup>590</sup> The ECU has already reported a 32% increase in trade between the three members by opening free trade among the union states.<sup>591</sup> The common external tariff reflected Russia's relatively high pre-WTO tariff. As a result, it raised Kazakhstani tariffs significantly but had little impact on Russian and Belarus tariffs.<sup>592</sup> The adjustments that these three countries made in a relatively short period in order to carry out the first steps towards greater economic integration is significant progress after long years of stagnation.

Another strength of the recent customs union that many previous attempts lacked is the supranational authority, the Eurasian Economic Commission (EEC).<sup>593</sup> Previous organizations often found it difficult to make progress because the heads of the states placed their national interest before regional growth. The EEC, solely committed to the progression of the ECU and the growth within the economic common space, is a critical step forward in regional integration.

Each of the members also has different interests at stake in the formation of the ECU. Russia seeks recognition from the EU as a compatible partner for its influence and importance in the region and to remain a dominant power against the rise of Chinese influence<sup>594</sup>. However, the EU<sup>595</sup> and the U.S.<sup>596</sup> is concerned that the ECU is a political attempt to reunite FSU states and more than a purely economic integration. The EU and the US see the ECU as a Russian-led movement and worry that it may create an opposing political power to the EU that could be a threat due to its geographic proximity. This could be detrimental to the humanitarian efforts that the EU and the US have emphasized in Central Asia. However, Russia strongly disagrees and stresses that the ECU seeks economic benefit via regional cooperation.<sup>597</sup> Regardless, the members of the ECU face challenges in earning legitimate recognition as an effective organization from the West.

On the other hand, the formation of the ECU provides important motivation for Russia in dealing with its Southern neighbors. By building a customs union with Kazakhstan and

potentially Kyrgyzstan and Tajikistan in the near future, Russia can ensure its economic and political influence in Central Asia despite Chinese influence. In recognition of China's fast growing dominance in its domestic economy, Kazakhstan sees Russia as safer partner to rely on.<sup>598</sup> Kazakhstan has been eager to foster greater regional economic cooperation in the past and the formation of ECU is in line with these motivations and has had a positive impact on development. Kazakhstan can be an attractive place for many small and medium Russian enterprises to relocate to because it hosts a favorable business environment, such as lower taxes.<sup>599</sup>

Unlike previous attempts to bring countries in Greater Central Asia together, the ECU achieved a solid foundation for further economic integration of the region. With the strength of the Russian and Kazakhstani economies in the center of the customs union, the ECU holds promising economic potential in further expanding into the EU and Asia Pacific if it can succeed in adding Kyrgyzstan and Tajikistan to the union.

### ***Economic Cooperation Organization***

The only regional trade organization that Turkmenistan and Azerbaijan participate in is the Economic Cooperation Organization (ECO). First established by Iran, Pakistan and Turkey in 1985, the ECO later accepted Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan.<sup>600</sup> The ECO recognizes the critical challenges that the region faces regarding limited infrastructure and the lack of an authoritative organization, which limits meaningful usage of the region's abundant natural resources.<sup>601</sup> The objectives of the organization include, but are not limited to, sustainable socio-economic development and building a competitive and integrated regional economy that can effectively work in the global trade.<sup>602</sup> The ECO's annual economic report for 2009 indicated the inefficient regional trade and the imbalance of trade volume.<sup>603</sup> Turkey is the main contributor to the overall trade turnover and Kazakhstan has the highest positive trade balance and high value of imports and exports.<sup>604</sup> Azerbaijan and Turkmenistan act as oil exporters in the group, though their importance is less significant than that of Kazakhstan. Besides Iran, Kazakhstan, Turkey, and Pakistan, other members' overall trade with each other is minimal. This pattern reaffirms the weak regional trade network.

Since 2002, during the Expert Group meeting of the ECO members, the member countries have agreed on a series of measures to enhance more liberalized intra-regional trade and to establish a free trade zone by 2015.<sup>605</sup> In 2003, a preferential trade agreement Economic Cooperation Organization Trade Agreement (ECOTA) was signed to promise a 15% tariff reduction within the next eight years.<sup>606</sup> As of 2012, the ECO members are still developing a single trade regime. However, the ECO continuously works on trade policies to further its economic integration.

### ***The World Trade Organization***

The World Trade Organization (WTO) is a worldwide multilateral trade organization that is relevant to Central Asian regional trade. The Greater Central Asian countries' accessions to the WTO are crucial to synergizing their growth in trade by gaining competitiveness in the global market.<sup>607</sup> The necessary adjustments made in preparation to join the WTO can trigger further liberalization in trade policy in order to meet WTO measures and foster economic growth.<sup>608</sup> Instead of forced unilateral trade liberalization, this can ensure a more natural transition to the liberal system while gaining worldwide trade partners within the WTO network. Currently, Kazakhstan and Azerbaijan are observers of the WTO and are in the accession process. Turkmenistan, however, has not indicated its interest in joining the WTO. In terms of general implications for trade, joining the WTO affects new members' tariffs after the most-favored nations (MFN) treatment comes into effect.<sup>609</sup>

Since only a select few of the Central Asian states are proceeding with their accession to the WTO, there is less impact than if the entire region joined. For example, Kyrgyzstan is the only current member of the WTO, besides Russia, which completed its accession in 2012. The benefits of WTO membership for Kyrgyzstan have been limited because of the lack of other WTO members in the region. Thus joining the WTO did not help Kyrgyzstan's trade with easily accessible trading partners. By adding more WTO members in the region, the benefits of the membership will be realized and this will attract even more Central Asian countries to join.

### ***Effects of successful regional trade network in Central Asia***

Different forms of regional trade agreements have increased in numbers since the 1990s throughout the world.<sup>610</sup> Regional trade agreements vary in their goals and roles depending on the participating countries and signing measures but they often have benefits that go beyond

mere economic advantages. Under a strong organization with the right enforcement of regional trade agreements, Greater Central Asia can greatly improve its economic situation.

First, trade agreements can help promote domestic economic reforms in countries in order to achieve better functioning economies.<sup>611</sup> This is especially beneficial when less liberalized countries sign agreements with economically freer countries. The former is required to meet conditions and standards of the latter, which spreads economic liberalization. Kazakhstan, among other Greater Central Asian countries, has a liberalized economy and trade as demonstrated by the movement of Russian enterprises to Kazakhstan after the formation of ECU. In addition, successfully involving Turkmenistan in a trade agreement can encourage access to Turkmen trade data. This helps the study of regional trade and the decision making process for regional policies.

The second advantage comes through increasing members' interdependence in terms of economic growth. This is especially important for Greater Central Asian countries because they can overcome their small-scale economies and coordinate regionally to utilize different countries' resources to diversify the regional economy. The US has expressed hopes in establishing a "New Silk Road," that will improve overall connectivity in the region, including Afghanistan.<sup>612</sup> This requires regional actors and world powers to cooperate and establish liberalized and advanced set of political, economic, and social rules to build a strong foundation for regional cooperation. Taking advantage of diverse resources from different parts of the region, each country can diversify and strengthen its economy. This can also ensure peace building and regional security by building trust and incentive for regional neighbors to remain strong economically.

Thirdly, regional agreements have proven to help political reforms rise to encourage positive governance such as transparency and accountability.<sup>613</sup> Central Asian political regimes often face challenges in their efforts to liberalize trade policies because they lack transparency and accountability. Much of their key commodity industries are controlled by the public sector. Needed political reforms and economic reforms can be achieved through state's participation in multilateral organizations that operate under supranational entities.

In sum, successful regional trade agreements in Greater Central Asia can liberalize each member's economy, build regional cooperation that can ensure security and economic growth, and lead to political reforms.

## **IV. Considerations**

As the US withdrawal from Afghanistan in 2014 approaches, a strong foundation for regional economic cooperation that can welcome Afghan participation in regional trade is in the US' best interest. Azerbaijan, Kazakhstan, and Turkmenistan, the strongest economies in Greater Central Asia, developed steady trading relationships with some of the most influential countries, such as China, the EU, Russia, Iran, and Turkey. However, overall intra-regional trade is on downfall and is, therefore, unable to fully take advantage of vast resources and the region's geographical location at the center of Eurasian continent.

### ***Lack of strong regional leadership***

Despite the several regional organizations that worked together to establish an efficient trading network in Central Asia and the neighboring countries, conflicting interests and concerns over the negotiation table limited effective decision on regional trade policies and their enforcement. The main issue is absence of strong leadership that can realize where the region stands in world trade and guide the member countries to agree upon sets of trade policies that can help goods and capital flow between states.

The US may trust Kazakhstan's on-going effort to foster economic cooperation with its neighbors and its liberalized trade policies and could recognize the country as a regional leader. By supporting Kazakhstan to encourage the rest of Central Asian countries and Azerbaijan, these countries can discuss potential economic benefits more specific to them, without direct involvement of China, Russia, or the EU. In order to fully support Kazakhstan to lead regional cooperation in Greater Central Asia, the US will need to communicate with Kazakhstan to discard any unnecessary concerns.

### ***Inferior transport infrastructure***

One of the most limiting non-tariff trade barriers in Greater Central Asia is inefficient and expensive land transportation, which puts the countries in the region at a disadvantage because all the countries are land-locked. Without further investment in proper transport infrastructure, the regional trade will continue to suffer. Asian Development Bank (ADB)'s Central Asia Regional Economic Cooperation Program (CAREC) aims to improve the regional transport infrastructure by 2020.<sup>614</sup> The US can actively participate in such effort by encouraging FDI or

continuing to spread the “New Silk Road” vision for more parties to take interest and invest. Building an accessible and efficient trade infrastructure will not only be a long-term benefit to the region, it will also help Greater Central Asian countries reach beyond their immediate neighbors. Moreover, the region will seize many economic opportunity by bridging the rest of Asia and Europe in the center of this vast continent.

## **V. Conclusion**

Since their independence from the FSU, the Greater Central Asian countries developed different commodity trades without unified trade policies. As a result the broader region’s trade potential has yet to be fully realized. Though many countries specialize in raw mineral export, the varying trade conditions leave overall regional development out of balance. Among the states, Azerbaijan, Kazakhstan, and Turkmenistan have enjoyed large amount of oil revenue as the backbone of their overall economic growth, but lack diversification. Despite the benefits from the trade, the regional economic problem lies in the lack of intra-regional trade and heavy concentration on energy exports.

Previous attempts to organize regional economic cooperation, such as the CIS, have failed and the ECO’s continuous effort to implement the trade agreement is still in progress. However, the ECU has shown how a big step forward can bring increase in trade and the region’s significance in the world. Formation of regional agreement can first initiate lower tariff between Greater Central Asian countries, which can help the same process with other countries in the world under organizations such as the WTO. These gradual steps can eventually lead to more liberalized trade policies in the participating countries. In addition, Greater Central Asia can seek to maintain regional security by growing economic dependence from implementation of trade network that “New Silk Road” visions. Effective trade agreements even lead to domestic political reform when the members come together and make appropriate adjustments to their trade policies in place.

The US interest lies in building a regionally beneficial trade network in the region of Greater Central Asia to include Afghanistan in a way that can benefit both the Afghan and the regional economy. In doing so, the region is in need of strong leadership by one of the countries in Greater Central Asia to initiate a trade agreement. However, this goal cannot be achieved without essential improvements in infrastructure, trade liberalization, and regional negotiations.

# Foundations of Long-Term Sustainability

## Renewable Energy in the Caspian Region

Miklós Csibrány

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### **Abstract**

Azerbaijan, Kazakhstan, and Turkmenistan currently rely on their vast reserves of oil, coal, and natural gas for energy. Although these natural resources have yielded impressive economic growth thus far, the outdated power generation technology, the need for imports amidst regional pipeline disputes, and the carbon footprint created make this economic growth unsustainable in the long run. Meanwhile the three states possess immense renewable energy potential in wind, solar, and geothermal sources. However, the high development cost along with a lack of institutional and political frameworks hinders their ability to explore the industry. However, with diplomatic support, technical aid, and political partnerships from the US the Caspian states could revitalize their energy security and reduce their reliance on natural resources, ensuring the longevity of their economic growth and enabling a greater use of hydrocarbons for exports.

## **I. Introduction**

With the dissolution of the Soviet Union in 1991, the newly independent states of Azerbaijan, Kazakhstan, and Turkmenistan inherited vast deposits of oil, natural gas and coal. By harnessing these rich natural resources for internal energy production and selling excess as exports, the three states have enjoyed incredible economic growth over the last two decades. Meanwhile the US and the international community appreciate them as new alternative suppliers of valuable hydrocarbons. Unfortunately, despite their growth, the Caspian states continue to employ outdated and unkempt Soviet-era plants that waste much of these resources. Current disputes over regional oil and natural gas pipelines further restrict the distribution of natural resources into the world market. As a result, the lack of technological efficiency and political stability creates energy security concerns in these Caspian states, which undermines their economic growth as they cannot accommodate the growing demand for power. Their inability to efficiently distribute resources raises concern for the US and questions these states' position as reliable exporters. However, in the shadows of oil and natural gas reserves in the Caspian states lie tremendous energy source potentials in wind, solar, and geothermal power because of ideal climate conditions. While these renewable energy resources would resolve the power generation inefficiency and regional dependence issue, the industry remains largely untapped due to domestic legislative, institutional, and financial barriers. With US diplomatic support, technical assistance, and political partnerships in the development of the renewable energy in Azerbaijan, Kazakhstan, and Turkmenistan, the Caspian states could fuel their economic growth with a revitalized and improved energy infrastructure that would simultaneously liberate their oil and natural gas deposits for use in world markets.

## **II. Energy Inefficiency in the Caspian States and its Consequences**

Azerbaijan, Kazakhstan, and Turkmenistan became lucrative worldwide suppliers of oil and natural gas in the 1990s after the Soviet Union dissolved. Although the export potential of the hydrocarbons carries immense profitability, the resources are mainly used to provide power domestically. Unfortunately the present infrastructures of the states do not support an effective use of the natural resources for electricity production.

The Republic of Azerbaijan mainly utilizes its extensive natural gas deposits for power generation and for re-injection into the Azeri-Chirag-Gunleshi oil field. Oil, natural gas, and coal

together accounted for 81.58% of total power production in 2010, with hydroelectric power supplementing another 18.42%.<sup>615</sup> Total electricity production in Azerbaijan amounted to 18.71 billion kilowatt hours (kWh) in 2010.<sup>616</sup> Currently 80% of the country's generating power occurs in the east, despite the 70% of power consumption located in the west.<sup>617</sup> Therefore transmission lines hundreds of kilometers long transport fuel to thermal power stations, which then distribute power.<sup>618</sup> These transmission lines, however, date back to more than 30 years when they were first installed under the Soviet Union. Since then the lines remained largely without maintenance or improvements. The lines today cause considerable losses in electricity, which amounted to 20.47% of total output in 2010, leaving many areas of the country without power.<sup>619</sup> With Azerbaijan's rapid economic growth, the expected electricity demand is projected to increase by 4.7% each year until 2015.<sup>620</sup> The power generation infrastructure however cannot accommodate this, which leaves the country's economy frail as consumers' and industries' electricity needs are not satisfied. At the same time, Azerbaijan's main export commodities are the same hydrocarbon resources employed for power generation. Fuel, including natural gas, made up 94.74% of Azerbaijan's exports in 2010.<sup>621</sup> From a US perspective this makes the state a prospective natural gas net provider to the international community. What results is an economic two-fold consequence caused by the domestic waste of the transmission lines in Azerbaijan and the net loss of potential resources for the global market.

Unlike Azerbaijan, the Republic of Kazakhstan employs coal as its primary source of energy. Coal consisted of 80.65% of Kazakhstan's total electricity production in 2010 contributing to the country's total 82.646 billion kWh of power.<sup>622</sup> The current electric grid system requires the country to import some of its power from Russia, Kyrgyzstan, and Uzbekistan, making the state sensitive to potential regional disputes.<sup>623</sup> Similarly to Azerbaijan, a lack of maintenance plagues the transmission of power in Kazakhstan as well. The coal-fired plants constructed in the 1990s and still used today caused total power losses of 8.02% in 2010.<sup>624</sup> Power consumption in Kazakhstan is forecasted to average almost 4.3% per year between 2012 and 2021, yet power generation is only projected to average 4.2% over the same period, proving insufficient to adequately support the country's economic growth.<sup>625</sup> The coal-fired plants also generate close to 45% of Kazakhstan's emissions, approximately 100 million tons of carbon dioxide yearly.<sup>626</sup> Kazakhstan was the tenth largest coal producer in the world in 2011.<sup>627</sup> That year the country produced 128.61 million short tons of coal, but only 36.53 million

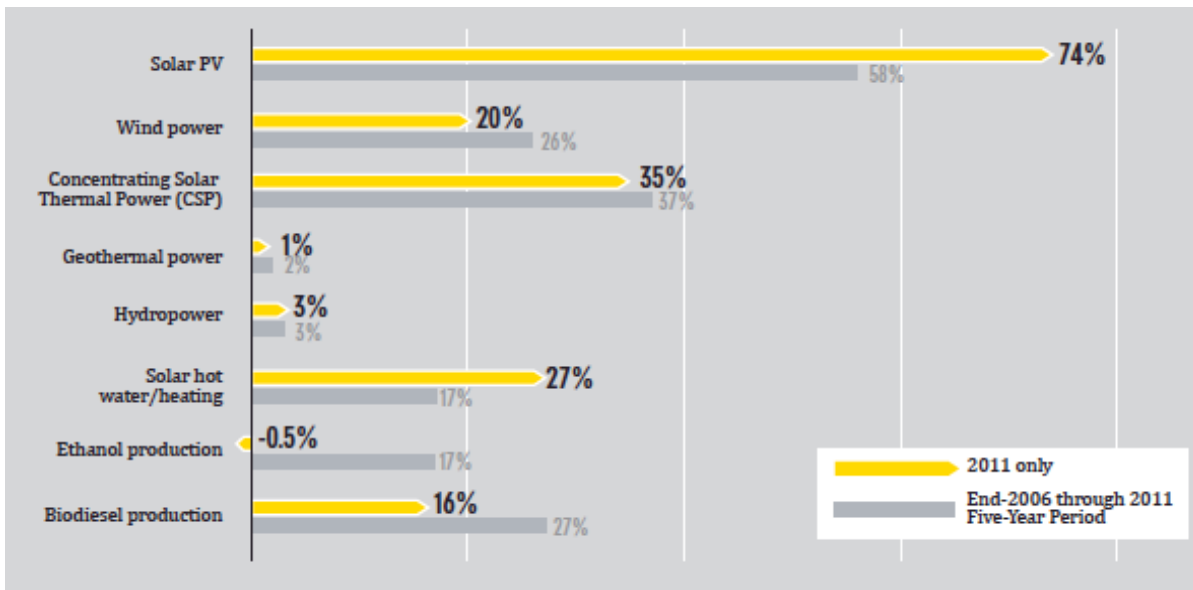
tons were exported as the domestic sector used up the remainder for consumption, albeit in a wasteful manner due to the aforementioned faulty infrastructure.<sup>628</sup> If the coal-rich fields of Kazakhstan could be repurposed for a greater export share by reducing their role in power generation, the state could greatly reduce its electricity output inefficiency and carbon footprint and simultaneously free up more coal for international use.

Turkmenistan possesses incredible natural gas and oil deposits. Natural gas constitutes an overwhelming source of the country's electricity production, which amounted to 99.98% of total production in 2010 providing 16.66 billion kWh.<sup>629</sup> Unlike Azerbaijan and Kazakhstan, Turkmenistan "invested in the rehabilitation and replacement of their Soviet infrastructure" instead of developing its export infrastructure for natural gas.<sup>630</sup> Unfortunately, even the updated natural gas-fueled electricity production comes with high transmission and distribution losses, at 12.79% in 2010.<sup>631</sup> In addition, localities such as the Caspian islands "preclude stringing centralized electric power lines" because of their geography and, as a result, are left powerless, demonstrating another flaw of natural gas as an effective electricity provider.<sup>632</sup> Turkmenistan produced 2338 billion cubic feet of natural gas but only consumed 710 billion cubic feet domestically.<sup>633</sup> While Turkmenistan's increased role as a natural gas exporter seems plausible, the "lack of sufficient foreign investment, geographical challenges, inadequate export pipeline infrastructure, and rigid economic structure" prevent the country from becoming a major hydrocarbon provider.<sup>634</sup> If Turkmenistan would move away from natural gas as its primary power source, it could concentrate on exporting the valuable resource, which would lead to better electricity efficiency domestically and immense natural gas potential for the global market.

Azerbaijan, Kazakhstan, and Turkmenistan are all gifted with rich hydrocarbon deposits. However, in all three states the current infrastructure causes unrecoverable losses to these hydrocarbons each year. As the security of natural resources around the world remains a key US interest, the better use of oil, coal, and natural gas in Azerbaijan, Kazakhstan, and Turkmenistan appears to be a notable concern. At the same time, the inadequate electrical power distribution also hinders the three states' economic stability. If the states cannot accommodate their industries' and populations' increasing demand for power, their current exponential growth will be short lived along with their viability as natural resource exporters in the long-run. Such risks establish the need for alternate energy sources for the three states in order to ensure their long-term sustainability.

### III. Renewable Energy Potential in the Caspian Region

Renewable energy continues to evolve as a modern alternative industry for power generation, heating, cooling, and fuel transportation worldwide. In 2010 the industry supplied approximately 16.7% of global final energy consumption, of which an estimated 8.2% came from hydropower, wind, solar, geothermal and biomass sources.<sup>635</sup> Between 2006 and 2011, the operating capacity of solar photovoltaic increased by an average of 58% annually.<sup>636</sup> Concentrated solar thermal power followed with an annual increase of 37% starting from a small base, and wind power came in third with 26% annually.<sup>637</sup> Renewables, particularly wind and solar, have been the most rapidly increasing sources of energy worldwide in recent years. At their current growth rates they are set to become a major choice for fulfilling future increases in power demands.

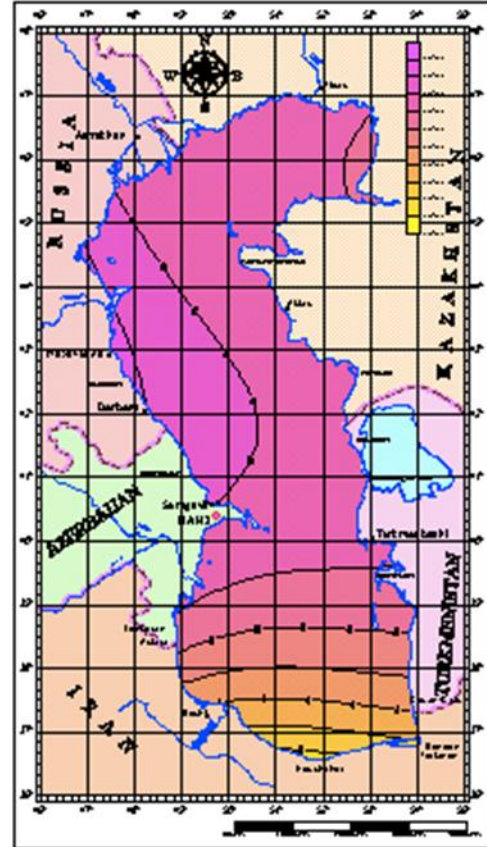


**Figure 1:** Average Annual Growth Rates of Renewable Energy Capacity and Biofuels Production (Source: <http://www.ren21.net/REN21Activities/GlobalStatusReport.aspx>)

The Caspian states are gifted with extremely ideal climates for harnessing renewable energy. Azerbaijan, Kazakhstan, and Turkmenistan all feature temperate grasslands, savannas, shrub-lands, and deserts along with mountainous grasslands and shrub-lands. These biomes feature high annual wind-speed averages, high number of yearly sunny hours, along with

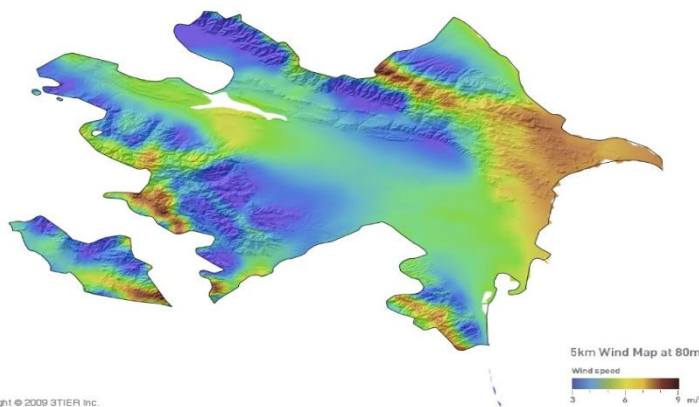
excellent thermal waters. The Caspian Sea itself remains one of the key treasures of this region with average wind speeds of 5-7 meters per second (m/s).<sup>638</sup> Together these virtues make this region a fitting candidate for the development of renewable energy for power production through wind, solar, and geothermal means.

Wind power dominates as a prosperous investment opportunity in all three Caspian states. In Azerbaijan, wind energy possesses a total potential of 800 megawatts (MW) capacity, which is equivalent to approximately 2.4 billion kilowatt hours (kWh).<sup>639</sup> The best conditions for harnessing wind power in Azerbaijan lie in the Absheron Peninsula, located in the northwestern part of the Caspian Sea. Here the average annual wind speed reaches 5-8 m/s.<sup>640</sup> In addition, the western region of Azerbaijan in Ganja, Dashkesan, and the areas of Sharur and Julfa of the Nakhchevan Autonomous Region feature an average annual wind speed of 3-5 m/s as additional sources of wind power.<sup>641</sup> If Azerbaijan's wind energy were to be utilized to its full potential, the state alone could save 0.8 million tons of standard fuel each year.<sup>642</sup>



**Figure 2:** Caspian Sea Wind Map (Source: [http://www.caspinfo.net/content/content.asp?menu=0140000\\_000000](http://www.caspinfo.net/content/content.asp?menu=0140000_000000))

### Azerbaijan Wind Map at 80m



**Figure 3:** Azerbaijan Wind Map at 80m (Source: <http://www.3tier.com/firstlook/?location=azerbaijan>)

Kazakhstan features even greater wind potential in comparison to Azerbaijan thanks to its vast territory. The majority of the 2.7 million square kilometers (km<sup>2</sup>) of total land in Kazakhstan houses wind speeds of 4-5 m/s on average.<sup>643</sup> The extensive regions of Kazakhstan with wind potential can produce an estimated 1.82 trillion kWh per year.<sup>644</sup> The most promising locations for wind energy in

Kazakhstan are the Djungar Gate and the Chilik

Corridor. The Djungar Gate region has been described as the “best wind climate in the world” wherein turbines could operate to produce

1.3 trillion kWh per year alone.<sup>645</sup> Meanwhile the

wind speeds in the Chilik

Corridor average 5 m/s in the summer and 9 m/s in the winter with a potential 1000 MW of additional wind capacity.<sup>646</sup> The high prospects of wind energy yields in Kazakhstan make it an exceedingly profitable alternative for power production in the country.

Turkmenistan, though not as prominent in wind energy potential as Kazakhstan, is nevertheless suitable for wind power development. Approximately 40% of the country has average winds speeds higher than 4 m/s.<sup>647</sup> As a whole, the total wind energy capacity of the

country amounts to 5.5 billion kWh.<sup>648</sup> Wind speeds in

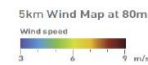
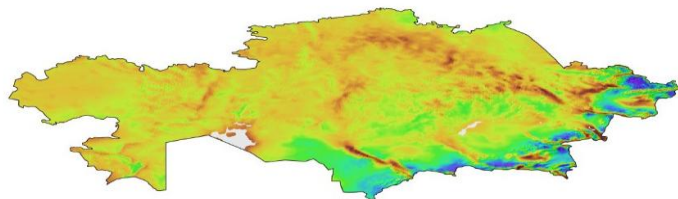
Turkmenistan reach their highest point near the Caspian Sea.

However, the large desert region that accounts for approximately

86% of the country also possesses high levels of wind potential.<sup>649</sup> Due to the

widespread desert regions, wind

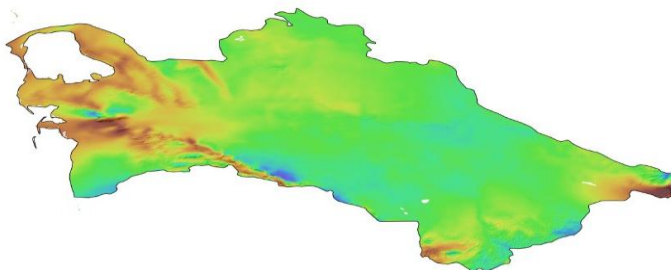
Kazakhstan Wind Map at 80m



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Figure 4: Kazakhstan Wind Map at 80m (Source: <http://www.3tier.com/firstlook/?location=kazakhstan>)

Turkmenistan Wind Map at 80m



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Figure 5: Turkmenistan Wind Map at 80m (Source: <http://www.3tier.com/firstlook/?location=turkmenistan>)

turbines could therefore be installed at a greater variety of locations in comparison to the case of Azerbaijan and Kazakhstan.

Solar power is the second most lucrative source of renewable energy in the Caspian region. In Azerbaijan, the average sunny hours a year reach up to 3200, surpassing the US average of 2500 hours a year and the Central Asian average of 3000 a year.<sup>650</sup>

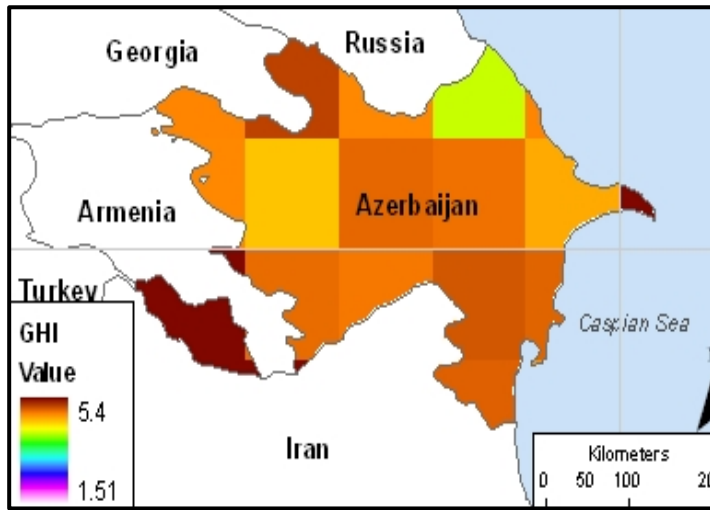


Figure 6: Azerbaijan Solar Global Horizontal Irradiance (Source: NASA)

The abundant sunshine allows for 1500-2000 kWh of solar energy to be harnessed per square meter on average throughout the country.<sup>651</sup> The most ideal locations for harnessing solar power are the Absheron Peninsula, the Kur-Araz lowland, the Caspian coastline, and the Nakhchevan Autonomous Republic.

Kazakhstan possesses similar favorable conditions for utilizing solar power. The average sunlight hours per year in Kazakhstan ranges from 2200 to 3000, slightly below that of Azerbaijan.<sup>652</sup> The number of sunshine hours in the country yields 1300-1800 kWh per square

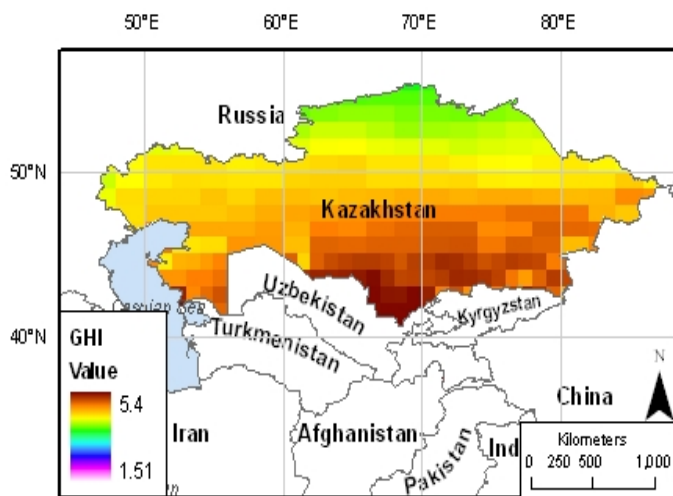
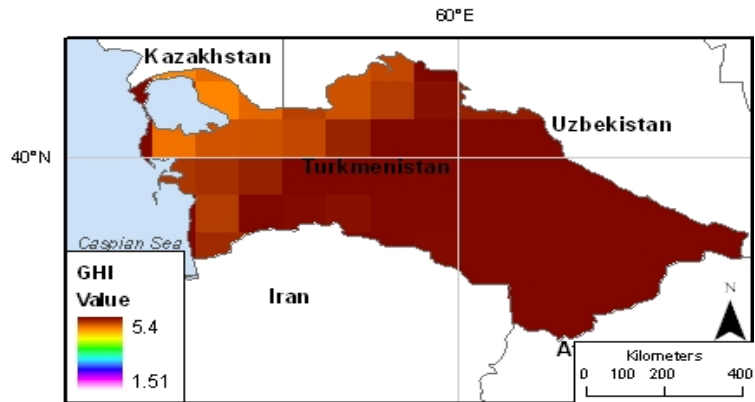


Figure 7: Kazakhstan Solar Global Horizontal Irradiation (Source: <http://ebrdrenewables.com/sites/renew/countries/kazakhstan/profile.aspx>)

meter of solar radiation potential on average per year.<sup>653</sup> Because more than half of Kazakhstan is desert or semi-desert, solar thermal plants utilizing concentrated solar power in place of coal-fired thermal plants present a viable alternative.<sup>654</sup> The region of Kyzylordy alone could produce around 10,000

gigawatt hours (GWh) in the summer and 5000 GWh in the winter respectively due to its immense size of 320 square kilometers.<sup>655</sup> If implemented, the solar thermal plants could greatly reduce the carbon footprint of the country by eliminating the overreliance on coal-fired plants.

The deserts of Turkmenistan not only provide an excellent climate for wind power, but they hold immense solar power potential as well. The extensive stretches of desert in the country allow for 270 clear days to be observed each year.<sup>656</sup> The incredibly high solar radiation in the majority of the country easily yields an average of 2000 kWh per square meter annually.<sup>657</sup> The most ideal locations for utilizing solar energy are the southwestern



**Figure 8:** Turkmenistan Solar Global Horizontal Irradiation (Source: NASA)

regions of Gasan-Kuli, the capital of Ashgabat, and Chardzhou in the east near the border with Uzbekistan.<sup>658</sup> Altogether the annual energy potential of solar energy is estimated at an equivalent 100 billion tons of standard fuel.<sup>659</sup> Such potent solar capacity would greatly contribute to lower pressure on natural gas as Turkmenistan’s sole electricity provider.

Geothermal sources are a third component of interest in the Caspian region’s energy potential. Although thermal waters in Azerbaijan are relatively low-temperature, their development and use remains highly prospective for the state. The thermal waters have an average range of 20 °C to 40 °C and could in total yield 700 MW of additional power.<sup>660</sup> The most ideal locations for geothermal energy are the Kura trough, the Absheron Peninsula, and the Kusar submontane lowlands.<sup>661</sup> While definitely not as prominent as Azerbaijan’s wind and solar capacity, these thermal waters could serve well in diversifying the state’s energy sources.

Kazakhstan features more ideal geothermal waters than Azerbaijan, averaging at 80 °C near the Chu river valley, the Ily river valley, the Almaty city area, and the Ust-Urt plateau near the Caspian Sea coast.<sup>662</sup> For free flow operation, Kazakhstan’s estimated geothermal sources amount to 520 MW while its pumping capacity lies at 4300 MW.<sup>663</sup> The various rivers of

Kazakhstan along with the city of Almaty together make geothermal an ideal supplemental heat and power source.

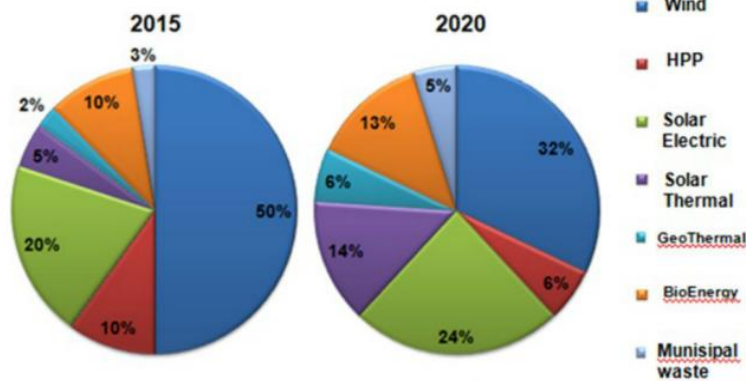
Turkmenistan overtakes both Azerbaijan and Kazakhstan in terms of geothermal potential. Ideal thermal water sources are prominent in the Karakum region, the Kopetdag region, and the west Turkmen region where water temperatures average at 80-100 °C.<sup>664</sup> Total thermal heat capacity in Turkmenistan amounts to 6600 MW of pumping operation, higher than that of Kazakhstan.<sup>665</sup> Further data on Turkmenistan's geothermal potential remains scarce as no significant mapping or studies have been made to tap into the country's thermal waters.

In summary, the Caspian states hold immense renewable energy potential in wind, solar and geothermal sources. Kazakhstan and Turkmenistan excel in wind power potential while Azerbaijan and Turkmenistan shine in their solar power capacity. In addition, though Azerbaijan has minimal use of its thermal waters, Kazakhstan and Turkmenistan can also benefit from geothermal power. These alternative energy sources could all greatly reduce the Caspian states' reliance on their current inefficient power generation infrastructure and help them become self-reliant in their energy production. Their natural resources could then be redirected and augmented with a greater export-focus to yield them higher returns and provide the international community with valuable hydrocarbons.

#### **IV. Current Policy on Renewable Energy: Prospects and Issues**

Despite the renewable energy potential present in the Caspian region, the actual use of wind, solar, and geothermal power remains extremely low in all three states. In 2010, electricity production from renewable sources, excluding hydroelectric was less than 1% in Azerbaijan, Kazakhstan, and Turkmenistan.<sup>666</sup> Although the role of renewable energy is currently almost negligible in the Caspian region, all three states recognize the industry's value. As a result, in recent years they began to implement policies, laws, target goals, and some institutions to lay the foundations for long-term sustainability in their respective countries.

In Azerbaijan, the seeds of alternative energy development started in 2003 when President Ilham Aliyev assigned the Cabinet of Ministers to submit proposals on how to tap into the aforementioned renewable sources of the country. The years of research culminated in the creation of the State Agency for Alternative and Renewable Energy Sources (ADEMBA) under



**Figure 9:** Renewable Energy Strategy of the Republic of Azerbaijan (Source: <http://www.abemda.az/uploads/ABEMDA%20prezintation.pdf>)

the Ministry of Industry and Energy.<sup>667</sup> This agency prepares public policies for creating the necessary infrastructure for renewable energy and to monitor the progress of renewable energy development in the country.<sup>668</sup> ADEMBA spent the following years aiding the president in creating a

strategy for greatly increasing the role of renewable energy in power generation. In 2012, the agency unveiled this strategy with the intention to build 2000 MW of capacity over the next eight years in order to reach a 20% renewable energy share of total power demand by 2020.<sup>669</sup> Current projects for 2012-2013 include the 100 MW Pirshakul wind farm, a 100 MW offshore wind farm, and a 25 MW solar photovoltaic park in the Absheron Peninsula.<sup>670</sup> Azerbaijan still has a long way to go to reach its ambitious goal by the end of the decade.

Kazakhstan's first incarnation of renewable energy policy emerged with a law in 2009. Kazakhstan's parliament passed the Law on the Use of Renewable Energy Sources on June 17, 2009, which established a regulatory framework for the use of renewables. This law came about with the help of the Renewable Energy & Energy Efficiency Partnership (REEEP) program under the United Nations Development Program (UNDP).<sup>671</sup> REEEP called for Kazakhstan's share of renewables in its energy balance to reach 5% by 2024.<sup>672</sup> With respect to this target, Deputy Prime Minister Astet Isekeshv presented a plan for Kazakhstan to add 1040 MW of renewable energy by 2020.<sup>673</sup> The plan aims to build thirteen wind power plants with a total capacity of 793 MW, along with 14 hydropower plants with a capacity of 170 MW and 4 solar power plants to produce 77 MW.<sup>674</sup> Considering the country's current reliance on hydrocarbon

sources for power, Kazakhstan's journey toward a greener economy, like Azerbaijan, has just begun.

Turkmenistan's policy framework for renewable energy is currently in preparation stages. The UNDP actively worked with the country between 2010 and 2012 to assist Turkmenistan in enhancing its framework for efficient-energy practice.<sup>675</sup> Though no target has been set by the Turkmen administration on renewable energy share in total energy balance, the country continues to actively research possibilities at the Sun Scientific Production Association, a branch of the High Council for Science and Technology.<sup>676</sup> One recent smaller project in Turkmenistan consisted of the installation of a 4.5 kWh off-grid system in Ashgabat by the company Martifier Solar to demonstrate the ability and will to "adapt and accept new challenges, as well as to approach new markets" in Central Asia.<sup>677</sup> No significant renewable energy projects comparable to that of Azerbaijan and Kazakhstan are currently planned for Turkmenistan in the coming years. Nevertheless, the aspiration and interest for exploring the industry remains high.

The image for the future of renewable energy thus far appears ambitious, positive, and prosperous. Yet despite the hopeful prospects of potentials and youthful upcoming policy frameworks, certain obstacles continue to block the effective development of the industry in Azerbaijan, Kazakhstan, and Turkmenistan. These issues cumulatively arise from financial, legislative, and institutional barriers along with a lack of public awareness present across the three Caspian states.

For Azerbaijan, the financial and political barriers arise from the lack of transparency in legislation to protect foreign investors, while the institutional barriers come from a lack of accountable frameworks. Large-scale renewable energy systems that would allow Azerbaijan to reach its 2020 goals require large capital investments as well as external sources of financial incentives.<sup>678</sup> In Azerbaijan, however, the banking sphere is considered "too weak" in the renewable energy sector.<sup>679</sup> The country made no progress with soft loans and credit lines except with mortgage credit for real estate. Unfortunately, renewable energy projects have high initial capital costs, and long-term security along with predictable returns is vital for renewable energy producers.<sup>680</sup> Foreign direct investment also possesses challenges in Azerbaijan, as there is no transparent legislation that supports the rights of foreign investors.<sup>681</sup> The lack of transparency and accountability is also present in the country's political and institutional framework. Although ADEMBA developed an end-goal target for the state, it does not provide commitments and

strategy for the process of reaching the target. In addition, the state-owned AzerEnergy JSC Company dominates Azerbaijan’s energy sector and would as a result be the controller of the renewable energy industry in the state.<sup>682</sup> These hindering factors, unless addressed, undermine the positive outlook for renewable energy in Azerbaijan.

Kazakhstan deals with similar difficulties in the financing of renewable energy projects along with establishing political and institutional frameworks. Timur Kulibayev, Chariman of the KazaEnergy Association which controls Kazakhstan’s energy industry noted that “alternative sources in Kazakhstan is more expensive than the one we already generate (using traditional methods),” showing disincline to pursue renewable energy on a wide scale.<sup>683</sup> The current institutional framework, highlighted by the shaded region on the graph, remains far from the optimal infrastructure that is highlighted with a bold line by the European Bank for Research and Development (EBRD).<sup>684</sup> Coupled

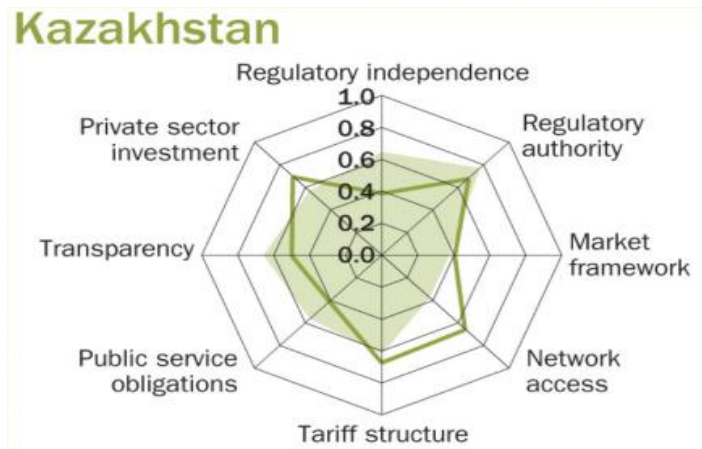
with the high development cost issues, these barriers make the future of renewable energy in Kazakhstan uncertain.

For Turkmenistan, because of the infantile state of its renewable energy industry, such barriers could not yet manifest.

While President Berdymukhamedov remained optimistic at various world forums

he attended in recent years about Turkmenistan eventually utilizing renewable energy, the state currently has no plans for major projects and instead continues to employ the country’s tremendous natural gas deposits for electricity because of its comparatively low costs.

Turkmenistan would require considerable incentives to overcome the high opportunity cost of forgoing its cheap natural gas in favor of the costly startup for a renewable energy industry.



**Figure 10:** Kazakhstan Electricity Sector Spider Graph (Source: <http://www.ebrd.com/downloads/legal/irc/countries/kazakhstan.pdf>)

## V. US Role in the Caspian States' Renewable Energy Development

In spite of the various barriers withholding the Caspian states from developing their respective renewable energy industries, the overall potential is too promising to be overlooked. Azerbaijan, Kazakhstan, and Turkmenistan are all invested in making renewable energy the remedy for the current ailments of their power production infrastructures. However, the three states alone cannot overcome the issues highlighted for financing renewable projects and establishing the necessary frameworks. In the interest of preserving the Caspian states' energy security and strengthening their economic vitality, the US could help influence the development of the Caspian region's renewable energy for power generation. The diplomatic support and technical expertise of the US could help the Caspian states mitigate the current barriers that prevent the rise of the wind, solar, and geothermal power in the region.

The US today remains at the forefront of global renewable energy use. It was one of the top five countries in the industry with regards to annual additions, production, and total capacity in 2011.<sup>685</sup> Altogether, renewables accounted for 11.8% of US primary energy production, up from 10.9% in 2010.<sup>686</sup> Considering the increases in all aspects of renewable energy use, the US presents itself as an active practitioner of alternative energy development and a capable ally with technical expertise in the industry.

In terms of diplomatic support, even a US presence in Caspian international conferences aiming to raise public awareness over renewable energy uses can be useful. In 2009 a forum organized by the US Embassy in Turkmenistan known as the 5<sup>th</sup> Fulbright International Conference on Energy and Alternative Sources brought together scientists and specialists to discuss current and upcoming renewable energy uses. US Charge d'Affaires Richard Miles "welcomed the Turkmen leaders' initiative" on researching stable and reliable transit of energy to the international market.<sup>687</sup> This encouraged research in alternative sources of energy to rank high among the "priority trends" in the fields of Turkmen science.<sup>688</sup> US attendance of these forums, seminars, and conferences would show the commitment and dedication to renewable energy projects and research for Azerbaijan, Kazakhstan, and Turkmenistan. Sending US representatives to attend such meetings in a symbolic manner could raise interests for other international players such as the European Union, Russia and China to consider investing and aiding in the Caspian states' renewable energy development as the Caspian region's energy security remains important to them as well.

The US could also lend its technical expertise in the renewable energy industry to the Caspian states. A prime example of such an act is the US aid in the implementation of a financing model for wind power in Azerbaijan in 2009. The US Agency on International Development (USAID) assisted the Tariff Council of Azerbaijan in creating a tariff model to make wind technology more attractive for investors and promote the construction of wind turbines under its Trade and Investment Reform Support Program (TIRSP).<sup>689</sup> Private developers in Azerbaijan could now “produce power and recover costs” by applying the tariff model established by TIRSP.<sup>690</sup> This small piece of success could be applied across Azerbaijan, Kazakhstan, and Turkmenistan in other wind projects as well as solar and geothermal potentials. US aid in developing funding models would alleviate the high development cost issue, establish the much needed institutional frameworks, and promote private investment all in one. In addition, the US could host scientists from the Caspian region to demonstrate US use of renewables domestically or send specialists of its own to Azerbaijan, Kazakhstan, and Turkmenistan for the benefit of exchanging information and expertise on renewable energy technology.

Finally, US political partnerships with the Caspian region’s governments would greatly benefit the states in establishing the legislative and institutional frameworks for renewable energy. The Kazakhstan-US Energy Partnership Commission in 2012 signed a Joint Action Plan for 2012-2013 that supports “joint training and capacity building projects” to promote energy management systems, industrial energy audits, and renewable energy research and development.<sup>691</sup> This commission will commit the Kazakh government to create the infrastructure that will maintain a healthy renewable energy industry. Political partnerships would take the diplomatic support idea discussed before further wherein the US would now be politically invested in the success of the Caspian states’ renewable energy policy, holding the states more accountable for implementing the necessary steps to achieve that level of success.

## **VI. Conclusion**

The Caspian states’ effective use of their rich hydrocarbon sources is hindered by their fractured energy infrastructure. The same fracture also threatens the states’ economic viability, which puts their position as potential oil, coal, and natural gas providers into question. The development of alternative energy sources represents a lucrative solution to resolve this fracture.

Alternative energy would alleviate Azerbaijan, Kazakhstan, and Turkmenistan from their reliance on their natural sources for domestic energy through the elimination of losses caused by their outdated power generation infrastructure. At the same time, a refined and improved energy sector would stabilize the countries' economy and allow them to grow in a sustainable manner. The three Caspian-region states possess incredible wind and solar power potential along with mostly unexplored geothermal sources that if harnessed could provide the needed relief for the energy sector. However, financial, institutional, and political barriers currently prevent the implementation of a new system that would allow for the effective use of these renewable sources. Since the US has been at the forefront of renewable energy development on a global scale in recent years, it is in the position to effectively aid the Caspian states with diplomatic support, technical assistance, and political partnerships to overcome the current barriers. In doing so the US would help protect Central Asian energy security and economic stability, and enable the Caspian states to distribute their national resources into the international markets for the benefit of the global energy industry and worldwide economic growth.

# From Aid to Trade

A Comprehensive Review of Afghanistan's Economic Position in Central Asia

Danel Khusainov

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### **Abstract**

The 2014 withdrawal of US troops from Afghanistan will test not only the National Army and North Atlantic Treaty Organization (NATO) forces to curtail extremist influence in the provinces, but also the capacity for aid and development in the country in pre-empting radicalization. Ensuring the fragile security in Afghanistan will mandate its effective incorporation as a functional trade partner in the region, so as to improve the economic positions of the Afghan government and regular Afghans. With greater development and economic opportunities for Afghans, the incentive to join radical and violent anti-government organizations will decrease. Though this may take some time, incorporating development into the US approach to security in Afghanistan through more efficient aid and greater amounts of trade will be essential in ensuring the future stability of Greater Central Asia.

## I. Introduction

After more than a decade, American and NATO operations in Afghanistan are scheduled to be dramatically scaled back by 2014, leaving a diminished military presence dedicated mostly to training the Afghan National Army. Thus, internal stability in the short-term will depend largely on the capability of Afghan security forces. However, long-term stability will be crucially linked to Afghanistan's economic position and whether the country is functionally incorporated into Central Asia's trade network and if the foreign aid being channeled helps make a substantive developmental impact. US plans for the country, beyond ensuring physical security, include encouraging sources of foreign investment and connection to foreign markets. The effectiveness with which US aid is administered will help determine the infrastructural and economic development that will provide the Afghan people with credible alternatives to insurgency.

There are numerous challenges in developing Afghanistan's resources and infrastructure that would, in the long-term, contribute toward a trade-based economy able to better secure domestic conditions and regional stability. Most important to note is that the artificially high growth rate of its economy has largely resulted from the war economy and aid programs targeted to rebuild the country.<sup>692</sup> When the majority of US and NATO forces depart, Afghan jobs and economic growth reliant on supporting the war economy will be lost. By the account of one report, roughly half of Afghanistan's US\$30 billion GDP came from foreign government spending in 2011.<sup>693</sup> In another, the author alleges up to 97% of Afghanistan's GDP comes from donor spending.<sup>694</sup> For the past decade, non-military aid to Afghanistan has been estimated around US\$286 billion.<sup>695</sup> Afghanistan's near-total dependence on international aid – more than 90% of the US\$17.1 billion national budget in 2010 came from foreign funding – has created a situation that requires significant investment in the country's rich resource sector and development of vital trade infrastructure.<sup>696</sup> When the aid expenditures decrease post-2014 as the result of military withdrawal, the Afghan government will need to compensate for the loss of several billion dollars in logistical support just to cover the cost of its security forces and maintaining existing infrastructure.

Afghanistan's vast and untapped natural resources, only recently delineated, lend it significant economic potential to foster healthy economic growth, provide much-needed

employment, and improve the standards of living for Afghan citizens. According to US and WB assessments, developing Afghanistan's resources – an estimated US\$1 - \$3 trillion in gold, copper, iron, gas, oil and precious gems – is the most effective approach to replace the loss of the war economy.<sup>697</sup> This approach will rely not only on sufficient funding of developing resource, trade and security infrastructures, but encouraging other foreign actors to invest in Afghanistan as well. Despite the physical withdrawal of military forces, Afghanistan's economic viability will rely on continued US financial reinforcement, both in regards to aid as well as engendering support from neighboring actors in integrating Afghanistan into the regional trade network. For the US, which invests several billion dollars annually for developing Afghanistan, integrating the war-torn country into trade and investment partnerships will prove pivotal in maintaining and building on the fragile foundations set so far.

## **II. Aid: Analyzing the US Aid Strategy in Afghanistan**

The aid structure in Afghanistan is undermined by several forces, including the graft and bad governance by the Afghan polity, and the inherent reality of contractors belonging to multinational companies, causing portions of aid to ultimately leave Afghanistan. However, a substantial preponderance of waste and mismanagement of the billions of dollars spent nation-building in Afghanistan has been caused by US agencies. In 2012, Afghanistan was the top recipient of US funds via USAID, receiving US\$2.3 billion in aid.<sup>698</sup> The next recipient country was Pakistan at US\$970 million, less than half the amount sent to Afghanistan.<sup>699</sup> The sheer number of donors providing assistance to Afghanistan – over sixty are reported by the Afghan government<sup>700</sup> – create certain complications in operating a functioning aid structure. There are also numerous active implementing partners including UN agencies, NGOs, USAID, and DOD, as well as around twenty Provincial Reconstruction Teams organized by foreign military forces to engage in reconstruction and development activities.<sup>701</sup> Unsurprisingly, this large constellation of donors has often led to fragmented projects that do not complement overall sector and development strategy. Moreover numerous donors, separately dealing with Afghan government ministries, agencies, and provincial governments often work in isolation from each other, leading to the characteristic fragmentation, incoherence, and mismanagement of the expensive aid structure in Afghanistan.<sup>702</sup> Financial support to foster the development of key industrial sectors will be essential to overcome the loss of the war economy, not to mention

facilitating the transition of the Afghan National Army to the main security apparatus. However, key issues prevent aid to the country from being maximized to its full potential.

USAID states that “US foreign assistance has always had the twofold purpose of furthering America's foreign policy interests in expanding democracy and free markets while improving the lives of the citizens of the developing world.” However, NGO watch groups have noted that as much as 40% of aid to Afghanistan has found its way back to donor countries through awarding contracts at inflated costs.<sup>703</sup> In its overview of the financial cost of the war, the Center for Strategic and International Studies has made several alarming assessments in regard to economic development. First, the vast majority of aid went to the Afghan security forces and not development.<sup>704</sup> Second, most aid was very erratic in annual levels of effort, making it extremely difficult to plan the most effective use of the money and ensuring that program continuity was unlikely.<sup>705</sup> Third, the bulk of the total spending and aid has been allocated since FY2009, and came after the insurgency had reached high levels.<sup>706</sup> Not mentioning the rampant corruption and cronyism present within Afghanistan's government bureaucracy, the billions of dollars in annual aid to the country have not been utilized as efficiently as possible.

The institutionalized corruption within Afghanistan's government has made it difficult to maximize the impact of US aid dollars. Mere weeks after taking office as Secretary of State in 2009, Hillary Clinton critiqued the effectiveness of aid to Afghanistan: “there is very little credibility for what was invested,” she said, promising the government would “look at every single dollar, as to how it’s spent and where it’s going, and trying to track the outcome.”<sup>707</sup> However, evidence has shown that a significant portion of squandered or misused funds have been caused by US agency mismanagement, specifically the consistent lack of oversight on contracted projects. Addressing internal, institutionalized corruption within Afghanistan to improve the utilization of aid may prove difficult. However, because a considerable amount of aid is mismanaged due to the inefficiencies of US agencies, it is possible to improve aid utilization from US sources.

The US has spent more money on relief and reconstruction in Afghanistan than in any other single country, including Marshall Plan recipients after World War II.<sup>708</sup> With hundreds of billions of taxpayer dollars at stake, the government needs strong controls to provide reasonable assurance that these contract funds are not being lost to improper payments (fraud and errors),

waste, and mismanagement. Effective contract oversight, which includes internal controls throughout the contracting process, is essential to protecting government and taxpayer interests, as well as protecting the massive investments made in Afghanistan.

Agencies across the governmental spectrum are increasingly reliant on contractors to execute their missions in Afghanistan. Yet, as various reports have proven, there exists a major disconnect between governmental agencies, including the Department of Defense (DOD) and USAID, and the contractors they utilize in Afghanistan. Contracting officer's representatives (CORs) act as the liaisons between the contractor, the contracting officer, and the unit receiving support. Because of various factors, including overwhelming numbers of projects, insufficient numbers of CORs, insufficient training of CORs, and the dangers of the areas contractors are hired to work in (and CORs are thus required to oversee), the liaison relationship is not adequately maintained to audit the proper use of funds. For example, one COR Government Accountability Office (GAO) interviewed was assigned to more than a dozen construction projects. According to that COR, it was impossible to be at each construction site during key phases of the project because the projects were occurring almost simultaneously at different locations. Consequently, according to officials, in situations like these, construction was completed without sufficient government oversight and problems were sometimes identified after facilities had been completed.<sup>709</sup> This chronic lack of effective oversight reveals glaring problems in contractor performance and subsequently the squandering of funds.

In a 2012 report to Congressional Committees, "Operational Contract Support – Management and Oversight Improvements Needed in Afghanistan," the US Government Accountability Office cited numerous cases of the mismanagement of funds:

- For US\$130,000, Afghan contractors built a large bathroom facility "without holes in the walls or floors for plumbing and drains." The walls were constructed of "crumbling cinder blocks." The report blamed insufficient oversight.<sup>710</sup>
- Defense Department personnel told the GAO about "a dining facility in Afghanistan that was built without a kitchen" and with "construction deficiencies." Contracting officials attributed the construction issues to the shortage of oversight personnel with subject area-related technical expertise and required US\$190,000 of repairs in addition to the original cost.<sup>711</sup>
- A guard tower at a forward operating base was poorly constructed and unsafe to occupy.

The staircase was unstable and not strong enough to climb. These problems were not discovered until the tower was finished and the decision was made for it to be torn down.<sup>712</sup>

- “In another instance, an entire compound of five buildings was built in the wrong location.” it was supposed to be located within the military base’s security walls, but the contractors inexplicably built the compound just outside – at a cost of US\$2.4 million. No one noticed until the project was completed. “The buildings could not be used.”<sup>713</sup>

These instances demonstrate a critical deficiency of the development and aid structure operated by US agencies. These are not isolated incidents. The GAO has previously reported in 2006, 2008, and again in 2010 that CORs do not always have the expertise necessary to oversee contracts, are often overloaded with projects, and are generally under-staffed and under-supported.<sup>714</sup> Due to the lack of effective oversight of development projects in Afghanistan, substantial sums of funds are being wasted because of a dysfunctional agency-contractor relationship.

Nearly a dozen government auditing agencies have been warning for almost a decade about the foolhardy way USAID, the Defense Department, and other agencies hand over multimillion-dollar construction projects to private, for-profit contractors—and then completely neglect to monitor what they’re doing with the money, leading to some amazing failures.<sup>715</sup> Thor Halvorssen, president of the Human Rights Foundation, has said trying to spend aid money in Afghanistan “is like giving booze and car keys to a teenager.”<sup>716</sup> Former US Ambassador and military commander in Afghanistan Karl Eikenberry likened development spending in Afghanistan to “trying to do development on an outpost on the moon. They’re still stuck in the fourteenth century.”<sup>717</sup> As the Government Accountability Office stated: “We reported in July 2004 that DOD did not always have sufficient oversight personnel to manage and oversee” its contracts in Afghanistan; and, “In December 2006, we noted that without an adequate number of trained oversight personnel, DOD could not be assured that contractors could meet contract requirements efficiently and effectively.”<sup>718</sup> The 2012 Report outlined many of the same issues from 2004 and 2006, meaning very little has improved in the way contracts are handled for development and security projects. As the Committee on Foreign Relations wrote, Americans must begin challenging “the assumption that our stabilization programs” actually “contribute to stability.”<sup>719</sup>

### III. Trade: Evaluating the Viability of the New Silk Road and Prospects of Investment in Afghanistan

The priority of embedding Afghanistan within Central Asia's growing trade infrastructure is a challenge due to the reliance on uncooperative, corrupt governments, which often have conflicting interests, both amongst each other and with the US Former Secretary of State Hillary Clinton's espoused 'New Silk Road,' a trade corridor linking Central Asian states together with China, Russia, India, the Near East and Europe. "Turkmen gas fields could help meet both Pakistan's and India's growing energy needs and provide significant transit revenues for both Afghanistan and Pakistan. Tajik cotton could be turned into Indian linens. Furniture and fruit from Afghanistan could find its way to the markets of Astana or Mumbai and beyond."<sup>720</sup> Clinton and others hope the New Silk Road will play an essential role in modernizing Afghanistan's trade economy and developing its resource sectors, thus lessening the dependence on US aid. Frederick Starr, intellectual founder of the "Greater Central Asia Partnership" proposal, claimed that the trade and transit links established by the Northern Distribution Network in Central Asia could serve as an opportunity to fundamentally transform the region:

The reopening of all these age-old transit routes across Afghanistan is the single greatest achievement of US foreign policy in the new millennium. It was unintended, unrecognized, and, by most Americans, unacknowledged, even though they paid for it with the lives of loved ones and with hard-earned tax money. Nonetheless, this development offers the most promising solution to the US' present strategic dilemma and the key to possible success in Afghanistan and the region.<sup>721</sup>

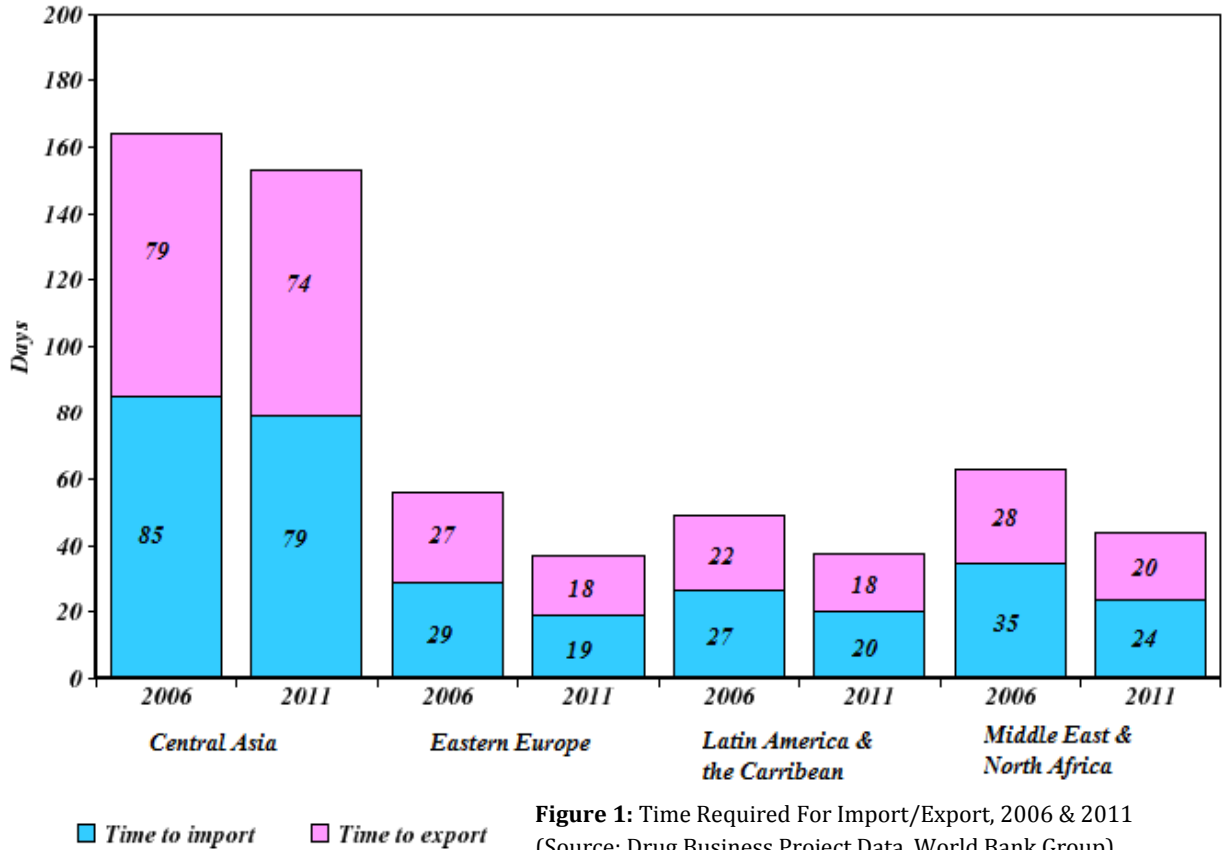
The prosperity would have ripple effects across the region, argues Shuja Nawaz, the Atlantic Council's South Asia director. The tighter the economic dependencies between nations, the less likely conflict would be, particularly in the case of Pakistan, which has historically used Afghanistan as an organizational hub for extremist activity. "Once Pakistan's business sector sees greater returns from trade than from using Afghanistan as a cockpit to fight for influence in the region, the post-2014 scenario becomes much more sustainable," Nawaz says.<sup>722</sup> Challenges in the region could prove prohibitive in cultivating a functioning trade infrastructure in Afghanistan. Most of the states within the region, and those most pivotal to future trade with

Afghanistan, as well as Afghanistan itself, suffer from chronic insecurity, poor governance, and corruption.

Afghanistan, Uzbekistan and Turkmenistan scored fourth, fifth and sixth to last on Transparency International's corruption perception index in 2011; Kazakhstan, Pakistan and Tajikistan were not far ahead.<sup>723</sup> While this is indicative of standards of corruption in the region, there are increasing signs of foreign direct investment from key regional players outside Central Asia, creating the potential for Afghanistan to attract serious capital, despite concerns of future security. India is spending US\$11 billion to build a steel plant and mine iron-ore deposits in Hajigak<sup>724</sup>, as well as pushing for the construction of the Trans-Afghanistan Pipeline (TAPI), which would transport natural gas from Turkmenistan's Caspian Sea through Afghanistan and Pakistan into India. Bids from China on Afghan resources so far have included a copper mine in Aynak and oil-drilling rights in Sar-i-pul and Faryab provinces, which are intended to be linked by Chinese-built railroads.<sup>725</sup> In February 2012 the Uzbekistan government, with US\$165 million in funding from the ADB, completed the first tranche of a 75km cross-border railroad – Afghanistan's first – to the provincial capital of Mazar-i-Sharif.<sup>726</sup> Eventually, these patchworks of rail are planned to be linked, further solidifying Afghanistan's role as a resource hub for its resource-hungry neighbors. The US withdrawal presents a critical juncture in Afghanistan's economic future. Continued US financial assistance will yield increased investing confidence from these countries. Both domestic and foreign investors will need to be assured that the US will not relegate Afghanistan to a token beneficiary of its aid structure.

Economic development and investment in Central Asia and Afghanistan is impeded by the region's notoriously corrupt governments. Corruption plagues Central Asian governments, causing the management of their economies to be dominated by a system of informal payments, bribes, and clientelism. Criminality is integral to the functioning of the system.<sup>727</sup> Despite the seeming rise of foreign investment in Afghanistan, Central Asia's characteristic shadow economy continues to impede the realization of a functioning New Silk Road. This institutionalized, informal system of payments and bribes – or shadow economy – is essential to conduct business has caused Central Asia to be one of the most difficult places in the world to conduct trade. According to the WB, the Central Asian states continue to erect the most cumbersome barriers to trade, compared to almost anywhere else in the world.<sup>728</sup>

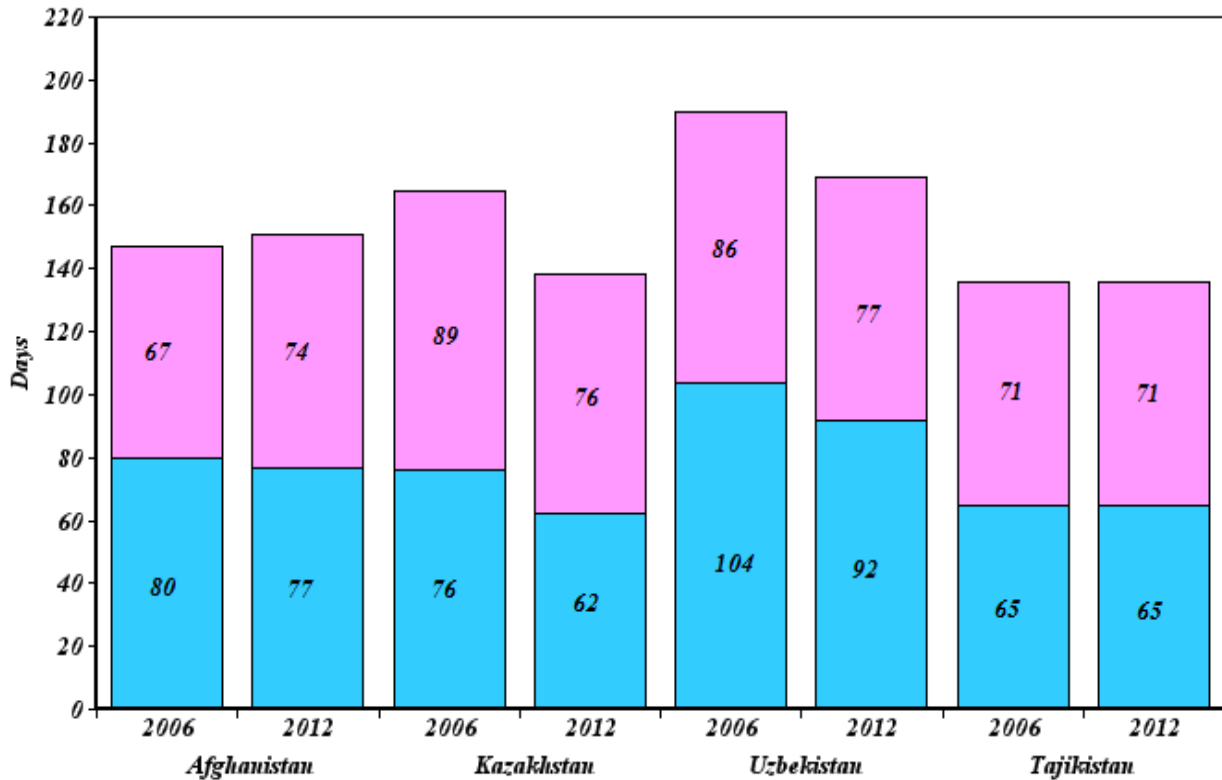
*Time Required for Import/Export, 2006 & 2011*



**Figure 1:** Time Required For Import/Export, 2006 & 2011  
 (Source: Drug Business Project Data, World Bank Group)

As demonstrated by **Figure 1**, the time to export and import within Central Asia is significantly higher in comparison to other developing areas of the world. Even in comparison to other post-Soviet states in Eastern Europe, it requires a disproportionately larger time frame to export and import within Central Asia. Whether importing or exporting, officially clearing borders can take over 100 days while requiring cumbersome amounts of documentation.<sup>729</sup> Additionally, from the period of 2006-2011, it is seen that the other developing regions have reduced their time frames more despite having substantially lower time frames in 2006, revealing the intractable nature of Central Asia's unofficial trade barriers brought about by the shadow economy.

*Time Required for Import/Export, 2006 & 2012*



**Figure 2:** Time Required for Import/Export 2006 & 2011 (Source: Doing Business Project Data, World Bank Group)

■ Time to import    ■ Time to export

WB Group data, shown in **Figure 2**, reveals that from 2006-2012 very little has changed in the way trade is administered in Central Asia. Specifically, the amount of time to import and export has only fractionally decreased in Kazakhstan and Uzbekistan, remained unchanged in Tajikistan, and managed to increase in Afghanistan. Even Eastern Europe, the Middle East and North Africa regions have experienced greater reductions in trade time from the 2006-2011 period. More significantly, these data reveals the dominant and institutionalized role of a shadow economy operating in Central Asia and its inhibiting impact on trade.

The WB data are supported by a number of studies that have tried to measure border corruption and indirect fees in Central Asian regional transport. A 2006 survey by the ADB found that informal payments and bribes added US\$1,200-1,800 to the total cost of a truck transiting from Central Asia to Moscow, along with eight additional days of transit time, while rail could even double "ideal world" shipping costs and add up to fifteen days in transit time.<sup>730</sup>

A 2008 survey conducted by the US Chamber of Commerce of over 200 companies doing business in Central Asia found that very high percentages admitted to routinely paying bribes to clear customs and to deal with border regulations.<sup>731</sup> Of those surveyed, 100% of respondents perceived a "high" or "very high" level of corruption among customs officials in Uzbekistan, 90% in Kazakhstan and 80% in Kyrgyzstan, compared to the Eurasian average of 57%.<sup>732</sup> Another study conducted the same year by the Congress of Business Associations of Central Asia in conjunction with Tajik shipping groups found that trucks carrying cargo along the China-Kazakhstan-Uzbekistan-Tajikistan corridor paid an average of US\$433 in unofficial payments to customs officials, traffic police, and transportation inspectorate, with a monitored driver being stopped 221 times during the journey.<sup>733</sup> Over 50% of total transport time was spent crossing borders and haggling with customs officials.<sup>734</sup> In 2007, Kazakh customs recorded about 3,000 trucks crossing the border at the entry town of Khorgos, while their Chinese counterparts put the figure at over 36,000 for the same year.<sup>735</sup>

Though Central Asian governments account for these "discrepancies" as caused by differing accounting methodologies, their sheer magnitude suggest that informal market activity must account for a significant portion of these differences.<sup>736</sup> Together, these various studies on trade in the region corroborate the existence of a deeply embedded informal economy that dictates how business is done. They challenge the hope of a 'New Silk Road' to revitalize Central Asia's economies and functionally integrate Afghanistan into the dysfunctional trade network. Clinton's idea that Tajik cotton will be turned into Indian linens and Turkmen gas will run through Afghan pipes into Pakistan and India is still an unrealized vision due to concerns of future Afghan security. The Central Asian states, despite their differences in leadership, share the commonality of a powerful shadow economy that impedes the development of functional trade that the New Silk Road promises. This shadow economy is supported by the sale of government and bureaucratic jobs where individuals who can afford such a lucrative post, whether operating a state agency or running a province, can expect to get a return on their investment.<sup>737</sup> Rulers understand that their subordinates are greedy, and allow them to exploit their position as long as they also perform their basic duties, such as keeping order in the provinces or passing on revenues to the state.<sup>738</sup> So long as Central Asian authorities, both ruling elites and security services, continue to profit handsomely from borders and border crossings, the

informal economy will continue to dominate the management of trade throughout the region and ultimately hamper the inclusion of Afghanistan into the regional trade network.

#### **IV. Policy Considerations**

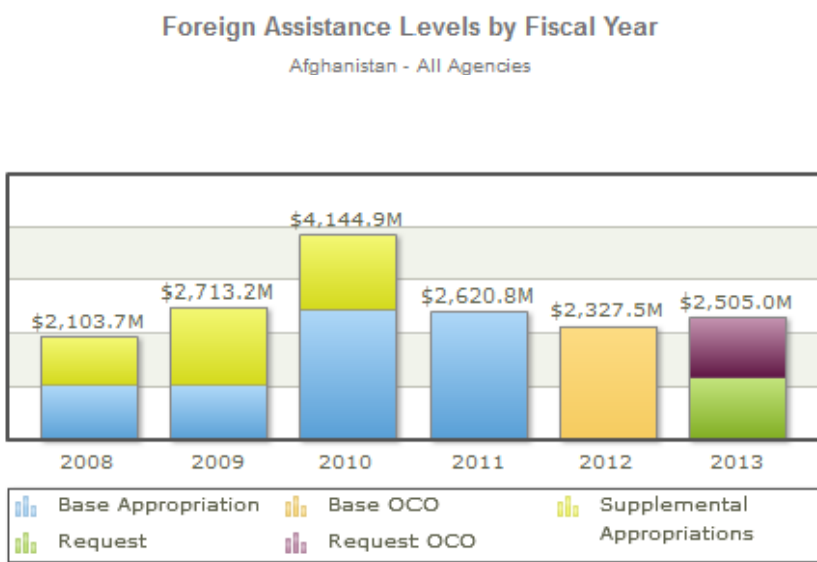
Contractors are widely employed by a variety of agencies in Afghanistan for the construction of a wide array of development and security projects. The personnel responsible for overseeing contractors have consistently been found to be deficient in several key areas. Specifically, contracting officer's representatives working for the Department of Defense have been assessed to be understaffed, overburdened, and lacking technical expertise of the projects they manage. While the DOD has taken steps to improve its training program for CORs stressing Afghanistan's unique contracting environment, several government reports have found chronic shortcomings in the oversight of contracted projects that have caused the mismanagement of funds, additional expenses and delays, and in some cases, the complete squandering of funds. Other agencies employing contractors in Afghanistan can apply concepts of standardizing their oversight mechanisms to achieve the proper results from their project expenditures.

Projects funded by USAID, DOD, NGOs, and other agencies can increase the security and economic infrastructure of Afghanistan. If several billions of dollars are being allocated toward development and security projects in Afghanistan, an adequate portion of funding should be dedicated to manage coherent contractor oversight by CORs. Increasing the operational capacities of CORs will result in streamlined and more efficient oversight over contractors. Greater oversight will result in better management of projects on the ground which will then result in more efficient use of aid for successful development and security projects. A streamlined aid structure will create greater incentive to invest in Afghanistan where the billions of dollars in aid are being coherently managed to improve upon the country's infrastructure.

Due to the delicate nature of Afghanistan's economic and financial structure, the effective implementation of aid from the donor community operating in the country would serve to stabilize erratic liquidity of the country's financial system. Aid is strategically poised to not only provide employment, improve infrastructure, and inject much needed economic activity within the country, but also to increase the levels of confidence domestic and foreign businesses and other countries have in investing in Afghanistan. The levels of capital flight seen prior to the 2009 elections in Afghanistan provide a glimpse of the uncertainty that economic actors have in the future of the country. By improving the efficiency in which aid is utilized in Afghanistan, the donor community and the Afghan government will be better positioned to manage the substantial sums of foreign funding that enter the country each year.

As demonstrated by **Figure 3**, foreign assistance for the 2013 fiscal year will mirror the amounts of previous years. If the majority of US and NATO forces are removed from Afghanistan by 2014, the amount appropriated to financial

assistance to Afghanistan must be adjusted accordingly for the loss of employment and economic activity generated by the current military presence. Because Afghanistan's growth rate and GDP is so reliant on aid and both the formal and informal economies built around supplying troops' needs, replacing the loss of these income and employment



**Figure 3:** Foreign Assistance Levels by Fiscal Year (Source: Foreignassistance.gov)

generators will figure critically into any post-2014 economic plan for the country.

Afghanistan's economy is extremely volatile, and, notwithstanding graft and theft of foreign funds by officials, it is prone to rapid movements of money out of the country by both foreign and domestic actors.<sup>739</sup> Before the August 2009 elections, US\$600 million in banking system withdrawals were reported; however, in recent months, some US\$200 million has flowed back into the country.<sup>740</sup> According to leaked cables authored by Ambassador Earl Anthony

Wayne, there is little motivation in keeping millions of dollars, either illicit or licit, in Afghanistan when the future remains so uncertain.<sup>741</sup> Aid should not be allowed to plateau at a time of critical uncertainty caused by the military withdrawal – a juncture where internal and foreign investing confidence can either be matured or deterred.

The Chinese contract stipulates mine production in Aynak to begin in 2014; however, as of now, neither development of the mines nor construction of the railways has taken place.<sup>742</sup> As guaranteed by the contract, not one, but two railway lines will be built, adding to critically-needed trade infrastructure in Afghanistan. A US Embassy cable published by WikiLeaks quotes Chinese officials as calling the promise to build railways “flexible.”<sup>743</sup> This “flexibility” is indicative of the chronic uncertainty investors have in Afghanistan, especially concerning doubts of internal stability following 2014. Several significant foreign investments have been made in Afghanistan by China and India, though actual construction remains in whole or in part tentative. Investing nations and companies must be reassured that following 2014, the US will continue to retain a strategic and financial partnership with Afghanistan. Greater confidence will create a much-needed investing environment in Afghanistan's rich resource sectors, as well as allow greater incentive to invest in the country's transport and trade infrastructure.

## V. Conclusion

Despite its relatively stable history since Soviet collapse, the Greater Central Asia region is characterized by repressive regimes, extreme levels of wealth disparity, and high levels of unemployment. The lack of economic opportunities, freedom of expression, political participation and government regulation of Islam have the potential to foment radical opposition against Central Asia's intractable dictators. The New Silk Road, seen by some international actors as a harbinger of development and economic opportunity, has demonstrated to be severely limited by Central Asia's shadow economy.

Events in one state can quickly have a deleterious effect on its neighbors. Central Asia may be negatively affected by its neighbors: a further decline in infrastructure is likely to coincide with increasing instability in Afghanistan, and a possible spillover of the insurgency.<sup>744</sup> Afghanistan, if inappropriately supported, will potentially regress to insurgent control in whole or in part, as it has already in some outlying provinces.<sup>745</sup> This digression could be detrimental not only for US interests and investments in the country, but for the Central Asian states which

neighbor Afghanistan and have experienced damaging interstate terrorism. US aid being funneled into Afghanistan must be efficiently maximized by improving contractor liability through increased oversight and efficient management. Despite the obvious disadvantages of corruption of the Afghan government, the aid system operating in Afghanistan can be substantially streamlined and improved by US action. More significantly, adjusted financial funding following the 2014 withdrawal will signal continued US support of Afghanistan, which will help reduce investor uncertainty and stimulate foreign investments in the country.

Economic development and poverty reduction are necessary to ensure internal and regional stability. The rapid deterioration of infrastructure will deepen poverty and alienation from the state. The disappearance of basic services will provide Islamic radicals, already a serious force in many Central Asian states, with further ammunition against regional leaders and openings to establish influential support networks from unemployed, economically and socially marginalized communities.<sup>746</sup> Anger over a sharp decline in basic services played a significant role in the unrest that led to the overthrow of Kyrgyz President Kurmanbek Bakiyev in April 2010.<sup>747</sup> Rapid impoverishment caused by the loss of foreign funding combined with a fragile political structure could well play a similar role in Afghanistan in the near future. A multilateral approach to securing Afghanistan post-2014 will incorporate not only training and arming the AFNS to fight against insurgents, but the continued development and strengthening of the Afghan economy. Future Afghan and regional stability will hinge on the capability to improve the standards of living of the populace in order to decrease the lure of insurgency and interstate extremist groups.

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# Social

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*Stability in Central Asia is vital for a diversified global energy market. However, weak societies present formidable challenges to long-term stability. Inadequate standards of healthcare, environmental issues, evident disregard for human rights, and stunted education systems inhibit these goals. Desertification, pollution, and overfishing in the inland seas are causing drastic lifestyle changes. Additionally, poor public health infrastructure has allowed tobacco abuse, HIV, and Tuberculosis to heavily impact people's ability to go to school and work. In all aspects of society the restrictive governments limit human rights, particularly freedoms of assembly and expression. This environment stifles the already underfunded education systems and reinforces "brain drain" as bright minds seek education and employment in the West. US attention to the conditions of these populations, through strategic distribution of foreign aid into health, education, and social welfare projects, as well as re-evaluation of current policy action is particularly important in light of Russian and Chinese interests in extending regional influence.*

# Donor Identities and Politics

## Us Foreign Aid Strategies in Central Asia Relative to Russian and Chinese Influence

Taylor Passmore

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### Abstract

Even with firm interests in Central Asia, the US' existing position relative to China and Russia requires a markedly different approach. All three powers now exercise regional influence through soft power in the form of aid. US aid policy is largely focused on blocking perceived Russian and Chinese attempts to establish hegemony in the region. Aid is given predominantly through bilateral channels to NGOs in an effort to circumvent corrupt officials, however stifling authoritarian policies moot the barely existent social networks as vectors of aid. Russia is primarily concerned with building a reputation as a world superpower and its own domestic security. Creating a "Sphere of Influence" in Greater Central Asia is a vital component of that scheme. Lastly, China focuses on notions of co-developing or "South-South Cooperation." As a developing country, any Chinese assistance given should be as beneficial for China as it is for the recipient. An independent Central Asia would help to ensure a more diversified and stable global energy market. Looking at aid strategies in the major energy producers of Azerbaijan, Kazakhstan, and Turkmenistan is particularly important in understanding different interests in the region, including where they may overlap or conflict.

## I. Introduction

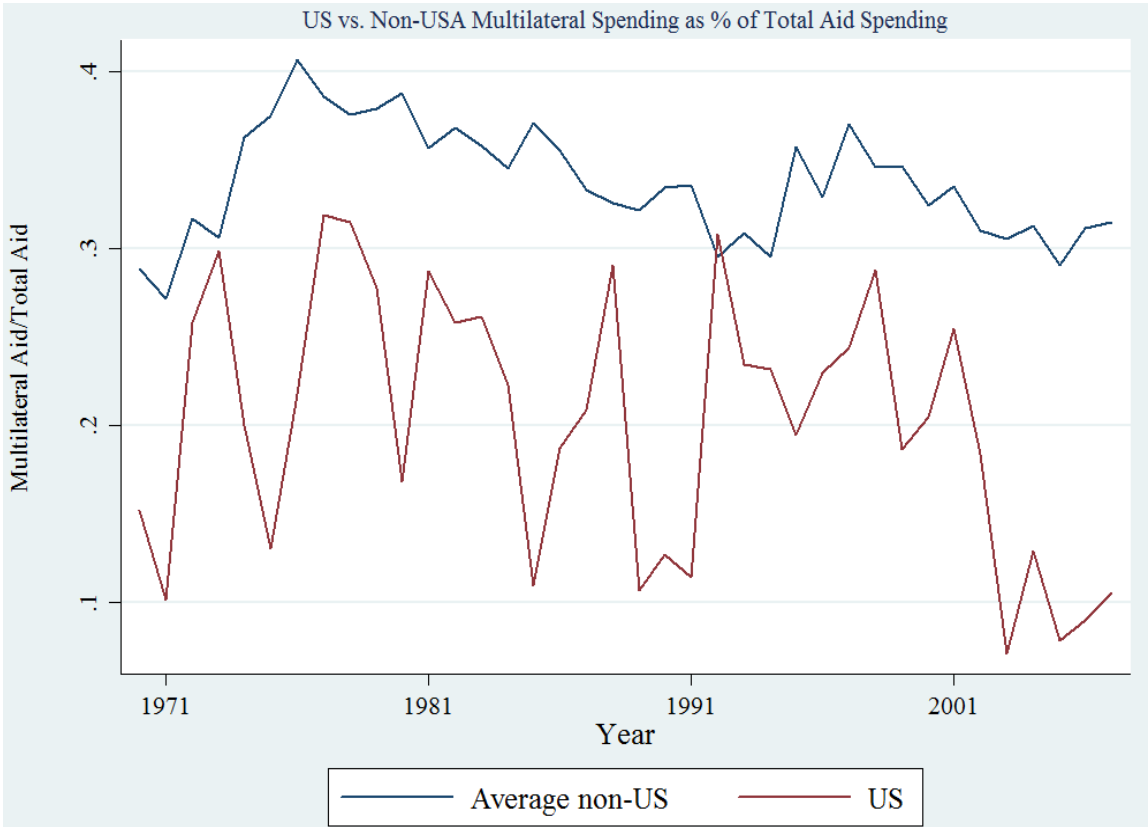
Given geographical and historical precedent, Official Development Assistance (ODA) is one of the most appropriate and commonly used forms of US influence in Central Asia. While military assistance has a function, hard power intervention for US goals of regional stability, independence, and democracy is off the table. The US has already spent more than ten years pouring resources into the wars and reparations in Iraq and Afghanistan. Outside of interests in Afghanistan, most aid is distributed into the social sector for development work via NGOs. This distribution is intended to circumvent the possible misdirection of funds into autocratic hands. On another front, US interests may face competition from those of China and Russia who have immediate involvement in the region, given proximities in location, cultures, and economic investment. However, all three superpowers share similar over-arching objectives for the region: stability, security, and responsible development of natural resources. China and Russia are particularly concerned with the first two of these, as violence and other threats to security could easily seep through their borders. The US' understanding of regional stability as inclusive of basic human rights differentiates it considerably from that of its Eastern counterparts, but is viewed as key for achieving stability long-term. These differences create reason for the US to ensure growing relations between itself and the Central Asian states. The shared goals for Central Asia could also induce the US, China, and Russia to collaborate in reducing shared threats or concerns. Because aid is the primary method of influence in the region, it is vital to identify what current strategies are viable and which may need to be restructured.

## II. US Aid Strategy and Realities in Central Asia

Broadly, the potential for Russian or Chinese hegemony in the region is of much concern to the US. An independent Central Asia is considered to be critical to a diversified world energy market in the future. The massive gas and oil reserves in Azerbaijan, Kazakhstan, and Turkmenistan offer alternatives to OPEC for the US and its allies.

In 2001 US aid distribution took a sharp turn from multilateral to bilateral channels (see **Figure 1**). Whether the shift was to gain more control over aid expenditure or in response to a conservative executive branch,<sup>748</sup> the trend has continued into the present with the US ranking last among Organization for Economic Cooperation and Development (OECD), Development

Assistance Committee member countries in terms of percentage of gross aid given multilaterally (see **Figure 2**). The majority of aid -more than 70% of gross aid<sup>749</sup>- is channeled bilaterally, primarily to NGOs. This is largely an effort to circumvent corrupt elites and institutions who would usurp the funds. Relying on bilateral channels does give the US more opportunities for control in distributing and utilizing aid,<sup>750</sup> though it also places a larger responsibility on the US to effectively disperse and monitor aid. The diffuse aid channels of NGOs make a coherent regional strategy nearly impossible. Accordingly, the US has slightly different aid policies for each country. As a member of the OECD, US ODA still has to meet all Official Development Assistance criteria. That means the US must distribute ODA on a concessional basis in a way that improves economic *and* social welfare in the recipient country. When that has involved democratizing measures, leaders of Central Asian regimes have not responded well. Stifling measures on civil organizations undermine the US' efforts by jeopardizing independent channels of aid. That is no small sum. In fiscal terms in 2012 the US gave Azerbaijan, Kazakhstan, and Turkmenistan an estimated US\$20.9 million, US\$18.8 million, and US\$8.89 million respectively.



**Figure 1:** Data from OECD/DAC all donor countries on record in a given year. (Source: [http://ncgg.princeton.edu/IPES/2010/room2/F340\\_pres2.pdf](http://ncgg.princeton.edu/IPES/2010/room2/F340_pres2.pdf))

## Total Use of the Multilateral System as % Gross ODA (2010)

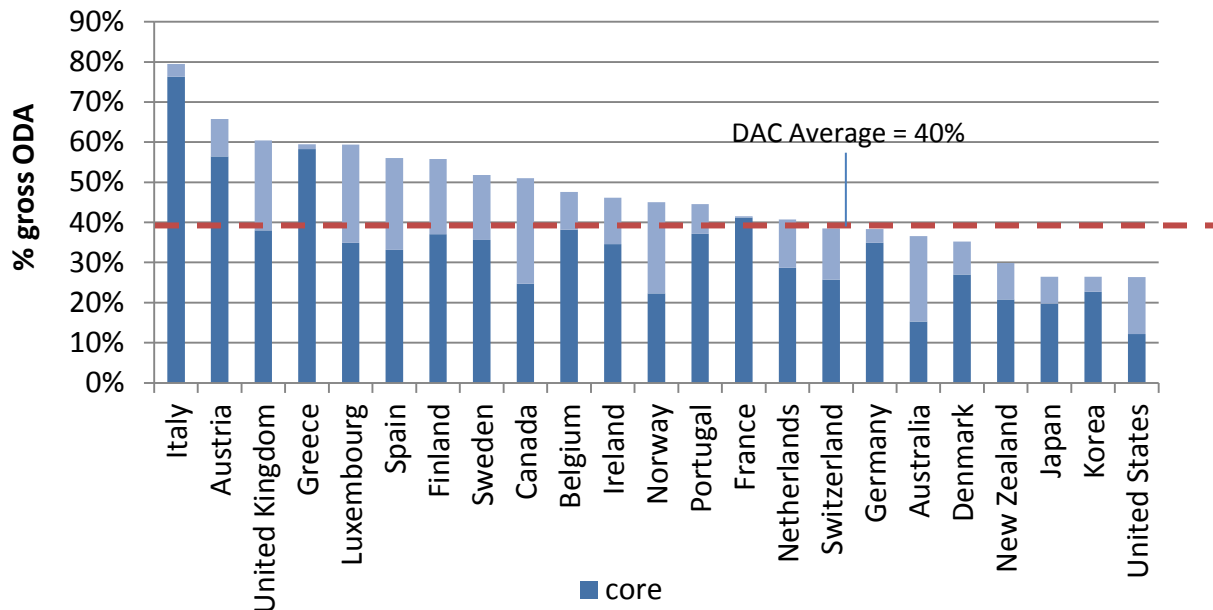


Figure 4: (Source: OECD (2012). *2012 DAC Report on Multilateral Aid*. OECD, Paris.)

### Azerbaijan

US assistance in Azerbaijan goes primarily to building democratic institutions and regional security.<sup>751</sup> It is “particularly concerned” with economic growth and regional socio-economic development.<sup>752</sup> Recent elections in Azerbaijan have been highly criticized by the international community. The Organization for Security and Cooperation in Europe (OSCE) reported that it was nearly impossible for the media to have a “vibrant discussion” around the 2011 elections. There were reports of ballot stuffing and jailing of opponents.<sup>753</sup> When opposition leaders in Baku began organizing protests against the elections online they were detained along with other students and journalists. Many were sentenced to prison. Riot police blocking access to public spaces repeatedly halted mass protests and one day Baku State University even held students on campus to prevent a gathering.<sup>754</sup> The US embassy expressed “grave concern,” and the US representative to the OSCE made a similar comment<sup>755</sup> but no further action was taken. The situation sets up a difficult conflict for the American government, regarding its desire to simultaneously promote democratization and security.

Providing US aid to Azerbaijan is a contested topic. Section 907 of the US FREEDOM

Act of 1992 prohibits all government-government assistance to Azerbaijan until “demonstrable steps to cease all blockades and other offensive uses of force against Armenia and Nagorno-Karabakh.” A US presidential waiver (P.L. 107-115) has been renewed annually since September 11, 2001 for “strategic purposes,” citing Azerbaijan’s strategic importance as a hub for supplying goods to Afghanistan along the Northern Distribution Network (NDN).<sup>756</sup> Still, democratizing sentiment encouraged by US involvement within Azerbaijan was not received well by President Aliyev. On March 7<sup>th</sup> 2012 Aliyev’s government sent the National Democratic Institute, a US-backed NGO in Azerbaijan received a letter informing the organization of “permissible actions” NGOs may undertake in the country and shut down the office in Baku. These new regulations from the Cabinet of Ministers mandated that any NGO applying to operate in Azerbaijan must swear to uphold “national spiritual values and not [to] carry out political or religious propaganda.” In addition, an organization is not permitted to carry out any work in Nagorno-Karabakh. This is significant because in 2011 almost half of US ODA to Azerbaijan was humanitarian aid for the thousands of refugees from Nagorno-Karabakh, channeled through NGOs.<sup>757</sup> Any US aid is now subject to what may be considered ‘upholding of national spirit.’ The primary channels of aid are stifled by the authoritarian determination the US is trying to circumvent.

## ***Kazakhstan***

US focus in Kazakhstan is on transnational security threats (such as terrorism, WMD material, and human/drug trafficking), strengthening the role played by society, and maintaining an open economic environment. The US has shared a close relationship with the Kazakh government mostly because of its interest in dealing with foreign partners. In February 2012 the State Department elevated its relationship with Kazakhstan to a “strategic partnership dialogue.”<sup>758</sup> Kazakhstan spans a very large territory with borders in formidable landscapes. Geographically it is very hard to secure. The Northern border with Russia runs for thousands of kilometers through the Steppe and is thus very porous. Rather than use of force, Kazakh attempts to protect the border are dependent on social control and broader regional stability.<sup>759</sup>

Unfortunately, that stability has increasingly come into question. A 2011 rash of suicide bombings and attacks on policemen by jihadist group Jund al-Khilafah brought violence right to the border in the Northeastern Aktobe region as well as in several other parts of the country. Jund

al-Khilafah has also carried out attacks on US troops in Afghanistan.<sup>760</sup> In April 2012, 47 members and accomplices of the group were tried and sentenced to prison for their involvement in the October 2011 Atyrau bombings. In August 2012 a gun fight with police brought the arrest of several alleged terrorists. Since 2005, 300 people have been convicted on terrorist charges in Kazakhstan.<sup>761</sup> While this is in strong support of US objectives, there is evidence Nazarbayev's regime is using the threat of terrorism as a means of silencing government criticisms. He legally expanded the definition of terrorism in January 2013 to "include an 'ideology of violence' and acts and threats aimed at influencing the government, including violence and 'frightening people'."<sup>762</sup> The president stated an "increasing radicalization of the population" and a growing terrorist presence necessitated the change. This mentality has been used to reduce independent media in the country: in November 2012 the Kazakh General Prosecutor's Office advised that the main opposition media should be shut down on grounds of "extremism."<sup>763</sup> All six versions of the opposition newspaper and more than 23 associated websites were shut down by the Kazakh courts.<sup>764</sup> These developments are troubling in light of US goals. All NGO activities are now also strictly monitored.

### ***Turkmenistan***

In Turkmenistan the US' top concern is strengthening the country's capacity for peacekeeping, domestically and regionally. The approach to aid is slightly different in Turkmenistan with emphasis on "encouraging citizens to play a greater role in society, increasing access to quality higher education, improving the capacity of the central and local government civil servants to perform their functions, and promoting private sector development and economic reforms."<sup>765</sup> Aid is disbursed through the numerous NGOs operating in the country to carry out individual projects often with little monitoring. The human rights situation in Turkmenistan is particularly dismal. Freedom House ranked the country "worst of the worst" in human rights. Freedom of the press, freedom of expression, and also education are all severely restricted by the government. There are no foreign newspapers, and public discussion of all domestic issues is government censored. Students are often kept from studying abroad. Any research or education in "politically sensitive" areas, such as theology, history, or comparative law, is strictly monitored and actively curtailed. The US has had some success in establishing Public-Private Partnerships (PPPs), for example the USAID and Chevron partnership brought

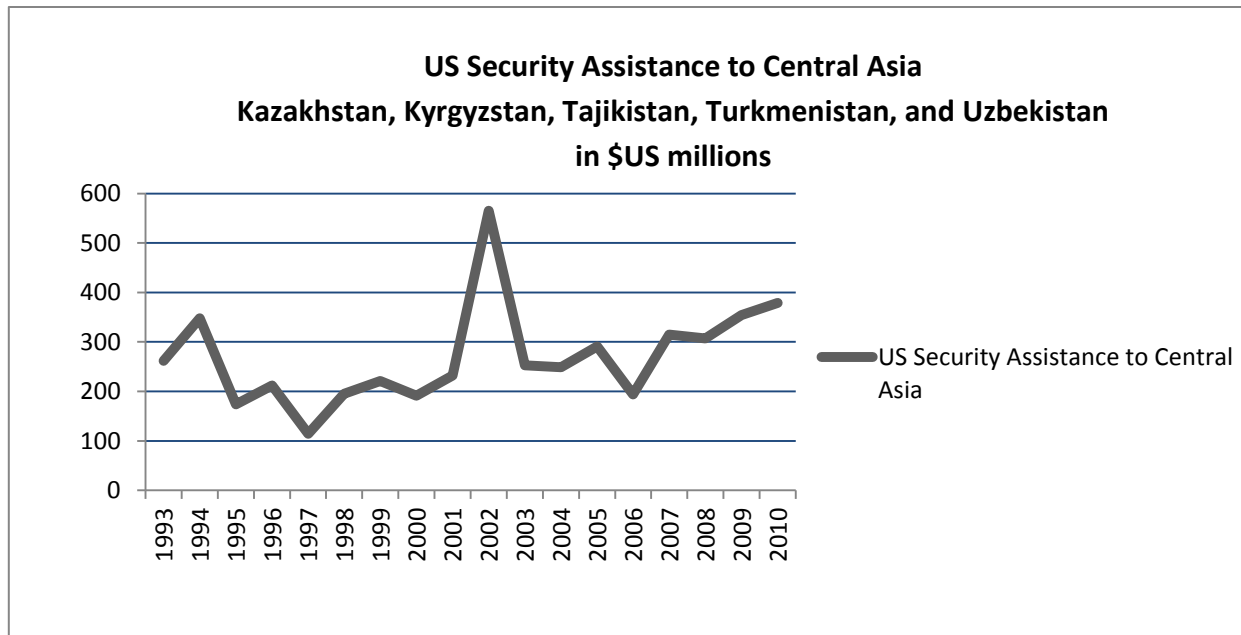
US\$1.2 million of additional resources in 2012 for providing accounting reform, outreach to at-risk youth, as well as business and entrepreneurial education. In addition, the US helps fund the Turkmen American Scholarship Program for the American University of Central Asia.<sup>766</sup> A new constitution in 2008 included an “impressive list of individual rights, but emphasized that the exercise of rights must not violate public order or damage national security.” Unfortunately this has actually restricted freedoms, as shown by the sentencing of a local journalist for Radio Free Europe to five years in prison in 2011.<sup>767</sup> Satellites have provided a promising new source of information, as they can pick up international signals without state censorship.

On the surface there seems to be a relatively thriving NGO network in Turkmenistan. There are 98 legally operating NGO’s in the country. Of those, only eight are independent from the government. None of those eight are human or political rights NGOs. Additionally, all actions by NGOs must be monitored by the government: pre-notifications must be given for meetings, all moneys received, and spent must be accounted for.<sup>768</sup> By controlling the NGO sector the Turkmen government easily intersects and moots USAID efforts.

### ***Security Assistance***

US military assistance in Central Asia is specifically targeted at US strategy in Afghanistan. US security assistance to the region spiked dramatically after the terrorist attacks in 2001, falling as attention turned to Iraq, and rising once again in 2007-2008 as the war in Afghanistan intensified (see **Figure 3**). This correlation suggests security assistance to the region is primarily a means of gaining strategic points that provide access into Afghanistan.<sup>769</sup> The countries of Azerbaijan, Turkmenistan, and Kazakhstan have been key partners for bases, communications, fly-overs, and most importantly the Northern Distribution Network.<sup>770</sup> January 2009, the US began talks with Kazakhstan and Tajikistan about providing an alternative route of transport to Afghanistan, as shipments travelling through Pakistan were subject to increasing attack.<sup>771</sup> The region is a natural conduit for information, personnel, and goods between Europe, Russia, Central Asia, and Afghanistan. Military aid has been focused primarily in Kyrgyzstan, Tajikistan, and Uzbekistan.<sup>772</sup> The Kyrgyz and US governments reportedly agreed on a US\$5.5 million training base in Kizyl-Kiya in early 2012. While Uzbekistan has a firm grasp of its security, US military aid may be “More likely motivations... to enhance its international standing and gain a geopolitical lever over Russia.”<sup>773</sup> Military aid is given primarily in the form

of training and equipment. Special force units are often the most effective regional actors in the region and therefore chosen for neutralizing security threats such as terrorism (a US interest) and threats to presidential security (of less importance to the US). For example, US trained and equipped Special Forces have been implicated in the violent 2010 clashes with protesters in Bishkek and Osh, Kyrgyzstan.<sup>774</sup> A professional reform agenda or plan is absent from the equipping and training of troops.<sup>775</sup> In 2010 Assistant Secretary of State Robert Blake refuted critics “that this Administration is too focused on the security situation with [Central Asian] countries and forgets about human rights.” He has maintained a focus on social development focus for USAID reasserting in 2012 that the “path to progress on [human rights] is more engagement with these governments, not less.”<sup>776</sup>



**Figure 3:** DATA: Foreign Security Assistance to Central Asia(Kazakhstan, Kyrgyzatan, Tajikistan, Turkmenistan, and Uzbekistan. (Source: State Department, Office of the Coordinator of U.S. Assistance to Europe and Eurasia, via Congressional Research Service.)

### III. Russia and China: Changing Aid Strategies in Central Asia

Geographically, Central Asia has always been positioned as an arena for major power struggles. Russia, the Middle East, Europe, and Asia all have borders on the region. Important in the 21<sup>st</sup> century due to the vast energy reserves of their land, Central Asia remains a target for power struggles and contestation. China and Russia exercise the largest influence in the region

with the US' presence increasing since 2001.<sup>777</sup> China and Russia have drastically different ties to the region than the US, yet at the level of international politics and in the interest of tied aid, some regional objectives among the three are quite similar. All three understand the prospect of a major energy supplier independent from OPEC is crucial for a diversified world energy market as traditional forms of fuel become more and more valuable. At the same time the US fears a Russian or Chinese hegemony in the region would jeopardize the vision of an independent Central Asia. Aid strategies from the two competing powers, however, are poorly concerted and dominated by localized interests as much as energy concerns. Looking at the dynamics of inter-regional aid, some motives and strategies that are obscured by a realist international relations perspective become recognizable.<sup>778</sup>

## *Russia*

The Russian relationship with the countries of Central Asia is particularly complex as Soviet rule dominated the region for a period of almost 70 years. Initially Russia was uninterested with the post-Soviet republics, but over time their importance has grown immensely.<sup>779</sup> Since the late 1990's Russia has attempted to reassert itself as a superpower regionally and abroad. The early 2000's brought a shift in Russian foreign policy on both fronts, partly as a result of the US war in Afghanistan. It began to view domestic security as threatened by the Central Asian states<sup>780</sup> and sought a more pronounced international role. Russia's official policy states its desire to create a "sphere of influence"<sup>781</sup> in the interest of regional security- a "security belt."<sup>782</sup> Such would prevent any unrest to the South from spilling into Russia. Russia's International Development Aid (IDA) Concept states its interests will be met by "strengthening Russia's international position and credibility; stabilizing [the] socioeconomic and political situation in the partner countries; establishing a belt of good neighborliness; prevent[ing] the occurrence of potential focal points of tension and conflict, primarily in the regions neighboring Russia; [and] creating a favorable external environment for Russia's own development."<sup>783</sup> While acknowledging its own underdevelopment, Russia is very concerned with reshaping its perception in international politics as a true global power. Following this regional approach, and in stark contrast to the US, Russia typically distributes aid via established multilateral systems. Institutions like the G8, UN, and IMF channel more than 60% of Russian aid.<sup>784</sup> Several factors contribute to this system: the inability of Russia to create an effective regional multilateral

institution, to show self-restraint in asserting its own interests to the international community, and also as an act of cooperation -perhaps rite of passage- in acting as a donor state within these global development institutions.<sup>785</sup> Creating a local sphere of influence is at the heart of this new international reputation as well as state security. The policy is also certain to be perceived as a threat in some instances to the US and China.

### *Sphere of Influence*

Russia's number one concern is its domestic security. The 7,000 kilometer border shared by Russia and Kazakhstan running through the heart of the steppes makes it "practically impossible to secure and require[ing] better monitoring of clandestine flows down stream."<sup>786</sup> So while only Azerbaijan and Kazakhstan share a border with Russia, the entire region is viewed as a 'security belt' from an "increasingly uncertain South."<sup>787</sup> Russia has made multiple attempts at creating multilateral organizations within Central Asia. The Collective Security Treaty Organization, EurAsian Economic Community, and Putin's new Eurasian Union have all experienced difficulties establishing economic ties as well as fluctuating membership from the Central Asian countries.<sup>788</sup> Instead Russia has focused on ties with Kyrgyzstan and Tajikistan. The fortunate observation from these failures is Central Asian states are clearly interested in maintaining a certain distance from Russia. Unable to establish the resilient ties of Chinese aid under the Shanghai Cooperation Organization,<sup>789</sup> Russia has sought to capitalize on lingering historical ties of language and culture. Russia is heavily involved in UNESCO International Communication Development Programs in Kazakhstan, Kyrgyzstan, and Uzbekistan.<sup>790</sup> This allows Russia to integrate or at the least align communications technologies throughout the region. Having some of the countries in Central Asia identify as within its sphere of influence is important for national security and Russia's reputation as a superpower. Russia states in its IDA Concept that an established "security belt" would allow it to practice "more liberal" policies domestically and abroad.<sup>791</sup>

### *China*

As opposed to the Russian government, the Chinese are clear in not wanting to be considered aid donors- as they are still a developing economy- but rather categorize their assistance as "South- South" cooperation.<sup>792</sup> This allows for a bilateral method of giving aid that

is mutually beneficial and “hands-free” in terms of concessions. However, similarly to Russia, China’s interest in Central Asia stems from a desire to maintain control around its borders for domestic stability within them. China’s top concern is the stability of government rule throughout its territory. The government has been highly successful at maintaining social control in spite of its developing economy and questionable methods of social mobilization. The infamous “One Child Policy” has left a looming legacy. A rapidly aging population will test the fantastic economic growth China has experienced the last several decades. Prosperities of economic growth have been unevenly disbursed among class and ethnic lines. This disparity contributes to unrest in the only region outside Tibet posing a major threat to a peaceful Chinese state: the Western province of Xinjiang. Violent conflicts have erupted along ethnic and religious divides between the indigenous Muslim Turkic Uighurs and the Christian Han Chinese. Violence between the groups erupted in July leaving hundreds dead and thousands wounded in Xinjiang.<sup>793</sup> China’s economic approach to development is also applied domestically. Unfortunately economic reform in Xinjiang, albeit highly successful,<sup>794</sup> has worsened the problem as the Han majority is already positioned to capitalize on economic opportunity widening the wealth gap.<sup>795</sup> Therefore such programs do little to curb unrest by providing opportunities to youth as was intended. The violence has only strengthened separatist sentiments among the Uighur community.<sup>796</sup> Moreover, the Chinese are concerned about the possible flow of drugs into this province through Central Asian borders. The proximity of Central Asia makes events in Xinjiang a major driver of aid strategy in the region.

Based on its own experience of development and principles of mutually beneficial aid, China almost always engages in foreign assistance through economic means. The main agent of Chinese foreign assistance is the Shanghai Cooperation Organization (SCO). It carries out contracts with Central Asian agents for mostly infrastructural projects that are mutually beneficial for China.<sup>797</sup> For example the construction of the Turkmenistan-China gas pipeline is being funded almost completely with foreign assistance. Such investments further establish China as a regional financial center. As opposed to the leadership positions of the US and Russia, China is integrating itself as a regional economic center.

#### *“South-South” Cooperation*

China emphasizes its own status as a “developing country” to portray its development assistance as “South-South cooperation.” As the Chinese government explains in its White Paper

on Foreign Aid, it is the largest and most populated developing country, so its foreign involvement is categorized as “mutual help between developing countries.”<sup>798</sup> It is not aid, or even assistance- though it refer to its strategies as ‘foreign aid policy’ - it is cooperation on mutually beneficial terms. China wants to develop a regional economic structure in which it is firmly integrated and hopefully a nexus. Development is considered essential; by promoting social development in Central Asia, China can facilitate the creation of a strong middle class, expanding its potential markets. Aid from China is subject to the “Eight Principles of Economic Aid and Technical Assistance to Other Countries,” adopted in 1964:

1. equality and mutual benefit of donor and recipient country have to be ensured
2. non-interference in internal affairs and respect for the state sovereignty of the recipient country by not attaching any conditions to aid
3. interest-free or low-interest loans are dispensed
4. the main purpose of aid is to foster self-reliance of the recipient country
5. this is ensured by supporting projects that yield quick results in order to increase revenues and accumulate capital of the recipient country
6. development projects are carried out with Chinese quality equipment
7. technological assistance and professional training of local workers is provided
8. Chinese aid workers implementing the project locally are required to submit to the local standard of living in the recipient country.”

As part of its effort to present itself as a peer to developing countries, China makes no demands for political or social change as a precondition for its assistance. The hands-free approach is attractive for authoritarian rulers with the threat of Arab Spring fresh in their minds. Any unrest in the region presents a direct security threat to China, as it has the potential to spread.

## IV. Consideration of Relative Aid Strategies

There are quite a few possibilities for US assistance in Central Asia, with very different effects. Political and human rights stipulations on US ODA can make it a less favorable option for leaders like Nazarbayev, Aliyev, and Berdimuhamedow. The fervor of Arab Spring in neighboring areas and protests within their own borders will only lessen tolerance for the US blatantly spreading democratization principles. The “hands-off” policies of Russia and China are much better suited to the current political leadership, especially as they perceive the threat- real or otherwise- of unrest. However, those policies would likely change if a major security posed threat to Russia or China. Russia could eventually resort to defending borders militarily if increasing trends of terrorism and unrest amid government crackdowns continue.<sup>799</sup>

While the US is a powerful player in the region, a lack of follow through on sanctions renders such measures useless. The US has repeatedly prescribed sanctions and then consistently had them waived. Priority has been given to maintaining an influence in the region rather than upholding goals of increasing democratization and human rights. This has made the US appear undecided and hypocritical, but also somewhat separate from the EU. Eliminating concessions on aid is highly unlikely as it is mandated by the OECD and maintains, at least in name, an agenda of democracy. However, if more subtle avenues of influence are not taken, the human rights situation will continue to stagnate and likely worsen.

Security concerns will always take priority for Russia and China. The US shares these concerns, but views them from a different angle. It sees democracy and an open economy as key to long-term security, rather than authoritarian leadership, which it considers less secure. Nonetheless, if the US cooperates with Russian and Chinese interests in the security sector it could possibly hold more clout in issues of human development and democratization. It is a fact that these interests sometimes clash, but hostility in the region between superpowers would only undermine the goal of a stable Central Asia. If the Central Asian countries are presented with options –i.e. the US, Russia and China- they will capitalize on those and diversify their resources. The availability of US resources is nearly as important as the resources themselves.

US and allied companies- particularly in the energy sector- have proved viable partners in social development. The Public Private Partnership (PPP) between USAID and Chevron in Turkmenistan brought an addition US\$1.2 million in funds for accounting reform, business/entrepreneurial education, and outreach to at-risk youth. Similar partnerships have

occurred in Azerbaijan. These companies often have preexisting ties with the local governments and communities. They offer a unique source of resources for social development as well as vectors for important social ideals.

The US could relegate assistance to the region through the EU and multi-lateral organizations. This would greatly diminish direct US influence, as the EU has been only marginally successful at establishing ties within the region. However economic relationships between US allies and Central Asian countries could be fostered with US influence. The EU, Turkey, or India could all prove dynamic partners for achieving shared goals in Central Asia.

De-linking military aid from need to ‘pay’ governments for involvement in Afghanistan involves setting up other incentives through trade between the governments. This does have an increased risk for failure or non-compliance that could have negative effects in Afghanistan. However, as long as networks are mutually beneficial, it should become self-enforcing. Practical military assistance will likely continue to be misused if professional reform is not included along with the training and equipping of Central Asian para-military units.

Continuing to support independent media, such as in Kazakhstan, means there is a higher rate of access to real information making more informed citizens. Increasing access to satellite dishes for TV and radio, especially in rural areas, would greatly improve access to independent media. Not doing so means information is further restricted or censored through state agencies, and potentially powerful individuals are left misinformed.

## **V. Conclusion**

Though markedly different, the aid strategies of the US, Russia, and China are all working towards a similar vision. An independent Central Asia means stability in a notoriously uncertain part of the world, as well as a diverse global energy market that reduces the power of OPEC. By focusing aid through bilateral channels, the US has flexibility in customizing how aid is spent but also responsibility in how it is monitored. Currently, the lack of independent NGOs and social networks severely limits the functionality of US aid. The leaders of these countries are weary of a strong society in light of the recent protests in the Arab world and within their own territories. Boldly democratizing reforms will be inhibiting to aid objectives, but subtler measures will see incremental success. China and Russia are primarily concerned with the security of their borders. Russia considers its domestic security strongly tied to broader regional

peace in Central Asia. China is establishing itself as an economic hub for the region, with carefully picked development projects that benefit China as much as the recipient. Though it wants to help develop neighboring countries to expand the economy, China will for the foreseeable future likely retain its hands-free approach in terms of aid concessions. This leaves the US as the sole super power with interests in the social development crucial for long-term stability and growth. While the leaders of Central Asia are hesitant of such reform, their desire to keep a diverse set of interests in their countries gives the US some amount of headway. It is now the challenge to identify useful strategies and channels of aid into society. Sometimes that means working with the domestic government- sometimes subtly around. It is clear effectively spending US aid dollars in the region relies to a large extent on international support of independent NGOs, grass roots, and budding social networks.

# Central Asian Environmental and Public Health Threats

By Kimberly Hoang

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### **Abstract**

Environmental and public health issues heavily affect the Central Asian countries of Azerbaijan, Kazakhstan and Turkmenistan. In order for the US to successfully invest in the stability of the region, the environmental impact and public health realities of these nations need to be taken into consideration. Environmental and health factors are increasingly significant in influencing the economy and the population's human capital. Environmental concern surrounds the Aral and Caspian Seas in regard to desertification, overfishing and pollution. These pose health threats and place the regions wild life and economy in danger. Health complications due to radiation contamination from former Soviet nuclear testing sites remain an issue especially among youth. HIV and TB are also found to particularly target youth populations. Tobacco addiction is an additional large cause of death. These health concerns threaten the future vitality of these societies. With US assistance, guidance and cooperation with regional and international actors, it is possible to salvage what is left of the Aral Sea, strengthen the sustainability of the Caspian Sea, and improve the well-being of populations from major health risks. Such US support will ultimately pave a path for a more secure economic future and stability in the region both in the environmental and health fields.

## **PART I: ENVIRONMENTAL ISSUES**

### **I. Introduction**

Serious environmental issues in Central Asia are especially concentrated in the region's seas and in the area around the former Soviet nuclear testing site, Semipalatinsk, in northeast Kazakhstan. The Caspian Sea's problems include overfishing and pollution, which affects the economy and ecosystem. The desiccated Aral Sea causes illnesses from salt exposure and loss of biodiversity due to desertification. Radiation contamination surrounding Semipalatinsk also produces health risks. Health complications stemming from both the Aral Sea and Semipalatinsk have their highest toll on youth. The environmental declination affects the existence of a strong economy and labor force by negatively affecting health conditions in the surrounding areas. These environmental issues complicate US interests by contributing to poor health conditions which inhibit economic stability.

### **II. Caspian Sea**

The Caspian Sea, located in Central Asia, is bordered by Azerbaijan, Turkmenistan, and Kazakhstan. It is the world's largest inland body of water. The sea's significance stems from various factors: it provides seafood that allows a healthy diet, it supplies thousands of employment opportunities in its fisheries sector, and it hosts and exports the world's largest supply of sturgeon and caviar. The sea also serves as a mode of transportation for goods and people among countries in the region, and it has enormous reserves of gas and oil.<sup>800</sup> This body of water provides food, money from exports, a mode of transportation and lucrative natural resources. Therefore, its maintenance is increasingly important in order to ensure that all these factors thrive.

However, the sea's conditions continue to deteriorate as environmental abuses like overfishing continue. One of the many species experiencing significant population depletion is sturgeon. This causes a severe environmental threat as the Caspian Sea has the highest population of sturgeon in the world and supports 90% of the world's caviar industry.<sup>801</sup> However, due to overfishing, the amount of sturgeon caught in the last few decades has decreased to only a 10% yield of previous levels.<sup>802</sup> The fisheries sector is a large source of economic income and employment in the region and the decrease in fishing threatens the

livelihood of these fishing populations, placing the region at risk environmentally and economically.

Pollution is another enormous problem as the extraction, production and transportation of gas and oil across the Caspian threatens the sea. There are approximately 70-80 billion barrels of recoverable oil and more than 35, 000 million cubic meters of gas in the greater Caspian Sea Basin. The daily extraction and transportation of these resources through the sea is the major cause of pollution, with emissions from ships crossing the sea contributing to the problem. Additionally, pollution from cities and industries flow into rivers, which trace their way to the sea. It is estimated that more than one billion cubic meters of chemical, industrial and household wastewater is released into the Caspian Sea annually.<sup>803</sup> This pollutes the seawater and diminishes oxygen levels, putting more than 400 sea species at risk, including sturgeons.<sup>804</sup> While not a lot of effort has been done to reduce the oil pollution in the sea, there have been programs to attempt to reduce waste.

The environmental impacts of accidents related to pollution in the sea are immensely more serious than those that occur on land because the damages spread to affect the entire water body. As the Caspian Sea is a closed body of water, there are no outlets for pollution to leave and they remain stagnant in its waters. The suffering of the ecosystem is worrisome since the sea holds hundreds of species of fauna and flora that cannot be found anywhere else in the world. It has more than 500 types of plants and 854 kinds of fish.<sup>805</sup> The destruction of any part is detrimental to the region. Ecological security is also important to consider, particularly in the transportation and exploitation of energy resources. It is essential to maintain the equilibrium between the growth of oil and gas production and the revitalization of the region's ecology.<sup>806</sup> Such a balance will foster ecological security and help the economy.

Attention should be given to help the ecology of the Caspian Sea. A stable surgeon population for the fisheries sector would help maintain income levels and employment rates. Reducing pollution would additionally aid in strengthening one of the world's unique repositories of biodiversity. It is in US interest to help achieve and maintain a healthy ecosystem for the Caspian Sea as its condition affects the stability of the economy.

### III. Aral Sea

The Aral Sea, which is located east of the Caspian Sea and is included in portions of Kazakhstan and Uzbekistan, was once the fourth largest sea in the world. It was the center of a great ecosystem and contained a diverse wildlife that had a prosperous local fishery. However, today it is one of the world's worst environmental catastrophes. The sea has two main feeder rivers, which are the Amu Darya River and the Syr Darya River. The irrigation system during Soviet rule diverted these feeder rivers in order to water nearby cotton fields. As a result, the sea has depleted greatly in size. Since 1960, it has suffered a loss of more than half of its surface area and approximately 75% of its volume. The Amu and Syr Rivers, have also diminished in size from being diverted for different purposes on their flow through three other countries: Kyrgyzstan, Tajikistan and Turkmenistan. Therefore, the sea's deterioration has causes not only from the countries that it borders, but also the countries of which its feeder rivers flow through.<sup>807</sup>

As a whole, the toll that the sea has on the region is widespread. Biodiversity has diminished and a number of fish species are now extinct. Human populations struggle with the lack of fresh water sources. The former sea bed and nearby lands are now a saline desert. The desertification has affected an area of four hundred thousand square kilometers, encompassing the homes of about four million people.<sup>808</sup> Salt accumulation has led to the degradation of once arable land, where now nothing will grow.<sup>809</sup> Presently, the sea is separated into two bodies of water. In the north is the "Small Aral Sea" and in the south is the "Large Aral Sea." There is a river that connects the two bodies of water. There have been efforts to restore the Small Aral Sea.<sup>810</sup> In 2005, a dyke funded by the WB was built. It separates the northern and southern part of the sea. It is advantageous to the northern area, the Kazakh side, as it reduces environmental damage. On the other hand, the southern part, which is the Uzbek side, does not receive the same benefits.<sup>811</sup> As a result of the sea's shrinking and loss of fishery, tens of thousands of individuals lost their jobs causing negative impacts on the country's economy.<sup>812</sup>

The disadvantages of the Aral Sea's degradation are apparent in the serious public health problems among the communities living in the area. There has been an immense increase in illnesses connected to the sea's decimation. Younger age groups are the most affected.<sup>813</sup> Therefore, not only is the area devastated with economic loss, but the futures of these societies look more doubtful because of the sicknesses impacting the youth. Health issues range from high

levels of vision deficiencies, respiratory problems, throat and esophageal cancer, digestive disorders from breathing and ingesting the salt in the air and water as well as liver and kidney illnesses.<sup>814</sup> Addressing environmental issues of the Aral Sea is important to alleviate the public health impacts on youth populations. They will be healthier and will be able to go to school, work and contribute to the economy and stability if these environmental concerns are addressed.

Many actors have been involved in trying to remedy the Aral Sea catastrophe. The Aral Sea Foundation strives to help those with a lack of water resources, provides medical institutions to treat affected populations, and works to create a “green belt” of trees to stop salts and dust from spreading.<sup>815</sup> The Interstate Council on the Problems of the Aral Sea Basin (ICAS) and the International Fund of the Aral Sea (IFAS) have also been created as a result of the region’s countries trying to collaborate to address the issue. The WB, the US Agency for International Development (USAID) and the European Union (EU) have tried to offer assistance to solve the water management issue of the sea. It is not likely the sea can be completely restored. However, it is still possible to rehabilitate some parts of the sea and deltas and help provide health services for those negatively impacted by the catastrophe.<sup>816</sup>

#### **IV. Radiation Contamination**

Today, Central Asia must deal with the consequences of poor irrigation decisions made under Soviet Rule concerning the Aral Sea. The presence of this Soviet legacy is also evident in Kazakhstan, where Soviet nuclear testing that was conducted has had detrimental affects on the land and people. The nuclear testing site called Semipalatinsk was built in northeastern part of the country in 1947. The first test was conducted in 1949 and continued until 1989.<sup>817</sup> Over 450 nuclear tests occurred during this time frame.<sup>818</sup> When it was opened, there were a high number of farms in the area, around twelve villages and settlements of lesser size around the boundaries. The effects of nuclear testing were apparent after the first nuclear test in 1949, where in one village polluted by a radioactive cloud, 90% of its population received doses of radiation of up to 1,400 millisieverts in the first year. For a comparison, the average American is only exposed to an estimated only 3 millisieverts of background radiation annually.<sup>819</sup> Radioactive clouds travelled over villages exposing vast populations. The radiation contaminated the people’s air, food and water.<sup>820</sup>

The health consequences of radiation are significant. Even though nuclear testing ceased in 1989, there are some areas of former test sites that are still heavily contaminated.<sup>821</sup> The soil of Semipalatinsk is so saturated that it is categorized as radioactive waste based on international recommendations for managing radioactive pollution of environmental objects and solid materials. Russia underestimated the severity of the risks from the radioactive soil.<sup>822</sup> The people who once lived and currently reside in this region demonstrate much higher rates of cancers and birth defects.<sup>823</sup> Studies show that there is a substantially higher risk for cardiovascular disease among people that live in the Semipalatinsk area compared to those who live elsewhere.<sup>824</sup> Particularly, individuals who were children living near the Semipalatinsk test site during nuclear testing are at an increased risk for thyroid cancer. Radiation exposure to the thyroid gland is linked to higher risks of thyroid nodules, which is connected to thyroid cancer risks.<sup>825</sup> In general, cancer rates among those living in this eastern Kazakhstan area are 25-30% higher than average. There is also a higher likelihood of mental deficiencies in the offspring of parents who were exposed to radiation.<sup>826</sup> Therefore, individuals who are exposed to radiation have passed on health complications to their children, furthering health issues in the region. Even more, younger individuals exposed to radiation have had higher death rates related to cardiovascular disease.<sup>827</sup> Younger generations experience the most detrimental health effects in regards to illnesses caused by the Aral Sea and radiation exposure. More time and care must be invested in ensuring their health, as they are the future of the countries of the Caspian region. A generation of healthy young people is necessary to build a stronger work force, better human capital, economic growth and general stability.

Currently, research on the effects of nuclear testing, health and social services are available to local residents. Their studies have concluded that radiation exposure has had a large negative influence on the health of populations.<sup>828</sup> More organizations that offer these services, like Iris and the Scientific Institute of Radiation Medicine and Ecology, are needed in Semipalatinsk.

## **V. Policy Considerations**

The US can help the environmental situation in Central Asia through considering available policy options. Providing more assistance to Central Asian governments to execute better waste and water management systems for the Aral and Caspian Sea would be most

advantageous. Also, research and health services groups that assist those affected by radiation exposure are greatly needed to alleviate health burdens.

## **VI. Conclusion**

Environmental concerns in the Caspian region greatly affect the stability of Central Asia. Significantly, youth populations are disproportionately affected by environmental and health consequences of the Aral Sea and radiation contamination, threatening the future of the region. Investment in youth is an investment in the future. Demonstrating that the US is not only interested in investing in natural resources, but also the general well-being of populations in the region can further strengthen its relations with Central Asian countries. Efforts established to protect the Caspian Sea would also protect the economy, as the fisheries sector provides employment. Positive environmental actions are necessary to enhance the overall stability of the region.

## **PART II: PUBLIC HEALTH ISSUES**

### **I. Introduction**

Three major public health issues in Central Asia include tobacco addiction, the Human Immunodeficiency Virus (HIV) epidemic and Tuberculosis (TB). Tobacco affects smokers and non-smokers due to second hand smoke. Illnesses related to tobacco use account for a large part of deaths in the region. Also, TB and HIV present serious health complications when individuals have co-infection. The most vulnerable populations are women and children. These problems affect the Central Asian peoples' ability to go to school, work, and they create problems for youth populations, negatively impacting future economic and health security. Such factors complicate with US interests in fostering stability in the region.

### **II. Tobacco Addiction**

Tobacco addiction in Central Asia is an area of concern that needs to be recognized and treated as it threatens the human capital of the region and the ability of Central Asians to go to work and school. More than half of all non-communicable deaths in all Kazakhstan, Turkmenistan and Azerbaijan are due to cardiovascular diseases (CVD), which are caused by

behaviors such as tobacco use. In Azerbaijan alone, approximately 85% of all deaths come from non-communicable diseases and 55% of them are cardiovascular diseases. In Kazakhstan, about 78% of all deaths are due to non-communicable diseases and 53% of these deaths stem from cardiovascular diseases. In Turkmenistan, 73% of all deaths are from non-communicable diseases and 52% come from cardiovascular diseases.<sup>829</sup> The high rates of tobacco and CVD related deaths include coronary heart disease and stroke.<sup>830</sup> Tobacco users are twice as likely to have a stroke and are two to four times more likely to acquire coronary heart diseases than non-tobacco users.<sup>831</sup> Non-tobacco users are at risk, too, if they are exposed to second hand smoke. Second hand smoke leads lung cancer and heart diseases. In Azerbaijan and Kazakhstan many areas are still smoke friendly, which allows second hand smoke to affect the health of non-smokers. Policies regarding tobacco use differ among the Central Asian countries.

## ***Kazakhstan***

Tobacco use plagues the population in Kazakhstan. According to the Kazakhstan government, currently 52.2% of the male population smokes tobacco products. Conversely, only 9.6% of women smoke. While the percentage of the population that smokes on a daily basis lessens, 38.7% of males and 5.8% of women, it is apparent that a substantial portion of the country consumes tobacco products.<sup>832</sup>

In order to protect people from tobacco smoke the Kazakhstan law regulates that certain environments must be smoke free. These environments include public places such as health-care facilities, government and educational facilities, indoor offices, pubs and bars. Areas that are not smoke-free include universities, restaurants and public transport. In order to enforce smoke-free environments the government issues fines for smoking in designated smoke-free areas. Taxes are collected from smokers and not establishments.<sup>833</sup>

Treatment for tobacco dependence is available to citizens in the country. Nicotine products such as patches, gum, lozenge, sprays and inhalers are sold and can be purchased at pharmacies without prescriptions. However, costs are not covered by the national health services. In an attempt to support the cessation of smoking, the country has made available a toll-free telephone line where citizens can call to speak with a live person. This resource is meant to encourage discussion on the cessation of tobacco use. However, the law does not require that the toll-free telephone line appear on the package or labeling of tobacco products. While the law

requires that health warnings be placed on tobacco packages, only 40% of the main display areas of the packages are legally required to be covered by health warnings both on the front and back. The government also does not require that the health warnings on tobacco packaging remain unobstructed in any form. Packages do not include photographs, graphics or descriptions of the harmful impacts of tobacco on health. Warnings are not mandated to be written in the principal languages of the country. While adequate and comprehensible health warnings on tobacco packages are lacking, the government does regulate bans on tobacco advertisements on national TV and radio, local magazines and newspapers, billboard and in general outdoor advertisements. Such bans do not exist in the international TV, radio, magazine, newspaper, and Internet realm.<sup>834</sup> In 2010, the Kazakhstani government spent the equivalent of US\$475,041 for the year on banning tobacco ads.<sup>835</sup>

### ***Azerbaijan***

In Azerbaijan, the only smoke-free environments in the country are health care and educational facilities. Out of Azerbaijan, Kazakhstan and Turkmenistan, Azerbaijan is the only country that mandates that the health warnings on packages are written in the principal language of the country and that these health warnings are not obscured in any form. However, the country does not have any specific national government objectives on tobacco control.<sup>836</sup>

### ***Turkmenistan***

Tobacco addiction in Turkmenistan is less threatening than in Kazakhstan. Compared to Azerbaijan and Kazakhstan there are more regulations protecting citizens from tobacco smoke. Law mandates all healthcare, educational, governmental facilities, indoor offices, restaurants, pubs, bars, public transport and all other public areas as smoke-free environments. However, there is no toll-free telephone help line for citizens to contact for support about tobacco addiction. Health clinics, primary care facilities, hospitals and offices of health professionals offer support on ceasing tobacco use, but only partially cover the costs of this support. It is also not required by law that health warnings written on tobacco products are written in the principle language of the country. It is also not required that health warnings are not obstructed in anyway. Even more, health warnings do not include photographs or graphics and do not describe the negative effects of tobacco consumption on health.

The extensive use of tobacco consumption in Central Asia has a significant toll on the health of its citizens. It burdens the populations with illness and death. Even more, it threatens the health of non-tobacco users as well. The impacts on all men, women and children regardless if they are tobacco users or not makes it more important to control the situation of tobacco use in the region.<sup>837</sup> Inadequate health impacts an individual's ability to attend school and work. Both are factors needed for a strong economy and help ensure future stability. Investing in the people will help lay the road for these countries that have great potential for prosperous economies due to their natural resources like oil and gas. A strong foundation of people who are educated and are capable of work will drive the countries in a successful direction.

### III. HIV

Central Asia is experiencing an HIV epidemic that is increasing in severity. It affects the young generations and populations ability to attend school, work and thus negatively contributing to human capital. It is growing from high-risk sexual behavior, drug-use, and high-levels of social stigma that prevents citizens from acquiring preventative treatment and information. The HIV risk is especially high among teenagers who engage in unsafe behaviors.<sup>838</sup> Youth who have HIV are commonly not allowed to attend school when their health status is revealed, and they endure abuse and rejection. This mentality fuels the epidemic even further. Although the youth are some of the most at risk, health care services are not designed for adolescence, who are judged and sometimes criminally prosecuted when they try to seek information and treatment on HIV.<sup>839</sup> In the Central Asian region, only 11% of all HIV-prevention investment concentrates on vulnerable groups. Needle and syringe programs only reach out to one third of the population who inject drugs.<sup>840</sup>

In addition to adolescents who take part in unsafe behaviors, many HIV issues also greatly affect pregnant young women who are drug users and more than one million children and young adults who work or live in the streets. Adolescence is a critical time as drug use commonly begins during this period. In Central Asia and Eastern Europe combined, there are 3.7 million injecting drug users, which adds up to nearly a fourth of the total drug users in the world. Also, social stigma is a threatening issue. Studies show that the social stigma that comes with reaching out for HIV treatment by adults is feared more than the disease itself. Non-adults also find themselves affected by the stigma attached to HIV. An additional aspect that propels the

HIV epidemic is injecting drug use in sex work and in the prison systems. As much as up to nine out of ten users who inject drugs end up in prison during some point in their lives. The prison systems are filled with risky behaviors that promote the transmission of HIV and other diseases. These behaviors include sharing injecting supplies, tattooing and piercing. Among prisoners, HIV cases are 8% higher compared to the normal population.<sup>841</sup>

In Turkmenistan, authorities only documented a total of two HIV cases at the end 2010 to the World Health Organization (WHO) Regional Office for Europe and the European Centre for Disease Prevention and Control. Besides the report of two HIV cases, Turkmenistan provides nearly no other data. It is thought that, as a result of the country's close location to Afghanistan and the drugs that are transported through Central Asia, the Turkmen population which injects drugs would be at great risk. Programs for prevention have been implemented in Turkmenistan with the help of the WHO and the United Nations Children's Fund (UNICEF) but there remains a need for the implementation of an adequate surveillance system. Unofficial reports suggest a serious and unacknowledged epidemic is developing.<sup>842</sup>

#### **IV. Tuberculosis**

Along with HIV, TB is a fast-growing health problem. Despite the fact that TB is an illness that is curable and preventable it continues to take many lives. Central Asian countries are critical areas of concern for Multi-Drug Resistant Tuberculosis (MDR-TB). Rates of this illness are extremely high in Azerbaijan and Kazakhstan. In general, MDR-TB cases among new TB cases are 12% higher in all nine post-Soviet countries.<sup>843</sup>

Kazakhstan is one of the top twenty-seven countries with the highest MDR-TB rates globally. Out of all the new TB cases in the country, 30.3% are multi-drug resistant. For reported MDR-TB cases at the national level in general, Kazakhstan ranks the fourth highest in the world with 51.3%. This places Kazakhstan with the highest proportion of new TB cases with MDR-TB. Within the next few years MDR-TB cases are expected to rise. The higher costs to treat TB in Kazakhstan complicate the situation. At the moment there are surveillance systems documenting drug resistance, which is the most constructive method for measuring drug resistance and observing trends.<sup>844</sup>

Azerbaijan is also among the top twenty-seven MDR-TB countries in the world. In contrast to Kazakhstan, which has 30.3% of MDR-TB cases among new TB cases, Azerbaijan's

rate is 22%. In comparison to other countries this is still a high number. In terms of MDR-TB cases as a whole, as of 2011 in Central Asia, Azerbaijan has the highest rates with 55.8% in Baku. Baku has a rate of 12.7% for Extensively Drug Resistant Tuberculosis (XDR-TB), which is the highest in the world.<sup>845</sup>

Furthermore, when people acquire both HIV and TB, the severity of the co-infection is even more alarming. TB is the leading killer of people with HIV.<sup>846</sup> HIV infected persons are 20 to 30 times more likely to acquire active TB than persons who do not have HIV. TB causes a total of one in four AIDS-related deaths.<sup>847</sup> What is also concerning is that the most vulnerable populations who are at risk are children and pregnant women. The risk of HIV transmission is twice as likely among women and children. As women and children are the pillars of society, and children are the future of the country, the health risks pertaining to these groups are ever more significant.<sup>848</sup>

Current international efforts to address TB problems involve WHO. Their current approach toward addressing the TB issue is through their “Stop TB” strategy that was started in 2006. The program aims to reduce deaths and cases of TB in the world by 2015. In order to reduce rates, cooperation of Central Asian countries in surveillance and reporting data is strongly needed. WHO also coordinates with the Stop TB Partnership, who joined with UNAIDS in 2012 to stop HIV/TB deaths. This collaboration has been done to try to decrease the amount of TB deaths among HIV infected people by 2015. As Central Asia is a critical area for both diseases they can benefit from this plan.

## **V. Policy Considerations**

There are several policy considerations concerning public health issues in Central Asia. The US could encourage educational health campaigns to educate the public about the health issues and try to reverse the negative stigma associated with HIV and TB. These could include education on risks of tobacco use and non-smoking advertisements through media. The inclusion of informative details on HIV and TB and encouragement of the public to seek treatment if infected would also be effective. The availability of offering guidance in tailoring healthcare programs toward most vulnerable populations will help target solving the issue. Also, encouraging countries to report data to the WHO and other international organizations will help assess the problems and accelerate the progress in reducing the rates of disease.

## **VI. Conclusion**

HIV and TB cause health issues in the Central Asian region both individually and through co-infection. In co-infection the health threats heighten. They both have severe negative impacts on youth and pregnant women. The degradation in the maternal and child health further highlights the dire need to address both health epidemics that are plaguing the region. US interests in maintaining a stable Central Asia will have to include investing in the health of its people in order to ensure better human capital and a stronger, economic and healthier future.

# Restrictions on Human Rights in Kazakhstan, Azerbaijan, and Turkmenistan

Orláith Duggan

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## Abstract

The human rights conditions in Kazakhstan, Azerbaijan and Turkmenistan are characterized by numerous abuses and restrictions. Irregularities in elections, threats to freedom of assembly, expression, religion, torture, and human trafficking can all be linked to the authoritarian rule in these Greater Central Asian countries. Civil unrest has led to protests, causing debate about the potential for an equivalent Arab Spring. This threat to stability and security affects US interests in society development and resource extraction. The US currently provides aid to promote media, train lawyers, and support civil society organizations and has the potential to partner with the EU to promote additional human rights. However, these Greater Central Asian countries could seek assistance from Russia and China, who do not have human rights contingencies on aid. The Central Asian states are appealing the international community with legislation that serves as an elusive democracy with hopes that the pressure for human rights will be lessened after the US withdraws from Afghanistan in 2014. The use of soft power throughout the region will become an increasingly important tool for the US in future negotiations and will demonstrate the importance of human rights to development in Azerbaijan, Kazakhstan, and Turkmenistan.



## I. Introduction

Numerous human rights restrictions have been documented in Kazakhstan, Turkmenistan, and Azerbaijan. The promotion of human rights is a central goal of US foreign policy. The US' definition of human rights derives from the US 1948 Universal Declaration of Human Rights (UDHR), which explains that human rights are inalienable and inherent fundamental liberties that a person possesses as a human being.<sup>849</sup> The UDHR explains that the end goal, recognition of these civil liberties for all human beings, is “the foundation of freedom, justice and peace in the world” as well as the promotions of “social progress and better standards of life in larger freedom.”<sup>850</sup> In Greater Central Asian countries, common mistreatments include: restrictions on freedom of expression- through press, media, and speech- freedom of assembly, freedom of religion, freedom from torture, and human trafficking. Corruption at the government level interferes with implementing polices to properly address these abuses.

Many of these human rights problems can be attributed to the authoritarian practices and laws of these countries' leaders. Radio Free Europe sees autocratic rule and weak governance as a serious threat to the security and stability of Central Asian people.<sup>851</sup> The NGO, Freedom House states, “The authoritarian temptation poses a threat even in Eurasian countries with recent histories of dynamic, if erratic, democratic governance.”<sup>852</sup> An example of this ‘temptation,’ is Azerbaijan’s President, Ilham Aliyev, who was deemed the ‘Organized Crime and Corruption Person of the Year’ by the Organized Crime and Corruption Reporting Project (OCCRP).<sup>853</sup> Reports from OCCRP and Radio Free Europe showed evidence from 2012 of “...[President Aliyev’s family’s] secret ownership stakes in the country’s largest businesses including bank, construction, companies, gold mines, and phone companies.”<sup>854</sup> Freedom House’s, *Freedom in the World 2013* reported that Azerbaijan and Turkmenistan “...remained some of the world’s most repressive states.”<sup>855</sup> Kazakhstan was cited as ‘less free’ than last year.<sup>856</sup> There is an intolerance of dissent and a blatant disregard for civil and political rights. Corruption is an obstacle to social and economic development.

The cycle of oppression and civil unrest creates a similar pattern in Kazakhstan, Turkmenistan, and Azerbaijan. Authoritarian rulers who want to stay in power regularly utilize ballot stuffing as a means to win elections.<sup>857</sup> Additionally, election and presidential term laws are frequently changed at the last minute. While citizens respond with protests and journalists

attempt to report these injustices, both are arrested or detained by the government. During detainment citizens may be tortured or otherwise abused. People become afraid to act out against the government, allowing these rulers to maintain their power and leading to the perpetuation of human rights restrictions. This cycle continually repeats, leading to larger and more serious forms of public demonstration and resistance. The irregularity of established rules for the government fosters instability and makes development difficult.

Policy that aims to strengthen human rights in Azerbaijan, Kazakhstan, and Turkmenistan can provide more stability and security within the region. Stability is favorable to allow for the successful extraction of resources within these countries, an economically beneficial outcome for US trading partners and Western Europe. Robert O. Blake, Jr. Assistant Secretary, Bureau of South and Central Asian Affairs, explains "...we do not see our engagement with Central Asia as an either-or choice between developing security relationships at the expense of core values like human rights. Progress on one issue can help reinforce, or create incentives for, progress on other issues."<sup>858</sup> Developing security in the region and promoting the values of human rights go hand-in-hand.

Mandating the improvement of human rights conditions would allow the citizens of greater Central Asia to have more power to impact their civil society. Focusing on promoting these fundamental freedoms to improve access to education would benefit scientific research and improve the extraction of the region's natural gas and oil resources. Greater economic growth from improved infrastructure is needed to support a middle class who desires involvement in its government and economy. Supporting human rights will help these states move beyond the outdated power and technologies left from the Soviet era and build toward regional autonomy.

## **II. Elections**

The right of citizens to change their government is restricted and inhibited in Kazakhstan, Azerbaijan, and Turkmenistan. Multi-party elections, with an active opposition, are needed as is political motivation for these parties to perform well. Leaders and parties will work to satisfy the public's needs and demands in order to be voted into office again. Citizens need to be given the opportunity to vote out inadequate politicians and voice their opposition to laws that they believe are oppressing their rights.

In April of 2012, Kazakhstan's president, Nursultan Nazarbayev won the uncontested presidential election with over 95% of the vote. The Organization for Security and Cooperation in Europe (OSCE) concluded the election had "serious irregularities."<sup>859</sup> In Kazakhstan, the president controls the legislature, judiciary, as well as local and regional governments.<sup>860</sup> President Nazarbayev has been in power since 1990 when it was still part of the Soviet Union. In 2000, legislation gave him some official powers for life. In 2007, constitutional amendments exempted him from terms limits.<sup>861</sup>

The irregularities extend beyond Kazakhstan's presidential elections. Elections historically have failed to meet democratic standards. In November 2012, President Nazarbayev decided to dissolve the one-party parliament and announced that elections for a two-party parliament would take place in January 2012. The OSCE and international observation missions noted irregularities with:

...numerous instances of seemingly identical signatures on voter lists; cases of ballot box stuffing; and proxy, multiple, and family voting, primarily caused by continued deficiencies in poll worker and voter education. Domestic observers reported significantly inflated turnout numbers, exceeding observed turnout by as much as 21%.<sup>862</sup>

The Central Electoral Commission of Kazakhstan removed candidates from party lists and de-registered parties due to "alleged inaccuracies in their documentation."<sup>863</sup> The OSCE also remarked that, "authorities did not provide 'the necessary conditions for the conduct of genuinely pluralistic elections.'"<sup>864</sup> The sudden nature of the election announcement did not allow candidates to properly campaign or prepare themselves.

According to the OSCE, the November 2010 parliamentary elections in Azerbaijan, "did not meet a number of key standards...for democratic elections."<sup>865</sup> Although over 50 political parties, including opposition parties, participated in the elections, international and domestic observers found irregularities. Reportedly, the elections held "[a] biased candidate registration process, constraints on freedom of assembly and expression, a restrictive political environment, unbalanced media coverage of candidates, and unequal treatment of candidates by authorities."<sup>866</sup> The opposition parties were prevented from holding routine party activities, experienced harassment, and were arbitrarily arrested and detained. Parties that favored the current regime received more coverage and were awarded more positions. In contrast opposition parties faced a restrictive campaign environment, with limited campaign days, no opportunity for

public debates, and minimal television coverage. Azerbaijan's restrictive political environment created an unequal playing field for candidates.

Past elections in Turkmenistan's have also failed to meet international standards. President Berdymukhamedov has been in power since 2007. In January 2012, a law was adopted to allow political parties, other than the ruling party, to register for elections. The Institute for War and Peace Reporting explains that the President is aware that the international community is watching so he publicizes 'his ostensibly democratic intentions.'<sup>867</sup> However, the Institute also says this could be a way to implement change in a gradual and controlled manner.<sup>868</sup> The new law did not stop President Berdymukhamedov from being reelected president with 97% of the vote and a 97% voter turnout on February 12, 2012.<sup>869</sup> The OSCE felt competitive voting conditions were lacking to such a degree that it did not even send an election observation mission. Issues with the elections included opposition parties not being able to operate within the country. Article 93 of Turkmenistan's constitution, "...guarantees the right of political parties to nominate candidates in conformance with electoral law. No such electoral law exists, however, which deterred the participation of opposition candidates."<sup>870</sup> There were other obstacles involving candidate registration, limitations to campaigning involving freedom of expression, and an insufficient process for complaints and appeals.<sup>871</sup> The laws of Turkmenistan make it hard for the current ruling party to be challenged, allowing President Berdymukhamedov to maintain his position as president without opposition. Restrictions involving elections, in these countries, perpetuate corruption and oppression of rights.

### **III. Freedom of Assembly**

The right of citizens to protest their government or employers is restricted and inhibited in Kazakhstan, Azerbaijan, and Turkmenistan. Kazakhstan's laws limit freedom of assembly. The law defines, "unsanctioned gatherings, public meetings, marches, demonstrations, and strikes that upset social and political stability" to be national security threats.<sup>872</sup> These vague procedures make it difficult for meetings and demonstrations to be organized. The process is further hindered due to authorities turning down applications for demonstrations.

On December 16, 2011, protests in Zhanaozen, Kazakhstan highlighted the neglect of human rights in the region. Human Rights Watch reported the police opened fire on striking oil workers, killing twelve<sup>873</sup> and wounding nearly 100.<sup>874</sup> The President responded that the police

were acting within the law. The oil workers had been staging protests over union rights, pay, and working conditions since May of that year. Seven activists and protesters were imprisoned for organizing and participating in the protests, but the ones accused claimed they were tortured by police for confessions.<sup>875</sup>

In September of 2012, a human rights group accused oil companies and Kazakhstan's government of abusing and repressing oil field workers.<sup>876</sup> The New York Times wrote that Western energy companies invested in the region had "...brushed off the unrest as characteristic of the poor management of older, Soviet-style enterprises."<sup>877</sup> If US investments are to regularly occur in this region these abuses and restrictions must be properly dealt with. Mihra Rittmann, Human Rights Watch researcher for Central Asia stated,

It's risky to partner with a government that intimidates, harasses and jails workers who stand up for their rights...Companies and governments that are interested in Kazakhstan because of its oil resources need to be aware of the human rights problems and take steps to make sure that workers' rights are respected and avoid abuses.<sup>878</sup>

Kazakhstan's citizens need stable working environments. The US would prefer to work with Kazakhstan if its practices are in line with US humanitarian standards. Therefore, encouraging Kazakhstan to improve humanitarian conditions and acting to aid human rights would allow the US to pursue its economic interests in Kazakhstan without disrespecting its own values.

Rittmann explains, that the US and European countries "should expect [Kazakhstan] to respect human rights if [Kazakhstan] wants to be respected on the international stage" as a trading partner.<sup>879</sup> In the domestic and international sphere Kazakhstan can only benefit from protecting human rights as it strengthens its internal work force through respect of worker needs while additionally strengthening the international community's approval of their practices.

Facilitating a stable environment is an important goal in Azerbaijan as well. On January 23, 2013, rioting led to clashes between police and protesters in Ismayilli, Azerbaijan. Protestors chanting "Resign" and "Freedom,"<sup>880</sup> comments directed at Azerbaijan's President Illham Aliyev, were hit with water cannons, tear gas, and rubber bullets by police. As protests escalated, the city went under lockdown. According to news source, Eurasianet.org, President Aliyev, "...controls most economic opportunities while steadily restricting civil rights."<sup>881</sup> According to Al Jazeera's reports the incident, "...reflected frustration at what some Azeris see as an overbearing government, corruption and a large divide between rich and poor in the mostly Muslim Caspian Sea nation of nine million where many lack jobs, money and prospects."<sup>882</sup>

Public unrest is increasing due to poor living conditions. Lack of public voice in government coupled with the failure of working people to receive return on the country's economic gains leaves the population dissatisfied with current practices and without safe channels to express their needs. The events in Ismayilli triggered further protests in Azerbaijan's capital, Baku. On January 25, 2013 over 100 activists gathered to protest President's Aliyev's regime with the same chants of "Freedom."<sup>883</sup> Police eventually stopped the protest and arrested 40 demonstrators. Similar political protests occurred in March and April of 2012, leading to the imprisonment of peaceful demonstrators.<sup>884</sup> Police often use force to break up these events. Although Azerbaijan's laws allow for peaceful assembly if authorities are notified in advance, in practice the government restricts this right. The government interprets this as a requirement for preapproval, even though requests are often denied. Rallies are also required to take place in designated locations, away from city centers.<sup>885</sup> Most political parties and NGOs see these requirements as unconstitutional restrictions.<sup>886</sup> The rising civil unrest raises concerns over the country's stability for economic investment and hints at the potential for what may be the next 'Arab Spring'.

Similar to Azerbaijan, the constitution and laws of Turkmenistan allow for freedom of assembly. In practice the government restricts this right. There are minimal reports of protests in the region as information on public assembly is limited and censored. Permits from registered organizations are required for public meetings and demonstrations, however authorities did not grant a single one in the past year.<sup>887</sup> The restrictions on freedom of expression and association provide additional barriers making it difficult to assemble people for public demonstrations. While citizens are unable to voice their objections to the government, non-state actors such as NGOs can do little to help with only eight of the 98 NGOs in Turkmenistan recognized as independent.<sup>888</sup> The restrictions on freedom of assembly in Turkmenistan, Azerbaijan, and Kazakhstan increases citizen's resentment and tensions with their governments.

#### **IV. Freedom of Expression**

Human Rights Watch considers freedom of expression, "the foundation of every free and democratic society." The US' motivation in promoting human rights shows it has similar ideals. Freedom of expression is vital for citizens to express their needs and wants as well as to keeping a government accountable to the needs of its population. Restricting freedom of expression,

whether through limiting free speech or limiting forms of media, like the internet, TV, or press, allows abuses, such as failure to compensate worker's through rights, pay, or unions, to remain unreported. This inhibits country's ability to flourish politically and economically because workers are unable to function at their full capability and investors may look elsewhere to companies who respect their workers' rights.

The governments of Kazakhstan, Azerbaijan, and Turkmenistan impose similar limitations on the freedom of expression. In each case, the government, directly or indirectly, controls almost all media through subsidies or ownership through officials or family members. Journalists known for covering anti-government protests or writing critical articles about the President or government of their respective country's have been prevented from covering events, assaulted, arrested, harassed, and even murdered. The governments shut down or attempt to censor any anti-government publications and outbursts. If elections are contested or alleged to be 'rigged' by journalists or citizens, they are sentenced to prison.<sup>889</sup> Media activists are often jailed for 'inciting social discord.'<sup>890</sup> Websites are blocked and newspapers and television are often censored. These governments use these measures as a form of control to stay in power as they want to maintain their position and continue to reap the economic benefits of the region. When the public becomes restless and tries to speak out against these repressive conditions, it faces violent consequences. This fear prevents many citizens from taking action.

Incidents of limitations on expression are frequent in these countries. Shortly after the incident in Zhanaozen, Kazakhstan, the government began a series of court cases to shut down independent media outlets and opposition groups.<sup>891</sup> New national security legislation from January 6, 2012 makes 'damaging the image of Kazakhstan abroad' a criminal offence,<sup>892</sup> as demonstrated when opposition activists faced criminal charges after travelling abroad in March 2012 to inform international governmental organizations and foreign governments about the events in Zhanaozen.<sup>893</sup> Amnesty International objected to the General Prosecutor's Office's citations of 'extremism' as a valid explanation for closing down about 40 opposition media outlets and websites.<sup>894</sup> The heavily regulated suppression of media and expression in Greater Central Asia has hindered political and economic openness as well as social development, fueling civil unrest.

## V. Freedom of Religion

Freedom of religion is restricted as a means to maintain government control over the population. Religious groups are therefore unable to use religion as a means to band together to form an oppositional force against the government. This carries over into restrictions on freedom of assembly. People are not allowed to practice or voice what they believe, even on a spiritual level.

In 2011, Kazakhstan imposed a new restrictive law on religion. According to Human Rights Watch it: “outlaws any practice of religion in association with others without state permission.”<sup>895</sup> The new law has forcibly closed hundreds of small religious groups.<sup>896</sup> Kazakhstan’s Religious Affairs Agency bans groups that violate this law and holds the power to inspect religious literature,<sup>897</sup> which essentially gives the state control over people’s choice of religion. These laws display the state’s obvious fear of people having associations outside the government. The lack of religious choice is something personal that the state has taken away and is a contributing factor to social unrest.

According to Amnesty International, Kazakhstan’s authorities targeted unregistered Islamic groups, parties, and organizations, which are banned. Authorities accused these Islamic groups of bomb explosions, suspected suicide bombings and violent attacks by unidentified groups throughout the country.<sup>898</sup> At least 35 people have been killed in these incidents. Human rights groups claim the government has used these attacks to tighten their control over religious groups.<sup>899</sup>

Azerbaijan has tightened its control on limitations to freedom of religion. Police are known to raid private homes on a religious basis. Human Rights Watch states that in December 2011, President Aliyev created legislative amendments that criminalized the illegal creation, distribution, and import of religious literature not approved by the state.<sup>900</sup> A new criminal code has been established to punish groups, founded under the guise of religion, who operate to “undermine social order.”<sup>901</sup> This is a preventative measure to ensure no religious groups are able to form that might protest the government.

Religious groups in Turkmenistan must be registered with the government. Unregistered groups are not allowed, but religious communities have not been able to register for years.<sup>902</sup> The government is also able to inspect religious literature and has banned religious ceremonies in government facilities.<sup>903</sup> Unregistered groups have been fined, raided, or detained. Those

engaging in religious activity, or publishing religious works without state approval, have been put in jail. Jehovah's Witnesses have also been imprisoned as conscientious objectors. Religious oppression is continually used as a tool to control citizens of countries in Greater Central Asia.

## **VI. Torture**

Torture has been used to extract confessions and punish detainees and prisoners in Central Asian countries. Torture is an assault on the dignity and welfare of a human being. Despite attention from the UN and NGOs, this treatment is still used as a method of psychological pressure and physical punishment.

Courts in Kazakhstan usually ignore defendant's allegations that officials obtained confessions through torture.<sup>904</sup> The UN Human Rights Committee commented on Kazakhstan's lack of "progress in eliminating torture and questioned the political will of the authorities to fulfill their commitment."<sup>905</sup> There have been reports of abuse, primarily beatings, from detainees and prisoners.<sup>906</sup> Kazakhstan's law prohibits torture, but human rights activists state that their definition of torture is too vague and does not meet UN standards.<sup>907</sup>

In Azerbaijan, domestic human rights monitors reported that 169 people in custody were tortured or abused in 2011 and 136 people in 2010. In 2011, nine individuals died in custody.<sup>908</sup> Activists detained after protests in March and April of 2012 spoke of severe beatings and threats of rape during their arrest and while in custody.<sup>909</sup> Amnesty International remarks that these allegations have not been properly investigated.

Authorities rarely carry out investigations into allegations of torture in Turkmenistan. There have been reports of torture and other ill treatment of human rights activists, journalists, and religious minorities. These abuses are carried out by police, officers of the Ministry of National Security and prison personnel.<sup>910</sup> There have also been reports of hazing and abuse within the military. Turkmenistan's Independent Lawyers Association and the Turkmen Initiative for Human Rights submitted a report to the UN Committee Against Torture, in which inmates in temporary holding facilities were reportedly beaten or raped by staff. The report stated, "...every second person [in the facility] was exposed to varying types of abusive treatment and torture."<sup>911</sup> Torture is an inhumane and inadequate method for the extraction of information as well as a violation of human dignity. This treatment led to increased attempts of suicide in the facility.

## VII. Human Trafficking

Human Trafficking is a concern along the borders of Greater Central Asian. Hundreds of adults and children are trafficked each year throughout these countries for the use of forced labor and sexual slavery. In the first seven months of 2012, 107 individuals were trafficked in Kazakhstan.<sup>912</sup> Since 2006, Azerbaijan has had 484 cases of human trafficking.<sup>913</sup> International organizations in Turkmenistan estimate 10 to 25 victims of human trafficking returned to Turkmenistan each month in 2012.<sup>914</sup> Rural poverty provides the conditions which allow for coercion into this modern day form of slavery. Human trafficking continues to increase as it is a lucrative business for illicit economies.<sup>915</sup>

Kazakhstan, Azerbaijan and Turkmenistan were all placed on the Tier 2 Watch List. According to the 2012 Trafficking in Persons Report, all three countries do not "...fully comply with the minimum standards for the elimination of trafficking."<sup>916</sup> However, each country is improving efforts to crackdown on trafficking. Azerbaijan has increased funding and legislation for protection services. Kazakhstan has trained more law enforcement officials. In 2012, the OSCE was allowed to hold seminars discussing how to reduce trafficking, how to recognize cases of abuse and held discussions about legal assistance and reintegration programs for victims.<sup>917</sup> Turkmenistan has convicted traffickers and supported NGO shelters. Overall, more needs to be done to protect victims.

## VIII. Policy Considerations

The US sees itself as a promoter and instiller of human rights. However, direct interference in these countries or enforcement of these rights would be overstepping sovereign boundaries. It is in US interests to engage these Central Asian countries at all levels, from the government, society, and the populace,<sup>918</sup> in efforts to improve and promote human rights throughout the region. Promoting human rights ideals and values will make relations between the US and these countries more cohesive and will help build relations with this region.

Currently, the US promotes human rights in the region through aid. The US seeks to provide support for freedom of expression and promotion of mass media. In 2011 the US assisted Kazakhstan with independent media production grants.<sup>919</sup> In 2012, the US continued to promote mass media by providing funding for a satellite news exchange project that allowed more private television channels to increase locally-produced content in Kazakhstan in hopes of

promoting more objective news coverage.<sup>920</sup> In Azerbaijan, the US has assisted with increasing media forums, such as blogs, to discuss social issues.<sup>921</sup> This increases the availability of environments for free expression.

Judicial reform is expanding by educating candidates, justices, and attorneys in universities and court systems in the region.<sup>922</sup> This provides a better understanding of rights and drafting laws. Support has been given to civil society organizations (CSOs). CSOs help build partnerships with the government and growth for civil society.<sup>923</sup> The US has also continued monitoring the enactment of the National Human Rights Action Plan for 2009-2012 which focuses on improving legislation and law enforcement in Kazakhstan.<sup>924</sup> The US promotes democracy commission programs in Turkmenistan; working with counterparts to bring legislation into compliance with international legal norms.<sup>925</sup>

In the past, the US has placed aid restrictions on countries that do not respect human rights.<sup>926</sup> Radio Free Europe suggests, “The West should offer pragmatic aid but be wary of providing security tools that might be turned against domestic protesters.”<sup>927</sup> From Radio Free Europe’s perspective, these authoritarian governments could use this aid for their own purposes, while further constraining human rights.

The European Union (EU) is both a partner to the US and a large promoter and supporter of human rights. Promotion of human rights could be leverage with these Central Asia countries because the regimes “are interested in having good links with Europe beyond the growing trade relationship.”<sup>928</sup> In the past, the EU has organized human rights dialogues with countries in the region.<sup>929</sup> The European Parliament also passed resolutions condemning incidents of restrictions of human rights in these countries.<sup>930</sup>

Issues in promoting rights for the EU have arisen as “Russia and China do not share Europe’s view... [and they] have criticized Western policies in Central Asia, denouncing interference in internal affairs in the name of human rights and democracy promotion.”<sup>931</sup> This promotion is seen as interfering with a country’s autonomy. However, Russia and China are known for their human rights abuses. The promotion of human rights is an international responsibility. If the US is to uphold its claim that people inherently possess these rights, they must stand against abuses. The Europe-Central Asia Monitoring also considers the emphasis on human rights to be challenging due to “...the authoritarian nature of the Central Asian regimes.”<sup>932</sup> Despite the EU’s positive stance, it is not always rigid about its promotion of human

rights. “The European desire to diversify gas export routes in order to reduce its dependence on Russia has led to a relaxation of EU human rights pressure on Turkmenistan”.<sup>933</sup> A balance needs to be determined with rights promotion and resource needs.

One obstacle for the US in promoting human rights is the Central Asian concern that human rights are seen as a ‘vehicle for Western interests.’<sup>934</sup> NGOs that receive foreign funding are labeled as ‘foreign agents’ in order to provoke public hostility against them.<sup>935</sup> Promoting human rights is sometimes interpreted as a new form of imperialism. Therefore, rights need to be implemented without seeming threatening to the Central Asian regimes. To please the international community and deter human rights promotion these authoritarian countries create the illusion of democracy. The Institute on War and Peace Reporting commented that legislation in Turkmenistan “...is no more than window-dressing to impress the international community.”<sup>936</sup> The US should not be fooled into thinking that, because legislation appears democratic, it is actually democratic in practice. Economic growth in countries such as Russia, Azerbaijan, and Kazakhstan has led to “...increased repression against civil society, and appeared to reinforce the indifference of state authorities towards the recommendations of international human rights bodies.”<sup>937</sup> More wealth in these countries motivates leaders to keep the wealth among themselves, rather than spreading it throughout civil society, contributing to the repression of rights.

The Greater Central Asian countries question US intentions in the region. As the non-profit, Asia Society explains,

Because US engagement in the region is perceived to have an expiration date—the looming withdrawal of US troops from Afghanistan—Central Asian governments feel that they can be excused for treating the American presence as a temporary phenomenon, one to be exploited for financial and geopolitical gain but not to be taken too seriously on matters of governance and human rights.<sup>938</sup>

The US needs to show that it wants its relationships with Greater Central Asia to extend beyond 2014 and that US intentions in the region extend beyond self-interests in Afghanistan. Radio Free Europe points out that “...Western interest in helping Central Asia [after the pullout from Afghanistan] will increasingly depend on whether freedoms expand and human dignity is respected.”<sup>939</sup> The US’ efforts to enforce human rights need to be taken seriously.

## IX. Conclusion

Values in the US and these Greater Central Asian countries may currently conflict and democracy may not be the desired government for these countries. Additionally, citizens may not even see democracy as the answer to their problems. However, right now democracy is the most effective choice of government to relieve oppression and bring effective change.

The US sees the OSCE as a ‘democracy promoter.’<sup>940</sup> Therefore, further partnership and support of the OSCE would be beneficial as it would increase the US’ partnership with Europe in the promotion of human rights. Also, improving the relationship between Central Asia and Europe can only benefit the US since Europe is one of the US’ strongest allies and trading partners. Strengthened ties between the EU and these countries will likely strengthen US relations with the region as well. However, the US needs to find a balance between economic and resource interests and the desire to promote human rights.

Elections in Greater Central Asia are another point of difficulty. While the US wants stability within the region, acknowledging these leaders, despite irregularities within elections, legitimizes the corrupt leaders and undemocratic elections. The restrictive acts of these country’s leaders clearly contribute to the cycle of oppression of citizen’s rights. While these current leaders are in power, the US needs to maintain its soft power influence and generally good relations. The region’s leaders need to be in an open dialogue with the US about these issues and should be encouraged to pursue reforms. The adoption of human rights needs to come from the clear practice of laws by these leaders as well as be acknowledged and valued by the citizens. Through soft power, when and if a power shift occurs, the US will already have its influence and values in place.

There is debate over whether or not events similar to the Arab Spring will occur within this region. With recent antigovernment protests, particularly in Azerbaijan, the US should not disregard the chance of revolution. The US needs to be prepared for such events. The people of this region are tired of being oppressed and not having a voice in their government. US needs to continue to promote human rights and democratic values through soft power in case of a regime change.

The US cannot simply put trade or policy sanction on these countries because they will just turn to Russia or China whose foreign policy has less of an emphasis and rhetoric on human rights.<sup>941</sup> Ignoring these abuses is not an option either. If the US continues relations, trade,

investment, and extraction within this region amidst protests, freedom of expression limitations, corrupt elections, torture, and trafficking; it is only fueling the restrictive practices and process.

# Refining Education

US role in restoring the education systems of Kazakhstan, Azerbaijan, and Turkmenistan

Katherine MacDonald

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### **Abstract**

After the collapse of the USSR, the Caspian littoral states of Azerbaijan, Kazakhstan, and Turkmenistan worked to reclaim and rebuild their education systems. However, these countries have yet to bring their academic institutions up to contemporary standards. As a result students' knowledge base and job prospects have suffered, burdening countries which already suffer from high rates of unemployment and poverty. The inability to provide workers to fill key technical positions compromises the capacity of these countries to effectively, independently, utilize and market natural resource wealth. If these countries are to achieve the progressive social, economic, and political conditions desired by the US, greater educational reforms are needed. Currently, all three nations face particular difficulty in achieving high standards of curriculum development and provision, teacher training, and school maintenance. Investment in these sectors could be fostered through US provision of conditional funding, personnel expertise, and supplementary programming.

## **I. Introduction**

For 74 years, education across Greater Central Asia was centrally planned by communist authorities in Moscow. The Soviet education system dramatically increased literacy among the population; however it failed to promote the rise of a regional intellectual and professional class. Upon the collapse of the USSR, central Soviet control of the education system ended and new leaders worked to create independent ministries of education. In the 22 years since independence, the former communist republics have now each fostered a generation of youth whose academic studies have been fully provided by the new states. However, these countries have struggled to bring academic programming and infrastructure up to modern standards and gaps persist in all levels of education.

Despite massive oil and natural gas wealth, the Republics of Azerbaijan, Kazakhstan, and Turkmenistan are among these struggling former Soviet states. Evaluating the successes and pitfalls of these respective education systems and identifying areas for potential US assistance, is crucial to US regional objectives of promoting stability and national prosperity. As Azerbaijan, Kazakhstan, and Turkmenistan are located in a strategic geo-political region and possess the potential to become energy powerhouses, the ability of their educational system to promote human capital is directly tied to Greater Central Asia's overall social stability and potential for future economic growth, including the development of energy resources.

US assistance to international education generally focuses on secondary and post-secondary schooling. However, deficiencies in pre-primary and primary education also mandate examination. Problems in these formative years of schooling prevent students from adequately achieving a foundation from which to build their knowledge and future academic pursuits.<sup>942</sup> Thus, in the struggle to provide Central Asian students with the technical and professional skills necessary to participate in the job market, effective US support could be distributed through a widespread approach addressing deficiencies in the curriculum, quality of teaching, and physical academic infrastructure in all grade levels.

## **II. Strategic Importance of Education**

With populations living and learning at the cultural, political, and economic intersection of Chinese, Near Eastern, and Russian spheres of influence, education in Azerbaijan,

Kazakhstan, and Turkmenistan takes on critical importance for the US government. If the youth of these countries are provided quality academic training, building a capacity for innovation, democratic values, critical thinking, and technical skill, they will have the power to affect positive change within their countries and regionally. Well-educated youth who are adequately prepared to enter a modern workforce are foundational to the stable, productive societies necessary to promote democratic institutions, economic diversification, prosperity, and foster the next generation of leaders. Alternatively, a lack of sufficient educational opportunities leads to an inability to advance personal and national welfare, conditions which correlate with dissatisfaction among youth and society at large.

The world was reminded of the power of disaffected youth to catalyze and mobilize instability during the 2010-2011 uprisings in the Arab world and potential for comparable movements also exists in Azerbaijan, Kazakhstan, and Turkmenistan. All three nations have relatively high unemployment and numbers of youth, which poses a threat to social stability within and outside national borders. Enthusiasm for revolt could spread to neighboring republics or Afghanistan, which has similar economic and demographic pressures. Currently, Azerbaijan's youth are 23% of the population, face 14% unemployment in ages 14-24, and endure conditions that push 11% of the population under the poverty line.<sup>943</sup> In Kazakhstan, youth form 21% of the population and experience 15% unemployment.<sup>944</sup> However, they have benefited from improving conditions, wherein only 8% of the population lives under the poverty line compared to 35% in 1999.<sup>945</sup> Most at risk for unrest, Turkmenistan was ranked 109<sup>th</sup> out of 177 countries in the United Nations Development Program (UNDP) Human Development Index (HDI), with 30% of the population under the poverty line.<sup>946</sup> Widespread poverty is exacerbated by 60% unemployment,<sup>947</sup> which leaves youth (over 40% of the population<sup>948</sup>) with little prospect for the future.

Providing physical academic infrastructure and developing quality educational programming that responds to gaps in the national workforce is crucial to alleviating youth dissatisfaction and impending social instability. Thus, monitoring and evaluating the reality of these educational institutions, in addition to exploring new ways to support students in Azerbaijan, Kazakhstan, and Turkmenistan is critical to advancing the US Department of State goals of aiding regional stability, welfare, and economic growth.<sup>949, 950, 951</sup> Improving education in these countries is not a panacea. However, it can equip students with the skills and technical

expertise necessary to gain professional positions, especially in the IT, energy, and management sectors.<sup>952</sup> If the education system continues on its current path, skilled and professional positions will be filled by foreigners, which is contrary to US regional objectives of building a strong independent capacity for leadership and resource management. Additionally, developing a highly educated population is likely to increase potential for future economic innovation and diversification, leading to key US hopes for the region including job growth, greater national welfare and increased overall stability.

### **III. Azerbaijan**

#### ***Recent History and Context of Education***

While educational opportunities in Azerbaijan have existed for centuries through the Islamic *madrasah* system, participation in academics did not become widespread until the territory's inclusion in the USSR. The communist controlled education system achieved near universal literacy and built thousands of academic institutions, using Azeri as the primary language of instruction.<sup>953</sup> In 1991, full responsibility for the education system was turned over to the Azerbaijani Ministry of Education, with the Cabinet of Ministers implementing educational legislation and overall strategy.<sup>954</sup>

Except for the elimination of Communist ideological content and re-introduction of religious lessons, few significant changes were made to the education system immediately following independence. Emphasis remained on lectures, rote memorization, and recitation.<sup>955</sup> Azerbaijan has since struggled to keep pace with international educational achievement. In the Operation for Economic Co-Operation and Development's (OECD) 2006 Programme for International Student Assessment (PISA) Azerbaijan took the third lowest rankings in student performance for math and science out of 54 countries.<sup>956</sup> This is problematic in light of Azerbaijan's desire to increase the number of trained experts in the fields of science, technology, and pedagogy.

#### ***Structure, Successes, and Challenges in the Education System***

Compulsory education in Azerbaijan is divided into four levels: pre-primary, primary, which comprises grades 1-4; basic secondary, which includes grades 5-9, and secondary which includes grades 10-11.<sup>957</sup> However, an 11 year program does not easily allow students to transfer

to Russian and European universities, which are typically based on 12 years of compulsory education. To remedy this problem, in 2012 Azerbaijan announced it would instigate 12 years of compulsory education by 2020.<sup>958</sup>

Despite a general consensus among education advocates that pre-primary education builds an important base for future academic pursuits,<sup>959</sup> pre-primary school is not mandatory in Azerbaijan.<sup>960</sup> Therefore, little has been invested in up-keep of pre-primary facilities and improvement of curriculum. Currently, 70% of Azerbaijani pre-primary schools are housed in buildings which were not designed for education and 65% need renovation.<sup>961</sup> In light of these problems, parents have questioned the merit of pre-primary school and only 20% of eligible children attend these programs.<sup>962</sup>

While pre-primary education has been neglected, there has been a push to improve the physical conditions of primary and secondary schools. By 2007, the government of Azerbaijan had built 170 new schools, repaired 630 secondary schools, and worked to improve student access to IT resources. But, physical infrastructure is not the only aspect of education in need of restoration and mounting problems have strained the state budget. The Azerbaijani education system generally lacks adequate financial resources, with only 2.8% of national GDP devoted to education, which is low compared to other developed nations.<sup>963</sup> Resulting budget shortfalls have left important areas of education, such as textbooks, underfunded. As of 2003, only 70% of primary school students received free textbooks and all children in grades 5-11 must purchase their books, which is problematic given high rates of poverty in both rural and urban areas.<sup>964</sup> Additionally, textbooks are usually outdated, hurting students' ability to gain the information needed to form a contemporary understanding of science and global societies. Low salaries for teachers also contribute to a decline in the quality of education. Lack of compensation and recognition results in few high achieving students being attracted to the profession and many current teachers seek second jobs, diverting their attention from the classroom.<sup>965</sup> A 2004 study commissioned by the Asian Development Bank (ADB) found that the majority of teachers in Azerbaijan were unqualified or under-qualified.<sup>966</sup> Lacking social or monetary incentives to provide high quality instruction and support, many teachers have begun to charge students fees for tutoring or extra help, exacerbating the income inequality that plagues the education system and threatens social equity and stability at large.<sup>967</sup>

Sharp socio-economic divisions within the population, caused by the relative success of Azerbaijan's energy industry, have led to stratified access to educational opportunities.<sup>968</sup> Students from low-income families have difficulty affording school fees, textbooks, and extra tutoring, which impairs their ability to perform competitively and may provide incentive to drop-out of school early to work.<sup>969</sup> Social pressures on poor students, such as bullying and hostile attitudes from teachers, are also reported to be prevalent.<sup>970</sup> Socio-economic divisions often correlate with a rural-urban divide, with better paying jobs, better educational funding, and better quality teaching in urban areas. Sub-standard educational opportunities in rural areas are likely to stall economic growth and increase the likelihood of social unrest.

The children of refugees and internally displaced persons (IDP) in Azerbaijan have been hardest hit by shortfalls in educational funding and academic infrastructure, due to their limited means, volatile social situation, and language barriers. Azerbaijan is estimated to have one of the largest IDP and refugee populations in the world (the majority of whom were displaced during the conflict over Nagorno-Karabakh and Chechnya).<sup>971</sup> A new policy enacted in 2011, which works in collaboration with the UNHCR, has sought to address difficulties IDP and refugee children face in the education system by placing Russian-speaking children in Russian language schools in Baku. Plans are still being made for children who do not speak Russian, including those from Afghanistan, Iran, and Iraq.<sup>972</sup> Improving opportunities for these vulnerable populations to advance personal welfare is crucial to promoting overall peace and prosperity.

Socio-economic barriers to education extend beyond compulsory education in Azerbaijan. Consistently, students from poor, rural areas are less likely to attend institutions of higher learning. According to a 2009 analysis of Azerbaijani higher education published in the Central Asia-Caucasus Institute Analyst, university admission rates in urban areas such as Baku and Surngait were close to 42%, while admission in rural districts like Aghsu and Saatli was between 16-19%.<sup>973</sup>

Public institutions of higher learning in Azerbaijan are tightly controlled by the state and have seen little change since independence. Specifically, the state continues to directly control the admissions process and entrance requirements.<sup>974</sup> Under this system 64% of applicants are not accepted.<sup>975</sup> In 2008, Azerbaijani universities had the lowest gross enrollment rates in the former Soviet bloc.<sup>976</sup> As such, many students have chosen to study abroad and in recent years

Azerbaijan has become the site of competition among international universities, vying for Azerbaijani student interest.<sup>977,978,979</sup>

### ***Current Debates in Education: The Role of Religion***

Of late, the Azerbaijani education system has been the scene of a heated debate between some Islamic communities and the state. Due to the potential for escalating tensions and the involvement of international players, it is crucial that the US remain aware of the progression of this discourse. Struggles began two years ago when authorities in Baku introduced a uniform for secondary schools with the stated intent of equalizing students.<sup>980</sup> But, the new policy has angered some Islamic groups and community members as the strictly implemented uniform prohibits girls from wearing hijab by not including a head covering.<sup>981</sup> In December 2011 protests were held in opposition to the unofficial ban during which many accused the government of “Islamophobia” and violating religious freedom. Strong responses regarding the ban were seen from Iran, where the Grand Ayatollah Naser Makarem Shirazi condemned the ban calling it “anti-Islamic.”<sup>982</sup> The struggle to define the boundaries of religious expression in the education system is likely to continue and escalate as the government negotiates its position with religion in the wider sphere.

## **IV. Kazakhstan**

### ***Recent History and Context of Education***

As the majority of Kazakhstan’s population led a nomadic lifestyle prior to forced collectivization under the Soviet Union, few permanent educational institutions existed in the pre-Soviet era. Education infrastructure was later developed almost entirely by communist authorities. The independent Ministry of Education and Sciences (MES) has since struggled to reinvent the education system.<sup>983</sup> From 1991-1995, Kazakhstan saw an 11% drop in overall enrollment, a possible result of post-independence socio-economic disruption.<sup>984</sup> Since this time, the education system has made continuous improvements and educational reform has become more systematic.<sup>985</sup> However, education in the country has not transitioned from the Soviet model, which some see as an impediment to progress. In 2012 Irinia Smornova, Head of the Ar-Namys Association for the Protection of Teachers, said “We’re talking about [an era of] globalization but [today’s] schools are almost exact copies of Soviet schools...in both

methodology and authoritarian management style.”<sup>986</sup> Ratings from organizations monitoring international education also signal that Kazakhstan has failed to sufficiently upgrade their system. The nation scored 59<sup>th</sup> out of 65 countries in the most recent OECD PISA.<sup>987</sup>

### ***Structure, Successes and Challenges in the Education System***

Mirroring Azerbaijan’s education structure, the Kazakhstani education system is separated into four stages: pre-primary (1-6 years old), primary (grades 1-4), basic secondary (5-9), after which they are eligible to enter vocational and senior secondary school (10-11).<sup>988</sup> Also like Azerbaijan, Kazakhstan recently put in place a new law to extend compulsory education to 12 years by 2025.<sup>989</sup> While reforms like these have helped to enrich the education system, stronger in-school programming and greater financial support is needed to adequately prepare students for the professional and technical work necessary to build a strong diversified national economy.

Prior to independence the Kazakh Soviet Socialist Republic (KSSR) had a strong tradition providing pre-primary programming and an estimated 50% of children received pre-primary education free.<sup>990</sup> But, this system was most often tied to workplace situations put in place by the communist government and thus ended upon independence. To address this collapse, in 1992 the government required that children age 5-6 attend kindergarten.<sup>991</sup> However, reforms in this level of education were not enacted until recently, prompting a jump in attendance to 83% in 2010 from 11% in 1998.<sup>992</sup> Primary school curriculum focuses on numeracy, literacy, and foreign languages. There is little science education until students enter secondary school, which presents an obstacle to producing a local class of science and technical professionals.<sup>993</sup> However, the MES has reported that it is in the process of updating textbooks subjects.<sup>994</sup>

While secondary schooling has received more attention than pre-primary or primary, grades 4-11 are still underfunded, leading to many of the same issues faced in Azerbaijani and a similar decline in educational quality. Secondary school is technically free in Kazakhstan. However, numerous fees are associated with schooling, including the cost of textbooks, supplies, basic school fees, meals, proper attire, etc.<sup>995</sup> These costs burden impoverished families and can discourage parents from sending their children to school.

Lack of educational funding also heavily afflicts teachers whose wages are only 60% of the national average. A report published by the United Nations Education, Scientific, and Cultural Organization (UNESCO) stated that teaching wages in Kazakhstan have decreased since 1993.<sup>996</sup> Students have little incentive to become teachers and teachers have little incentive to perform at high standards. The UNESCO report further found that 18% of urban teachers and 42% of rural teachers do not have the minimum qualifications required by the MES.<sup>997</sup> Teachers have requested more training, but it has yet to be provided.<sup>998</sup> The high proportion of rural teachers not properly trained contributes to rural schools consistently performing worse than urban schools, increasing socio-economic stratification and the potential for economic stagnation in rural areas.<sup>999, 1000</sup>

In addition to the negative repercussions of budget shortages upon the quality of instruction in the classroom, financial woes in the Kazakhstani education system have also left classrooms in desperate need of repair. The UNDP stated that “the funds allocated for such expenses as schools maintenance, purchase of training equipment and materials, major repairs, replacement of school buildings that cannot be repaired, and new constructions are not sufficient.”<sup>1001</sup> Rundown classrooms are not conducive to a productive learning environment, further impeding access to quality education in Kazakhstan.<sup>1002</sup>

Despite foundational problems, the government has begun a high-priced project entitled the Nazarbayev Intellectual Schools (NIS). These 18 planned schools are intended to modernize education; however they will likely only impact a small segment of the population. Equipped with technology to prepare students for in-demand jobs in IT and the sciences, and housed in new buildings, the elite NIS are to be attended by select students from grade 6 to 11.<sup>1003,1004</sup> According to plan, best practices developed within these schools will be implemented within the general education system. Currently the NIS exist outside the purview of the MES and are controlled directly by the Presidential administration. At a high price and initially benefiting only a select few, the state-of-the-art NIS stand in stark contrast to the dilapidated and underfunded state of the general educational system.

Greater financial resources have also been provided to higher education, with a focus on improving relations with foreign universities and opening up opportunities for international education.<sup>1005</sup> Important to this endeavor has been a movement to align Kazakh colleges, universities, and technical schools with the Bologna Process, a series of reforms and agreements

designed to promote transparency in higher education systems and the use of common tools for gauging academic qualifications, in order to ease and increase exchanges and connections between western universities. English is seen as the language of international education and promoting its use in schools, as both a second language and instructional language, has become a new priority for the Kazakh government.<sup>1006</sup> It is hoped that a good command of English will increase students' academic mobility, help them conduct research, and allow for the employment of visiting professors and guest lecturers. According to Dr. Mukash Burkitbayev, the vice rector of Al-Farabi Kazakh National University in Almaty, a considerable number of English learning centers have recently opened up with the help of the British Council and Norway.<sup>1007</sup>

Currently, in Kazakhstan new projects with high publicity and specialized academic value are underway, but these projects have the potential to take away funding from foundational reforms in the education system. But, government investment in education is low by international standards. It is estimated that the Kazakh government does not allocate more than 3.6% of the national GDP to education, despite the 6% recommendation made at the 2007 UNESCO World Education Forum.<sup>1008</sup> Abundant natural resource wealth means the government may have the means to strengthen the education system by addressing foundational problems and promoting new projects through a more generous allocation of funding.

### ***Current Debates in Education: the “Kazakh-ification” of schools***

Over the past two years, schools across Kazakhstan have begun transitioning from using Russian to Kazakh as the primary language of instruction, a process which has been popularly termed “Kazakh-ification.” The government hopes that by introducing Kazakh in schools, offering classes in workplaces, as well as expanding Kazakh language media, the entire population will be able to speak Kazakh by 2020.<sup>1009</sup> This trend came to international attention in 2011, when the parents and teachers of two schools brought nearly 300 suits against the state for switching the language of instruction to Kazakh.<sup>1010</sup> Nearly 1,200 children that did not speak Kazakh were required to transfer schools.<sup>1011</sup> In this way, a policy which sought to revitalize national identity has begun to divide the country along linguistic and ethnic lines. Programs addressing shortfalls in education should be sensitive to this issue.

## V. Turkmenistan

### *Recent History and Context of Education in Turkmenistan*

Similar to Kazakhstan, Turkmenistan's population was mainly nomadic prior to incorporation into the USSR and had little traditional academic infrastructure. Under Soviet instruction, nearly universal literacy was achieved and schools were built. The educational system which achieved this feat was largely kept in place after independence and the void left by Communist ideological instruction was quickly filled with a new state ideology. The new dogma was purported by the country's first president, Saparmurat Niyazov, embodied in his spiritual treatise the *Ruhnama*, which espouses the virtues of Turkmen people and grants life advice.<sup>1012</sup> This work became key instructional material.<sup>1013</sup> Heavy use of the *Ruhnama* in schools played into an informal educational policy that prioritized political indoctrination and uniformity of thought.<sup>1014</sup> This process was reinforced by the 1996 switch from Cyrillic to Latin script, after which students were cut off from the nation's intellectual heritage, as many books on history, culture, and science were not translated into the Latin Turkmen script.<sup>1015</sup> In harsh condemnation, the International Helsinki Federation said that Niyazov's administration did not aim to educate, but rather "to enforce propaganda and to prevent children...from critically analyzing the political regime."<sup>1016</sup>

While interpretations of the rationale behind post-independence education in Turkmenistan remain contentious, there is little debate that few educational investments were made outside of the mass introduction of the *Ruhnama*. School maintenance has been neglected and hundreds of schools across the country have fallen into disrepair. Few currently have properly functioning heat or plumbing.<sup>1017</sup> In 2000 rundown buildings were placed under greater pressure as classrooms became overcrowded following a presidential decree to reduce the number of teachers. In 2003 Niyazov introduced fees for higher education, which led to rampant corruption and the exclusion of low income students from colleges and universities. Former Turkmen Foreign Minister Avdy Kuliev stated in 2004 "the future success of a student does not depend upon knowledge acquired during years of study, but rather on his ability to pay professors for desired grades."<sup>1018</sup>

President Gurbanguly Berdymukhamedov was inaugurated in 2007 after Niyazov's death and vowed to restore the education system. As president, he runs the Cabinet of Ministers, which is responsible for the Department of Science and Education Activities. This department

coordinates the Ministry of Education.<sup>1019</sup> During his first year in office, President Berdymukhamedov extended compulsory and university education, reopened the Academy of Sciences, rehired teachers, commissioned new textbooks, restored social sciences to national curriculum, and raised monthly salaries for teachers by 40%.<sup>1020</sup> Unfortunately, these initial efforts at reform did not signify a new era for Turkmen education, as there have not been any further significant changes.

### ***Structure, Successes, and Challenges in the Turkmenistani Education System***

Excluding crèches, which provide programming for children up to three years of age, the Turkmen education system has three levels: pre-primary (ages 3-6), primary or “Sovat” (grades 1-3), and “Bilium” (includes grades 4-10). The Bilium stage is set to be extended to 12 years by the 2013-2014 school year.<sup>1021</sup> Turkmenistan is one of the few countries that mandates extensive pre-primary education, requiring children from ages 3-6 attend pre-school 16 hours a week. Class content is determined by the central government and generally focuses on reading, writing, and foreign languages.<sup>1022</sup> Attendance is high in the capital, Ashgabat, at 67%, but drops to 11% in outlying areas.<sup>1023</sup>

In Turkmenistan, primary education is the *Sovat* (reading and writing) stage of education. As the name suggests, highest priority is placed studying the Turkmen language and literature, with the next greatest focus on math. There is no natural science training at this stage.<sup>1024</sup> The *Bilium* (knowledge) stage of education, which is representative of secondary education, has been criticized by outside observers. A report by the Turkmenistan Helsinki Initiative said the *Bilium* system’s introduction “marked the system’s retrogression” and “resulted in a total crash of the educational system as such.”<sup>1025</sup> A particular area of concern has been the status of science and technology education, which as of 2010/2011 received low emphasis in secondary schools.<sup>1026</sup> New computers have been received by some schools; however the Internet is often blocked, damaging their usefulness.<sup>1027</sup> This comes despite a stated push by President Berdymukhamedov to modernize Turkmenistan, a venture requiring youth trained in science and technology from an early age. Catherine Fitzpatrick, a journalist for *Eurasianet*, commented that current efforts to industrialize are futile as the country lacks workers who can use the new technology.<sup>1028</sup>

The struggle to train students for the 21<sup>st</sup> century is further aggravated by a higher education system short on space and plagued by corruption. After secondary school, students

take a state exam. Upon passing they may enter a two-year program in preparation for higher education. However, after graduation students struggle to enter local universities. It is estimated that in 2011, 100,000 secondary school graduates competed for 12,000-40,000 places in universities.<sup>1029</sup> Parents are often expected to pay as much as US\$20,000 in bribes to ensure their children places, which means university education is often exclusive to the elite. In 2009 the Minister of Education, Muhammetgeldi Annaamanov, was fired after a scandal in which a teacher allegedly took US\$119,000 from prospective students.<sup>1030</sup> Those who cannot afford prices often go to university in Turkey or Russia.<sup>1031</sup> However, students have faced bans on studying abroad.

### ***Current Debates in Education: Restrictions on Study Abroad***

Since independence, students in Turkmenistan have attended school under the strict supervision of the state. In light of this policy, studying outside the country has periodically been very difficult. For several months in 2009, authorities put strict restrictions on studying abroad and 150 students were prevented from returning to studies at the American University of Central Asia in Bishkek.<sup>1032</sup> Those who have managed to gain an international education may face even tighter restrictions upon returning home.<sup>1033</sup> While students are abroad officials are known to visit their families and inquire about the students' activities, threatening that if they do not return to Turkmenistan soon they may not be allowed back.<sup>1034</sup> Despite threats and restrictions studying abroad remains popular. In 2012 there were an estimated 40,000 students studying abroad.<sup>1035</sup> Funding exchange programs are a common form of US educational aid and potential implications for Turkmen students who participate should be monitored.

## **VI. Endemic Problems in the Education Systems in Summary**

As a whole, efforts to promote educational reform in the last 22 years by the governments of Azerbaijan, Kazakhstan, and Turkmenistan have largely failed to move national education systems beyond their Soviet roots and invest enough financial resources to keep pace with international education standards. Although each country faces unique, complex challenges, all three also experience common hurdles: unsuitable schooling structures, inadequate numbers of up-to-date curriculum materials, limited training in the sciences and technology, rural/urban divides in the quality of education provided, and unofficial and official policies which create

financial barriers to education for low-income and refugee populations. Additionally, Azerbaijan and Kazakhstan both provide little to no investment in pre-primary education, curriculum development, and have underpaid and often under-qualified teachers. Turkmenistan faces a major hurdle in achieving widespread academic success due to high levels of corruption in the education system. Given the continuing difficulties in educational achievement in Azerbaijan, Kazakhstan, and Turkmenistan, the possibility of implementing revised or expanded policy action by the US government should be explored.

## **VII. Policy Considerations**

Located at a confluence of global interests, stability and prosperity in the energy- rich countries of Azerbaijan, Kazakhstan, and Turkmenistan are important to the US. Central to the success of these countries is the improvement of national education, which will promote the rise of Central Asian youth who can hold the technical and professional positions needed to effectively harness and market energy resources, promote economic diversification, and contribute to overall welfare. However, current educational conditions cannot provide students with the training needed to compete with a global workforce.

US support to educational reforms that address the roots of some of these deficiencies (outdated curriculum, teacher training, and inadequate academic facilities) would ensure that conditions improve, therein advancing US interests in the region. However, in providing assistance the US should remain mindful of the potential for overly aggressive intervention to form a dependency on US funding, a parallel education system and/or, hinder the development of strong national institutions and sustainable educational improvement. US interests remain grounded in seeing these countries foster a generation of independent, innovative youth, rather than short term programs impacting a select few. Therefore, effective US support, either through the development of new programs or the provision of consultation and expertise, would address two needs: long-term foundational education reform by national authorities and critical stop gaps measures to fill immediate needs in the education system. Below are listed key areas for US policy consideration.

## *1. Deficiencies in National Educational Programming*

Current shortfalls in all three countries' educational programming leave students unprepared for technical and professional positions. Ultimately, adapting curriculum and educational programming to prepare students for the demands of the 21<sup>st</sup> century global economy requires long-term planning and foundational reform, however without short-term responses to aid students currently in school, achieving the desired economic diversification and economic improvements in the near future is unlikely.

US support to students in Azerbaijan, Kazakhstan, and Turkmenistan may come by advocating and providing temporary funding for the establishment of free educational extra-curricular activities, which focus on areas on instruction weak in schools, such as English, IT, the sciences and support in applying to higher education. The implementation of these programs in rural and urban centers would give students equal opportunity to further develop their academic potential. Advocating for these opportunities, in partnership with local authorities, would build relationships, improve knowledge of English, promote a positive US image, and improve student ability to diversify local economies. "American Centers"<sup>1036</sup> in Azerbaijan, which provide free movie nights, American studies and English classes, libraries and internet, in combination with the services provided by "EducationUSA" Centers in Azerbaijan, Kazakhstan, Turkmenistan, such as higher education advising, may provide a model for programing which could be provided in these centers.<sup>1037</sup> Combining the services provided in these two types of centers may be more cost effective and increase the ability to help students and US interests.

Enriching curriculum may also come by increasing study abroad opportunities. Numerous study abroad programs exist for students in Azerbaijan, Kazakhstan, and Turkmenistan through the Fullbright Scholars Program, Future Leaders Exchange (FLEX), Global Undergraduate Exchange Program, and others. These programs advance student learning through study in the US and by motivating high quality work, diversifying knowledge sources, and by building cross-cultural relationships with Americans. Increasing opportunities for students to study abroad and partnerships with Central Asian universities would expand these benefits and alleviate current space shortages in Central Asian higher education institutions. Scholarships to study abroad targeting high demand fields, such as IT, the sciences, law, or business may also be offered. However, currently exchange programs are problematic as they can contribute to national "brain-drains," wherein students choose to stay in the US after

graduation. Future action in this area will need to account for this damaging result as it runs contrary to US regional objectives.

## ***2. Poor Quality Instruction***

Low teacher salaries and limited pedagogical training has resulted in poor quality instruction for students, particularly in rural areas. This has hampered the ability of rural students to gain an education and improve their local economies, resulting in socio-economic stratification and increased potential for social unrest.

Improving instruction may come by recognizing rural and urban teacher training needs, in combination with pressure from the US to increase wages, which could attract high-achieving students to the profession. This two fold approach could begin by engaging with local educators to raise their profile and teaching capacity. For example, the US could increase teacher's and policy maker's participation in international academic discourses by hosting in-country seminars and conferences or academic exchanges. Current opportunities exist for such exchanges through Fullbright, Teaching Excellence and Achievement (TEA), and other US government programs. However, these programs have a limited impact. In coordination with the government, hosting conferences on pedagogy or in-country trainings, where participants could learn and exchange best practices for educational development, may be a cost-effective option for expanding teacher training. In the past, the US has run teacher training programs in Azerbaijan through IREX. Running trainings through a third party, such as IREX, may make governments more receptive. To avoid forming a dependency on US programs to train teachers, equal stress should be placed on supporting and training education policy makers to enact national reform.

## ***3. Dilapidated Physical Infrastructure***

Derelict physical infrastructure and a lack of space in schools currently discourages students from attending school and gaining the skills needed to go on to higher learning and compete in the job market. The reconstruction of schools and classrooms would improve students' learning experience, encourage attendance, as well as increase national pride in the education system. US funding or support for these projects would promote a positive US image abroad. While corruption is endemic in the construction industry, it could be limited by oversight and releasing funds upon evidence of action.

#### *4. Lack of School Materials*

A lack of textbooks inhibits equitable access to knowledge. Students in rural areas and from low income families face particular hardship in gaining the necessary educational materials to achieve academically. In order to improve access to these materials the US government could offer grants on the national level targeted at updating and increasing the availability of textbooks, with the award recipient and amount based on feasibility, textbook design, and proposal. Stipulations requiring adequate distribution of textbooks to rural areas could be included. To avoid or limit corruption, funds could be distributed piece-meal, with fund distribution monitored.

#### *5. Foundational Problems in the Education System*

Many issues in the education systems of Azerbaijan, Kazakhstan, and Turkmenistan stem from problematic national policies, which need to be altered for long term educational achievement to occur. While the US could attempt to speed educational reforms by pressuring governments, economically through sanctions or politically by decreasing diplomatic ties, this would promote antagonism and is unlikely to produce the desired effect. A less reactionary approach could be taken by stipulating that any aid provided to the governments of these three countries be conditional, meaning that funds are released upon the fulfillment of negotiated terms such as improving curriculum, increasing funding for rural schools, raises teachers' pay, improving teacher training programs, increasing investment in pre-primary education or devoting a larger portion of the GDP to education.

US advocacy for national education reform may also come from clearly acknowledging regional academics to be a critical US interest. Publically congratulating or noting successes in Central Asian educational reform and conducting high level meetings with education officials may signal to Central Asian leaders the depth of international concern regarding the current status of education and willingness to monitor the situation. As all three counties strive to be seen as industrialized, modern, regional leaders, publically highlighting the need for national education reform may push leaders to address the issue.

## **VIII. Conclusion**

Support to international education systems has been a successful and mutually beneficial element of US policy for decades and it continues to be a critically important tactic for advancing US interests in Azerbaijan, Kazakhstan, and Turkmenistan. An evaluation of the current academic conditions and needs in these strategically important countries reveals that the national education systems of these three republics have yet to reach contemporary standards. Endemic problems in school maintenance and the quality of teaching and curriculum have hampered educational achievement, negatively impacting the potential for these three countries to see increased social welfare and diversified economies, with a highly trained technical and professional workforce. To speed the establishment of a quality education system in Azerbaijan, Kazakhstan, and Turkmenistan the US could support educational reforms by advocating for long-term foundational reform and assisting in providing short-term fixes to aid current students

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# Policy Recommendations

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*With the withdrawal of troops from Afghanistan scheduled for 2014, the stability of Central Asia as a region is the utmost priority of the US. Investment in strengthening security, as well as in the economic and social climates of the region is integral. Encouraging regional partnerships constitutes a central means toward achieving these objectives and establishing long-term stability. Presented herein are the most crucial policy items for US action in Central Asia.*

## Regional Cooperation for Common Security

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US Assistant Secretary of State for South and Central Asia Robert Blake reported an increase of almost 40% in security assistance from the US to the countries of Central Asia from 2011 to 2012.<sup>1038</sup> The trade of narcotics and the potential for a transnational terrorist threat are established concerns. To ensure the region's greater stability, efforts to coordinate states' leadership needs to be established and maintained, specifically with Kazakhstan and Russia. Investment in infrastructure to secure energy availability and economic prosperity will encourage long-term stabilization and integration of the region.

### Border Security

- **Form a US-Russia partnership for broader regional drug control strategy**

Institute a collaborative drug control strategy that includes Central Asia and Afghanistan. Be clear in communicating international community's long-term commitment to the Central Asian states. US should host open discussion with Russia on US military presence in Central Asia post 2014 to reduce tensions over long-term goals of the US.

- **Improve Kazakh border security in order to deter the proliferation of illegal nuclear materials outside of the country**

Set up talks with Russia and Kazakhstan to improve border security and the installation of radiation detectors at all borders throughout Kazakhstan in order to deter the proliferation of illegal, enriched uranium.

- **Strengthen the regional capacity for drug treatment and prevention**

The drug trade spreads addiction and HIV infection. The US should encourage Central Asian governments to strengthen their internal capacity to provide treatment and care to drug addicts and HIV patients by offering monetary support to countries that take steps towards implementing the frameworks outlined by the United Nations Office on

Drugs and Crime (UNODC). The US should put pressure on the Central Asian governments to offer treatment as an alternative to imprisonment.

- **US should avoid exaggerating perceived threats to security**

The rapidly increasing presence of China and continued influence of Russia in the region should not be perceived as threats to the US or US interests. Mutual development in the region should be stressed along with the desire that all participating partners prosper through integration and participation in the global market.

## **Development of Energy Infrastructure**

### ***TAPI***

#### ***Pipeline-***

- **Continue advocacy for the TAPI and against the TTAC pipeline**

The US should emphasize that the TAPI project is a Turkmen-Afghan-Pakistani-Indian project, not a US government project. However the US should help attract investment through the Overseas Private Investment Corporation and the US Trade and Development Agency. As TTAC could replace TAPI without the inclusion of both northern and southern Afghanistan, it undermines the US vision of a united Afghanistan.

- **Offer contingent financial assistance to Pakistan for discontinued pursuit of the Iran-Pakistan pipeline and implementing the TAPI gas pipeline**

Pakistan needs to withdraw its agreement with Iran for the Iran-Pakistan pipeline. The US must push for Turkmenistan, Pakistan, and India to stay on the TAPI project and to begin construction before 2014 as a confidence measure for a stable Afghanistan after US troops leave.

### ***Trans-***

#### ***Caspian***

#### ***Pipeline-***

- **Provide diplomatic assistance to resolve the dispute over the Kyapaz oil field between Azerbaijan and Turkmenistan to further negotiations over the Trans-Caspian pipeline construction**

The US should send its ambassadors from Azerbaijan and Turkmenistan to negotiations concerning the pipeline. Azerbaijan and

Turkmenistan must be re-assured that the project will be very beneficial to them, and that the US will counter any Russian or Iranian retribution towards its construction.

- **Hold the meeting in Brussels to demonstrate European support for resolution and a commitment to purchasing Turkmen and Azeri gas**

- **Encourage a collective security agreement in the South Caucasus**

Facilitate the establishment of a collective security arrangement in the South Caucasus, whereby Azerbaijan and Armenia are required to cooperate militarily. Encourage European financial and diplomatic support for the creation of this collective security arrangement.

- **Hold annual summits with the heads of each state in the collective until a settlement is reached in the Nagorno-Karabakh conflict**

Invite the US Secretary of State to attend, as well as representatives from Turkey and the Central Asian countries.

*Renewable  
Energy  
Resources-*

- **Set goals and standards for renewable energy policy**

Send US Representatives to forums, seminars, and conferences on renewable energy development in Azerbaijan, Kazakhstan, and Turkmenistan. Form joint commissions with the Caspian states to implement strategies and policies for achieving their target renewable share of total output.

- **Promote investment and research in renewable energy projects and technologies in the Caspian region**

Collaborate with Azerbaijan and Kazakhstan in creating feed-in tariff models to encourage private investment in renewable energy projects. Internationally, invite scientists and specialists from Azerbaijan, Kazakhstan, and Turkmenistan to the US to exchange information and expertise in renewable energy development.

*Water  
infrastructure*

- **Support interregional cooperation to resolve conflicts**

The recent resolution of the Rogun Dam displays the potential for greater cooperation among Central Asia states. The US should encourage greater cooperation among regional powers, specifically around the

demands of water for hydroelectricity and agricultural irrigation.

- **Increase FDI to improve irrigation methods, specifically drip water irrigation and canal beds**

Water scarcity is an immediate threat to the health and well-being of down-stream countries that can be curbed by improved irrigation. In the long-term multi-laterals agreements must be reached defining fair water rights and access

## **Promotion of Kazakhstan as Regional Leader**

- **Enter bi-lateral discussions with Kazakhstan to initiate the formerly proposed Central Asian Union, encouraging the inclusion of Afghanistan**

Utilize Kazakhstan's international and regional leadership role to preside over the Central Asian Union for an interim period prior before instituting a rotating presidency among member states. Additional bilateral discussions are needed with Uzbekistan's President Islam Karimov to revisit joining the Central Asian Union.

- **Continue to support Kazakhstan as a regional leader on issues of non-proliferation**

Verbally support the construction of the IAEA nuclear fuel bank in Ulba, Kazakhstan. Support Kazakh political pressure on the Iranian nuclear enrichment program. Increase international regulation through the IAEA of the nuclear industry in Kazakhstan and all components of related components of the nuclear fuel cycle.

- **Promote the diversification of Kazakh natural resources through direct foreign investment**

Ensure US access to global uranium reserves through the promotion of investment and joint ventures with KazAtomProm. Work with Kazakhstan to guarantee that its natural resources remain accessible to the world market and not solely to regional powers such as China and Russia. Aid the development of Kazakh's nuclear sector and energy infrastructure in order to free up Kazakh oil and natural gas for international export.

# Regional Economic Integration

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With the majority of Central Asian trade still bound to Russia, recent developments of diversification to China are encouraging, though emphasis is almost exclusive to the energy sector. Overall the region continues to lack economic diversification which inhibits the economies from fully integrating and competing in modern international markets. US promotion of market expansion for the region couples with the vested interest of the US, to tie Afghanistan's economic stability to the stability of Central Asian markets.

## Diversification of Markets

- **Assist Kazakhstan and Azerbaijan's on-going WTO accession process**

Persuade Turkmenistan to apply for WTO membership as a way to increase transparency in its trade management and to establish low tariff.
- **Create bi-lateral and multi-lateral agreements with Azerbaijan, Kazakhstan, and Turkmenistan**

Create investment treaties intended to increase FDI and educational initiatives. Increase non-natural resource regional markets.
- **Influence Azerbaijan, Kazakhstan, and Turkmeinstan to adopt policies of greater economic liberalization and access to finance through third parties and non-state actors**

Organizational outreach should continue to include the WB, the IMF, non-governmental organizations connected with development, the European Union Energy Dialogues and micro loan organizations.

- **Support ADB’s CAREC program and its effort to improve transportation infrastructure in Greater Central Asia**

Inferior infrastructure for regional transport is a major barrier for intra-regional trade. Land transportation in Greater Central Asia is very slow and high cost, making the movement of goods and capital difficult. ADB’s CAREC program emphasizes the importance of improving regional trade infrastructure. China has placed a significant amount of FDI into railroad development. To support the “New Silk Road” vision, FDI is essential to enhance trade.

## **Economic Stabilization of Afghanistan**

- **Improve Aid Effectiveness in Afghanistan**

Systematically collect unit costs for comparable development activities under different aid structures in Afghanistan, for example projects undergone by the DOD compared to USAID, to assess the results for a given amount of money. This data can help aid agencies channel aid more efficiently into the most effective projects, as well as increasing the Afghan government's capacity for management, control, and accounting of budgetary funds.

- **Improve Oversight of Security and Development Projects in Afghanistan**

Developing training standards for providing operational contract support (OCS). Fully institutionalize OCS in professional military education. Developing standards regarding the number of contracts that CORs can oversee based on the technical nature and complexity of the contract. Other agencies employing contractors in Afghanistan can apply concepts of standardization and the technical aspects of certain contracts to achieve the proper results from their project expenditures.

## Social Considerations

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The US can most feasibly strengthen Central Asian society and therein stability, by addressing key aspects of education, health, and human rights through the provision of expertise, advice, and monetary contributions. However, the US should remain mindful of the potential to create creating dependency on US programs and corruption or inefficient use of funding provided. Policy action should serve to temporarily fill gaps in the education and health care system while advocating for foundational educational reform on the national level. Additionally, there is difficulty in promoting human rights in greater Central Asia given its restrictive governments. Direct interference to promote human rights should not be considered outside of emergency humanitarian aid.

### Electoral Concerns

- **Institute routine diplomatic visits to the five Central Asian states to pressure the incumbent leadership to institute legitimate elections**

Fair elections are the first step towards creating a citizen run society through involvement and advocacy for rights. Progressive steps toward self-determination should be encouraged for international approval of leadership and to prevent the potential uprising of unsatisfied populations.

### Distributing Official Development Assistance

- **Continue Public-Private Partnerships with US companies or allied companies to increase resources and strategies for development projects**

Partnering with major US companies which often have strong ties with local governments, such as Chevron, Exxon Mobil, and ConocoPhillips, allows for new ways for aid to encourage reforms as well as expand important resources. These partnerships could fund educational infrastructure and vocational or work-study programs. However, these partnerships will be unable to flourish unless the US ceases the uncertain relationship of sanctions and waivers with Azerbaijan and Kazakhstan.

- **Provided monetary aid on a project-basis and disbursed according to agreed upon thresholds of success**

Any assistance seeking group should propose a project with a comprehensive plan, agree to thresholds on which the aid will be released, and finally receive the aid as thresholds are met. Encouraging individuals and groups to take leadership roles on social projects lays the groundwork for a stronger society. Monitoring aid at intervals increases the effectiveness and agility of US aid, as incremental change is more readily incentivized.

## **Environmental Issues**

- **Provide Central Asian governments guidance in pollution management and monetary assistance to currently involved organizations**

Give proposals on controlling the pollution from nearby cities and the extraction, production, and transportation of natural resources across the Caspian Sea. Supply more monetary aid to organizations like the Aral Sea Foundation, ICAS, and IFAS in order to create new efforts and expand on current ones to reduce negative environmental and public health impacts. Such actions will revitalize stunted progress.

## **Public Health**

- **Give monetary aid to establish public health campaigns and assist in tailoring health care services toward vulnerable populations, as well as implement surveillance systems to record health data**

Provide aid to create health campaigns that educate populations on HIV, TB, and tobacco use. Through these campaigns, raise awareness on available resource and treatment to try to reverse social stigma associated with HIV. Help design health services to specifically treat vulnerable populations, such as children and pregnant women to combat health issues among the most affected. Guide health services in installing surveillance systems to ensure the reporting of accurate health data to WHO and organizations that can execute solutions.

## Human Rights

- **Use soft power influence through aid and partnerships with strategic international organizations to improve and demonstrate the importance of human rights to development in Greater Central Asia**

Establish greater partnership and support with the Organization for Security and Cooperation in Europe (OSCE). Improve citizens' access to independent media by continuing to fund and support Radio Free Europe, free internet access at facilities where internet is inaccessible, and providing satellites, especially in rural areas, as this greatly improves access to independent international and regional media.

- **Balance policies involving resource extraction, investment, and economic partnerships, so they do not overlook, contradict, or conflict with human rights objectives**

US policy towards human rights needs to be evenly maintained and emphasized to be understood as a serious international commitment. The US needs to monitor its investments and trade relations with these countries to ensure operations are not in contradiction to US policy norms. The formulation of economic and trade policies with these countries should be used as an opportunity to build relationships and open up dialogue on human rights reforms.

## Education System

- **Provide broad-based extra-curricular opportunities for students and teachers to continue academic pursuits by further developing US funded "Education Centers"**

Educational assistance through American-funded offices such as the "American Centers" in Azerbaijan and "Education USA Center" in Kazakhstan, could be improved and streamlined by combining the services of different types of centers to one center, to be used as a central hub for promoting further education programming, such as, English classes, clubs, seminars for teachers, and specialty classes or camps for at-risk youth.<sup>1039</sup> Additional centers should be established in rural areas.

- **Increase scholarships and opportunities for secondary, post-secondary students and teachers to study abroad in the US**

New programs should target low-income and rural students, as well as those interested in pursuing careers in science, math, technology, economics, business, engineering, or teaching, and should be amended to include a stipulation that after students return they must work or continue to study in their home country for a minimum, predetermined number of years to limit the “brain drain” effect.

# Conclusion

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The potential for a “white road” for Central Asia exists, but there are many hurdles that must be addressed in order to establish this path. Detailed study of the region’s natural resources, water availability, its political, economic, and social characteristics, as well as some of its challenges regarding border security, suggests that the region requires various forms of reform and outside assistance in order to achieve stable development.

Cooperation between the Greater Central Asian states will be a crucial determining factor in the long-term sustainability of the region’s economies. The reduction of tariff and non-tariff barriers to trade through regional negotiations and economic liberalization will facilitate a network of trade and regional economic interdependence. Negotiations will also improve relations and hopefully build trust between the various Central Asian states which could help peacefully resolve water disputes. Finally, international cooperation in the region has the potential to enhance border security and help reduce the prevalence of human and drug trafficking, as well as the spread of terrorist activities. Kazakhstan could serve as a regional leader in such negotiations due to its demonstrated responsibility in regards to nuclear non-proliferation and apparent willingness to take on such a responsibility. The US should encourage Kazakhstan to assume this role as it is emerging as a regional power and is economically and politically stable.

The regional players—including the US, China, Russia, and Europe—will also have a profound impact on Greater Central Asia as they compete to extend their influence over the region. While these foreign powers have a mutual interest in ensuring lasting stability and security in the region, it is important to balance their influence while respecting the autonomy of the states of Greater Central Asia. There are various opportunities for cooperation between the regional players that would not only benefit Central Asia but could also strengthen relations between the competing players.

While Greater Central Asia faces many pressing issues that are, in many cases, very interrelated and complex, through certain steps, the countries can make improvements. Corruption currently plagues the Greater Central Asian states and hinders economic growth as

well as social progress. The US, as a global promoter of democracy and human rights should continue to emphasize these values and encourage greater political and social freedom. The governments of Central Asia should also loosen their controls over their people and their economies. Currently, resource nationalism limits foreign direct investment and the region's integration into the global economy. Liberalization of the Greater Central Asian economies would allow for tremendous growth in the region and would open up the region to foreign companies that could provide technological innovation capable of improving Central Asia's infrastructure and economic efficiency. Foreign companies could also bring advancements in the renewable energy sector and opportunities for economic diversification beyond oil and natural gas. This would provide new employment opportunities for the Central Asian people that would combat the incentives of affiliating with terrorist groups and anti-government organizations.

The US should recognize the direct importance of ensuring a stable and economically sound Central Asia as the region will not only serve as a link between the various regional players that have mutual interests in the area, but its performance will also impact future stability in Afghanistan. As the 2014 date for US troop withdrawal from Afghanistan approaches, there is increasing pressure on the US and Central Asia to find a viable way to integrate Afghanistan into a politically and economically stable regional entity that places emphasis on human development and social prosperity.

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## Introduction

<sup>1</sup> “Central Asia: Photographer's "White Road" Exposes Life in White, Black, Shades of Gray,” *Eurasia Net*, January 11, 2013. <http://www.eurasianet.org/node/66390> (accessed Feb. 21, 2013).

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## Chapter 1

<sup>2</sup> Hearing before the Commission on Security and Cooperation in Europe, *The Shanghai Cooperation Organization: Is it Undermining U.S. Interests in Central Asia?*, 109<sup>th</sup> Cong., 2<sup>nd</sup> sess., 2006, 3.

<sup>3</sup> Jerome Doyon, “Strengthening the SCO,” *China Analysis*, (2011): 3.

<sup>4</sup> Francois Godement, “Seeking an alliance by any other name?,” *China Analysis*, (2011): 1-2.

<sup>5</sup> Niklas Swantröm, “China and Greater Central Asia: New Frontiers?,” *Silk Road Paper*, (2011): 21.

<sup>6</sup> Bureau of Public Affairs Department Of State. The Office of Website Management, “US Policy in Central Asia,” Remarks|Remarks, *U.S. Department of State*, January 25, 2012, <http://www.state.gov/p/sca/rls/rmks/2012/182643.htm>.

<sup>7</sup> Alexander Cooley, *Great Games, Local Rules* (New York: Oxford University Press, 2012), 12.

<sup>8</sup> Cooley, *Great Games*, 11.

<sup>9</sup> Swantröm, “China and Greater,” 27.

<sup>10</sup> Cooley, *Great Games*, 86.

<sup>11</sup> Luke Allnut, “Who Killed The Kazakh Border Guards?,” *RadioFreeEurope/RadioLiberty*, June 4, 2012, sec. Transmission, <http://www.rferl.org/content/who-killed-the-kazakh-border-guards/24603315.html>.

<sup>12</sup> *Ibid*

<sup>13</sup> *Ibid*

<sup>14</sup> Andrew Roth, “Kazakh Border Guard Sentenced in 15 Killings,” *The New York Times*, December 11, 2012, sec. World / Asia Pacific, <http://www.nytimes.com/2012/12/12/world/asia/kazakh-border-guard-sentenced-in-15-killings.html>.

<sup>15</sup> Allnut, “Who Killed.”

<sup>16</sup> Bureau of Public Affairs Department Of State. The Office of Website Management, “Uzbekistan,” Human Rights Report, *U.S. Department of State*, March 8, 2006, <http://www.state.gov/j/drl/rls/hrrpt/2005/61684.htm>.

<sup>17</sup> *Ibid*

<sup>18</sup> *Ibid*

<sup>19</sup> *Ibid*

<sup>20</sup> *Ibid*

<sup>21</sup> Alexa Olesen and Associated Press Writer, “Central Asian Security Bloc Reaffirms Stance That Uzbek Unrest Was Terrorist Plot,” *AP Worldstream* (July 1, 2005), <http://www.highbeam.com/doc/1P1-110638206.html>.

<sup>22</sup> Cooley, *Great Games*, 75.

<sup>23</sup> Cooley, *Great Games*, 76.

<sup>24</sup> *Ibid*

<sup>25</sup> Swantröm, “China and Greater,” 27.

<sup>26</sup> Doyon, “Strengthening,” 3.

<sup>27</sup> Cooley, *Great Games*, 80.

<sup>28</sup> Cooley, *Great Games*, 81.

<sup>29</sup> Bureau of Public Affairs Department Of State. The Office of Website Management, “Chapter 2 Country Reports: East Asia and Pacific Overview,” Report, *U.S. Department of State*, July 31, 2012, <http://www.state.gov/j/ct/rls/crt/2011/195542.htm>.

<sup>30</sup> Doyon, “Strengthening,” 3.

- 
- <sup>31</sup> Cooley, *Great Games*, 77.
- <sup>32</sup> Jacob Zenn, "Militants Threaten to Return to Central Asia after NATO's Withdrawal from Afghanistan." *Eurasia Daily Monitor* 10, no. 6 (2013), [http://www.jamestown.org/programs/edm/single/?tx\\_ttnews\[tt\\_news\]=40302&cHash=84dc2e0f3977c10ade0931397e57e8d0](http://www.jamestown.org/programs/edm/single/?tx_ttnews[tt_news]=40302&cHash=84dc2e0f3977c10ade0931397e57e8d0).
- <sup>33</sup> *Ibid*
- <sup>34</sup> "Testimony to the U.S. Congressional Human Rights Caucus on the Shanghai Cooperation Organization - International Crisis Group," accessed February 8, 2013, <http://www.crisisgroup.org/en/publication-type/speeches/2007/leonard-testimony-to-the-us-congressional-human-rights-caucus-on-the-shanghai-cooperation-organization.aspx>.
- <sup>35</sup> Zenn, "Militants Threaten."
- <sup>36</sup> *Ibid*
- <sup>37</sup> *Ibid*
- <sup>38</sup> *Ibid*
- <sup>39</sup> *Ibid*
- <sup>40</sup> *Ibid*
- <sup>41</sup> Cooley, *Great Games*, 164.
- <sup>42</sup> Jean-Pierre Cabestan, "Energy cooperation between China and Central Asia," *China Analysis*, (2011): 6.
- <sup>43</sup> Cabestan, "Energy cooperation," 8.
- <sup>44</sup> Shebonti Ray Dadwal, "Now China may play spoiler to TAPI." *Institute for Defense Studies and Analyses*, (Jul. 31, 2012), [http://www.idsa.in/idsacomments/NowChinamayplayspoilertoTAPI\\_ShebontiRDadwal\\_310712](http://www.idsa.in/idsacomments/NowChinamayplayspoilertoTAPI_ShebontiRDadwal_310712).
- <sup>45</sup> *Ibid*
- <sup>46</sup> *Ibid*
- <sup>47</sup> *Ibid*
- <sup>48</sup> Cabestan, "Energy cooperation," 7-8.
- <sup>49</sup> Cabestan, "Energy cooperation," 8.
- <sup>50</sup> Cabestan, "Energy cooperation," 7.
- <sup>51</sup> *Ibid*
- <sup>52</sup> Dadwal, "Now China."
- <sup>53</sup> Patrick Goodenough, "As Kerry Takes Up Post, Pakistan Moves Ahead With Iran Gas Pipeline," *cnsnews.com*, Feb. 4, 2013. <http://cnsnews.com/news/article/kerry-takes-post-pakistan-moves-ahead-iran-gas-pipeline>
- <sup>54</sup> *Ibid*
- <sup>55</sup> *Ibid*
- <sup>56</sup> "In Depth: Iran-Pakistani Pipeline and Largest Iranian Refinery in Pakistan Inches From Reality," *the santos republic*, [http://thesantosrepublic.com/2013/02/in-depth-iran-pakistani-pipeline-and-largest-iranian-refinery-in-pakistan-inches-from-reality/\(accessed.Feb..26.,2013\)](http://thesantosrepublic.com/2013/02/in-depth-iran-pakistani-pipeline-and-largest-iranian-refinery-in-pakistan-inches-from-reality/(accessed.Feb..26.,2013)).
- <sup>57</sup> Stephen Blank, "Will China Join the Iran-Pakistan-India Pipeline?" *China Brief* 10, no. 5 (2010), [http://www.jamestown.org/programs/chinabrief/single/?tx\\_ttnews\[tt\\_news\]=36122&cHash=b3e6d6aeec](http://www.jamestown.org/programs/chinabrief/single/?tx_ttnews[tt_news]=36122&cHash=b3e6d6aeec).
- <sup>58</sup> Cabestan, "Energy cooperation," 6.
- <sup>59</sup> *Ibid*
- <sup>60</sup> Cabestan, "Energy cooperation," 7.
- <sup>61</sup> Jane Perlez, "Dispute Flares Over Energy Exploration in South China Sea," *The New York Times*, December 4, 2012, sec. World / Asia Pacific, <http://www.nytimes.com/2012/12/05/world/asia/china-vietnam-and-india-fight-over-energy-exploration-in-south-china-sea.html>.
- <sup>62</sup> Beina Xu, "South China Sea Tensions," *Council on Foreign Relations*, accessed February 8, 2013, <http://www.cfr.org/china/south-china-sea-tensions/p29790>.
- <sup>63</sup> Perlez, "Dispute Flares."
- <sup>64</sup> *Ibid*
- <sup>65</sup> Xu, "South China."
- <sup>66</sup> *Ibid*
- <sup>67</sup> Christopher Alessi and Stephanie Hanson, "Expanding China-Africa Oil Ties," *Council on Foreign Relations*, accessed February 10, 2013, <http://www.cfr.org/china/expanding-china-africa-oil-ties/p9557>.
- <sup>68</sup> *Ibid*
- <sup>69</sup> Godement, "Seeking an alliance," 1.
- <sup>70</sup> Peter Eigen, "Is China Good or Bad for Africa?," accessed February 10, 2013,

---

<http://globalpublicsquare.blogs.cnn.com/2012/10/29/is-china-good-or-bad-for-africa/>.

<sup>71</sup> Bureau of Public Affairs Department Of State, "US Policy in Central Asia."

<sup>72</sup> Robert O. Blake, Jr., "Press Briefing by State's Blake in Kazakhstan," Transcript, August 15, 2012, <http://translations.state.gov/st/english/texttrans/2012/08/20120815134719.html#axzz2Ie6228az>.

<sup>73</sup> Bureau of Public Affairs Department Of State, "US Policy in Central Asia."

<sup>74</sup> Blake, "Press Briefing."

<sup>75</sup> Cabestan, "Energy cooperation," 7.

<sup>76</sup> Dadwal, "Now China."

<sup>77</sup> Cabestan, "Energy cooperation," 7.

<sup>78</sup> Raffaello Pantucci and Alexandros Peterson, "China and Central Asia in 2013." *China Brief* 13, no. 2 (2013), [http://www.jamestown.org/programs/chinabrief/single/?tx\\_ttnews\[tt\\_news\]=40332&tx\\_ttnews\[backPid\]=25&cHash=e4c3223330e27269eaf384a6d6eea0c5](http://www.jamestown.org/programs/chinabrief/single/?tx_ttnews[tt_news]=40332&tx_ttnews[backPid]=25&cHash=e4c3223330e27269eaf384a6d6eea0c5).

<sup>79</sup> *Ibid*

<sup>80</sup> Marlene Laruelle and Sebastien Peyrouse, *The Chinese Question in Central Asia: Domestic Order, Social Change and the Chinese Factor* (New York: Columbia University Press, 2012), 29.

<sup>81</sup> Laruelle and Peyrouse, *The Chinese Question*, 37.

<sup>82</sup> "NATO - Press Conference with Three Albanian Leaders Dr Vjosa Dobruna, Mr Blerim Schala and Mr Skelzen Maliqi," NATO, accessed February 28, 2013, [http://www.nato.int/cps/en/natolive/opinions\\_27598.htm](http://www.nato.int/cps/en/natolive/opinions_27598.htm).

<sup>83</sup> *Ibid*

<sup>84</sup> Hearing before the Commission on Security and Cooperation in Europe, *The Shanghai*, 11.

<sup>85</sup> "Who we are," Organization for Security and Co-operation in Europe, <http://www.osce.org/who> (accessed Feb. 27, 2013).

<sup>86</sup> Hearing before the Commission on Security and Cooperation in Europe, *The Shanghai*, 12.

<sup>87</sup> *Ibid*

<sup>88</sup> Laruelle and Peyrouse, *The Chinese Question*, 31.

<sup>89</sup> Laruelle and Peyrouse, *The Chinese Question*, 33.

<sup>90</sup> *Ibid*

<sup>91</sup> Laruelle and Peyrouse, *The Chinese Question*, 33-34.

<sup>92</sup> Laruelle and Peyrouse, *The Chinese Question*, 35.

<sup>93</sup> Laruelle and Peyrouse, *The Chinese Question*, 38.

<sup>94</sup> Hearing before the Commission on Security and Cooperation in Europe, *The Shanghai*.

<sup>95</sup> Laruelle and Peyrouse, *The Chinese Question*, 15.

<sup>96</sup> *Ibid*

<sup>97</sup> Laruelle and Peyrouse, *The Chinese Question*, 24.

<sup>98</sup> *Ibid*

<sup>99</sup> *Ibid*

<sup>100</sup> *Ibid*

<sup>101</sup> Laruelle and Peyrouse, *The Chinese Question*, 25.

<sup>102</sup> Laruelle and Peyrouse, *The Chinese Question*, 28.

<sup>103</sup> *Ibid*

<sup>104</sup> *Ibid*

<sup>105</sup> Laruelle and Peyrouse, *The Chinese Question*, 29.

<sup>106</sup> Laruelle and Peyrouse, *The Chinese Question*, 28.

<sup>107</sup> Laruelle and Peyrouse, *The Chinese Question*, 27.

<sup>108</sup> "Who we are," Organization for Security and Co-operation in Europe.

<sup>109</sup> Laruelle and Peyrouse, *The Chinese Question*, 37.

<sup>110</sup> *Ibid*

<sup>111</sup> *Ibid*

<sup>112</sup> Godement, "Seeking an alliance," 2.

<sup>113</sup> Committee on Foreign Relations United States Senate, *Central Asia and the Transition in Afghanistan*, 112<sup>th</sup> Cong., 1<sup>st</sup> sess., 2011, 2.

<sup>114</sup> Committee on Foreign Relations United States Senate, *Central Asia*, 1.

<sup>115</sup> Committee on Foreign Relations United States Senate, *Central Asia*, 7.

<sup>116</sup> *Ibid*

<sup>117</sup> Committee on Foreign Relations United States Senate, *Central Asia*, 6.

- 
- <sup>118</sup> *Ibid*
- <sup>119</sup> John Vandiver, "US seeking extension of Manas air base lease," *Stars and Stripes*, Jan. 16, 2013, <http://www.stripes.com/news/us-seeking-extension-of-manas-air-base-lease-1.204094>
- <sup>120</sup> *Ibid*
- <sup>121</sup> *Ibid*
- <sup>122</sup> Cooley, *Great Games*, 163.
- <sup>123</sup> *Ibid*
- <sup>124</sup> Hearing before the Commission on Security and Cooperation in Europe, *The Shanghai*, 13.
- <sup>125</sup> Committee on Foreign Relations United States Senate, *Central Asia*, 7.
- <sup>126</sup> Committee on Foreign Relations United States Senate, *Central Asia*, 7-8.
- <sup>127</sup> Chris McGreal, "John Kerry Uses Senate Hearing to Warn Afghanistan over Elections," *The Guardian*, January 24, 2013, <http://www.guardian.co.uk/world/2013/jan/24/john-kerry-senate-hearing-secretary-state>.
- <sup>128</sup> Rob Crilly, "Pakistan to sign gas pipeline deal with Iran," *The Telegraph*, Feb. 26, 2013, <http://www.telegraph.co.uk/news/worldnews/asia/pakistan/9894814/Pakistan-to-sign-gas-pipeline-deal-with-Iran.html>.
- <sup>129</sup> *Ibid*
- <sup>130</sup> *Ibid*
- <sup>131</sup> *Ibid*
- <sup>132</sup> *Ibid*
- <sup>133</sup> Marlene Laruelle, "Focus: India and Central Asia," *Foreign Policy Research Center Journal*, no. 2 (2012): 18.
- <sup>134</sup> "Turkmen State Assets Set for Privatization," *Radio Free Europe Radio Liberty*, <http://www.rferl.org/content/turkmenistan-privatization/24892457.html> (accessed Feb. 26, 2013).
- <sup>135</sup> *Ibid*
- <sup>136</sup> McGreal, "John Kerry."
- <sup>137</sup> Scott Stearns, "China Plays Bigger Diplomatic Role in Sudan Conflict," *VOA*, accessed February 10, 2013, [http://www.voanews.com/content/china\\_plays\\_bigger\\_role\\_in\\_sudan\\_conflict/566047.html](http://www.voanews.com/content/china_plays_bigger_role_in_sudan_conflict/566047.html).
- <sup>138</sup> *Ibid*
- <sup>139</sup> Andrew Small, "China's Afghan Moment," *Foreign Policy*, October 3, 2012, [http://www.foreignpolicy.com/articles/2012/10/03/chinas\\_afghan\\_moment?page=0,1](http://www.foreignpolicy.com/articles/2012/10/03/chinas_afghan_moment?page=0,1).
- <sup>140</sup> *Ibid*
- <sup>141</sup> *Ibid*
- <sup>142</sup> Laruelle and Peyrouse, *The Chinese Question*, 38-39.
- <sup>143</sup> Joseph S. Nye Jr, "Work With China, Don't Contain It," *The New York Times*, January 25, 2013, sec. Opinion, <http://www.nytimes.com/2013/01/26/opinion/work-with-china-dont-contain-it.html>.
- <sup>144</sup> *Ibid*
- <sup>145</sup> *Ibid*
- <sup>146</sup> *Ibid*
- <sup>147</sup> *Ibid*
- <sup>148</sup> *Ibid*
- <sup>149</sup> Erkin Akhmadov, "Uzbekistan: Central Asian Union Destined to Remain on Paper." Central Asia-Caucasus Institute Analysis, (2008), <http://www.cacianalyst.org/?q=node/4850>.
- <sup>150</sup> *Ibid*
- <sup>151</sup> Blake, "Press Briefing."
- <sup>152</sup> Marat Tazhin, "NATO - Statement by Marat Tazhin, Minister of Foreign Affairs of the Republic of Kazakhstan at the Plenary Meeting of EAPC Security Forum," *NATO*, accessed February 28, 2013, [http://www.nato.int/cps/en/natolive/opinions\\_55941.htm](http://www.nato.int/cps/en/natolive/opinions_55941.htm).
- <sup>153</sup> *Ibid*
- <sup>154</sup> Laruelle and Peyrouse, *The Chinese Question*, 36.
- <sup>155</sup> *Ibid*
- <sup>156</sup> *Ibid*
- <sup>157</sup> Tazhin, "NATO – Statement."
-

---

## Chapter 2

- <sup>158</sup> United Nations Office on Drugs and Crime, *World Drug Report 2012*, June 2012, iii.
- <sup>159</sup> United Nations Office on Drugs and Crime, “Central Asia, The Situation,” 2013, <http://www.unodc.org/unodc/en/drug-trafficking/central-asia.html>.
- <sup>160</sup> United Nations Office on Drugs and Crime, *Opiate Flows Through Northern Afghanistan and Central Asia: A Threat Assessment*, May 2012, 9.
- <sup>161</sup> United Nations Office on Drugs and Crime, Regional Office for Central Asia, *Accessibility of HIV Prevention, Treatment and Care Services for People Who Use Drugs and Incarcerated People in Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan: Legislative and Policy Analysis and Recommendations for Reform*, 2010, 28.
- <sup>162</sup> *Ibid.*, 53.
- <sup>163</sup> *Ibid.*
- <sup>164</sup> United Nations Office on Drugs and Crime, *The Global Afghan Opium Trade: A Threat Assessment*, July 2011, 45.
- <sup>165</sup> United Nations Office on Drugs and Crime, *Opiate Flows Through Northern Afghanistan and Central Asia: A Threat Assessment*, 7.
- <sup>166</sup> United Nations Office on Drugs and Crime, *World Drug Report 2010*, 44.
- <sup>167</sup> *Ibid.*, 45.
- <sup>168</sup> United Nations Office on Drugs and Crime, *Addiction, Crime and Insurgency: The Transnational Threat of Afghan Opium*, 2009, 13.
- <sup>169</sup> Vanda Felbab-Brown, “Organized Criminals Won’t Fade: How to Solve the Problem Without Generating Even Greater Violence,” *The Brookings Institution* (August 2012), <http://www.brookings.edu/research/articles/2012/08/drugs-crime-felbabbrown>.
- <sup>170</sup> *Ibid.*
- <sup>171</sup> Alessandra Ceccarelli, “Clans, Politics and Organized Crime in Central Asia,” *Springer Science & Business Media* (August 2007).
- <sup>172</sup> United Nations Office on Drugs and Crime, *The Global Afghan Opium Trade: A Threat Assessment*, 46.
- <sup>173</sup> *Ibid.*, 47.
- <sup>174</sup> “Chapter 2. Country Reports: South and Central Asia Overview. Country Reports on Terrorism 2011” (Office of the Coordinator For Counterterrorism, U.S. State Department, July 31, 2012), <http://www.state.gov/j/ct/rls/crt/2011/195545.htm>.
- <sup>175</sup> Jacob Zenn, “Militants Threaten to Return to Central Asia After NATO’s Withdrawal from Afghanistan,” *Eurasia Daily Monitor* 10, no. 6 (January 14, 2013).
- <sup>176</sup> Alissa J. Rubin, “Opium Cultivation Rose in 2012 in Afghanistan, U.N. Survey Shows,” *The New York Times*, November 20, 2012, sec. World / Asia Pacific, <http://www.nytimes.com/2012/11/21/world/asia/afghan-opium-cultivation-rose-in-2012-un-says.html>.
- <sup>177</sup> United Nations Office on Drugs and Crime, *Crime and Instability: Case Studies of Transnational Threats*, February 2010.
- <sup>178</sup> Ceccarelli, “Clans, Politics and Organized Crime in Central Asia.”
- <sup>179</sup> United Nations Office on Drugs and Crime, *World Drug Report 2010*, 48.
- <sup>180</sup> United Nations Office on Drugs and Crime, *The Global Afghan Opium Trade: A Threat Assessment*, 47.
- <sup>181</sup> Scott Radnitz, “Waiting for Spring” (February 2012).
- <sup>182</sup> International Crisis Group, “Tajikistan: The Changing Insurgent Threats,” May 24, 2011, <http://www.crisisgroup.org/en/regions/asia/central-asia/tajikistan/205-tajikistan-the-changing-insurgent-threats.aspx>.
- <sup>183</sup> “Chapter 2. Country Reports: South and Central Asia Overview. Country Reports on Terrorism 2011,” 2.
- <sup>184</sup> Ahmet Tolga Turker, “Radical Islamist Activity in Central Asia Is Going Nowhere Soon,” *e-International Relations* (June 1, 2012).
- <sup>185</sup> George Gavrillis, *Central Asia’s Border Woes & the Impact of International Assistance*, Central Eurasia Project, Occasional Paper Series No. 6 (Open Society Foundation, May 2012), 17.
- <sup>186</sup> *Ibid.*, 22.
- <sup>187</sup> *Ibid.*, 22–23.
- <sup>188</sup> *Ibid.*, 21.
- <sup>189</sup> *Ibid.*, 22.

- 
- <sup>190</sup> U.S. Department of State, Bureau for International Narcotics and Law Enforcement Affairs, *International Narcotics Control Strategy Report, Volume I, Drug and Chemical Control*, March 2012, 380.
- <sup>191</sup> Sébastien Peyrouse, Jos Boonstra, and Marlène Laruelle, “Security and Development Approaches to Central Asia: The EU Compared to China and Russia” (May 2012).
- <sup>192</sup> United Nations Office on Drugs and Crime, *Opiate Flows Through Northern Afghanistan and Central Asia: A Threat Assessment*, 14.
- <sup>193</sup> Dr. Bhaswati Sarkar, “Locating Central Asia in European Union’s External Engagement,” *Foreign Policy Research Centre Journal India & Central Asia* 10 (2012).
- <sup>194</sup> Sébastien Peyrouse, “Drug Trafficking in Central Asia: A Poorly Considered Fight?,” *PONARS Eurasia* (2012).
- <sup>195</sup> *Ibid.*
- <sup>196</sup> United Nations Office on Drugs and Crime, *The Global Afghan Opium Trade: A Threat Assessment*, 48.
- <sup>197</sup> Jeffrey Mankoff, *The United States and Central Asia After 2014* (Center for Strategic and International Studies, January 2013), 10.
- <sup>198</sup> Timothy Krambs, *Drug Control in Central Asia: An Assessment of Compliance with International Law* (Fort Leavenworth Kansas: The Foreign Military Studies Office, 2011), 22, <http://fmso.leavenworth.army.mil/>.
- <sup>199</sup> United Nations Office on Drugs and Crime, *Opiate Flows Through Northern Afghanistan and Central Asia: A Threat Assessment*, 58.
- <sup>200</sup> Krambs, *Drug Control in Central Asia: An Assessment of Compliance with International Law*, 23.
- <sup>201</sup> *Ibid.*, 24.
- <sup>202</sup> *Ibid.*, 25.
- <sup>203</sup> *Ibid.*, 27.
- <sup>204</sup> *Ibid.*, 28.
- <sup>205</sup> *Ibid.*, 16.
- <sup>206</sup> *Ibid.*
- <sup>207</sup> *Ibid.*, 17.
- <sup>208</sup> Peyrouse, Boonstra, and Laruelle, “Security and Development Approaches to Central Asia: The EU Compared to China and Russia.”
- <sup>209</sup> Chris Rickleton, “Central Asia: Cold-War Attitudes Hindering Drug War,” *EurasiaNet*, February 6, 2013, <http://www.eurasianet.org/node/66513>.
- <sup>210</sup> Charlene Porter, “U.S., Central Asia Programs Against Afghan Drug Trade Takes Shape,” IIP Digital, U.S. State Department, February 22, 2012, <http://iipdigital.usembassy.gov/st/english/article/2012/02/20120221162619enelrahc0.3190882.html#axzz2LQpA4A9d>.
- <sup>211</sup> Yong-an Zhang, “Asia, International Drug Trafficking, and U.S.-China Counternarcotics Cooperation,” *The Brookings Institution* (February 2012): 2, <http://www.brookings.edu/research/papers/2012/02/drug-trafficking-zhang>.
- <sup>212</sup> United Nations Development Programme and London School of Economics and Political Science, *Borders in Europe and Central Asia*, December 2010, 4.
- <sup>213</sup> Gavrilis, *Central Asia’s Border Woes & the Impact of International Assistance*.
- <sup>214</sup> Mankoff, *The United States and Central Asia After 2014*, 28.

---

## Chapter 3

- <sup>215</sup> Kaldor, “Oil and Conflict: The Case of Nagorno Karabakh,” 179.
- <sup>216</sup> Reuters, “Azerbaijan Accuses Armenians After Two Soldiers Killed.”
- <sup>217</sup> Sharrow, “Natural Resource Management on the Other Side of the World: The Nagorno Karabakh Republic,” 12.
- <sup>218</sup> De Waal, “Peace for Our Time In Nagorno-Karabakh.”
- <sup>219</sup> Cleveland, *Nagorno-Karabakh Occupation Map*.
- <sup>220</sup> Brown, “Wanting to Have Their Cake and Their Neighbor’s Too: Azerbaijani Attitudes Towards Karabakh and Iranian Azerbaijan,” 576.
- <sup>221</sup> *Ibid.*, 585.
- <sup>222</sup> Rieff, “Case Study in Ethnic Strife (Nagorno-Karabakh).”

- 
- <sup>223</sup> Ohanian, *Karabakh: Missing in Action - Alive or Dead?*.
- <sup>224</sup> Cornell and Ismailzade, "The Baku-Tbilisi-Ceyhan Pipeline: Implications for Azerbaijan," 74.
- <sup>225</sup> *Ibid*, 74.
- <sup>226</sup> Carley, "Nagorno-Karabakh: Searching for a Solution."
- <sup>227</sup> De Waal, "Peace for Our Time In Nagorno-Karabakh."
- <sup>228</sup> *Ibid*.
- <sup>229</sup> "OCCRP Names Aliyev 'Person Of The Year'."
- <sup>230</sup> RFE/RL, "Rights Groups Slam Azerbaijan Over Freedom Of Speech."
- <sup>231</sup> Kazimova and Sindelar, "How to Buy a Seat in Azerbaijan's Parliament."
- <sup>232</sup> Bigg and Kazimova, "Azerbaijan's Hot January."
- <sup>233</sup> Roth and Sultanova, "Officials in Azerbaijan Claim to Restore Order to Rioting City."
- <sup>234</sup> Bigg and Kazimova, "Azerbaijan's Hot January."
- <sup>235</sup> *Ibid*.
- <sup>236</sup> Eschenbächer et al., *Azerbaijan's Elections, Though Peaceful with Opposition Participation, Did Not Mark Meaningful Progress in Democratic Development*.
- <sup>237</sup> Reynolds, "Why Azerbaijan Is Closer to Israel Than Iran."
- <sup>238</sup> Perry, "Israel's Secret Staging Ground."
- <sup>239</sup> "Azerbaijan."
- <sup>240</sup> Gültekin-Punsmann, Simão, and Tavitian, *The Closed Armenia-Turkey Border: Economic and Social Effects, Including Those on the People; and Implications for the Overall Situation in the Region*, 8.
- <sup>241</sup> "Azerbaijan Says Visa-Free Regime With Turkey Fell Victim to Iranian Pressure."
- <sup>242</sup> "Iran."
- <sup>243</sup> Sweetland Edwards, "IRAN: Armenia, Azerbaijan, Georgia Squeezed Between Tehran and Washington."
- <sup>244</sup> Herzenhorn, "Iran and Azerbaijan, Already Wary Neighbors, Find Even Less to Agree On."
- <sup>245</sup> Agayev, "Cyber Attacks on Azerbaijan Originated in Iran, Minister Says."
- <sup>246</sup> Dareini, "Iran Drone Photos Show Israeli Bases, Says Report."
- <sup>247</sup> "Baku-Tbilisi-Ceyhan Pipeline."
- <sup>248</sup> US Energy Information Administration, *Route of the BTC Pipeline*.
- <sup>249</sup> Cornell and Ismailzade, "The Baku-Tbilisi-Ceyhan Pipeline: Implications for Azerbaijan," 81.
- <sup>250</sup> *Ibid*, 70.
- <sup>251</sup> *Ibid*, 68.
- <sup>252</sup> Petersen, "BTC Security Questions Persist."
- <sup>253</sup> *Ibid*.
- <sup>254</sup> Chow, "An Oil Crossroad in the Cross Hairs."
- <sup>255</sup> Petersen, "BTC Security Questions Persist."
- <sup>256</sup> Cornell and Ismailzade, "The Baku-Tbilisi-Ceyhan Pipeline: Implications for Azerbaijan," 73.
- <sup>257</sup> Agayev and Schneeweiss, "Nabucco West Selected as Potential Route for Azeri Gas."
- <sup>258</sup> Bailey, *Map of the South Stream and Nabucco Natural Gas Transportation Pipelines*.
- <sup>259</sup> Jafarova, "Drafting of Papers on Trans-Caspian Gas Pipeline Close to Completion: Azerbaijani Official."
- <sup>260</sup> *Ibid*.
- <sup>261</sup> Herzenhorn, "Iran and Azerbaijan, Already Wary Neighbors, Find Even Less to Agree On."
- <sup>262</sup> "Azerbaijan."

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## Chapter 4

- <sup>263</sup> Department Of State, The Office of Website Management, Bureau of Public Affairs, "Energy Diplomacy in the 21st Century," *U.S. Department of State*, October 18, 2012, <http://www.state.gov/secretary/rm/2012/10/199330.htm>.
- <sup>264</sup> *BP Statistical Review of World Energy June 2012*, 2012, [www.bp.com/statisticalreview](http://www.bp.com/statisticalreview).
- <sup>265</sup> *Turkmenistan Oil and Gas Report Q1 2013*, Business Monitor International, December 2012, [http://www.researchandmarkets.com/reports/2364008/turkmenistan\\_oil\\_and\\_gas\\_report\\_q1\\_2013](http://www.researchandmarkets.com/reports/2364008/turkmenistan_oil_and_gas_report_q1_2013).
- <sup>266</sup> *BP Statistical Review of World Energy June 2012*, 2012, [www.bp.com/statisticalreview](http://www.bp.com/statisticalreview).
- <sup>267</sup> Gurt, Marat, "Reclusive Turkmenistan Ups 2030 Natural Gas Target," *Reuters*, September 13, 2012, <http://in.reuters.com/article/2012/09/13/turkmenistan-gasidINL5E8KD88M20120913>.

- 
- <sup>268</sup> Socor, Vladimir, "Beijing Proposes Turkmenistan-China Gas Pipeline Through Northern Afghanistan," *Eurasia Daily Monitor*, June 19, 2012, [http://www.jamestown.org/single/?no\\_cache=1&tx\\_ttnews\[tt\\_news\]=39510](http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=39510).
- <sup>269</sup> Ibid.
- <sup>270</sup> *Turkmenistan*, U.S. Energy Information Administration, January 25, 2012, <http://www.eia.gov/countries/cab.cfm?fips=TX>.
- <sup>271</sup> Gurt, Marat, "Turkmenistan Says Keen to Boost Gas Sales to Russia," *Reuters*, May 31, 2012, <http://uk.reuters.com/article/2011/05/31/gas-turkmenistan-russia idUKLDE74U1MH20110531>.
- <sup>272</sup> "Russia, Turkmenistan Sign Caspian Gas Accord," December 2009, <http://www.offshoremag.com/articles/2009/12/russia--turkmenistan.html>.
- <sup>273</sup> Fredholm, Michael, *Asian Cultures and Modernity*, Stockholm University, November 2008, <http://www.europe.com/upload/iblock/.../fredholm.ukraine.russia.gas.rr15.p...>
- <sup>274</sup> Jackson, Alex, "Analyzing Turkmenistan's Gas Exports After the Election," *Natural Gas Europe*, March 2012, <http://www.naturalgaseurope.com/analyzingturkmenistans-gas-exports-after-the-election-5242>.
- <sup>275</sup> "Russia's Gazprom to Keep Gas Purchases in Turkmenistan Flat '13," *Prime Tass English-language Business Newswire*, December 2012.
- <sup>276</sup> "Turkmenistan May Soon Begin Gas Supplies to Ukraine," January 2013, <http://www.naturalgasasia.com/turkmenistan-may-soon-begin-gas-supplies-to-ukraine>.
- <sup>277</sup> Hasanov, "Status of Turkmen Gas Transportation Projects as of December 2012," *Trend Daily Economic News*, December 2012.
- <sup>278</sup> *Turkmenistan*, U.S. Energy Information Administration, January 25, 2012, <http://www.eia.gov/countries/cab.cfm?fips=TX>.
- <sup>279</sup> Ibid.
- <sup>280</sup> *Natural Gas Exports from Iran*, U.S. Energy Information Administration, October 2012, [http://www.eia.gov/analysis/requests/ngexports\\_iran/pdf/full.pdf](http://www.eia.gov/analysis/requests/ngexports_iran/pdf/full.pdf).
- <sup>281</sup> "Turkmenistan Decreases Annual Gas Export to Iran by over 60 Percent," *Trend Daily News (Azerbaijan)*, January 2013.
- <sup>282</sup> Peterson, Zach, "After Standoff, Iran, Turkmenistan Make Gas Deal," December 2012, <http://www.rferl.org/content/turkmenistan-iran-gas-dispute/24802987.html>.
- <sup>283</sup> *Natural Gas Exports from Iran*, U.S. Energy Information Administration, October 2012, [http://www.eia.gov/analysis/requests/ngexports\\_iran/pdf/full.pdf](http://www.eia.gov/analysis/requests/ngexports_iran/pdf/full.pdf).
- <sup>284</sup> Ibid.
- <sup>285</sup> *Oil and Gas Security*, International Energy Agency, 2012.
- <sup>286</sup> Jackson, Alex, "China Undercuts Russia and Europe with New Turkmen Gas Deal," December 2011, <http://www.naturalgasasia.com/china-undercuts-russia-and-europe-with-new-turkmen-gas-deal-3803>.
- <sup>287</sup> "CNPC in Deal to Get Additional Turkmen Gas," *Platts Oilgram News*, June 2012.
- <sup>288</sup> Jackson, Alex, "China Undercuts Russia and Europe with New Turkmen Gas Deal," December 2011, <http://www.naturalgasasia.com/china-undercuts-russia-and-europe-with-new-turkmen-gas-deal-3803>.
- <sup>289</sup> Ibid.
- <sup>290</sup> Socor, Vladimir, "BP's Appraisal Doubles the Proven Reserves of Turkmenistani Gas," July 2012, [http://www.jamestown.org/single/?no\\_cache=1&tx\\_ttnews\[tt\\_news\]=39649](http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=39649).
- <sup>291</sup> Prodhan, Georgina, "BP Sees Pipeline Rivals Equal in Azeri Gas Race," 12/01, <http://au.news.yahoo.com/thewest/business/a/-/world/16039029/bp-sees-pipeline-rivals-equal-in-azeri-gas-race/>.
- <sup>292</sup> Ibid.
- <sup>293</sup> *USTDA Awards \$1.7 Million Grant for Study of Trans-Caspian Oil and Gas Pipelines*, US Trade and Development Agency, August 16, 2007.
- <sup>294</sup> "US Ready to Help Implement Trans-Caspian Pipeline Project," *ITAR-TASS*, September 2012.
- <sup>295</sup> "Turkmenistan Interested in Soonest Setting up of Energy Resource Transportation Network to Europe," *ITAR-TASS*, September 2012.
- <sup>296</sup> "Gas Golden Age Darkens in Europe on U.S. Coal: Energy Markets," *Bloomberg*, Accessed February 10, 2013, <http://www.bloomberg.com/news/2012-10-31/gas-golden-age-darkens-in-europe-on-u-s-coal-energy-markets.html>.
- <sup>297</sup> Spagnol, Giorgio, "IERI: Energy Security," *Natural Gas Europe*, January 2013, <http://www.naturalgaseurope.com/ieri-energy-security>.
- <sup>298</sup> *Supplying the EU Natural Gas Market*, Matt MacDonald, November 2010, [http://ec.europa.eu/energy/.../doc/2010\\_11\\_supplying\\_eu\\_gas\\_market.pdf](http://ec.europa.eu/energy/.../doc/2010_11_supplying_eu_gas_market.pdf) SupplyingEUNatural Gas Market.
- <sup>299</sup> Ibid.

- 
- <sup>300</sup> *Turkmenistan*, U.S. Energy Information Administration, January 25, 2012, <http://www.eia.gov/countries/cab.cfm?fips=TX>.
- <sup>301</sup> *Ibid.*
- <sup>302</sup> “Turkmenistan Interested in Soonest Setting up of Energy Resource Transportation Network to Europe,” *ITAR-TASS*, September 2012.
- <sup>303</sup> “EU: Negotiating on Trans-Caspian Gas Pipeline Ongoing,” *Trend News Agency*, Baku, Azerbaijan, January 2013.
- <sup>304</sup> “EU Renews Push for Trans-Caspian Pipeline,” *UPI International Intelligence*, September 2012, <http://www.upi.com/>.
- <sup>305</sup> “EU: Negotiating on Trans-Caspian Gas Pipeline Ongoing,” *Trend News Agency*, Baku, Azerbaijan, January 2013.
- <sup>306</sup> Abbasov, Shahin, “Azerbaijan & Turkmenistan: Renewing Caspian Sea Energy Dispute,” *Natural Gas Asia*, July 2012, <http://www.naturalgasasia.com/azerbaijan-and-turkmenistan-renewing-caspian-sea-energy-dispute>.
- <sup>307</sup> *Ibid.*
- <sup>308</sup> “Go East, Caspian Gas,” *Natural Gas Europe*, April 2012, <http://www.naturalgaseurope.com/go-east-caspian-gas-5876>.
- <sup>309</sup> “BP Looks Ahead Five Years for Shah Deniz Production,” *Natural Gas Europe*, January 2013, <http://www.naturalgaseurope.com/bp-on-shah-deniz-9870>.
- <sup>310</sup> “TCP Shelved, TAPI Stalled; Shake-up in Turkmenistan’s Oil and Gas Ministries,” *Natural Gas Europe*, January 2013, <http://www.naturalgaseurope.com/turkmenistans-oil-gas-ministry-shakeup>.
- <sup>311</sup> “Russian Envoy Speaks Against Caspian Gas Project,” *BBC Monitoring Former Soviet Union –Political Supplied by BBC Worldwide Monitoring*, December 2012.
- <sup>312</sup> “Trans-Caspian Pipeline Construction Could Begin Before Caspian Legal Status Approved – EU Representative,” *Interfax Europe*, June 2012.
- <sup>313</sup> “Azerbaijan, Turkmenistan Can Make Trans-Caspian Pipeline Decision on Their Own – Baku,” *Interfax*, December 2012.
- <sup>314</sup> “South Stream Appreciated,” *Natural Gas Europe*, November 2012, <http://www.naturalgaseurope.com/south-stream-guarantees-energy-security-to-europe>.
- <sup>315</sup> “Gazprom Raises Price of South Stream Pipeline Project,” *Wall Street Journal*, January 29, 2013, sec, Europe Business News, <http://online.wsj.com/article/SB10001424127887323375204578271711584345672.html>.
- <sup>316</sup> Spagnol, Giorgio, “IERI: Energy Security,” *Natural Gas Europe*, January 2013, <http://www.naturalgaseurope.com/ieri-energy-security>.
- <sup>317</sup> Jackson, Alex, “China Undercuts Russia and Europe with New Turkmen Gas Deal,” *Natural Gas Asia*, December 2011, <http://www.naturalgasasia.com/china-undercuts-russia-and-europe-with-new-turkmen-gasdeal-3803>.
- <sup>318</sup> Fitzpatrick, Catherine A, “Turkmenistan: Chinese Deal Helps Stall Trans Caspian Pipeline, Deter Caspian Conflict,” EurasiaNet, November 30, 2011, <http://www.eurasianet.org/node/64610>.
- <sup>319</sup> Embassy, US, “2013 Investment Climate Statement (Turkmenistan),” [Http://turkmenistan.usembassy.gov/ics.html](http://turkmenistan.usembassy.gov/ics.html), January 18, 2013, <http://turkmenistan.usembassy.gov/ics.html>.
- <sup>320</sup> “Turkmenistan Agrees to Sell Gas to India and Pakistan; After Nearly 10 Years of Negotiations, Turkmenistan Has Signed a Deal to Supply India and Pakistan with Gas,” n.d, telegraph.co.uk.
- <sup>321</sup> Embassy, U. S. “Visit of Assistant Secretary Blake,” [Http://turkmenistan.usembassy.gov/press20130115.html](http://turkmenistan.usembassy.gov/press20130115.html), January 18, 2013, <http://turkmenistan.usembassy.gov/press20130115.html>.
- <sup>322</sup> “TAPI Roadshow Rumbles On,” *Business Monitor Online*, October 2012.
- <sup>323</sup> *Ibid.*
- <sup>324</sup> “Afghanistan to Give Up Share of TAPI Gas,” *Natural Gas Asia*, November 2012, <http://www.naturalgasasia.com/afghanistan-to-give-up-share-of-tapi-gas>.
- <sup>325</sup> “TAPI Roadshow Rumbles On,” *Business Monitor Online*, October 2012.
- <sup>326</sup> *Ibid.*
- <sup>327</sup> “President Says Four-nation Gas Pipeline Project ‘Essential’ for Pakistan,” *BBC Monitoring South Asia - Political Supplied by BBC Worldwide Monitoring*, June 2012.
- <sup>328</sup> “India Committed to TAPI Gas Pipeline, Affirms President,” *Yahoo! News Maktoob*, Accessed February 11, 2013, <http://en-maktoob.news.yahoo.com/india-committed-tapi-gas-pipeline-affirms-president102019716.html>.

- 
- <sup>329</sup> “India’s Energy Demand Projected to Surge,” *Washington Post*, August 22, 2012, [http://www.washingtonpost.com/world/indias-energy-demand-projected-to-surge/2012/08/22/166edfe0-ecb8-11e1-a80b-9f898562d010\\_graphic.html](http://www.washingtonpost.com/world/indias-energy-demand-projected-to-surge/2012/08/22/166edfe0-ecb8-11e1-a80b-9f898562d010_graphic.html).
- <sup>330</sup> Mills, Elizabeth, *Pakistan’s Energy Crisis*, Washington, D.C.: U.S. Institute of Peace, 2012.
- <sup>331</sup> Embassy, U. S. “Visit of Assistant Secretary Blake,” [Http://turkmenistan.usembassy.gov/press20130115.html](http://turkmenistan.usembassy.gov/press20130115.html), January 18, 2013, <http://turkmenistan.usembassy.gov/press20130115.html>.
- <sup>332</sup> Socor, Vladimir, “New Chinese Pipeline Proposal: Implications in Central Asia, Afghanistan and Beyond,” *Natural Gas Asia*, June 2012, <http://www.naturalgasasia.com/china-pipeline-proposal-implications>.
- <sup>333</sup> Dadwal, Shebonti, *Now China May Play Spoiler to TAPI*, Institute for Defense Studies and Analyses, July 31, 2012, [http://www.idsa.in/idsacomments/NowChinamayplayspoilertoTAPI\\_ShebontiRDadwal\\_310712](http://www.idsa.in/idsacomments/NowChinamayplayspoilertoTAPI_ShebontiRDadwal_310712).
- <sup>334</sup> “Pakistan Ratifies Iran-Pakistan Pipeline Agreement,” *Natural Gas Asia*, January 2013, <http://www.naturalgasasia.com/pakistan-ratifies-iran-pakistan-pipeline-agreement>.
- <sup>335</sup> “Economic Benefits Outweigh Sanctions for IP Pipeline,” *Business Monitor Online*, March 1, 2013.
- <sup>336</sup> “Pakistan Ratifies Iran-Pakistan Pipeline Agreement,” *Natural Gas Asia*, January 2013, <http://www.naturalgasasia.com/pakistan-ratifies-iran-pakistan-pipeline-agreement>.
- <sup>337</sup> “Economic Benefits Outweigh Sanctions for IP Pipeline,” *Business Monitor Online*, March 1, 2013.
- <sup>338</sup> Bhutta, Zafar, “IP Gas Pipeline: Contract to Be Awarded to Iranian Tadbir Energy on Monday,” *International Herald Tribune*, February 2013, <http://tribune.com.pk/story/501891/ip-gas-pipeline-contract-to-be-awarded-to-iranian-tadbir-energy-on-monday/>.
- <sup>339</sup> “Pakistan Must Remain Steadfast in Getting Iranian Gas—paper,” *BBC Monitoring South Asia –Political Supplied by BBC Worldwide Monitoring*, November 2012.
- <sup>340</sup> Wright, Tom, “U.S. Threatens Pakistan: Drop Iran Pipeline,” March 1, 2012, <http://blogs.wsj.com/indiarealtime/2012/03/01/u-s-threatens-pakistan-drop-iran-pipeline/>.
- <sup>341</sup> “Pakistan Must Remain Steadfast in Getting Iranian Gas—paper,” *BBC Monitoring South Asia –Political Supplied by BBC Worldwide Monitoring*, November 2012.
- <sup>342</sup> “Iran Wants Iran-Pakistan Pipeline Extended to India,” January 2013, <http://www.naturalgasasia.com/iran-wants-iran-pakistan-pipeline-extended-to-india>.
- <sup>343</sup> *BP Statistical Review of World Energy June 2012*, BP, 2012, [bp.com/statisticalreview](http://bp.com/statisticalreview).
- <sup>344</sup> Ibid.
- <sup>345</sup> Ibid.
- <sup>346</sup> Ibid.
- <sup>347</sup> Ibid.
- <sup>348</sup> Ibid.
- <sup>349</sup> “Kazakhstan’s New Subsoil Law | Lexology,” Accessed February 20, 2013, <http://www.lexology.com/library/detail.aspx?g=65ba8a24-c548-47ee-b36bfe9d1246bf45>.
- <sup>350</sup> “Prime Minister: Kazakh Oil Production in Need of New Technology,” *Trend Daily Economic News*, January 2013.
- <sup>351</sup> Drew, David Barboza, Christopher, and Steve Lohr, “G.E. to Share Jet Technology With China in New Joint Venture,” *The New York Times*, January 17, 2011, sec. Business Day / Global Business, <http://www.nytimes.com/2011/01/18/business/global/18plane.html>.
- <sup>352</sup> “Lifting of Moratorium on New Hydrocarbon Fields Development in Kazakhstan to Increase Oil Production,” *Trend Daily Economic News*, Baku, Azerbaijan, January 2013.
- <sup>353</sup> Gizitdinov, Nariman, “Statoil Abandons Kazakh Caspian Oil Project After 7 Years,” *Bloomberg*, Accessed February 20, 2013, <http://www.bloomberg.com/news/2013-02-13/statoil-abandons-kazakh-caspian-oilfield-project-after-7-years.html>.
- <sup>354</sup> *Kashagan*, ENI, February 13, 2012, [http://www.eni.com/en\\_IT/innovation-technology/eni-projects/kashagan/kashagan-project.shtml](http://www.eni.com/en_IT/innovation-technology/eni-projects/kashagan/kashagan-project.shtml).
- <sup>355</sup> *Kazakhstan*. U.S. EIA, September 2012.
- <sup>356</sup> Ibid.
- <sup>357</sup> “Status of Pipeline Projects in Kazakhstan as of December,” *Trend Daily Economic News*, December 2012.
- <sup>358</sup> *Kazakhstan*. U.S. EIA, September 2012.
- <sup>359</sup> Ibid.
- <sup>360</sup> *BP Statistical Review of World Energy June 2012*, BP, 2012, [bp.com/statisticalreview](http://bp.com/statisticalreview).
- <sup>361</sup> *Caspian Pipeline Consortium Marks the Groundbreaking for Its \$5.4 Billion Expansion*, Moscow, Russia, July 2011.

---

[http://www.chevron.com/chevron/pressreleases/article/06302011\\_caspianpipelineconstriummarksthegroundbreakingforits54billionexpansion.news](http://www.chevron.com/chevron/pressreleases/article/06302011_caspianpipelineconstriummarksthegroundbreakingforits54billionexpansion.news).

<sup>362</sup> U.S. Energy Information Administration, U.S. EIA, September 2012.

<sup>363</sup> "Kazakhstan Could Resume BTC Shipments If Tariff acceptable-KMG," *Central Asia General Newswire*, January 2011.

<sup>364</sup> "Kazakhstan Does Not Exclude Oil Exports via the Baku-Tblisi-Ceyhan Pipeline," *Trend Daily Economic News*, October 2012.

<sup>365</sup> "Kazakhstan to Increase Pumping Through Kazakhstan - China Pipeline to 14 Mln Tons in 2014," *Trend Daily Economic News*, November 10, 2012.

<sup>366</sup> *BP Statistical Review of World Energy June 2012*. BP, 2012. [bp.com/statisticalreview](http://bp.com/statisticalreview).

<sup>367</sup> "Highest Oil-Producing Countries 2011-," *Celebrity Net Worth & Richest People in the World*, Accessed February 20, 2013, <http://www.therichest.org/business/highest-oil-producing-countries/>.

<sup>368</sup> "Kazakhstan Seeks Russia Oil Product Import Cut - Energy Tribune," *Energy Tribune*, Accessed February 11, 2013, <http://www.energytribune.com/72094/kazakhstan-seeks-russia-oil-product-import-cut2>.

<sup>369</sup> "Kazakhstan Plans to Build Oil-products Pipeline from China," *Trend News Agency*, Baku, Azerbaijan, January 2013.

<sup>370</sup> "Kazakhstan to Supply About 500,000 Tons of Crude Oil in China in 2013 Under Tolling Agreement," *Kazakhstan General Newswire*, January 2013.

<sup>371</sup> *Kazakhstan*, International Energy Agency, n.d, <http://www.iea.org/countries/non-membercountries/kazakhstan/>.

<sup>372</sup> "Kazakhstan Aims to Triple Gas Output by 2030," May 2012, <http://www.naturalgasasia.com/kazakhstan-aims-to-triple-gas-output-by-2030>.

<sup>373</sup> "Kazakhstan To Tap Shale-Gas Potential," *RadioFreeEurope/RadioLiberty*, March 14, 2012, sec. Kazakhstan, [http://www.rferl.org/content/kazakhstan\\_shale\\_gas\\_coal/24514850.html](http://www.rferl.org/content/kazakhstan_shale_gas_coal/24514850.html).

<sup>374</sup> "Kazakh KazMunaiGas Reveals Work Plan for Coming Years," *Trend Oil & Gas – Azerbaijan*, January 11, 2013.

<sup>375</sup> "Kazakhstan Commits \$130M to Gas Pipeline," *UPI*, Astana, Kazakhstan, September 2011, [http://www.upi.com/Business\\_News/EnergyResources/2011/09/16/Kazakhstan-commits-130M-to-gas-pipeline/UPI56621316168700/](http://www.upi.com/Business_News/EnergyResources/2011/09/16/Kazakhstan-commits-130M-to-gas-pipeline/UPI56621316168700/).

<sup>376</sup> "Kazakhstan to Speed up Construction of the Beyneu-Bozoi Pipeline," *Trend Daily Economic News*, January 2013.

<sup>377</sup> *Country Report: Kazakhstan*, Economist Intelligence Unit, January 2013.

---

## Chapter 5

<sup>378</sup> "Uranium and Nuclear Power in Kazakhstan," *World Nuclear Association*, <http://www.world-nuclear.org/info/inf89.html> (accessed January 21, 2013).

<sup>379</sup> "Assessing Kazakhstan's Proposal to Host a Nuclear Fuel Bank," *UNISCI*, no. 28 (January 2012): 106.

<sup>380</sup> "Uranium and Nuclear Power in Kazakhstan."

<sup>381</sup> "Megatons to Megawatts," *USEC*, <http://www.usec.com/russian-contracts/megatons-megawatts> (accessed January 22, 2013)

<sup>382</sup> "Uranium Markets," *World Nuclear Association*, <http://www.world-nuclear.org/info/inf89.html> (accessed January 22, 2013).

<sup>383</sup> "Uranium and Nuclear Power in Kazakhstan."

<sup>384</sup> "2012 The Outlook for Energy: A view to 2040," *Exxon Mobil*, [http://www.exxonmobil.com/Corporate/files/news\\_pub\\_eo2012.pdf](http://www.exxonmobil.com/Corporate/files/news_pub_eo2012.pdf) (accessed January 22, 2013): 30.

<sup>385</sup> Paul Domjan and Matt Stone, "A Comparative Study of Resource Nationalism in Russia and Kazakhstan 2004-2008," *Europe-Asia Studies*, no. 1 (January 2010): 55.

<sup>386</sup> David Adam Scott, "South Korea's Global Nuclear Ambitions," *The Asia-Pacific Journal: Japan Focus* [http://japanfocus.org/-David\\_Adam-Stott/3322](http://japanfocus.org/-David_Adam-Stott/3322) (accessed January 22, 2013).

<sup>387</sup> "Plans for New Reactors Worldwide," *World Nuclear Association*, <http://www.world-nuclear.org/info/inf17.html> (accessed January 22, 2013).

<sup>388</sup> *Ibid.*

- 
- <sup>389</sup> "Uranium and Nuclear Power in Kazakhstan."
- <sup>390</sup> "Nuclear Power in Japan," *World Nuclear Association*, <http://www.world-nuclear.org/info/inf79.html> (accessed January 21, 2013).
- <sup>391</sup> Olga Belogolova, "Why Japan Can't Quit Nuclear Power," *NationalJournal.com*, <http://www.nationaljournal.com/magazine/why-japan-can-t-quit-nuclear-power-20130214> (accessed February 15, 2013).
- <sup>392</sup> "Uranium and Nuclear Power in Kazakhstan"
- <sup>393</sup> "Nuclear Fuel Cycle Development Strategy," *Kazatomprom National Atomic Company*, <http://www.kazatomprom.kz/en/> (accessed January 22, 2013).
- <sup>394</sup> "Uranium and Nuclear Power in Kazakhstan"
- <sup>395</sup> Ibid.
- <sup>396</sup> "The Nuclear Fuel Cycle," *World Nuclear Association*, <http://www.world-nuclear.org/education/nfc.htm> (accessed January 22, 2013).
- <sup>397</sup> "Uranium and Nuclear Power in Kazakhstan"
- <sup>398</sup> "Assessing Kazakhstan's Proposal to Host a Nuclear Fuel Bank," 105.
- <sup>399</sup> "Uranium and Nuclear Power in Kazakhstan"
- <sup>400</sup> "Emerging Nuclear Energy Countries," *World Nuclear Association*, <http://www.world-nuclear.org/info/inf102.html> (accessed January 21, 2013).
- <sup>401</sup> "Assessing Kazakhstan's Proposal to Host a Nuclear Fuel Bank," 108.
- <sup>402</sup> Joanna Lillis, "Kazakhstan: Astana Registers Diplomatic Boost with Iran Nuclear Talks," *EurasiaNet*, Feb. 5, 2013.
- <sup>403</sup> "Uranium and Nuclear Power in Kazakhstan."
- <sup>404</sup> Ibid.
- <sup>405</sup> Ibid.
- <sup>406</sup> Ibid.
- <sup>407</sup> Ibid.
- <sup>408</sup> "World Energy Perspective: Nuclear Energy One Year After Fukushima," *World Energy Council*, [http://www.worldenergy.org/documents/world\\_energy\\_perspective\\_\\_nuclear\\_energy\\_one\\_year\\_after\\_fukushima\\_world\\_energy\\_council\\_march\\_2012\\_1.pdf](http://www.worldenergy.org/documents/world_energy_perspective__nuclear_energy_one_year_after_fukushima_world_energy_council_march_2012_1.pdf) (accessed January 23, 2013): 5.
- <sup>409</sup> Ibid., 15.
- <sup>410</sup> Ibid., 10.
- <sup>411</sup> Togzahn Kassenova, "The Lasting Toll of Semipalatinsk's Nuclear Testing," *Bulletin of Atomic Scientists*, <http://www.thebulletin.org/web-edition/features/the-lasting-toll-of-semipalatinsk-nuclear-testing> (accessed January 23, 2013).
- <sup>412</sup> Ibid.
- <sup>413</sup> "US Relations with Kazakhstan," <http://www.state.gov/r/pa/ei/bgn/5487.htm> (accessed January 22, 2013).
- <sup>414</sup> "Central Asian States Establish Nuclear-Weapon-Free-Zone Despite U.S. Opposition," *James Martin Center for Non-proliferation Studies*, <http://cns.miis.edu/stories/060905.htm> (accessed January 23, 2013).
- <sup>415</sup> Lillis
- <sup>416</sup> Ibid.
- <sup>417</sup> Ibid.
- <sup>418</sup> Charles Digges, "Internal Investigation Targets Russian Weapons Grade Uranium Smuggling," *Bellona Foundation*, [http://www.bellona.org/articles/articles\\_2011/uranium\\_ring](http://www.bellona.org/articles/articles_2011/uranium_ring) (accessed January 21, 2013).
- <sup>419</sup> Ariel Farrar-Wellman and Robert Frasco, "Kazakhstan-Iran Foreign Relations," *American Enterprise Institute: Iran Tracker*, <http://www.irantracker.org/foreign-relations/kazakhstan-iran-foreign-relations> (accessed January 23, 2013).
- 

## Chapter 6

- <sup>420</sup> Chellaney, Brahma, *Water Asia's New Battleground* (Washington: Georgetown University Press, 2011), 93.
- <sup>421</sup> United Nations Environmental Program (UNEP), 2011, *UNEP Environment and Security in the Amu Darya Basin*, 24.
- <sup>422</sup> *UNEP Environment and Security in the Amu Darya Basin*, 24.

- 
- <sup>423</sup> Chellaney, 93.
- <sup>424</sup> UNEP Environment and Security in the Amu Darya Basin, 36.
- <sup>425</sup> Ingrid Pederson “Central Asia Could Go To War Over Water,” *Business Insider Military and Defense*, September 15, 2012 (<http://www.businessinsider.com/central-asia-really-could-go-to-war-over-lack-of-water-2012-9>)
- <sup>426</sup> Thomas Bernauer and Tobias Siegfried, “Climate Change and International Water Conflict in Central Asia.” *Journal of Peace Research* 49:1 (January 1, 2012), 233 (doi:10.1177/0022343311425843)
- <sup>427</sup> UNEP Environment and Security in the Amu Darya Basin, 36.
- <sup>428</sup> Bernauer and Siegfried, 233.
- <sup>429</sup> Ibid
- <sup>430</sup> Ibid
- <sup>431</sup> Chellaney, 92.
- <sup>432</sup> Bernauer and Siegfried, 232.
- <sup>433</sup> Ibid
- <sup>434</sup> Chellaney, 92.
- <sup>435</sup> Chellaney, 16.
- <sup>436</sup> Sebastien Peyrouse, Jos Boonstra, Marlene Laruelle, 2012, Security and Development Approaches to Central Asia: The EU Compared to China and Russia, CEPS EUCAM Working Paper 11, Centre for European Policy Studies, Brussels 16
- <sup>437</sup> Peyrouse, Boonstra, and Laruelle, 21.
- <sup>438</sup> Peyrouse, Boonstra, and Laruelle, 12.
- <sup>439</sup> Chellaney, 8.
- <sup>440</sup> Chellaney, 15.
- <sup>441</sup> Chellaney, 16.
- <sup>442</sup> Business Insider Military and Defense, September 15, 2012
- <sup>443</sup> Ibid
- <sup>444</sup> Bernauer and Siegfried, 237.
- <sup>445</sup> Ibid
- <sup>446</sup> Researchers Analyze Melting Glaciers and Water Resources in Central Asia, <http://phys.org/news/2012-07-glaciers-resources-central-asia.html> (2012).
- <sup>447</sup> *Business Insider Military and Defense*, September 15, 2012
- <sup>448</sup> UNEP Environment and Security in the Amu Darya Basin, 24-25.
- <sup>449</sup> Chellaney, 25.
- <sup>450</sup> Dr. Seyfi Kılıç, “Water Problems in Aral Sea Basin” *Today’s Zaman*, April 13, 2011 (<http://www.todayszaman.com/news-240932-water-problems-in-aral-sea-basin.html>).
- <sup>451</sup> *Today’s Zaman*, April 13, 2011
- <sup>452</sup> Chellaney, 92.
- <sup>453</sup> Bernauer and Siegfried, 232.
- <sup>454</sup> Chellaney, 36.
- <sup>455</sup> United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), 2011 Statistical Yearbook for Asia and the Pacific 2011. 87
- <sup>456</sup> Bernauer and Siegfried, 232.
- <sup>457</sup> UNEP Environment and Security in the Amu Darya Basin, 25.
- <sup>458</sup> UNEP Environment and Security in the Amu Darya Basin, 17.
- <sup>459</sup> Bernauer and Siegfried, 230.
- <sup>460</sup> Bernauer and Siegfried, 235.
- <sup>461</sup> Peyrouse, Boonstra, and Laruelle, 12.
- <sup>462</sup> Dr Kai Wegerich, “Politics of Water in Post-Soviet Central Asia.” *Europa World Plus*, n.d. <http://www.europaworld.com.offcampus.lib.washington.edu/entry/eer.essay.11?authstatuscode=200>.
- <sup>463</sup> Ibid
- <sup>464</sup> Ibid
- <sup>465</sup> World Bank, Environmental and Social Impact Assessment for the Proposed Rogun Hydropower and Regional Water Reservoir Project, 2011, World Bank, 2.
- <sup>466</sup> World Bank, Environmental and Social Impact Assessment for the Proposed Rogun Hydropower and Regional Water Reservoir Project, 8.

- 
- <sup>467</sup>Third Riparian Meetings on Rogun Assessment Studies, *The World Bank*, <http://www.worldbank.org/en/news/press-release/2013/02/13/third-riparian-meetings-on-rogun-assessment-studies> (February 13, 2013).
- <sup>468</sup>*Business Insider Military and Defense*, September 15, 2012
- <sup>469</sup>Bernauer and Siegfried, 232.
- <sup>470</sup>Bernauer and Siegfried, 234.
- <sup>471</sup>Stephen Hodgson, "Strategic Water Resources in Central Asia: in Search of a New International Legal Order," *Centre for European Policy Studies*, 2010, 3. <http://search.proquest.com.offcampus.lib.washington.edu/pais/docview/896165996/13C0D67E2A9439E06DE/1?accountid=14784>
- <sup>472</sup>UNEP Environment and Security in the Amu Darya Basin, 25.
- <sup>473</sup>UNEP Environment and Security in the Amu Darya Basin, 35.
- <sup>474</sup>UNEP Environment and Security in the Amu Darya Basin, 34.
- <sup>475</sup>Bernauer and Siegfried, 236.
- <sup>476</sup>UNEP Environment and Security in the Amu Darya Basin, 31.
- <sup>477</sup>ESCAP, Statistical Yearbook for Asia and the Pacific 2011, 89.
- <sup>478</sup>UNEP Environment and Security in the Amu Darya Basin, 32.
- <sup>479</sup>Central Asia's Looming Conflict of Water: The Downriver Countries, *Water Politics*, <http://www.waterpolitics.com/2012/11/13/central-asias-looming-conflict-over-water-the-downriver-countries/> (November 13, 2012)
- <sup>480</sup>Chellaney, 45.
- <sup>481</sup><http://www.waterpolitics.com/2012/11/13/central-asias-looming-conflict-over-water-the-downriver-countries/>
- 

## Chapter 7

- <sup>482</sup> Nichol, Jim. *Turkmenistan: Recent Developments and U.S. Interests*. Congressional Research Service, August 17, 2012. P. 6
- <sup>483</sup> "India and Central Asia." *Foreign Policy Research Center* 10 (2012). P. 14
- <sup>484</sup> *World Development Indicators 2012*. The World Bank, December 21, 2012. <http://data.worldbank.org/data-catalog/world-development-indicators>.
- <sup>485</sup> Country. "Azerbaijan | Data." Data | The World Bank. <http://data.worldbank.org/country/azerbaijan> (accessed February 11, 2013).
- <sup>486</sup> "International Human Development Indicators - UNDP." Indices & Data | Human Development Reports (HDR) | United Nations Development Programme (UNDP). <http://hdrstats.undp.org/en/countries/profiles/TKM.html> (accessed February 11, 2013).
- <sup>487</sup> "Azerbaijan Economy Profile 2012." Index Mundi - Country Facts. [http://www.indexmundi.com/azerbaijan/economy\\_profile.html](http://www.indexmundi.com/azerbaijan/economy_profile.html) (accessed February 11, 2013).
- <sup>488</sup> *World Development Indicators 2012*. The World Bank, December 21, 2012. <http://data.worldbank.org/data-catalog/world-development-indicators>.
- <sup>489</sup> "Country Rankings: World & Global Economy Rankings on Economic Freedom." Accessed February 20, 2013. <http://www.heritage.org/index/ranking>.
- <sup>490</sup> Country. "Azerbaijan | Data." Data | The World Bank. <http://data.worldbank.org/country/azerbaijan> (accessed February 11, 2013).
- <sup>491</sup> "International Human Development Indicators - UNDP." Indices & Data | Human Development Reports (HDR) | United Nations Development Programme (UNDP). <http://hdrstats.undp.org/en/countries/profiles/AZE.html> (accessed February 11, 2013).
- <sup>492</sup> Country. "Azerbaijan | Data." Data | The World Bank. <http://data.worldbank.org/country/azerbaijan> (accessed February 11, 2013).
- <sup>493</sup> "Overview - Embassy of the Republic of Azerbaijan ." Embassy of the Republic of Azerbaijan. <http://www.azembassy.us/4/41.html> (accessed February 11, 2013).
- <sup>494</sup> IBID.
- <sup>495</sup> IBID.
- <sup>496</sup> IBID.
- <sup>497</sup> IBID.

- <sup>498</sup> "AIC." AIC. <http://aic.az/pages/b40d1e8a-0d00-11e1-a541-081967bb730e/page.html#overview> (accessed February 11, 2013).
- <sup>499</sup> IBID.
- <sup>500</sup> "Overview - Embassy of the Republic of Azerbaijan." Embassy of the Republic of Azerbaijan. <http://www.azembassy.us/4/41.html> (accessed February 11, 2013).
- <sup>501</sup> "ARDNF - Azərbaycan Respublikası Dövlət Neft Fondu - Home." Accessed February 20, 2013. <http://www.oilfund.az/>.
- <sup>502</sup> "Azerbaijan Home." Accessed February 20, 2013. <http://www.worldbank.org/en/country/azerbaijan>.
- <sup>503</sup> "Doing Business in Azerbaijan - World Bank Group." Accessed February 20, 2013. <http://www.doingbusiness.org/data/exploreconomies/azerbaijan>.
- <sup>504</sup> Jha, Saroj Kumar. "Central Asian Countries Need to Identify New and Sustainable Drivers of Growth" *Economic Review*, July 4, 2012.
- <sup>505</sup> Country. "Kazakhstan | Data." Data | The World Bank. <http://data.worldbank.org/country/kazakhstan> (accessed February 11, 2013).
- <sup>506</sup> Country. "Kazakhstan | Data." Data | The World Bank. <http://data.worldbank.org/country/kazakhstan> (accessed February 11, 2013).
- <sup>507</sup> "Kazakhstan Economy Profile 2012." Index Mundi - Country Facts. [http://www.indexmundi.com/kazakhstan/economy\\_profile.html](http://www.indexmundi.com/kazakhstan/economy_profile.html) (accessed February 11, 2013).
- <sup>508</sup> *World Development Indicators 2012*. The World Bank, December 21, 2012. <http://data.worldbank.org/data-catalog/world-development-indicators>.
- <sup>509</sup> "Country Rankings: World & Global Economy Rankings on Economic Freedom." Accessed February 20, 2013. <http://www.heritage.org/index/ranking>.
- <sup>510</sup> "International Human Development Indicators - UNDP." Indices & Data | Human Development Reports (HDR) | United Nations Development Programme (UNDP). <http://hdrstats.undp.org/en/countries/profiles/KAZ.html> (accessed February 11, 2013).
- <sup>511</sup> Country. "Kazakhstan | Data." Data | The World Bank. <http://data.worldbank.org/country/kazakhstan> (accessed February 11, 2013).
- <sup>512</sup> *Economy of Kazakhstan: Kazakhstan's Economic Development*, n.d. Oriental Express Central Asia. [http://www.kazakhstan.orexca.com/kazakhstan\\_economics.shtml](http://www.kazakhstan.orexca.com/kazakhstan_economics.shtml).
- <sup>513</sup> Tugut, Melton, and Choong Lee. *Doing Business in Kazakhstan: Opportunities, Challenges, and Suggestions*, October 22, 2012. <http://www.jgbm.org/page/14%20%20Choong%20Y.%20Lee.pdf>.
- <sup>514</sup> Calugi, Roberto, Stefano Caselli, and Marina Cernov. *Competitiveness and Private Sector Development Central Asia Competitiveness Outlook*. OECD Publishing, 2011. <http://dx.doi.org/10.1787/9789264097285-en>. P. 105-107
- <sup>515</sup> *Economy of Kazakhstan: Kazakhstan's Economic Development*, n.d. Oriental Express Central Asia. [http://www.kazakhstan.orexca.com/kazakhstan\\_economics.shtml](http://www.kazakhstan.orexca.com/kazakhstan_economics.shtml).
- <sup>516</sup> Cutler, Robert. "Kazakhstan's Resource Nationalism: It's Sources and Motives." *Elliot School of International Affairs Central Asia Program* No. 2. Central Asia Economic Paper (September 2012).
- <sup>517</sup> IBID.
- <sup>518</sup> IBID.
- <sup>519</sup> Aizhan, Khoich, and Madiyarova D. Makaevna. "Impact of Foreign Direct Investment on Economic Growth in Kazakhstan." *2011 International Conference on Sociality and Economics Development*. Eurasian National University, 2011. Web.
- <sup>520</sup> Macready, Caroline, and Mihaylo Milovanovitch. "Toward Higher Quality Education and Training." *OECD. Competitiveness and Private Sector Outlook: Central Asia* (2011).
- <sup>521</sup> IBID
- <sup>522</sup> Country. "Turkmenistan | Data." Data | The World Bank. <http://data.worldbank.org/country/turkmenistan> (accessed February 11, 2013).
- <sup>523</sup> IBID
- <sup>524</sup> IBID
- <sup>525</sup> Country. "Turkmenistan | Data." Data | The World Bank. <http://data.worldbank.org/country/turkmenistan> (accessed February 11, 2013).
- <sup>526</sup> "Turkmenistan Economy Profile 2012." Index Mundi - Country Facts. [http://www.indexmundi.com/turkmenistan/economy\\_profile.html](http://www.indexmundi.com/turkmenistan/economy_profile.html) (accessed February 11, 2013).
- <sup>527</sup> IBID.

---

<sup>528</sup> IBID.

<sup>529</sup> *World Development Indicators 2012*. The World Bank, December 21, 2012. <http://data.worldbank.org/data-catalog/world-development-indicators>.

<sup>530</sup> "World Bank Official Warns Of Poverty Risk To Turkmenistan." Radio Free Europe / Radio Liberty. [http://www.rferl.org/content/World\\_Bank\\_Official\\_Warns\\_Of\\_Poverty\\_Risk\\_To\\_Turkmenistan/1514073.html](http://www.rferl.org/content/World_Bank_Official_Warns_Of_Poverty_Risk_To_Turkmenistan/1514073.html) (accessed February 11, 2013).

<sup>531</sup> "Country Rankings: World & Global Economy Rankings on Economic Freedom." Accessed February 20, 2013. <http://www.heritage.org/index/ranking>.

<sup>532</sup> "Azerbaijan Home." Accessed February 20, 2013. <http://www.worldbank.org/en/country/azerbaijan>

<sup>533</sup> "Turkmenistan Strategy [EBRD - Countries]." Accessed February 20, 2013.

<http://www.ebrd.com/pages/country/turkmenistan/strategy.shtml>.

<sup>534</sup> IBID

<sup>535</sup> *Guide to Doing Business and Investing in Turkmenistan*, Edition 2011.

[http://www.pwc.com/uz/en/dbg\\_tkm\\_2011.pdf](http://www.pwc.com/uz/en/dbg_tkm_2011.pdf). P.

<sup>536</sup> "Turkmenistan Strategy [EBRD - Countries]." Accessed February 20, 2013.

<http://www.ebrd.com/pages/country/turkmenistan/strategy.shtml>.

<sup>537</sup> *Guide to Doing Business and Investing in Turkmenistan*, Edition 2011.

[http://www.pwc.com/uz/en/dbg\\_tkm\\_2011.pdf](http://www.pwc.com/uz/en/dbg_tkm_2011.pdf).

<sup>538</sup> Aizhan, Khoich, and Madiyarova D. Makaevna. "Impact of Foreign Direct Investment on Economic Growth in Kazakhstan." *2011 International Conference on Sociality and Economics Development*. Eurasian National University, 2011. Web. p.117

<sup>539</sup> Gunther, Jutta, and Bjorn Jindra. "Investment (FDI) Policy for Azerbaijan Final Report." *Halle Institute for Economic Research*. N.p., Jan. 2009. Web. pp.14-16

---

## Chapter 8

<sup>540</sup> Embassy of the United States." *Latest Country Reports*. N.p., n.d. Web. 18 Jan. 2013.

<sup>541</sup> "Country Profile: Azerbaijan," *CIA World Factbook*, <https://www.cia.gov/library/publications/the-world-factbook/geos/aj.html> (Accessed Feb. 3, 2013).

<sup>542</sup> Ibid.

<sup>543</sup> Ibid.

<sup>544</sup> CESD, "Azerbaijan's Foreign Trade; Comparative Analysis," Baku: Center for Economic and Social Development (2012): 12

<sup>545</sup> "The State Statistical Committee of the Republic of Azerbaijan,"

<http://www.azstat.org/publications/azfigures/2012/en/018en.shtml> (Accessed Feb. 8, 2013).

<sup>546</sup> Ibid

<sup>547</sup> Ibid.

<sup>548</sup> Worldbank, "Azerbaijan Trade Brief," <http://info.worldbank.org/etools/wti/docs/Briefstaags.htm>.

<sup>549</sup> Worldbank, "Azerbaijan Trade-at-a-glance," <http://info.worldbank.org/etools/wti/docs/Briefstaags.htm>.

<sup>550</sup> Ibid.

<sup>551</sup> "Country Profile: Kazakhstan," *CIA World Factbook*, <https://www.cia.gov/library/publications/the-world-factbook/geos/kz.html> (accessed Feb. 8, 2013).

<sup>552</sup> Ibid.

<sup>553</sup> Roman Mogilevski, "Trends and Patterns in Foreign Trade of Central Asian Countries." *Institute of Public Policy and Administration Working Paper*. Bishkek: University of Central Asia (2012): 16.

<sup>554</sup> Ibid, 17-18.

<sup>555</sup> "Country Profile: Kazakhstan," *CIA World Factbook*, <https://www.cia.gov/library/publications/the-world-factbook/geos/kz.html> (accessed Feb. 8, 2013).

<sup>556</sup> Worldbank, "Kazakhstan Trade Brief," <http://info.worldbank.org/etools/wti/docs/Briefstaags.htm>.

<sup>557</sup> Ibid.

<sup>558</sup> Worldbank, "Kazakhstan Trade-at-a-glance," <http://info.worldbank.org/etools/wti/docs/Briefstaags.htm>.

<sup>559</sup> Ibid.

<sup>560</sup> Ibid.

- 
- <sup>561</sup> “Country Profile: Kazakhstan,” *CIA World Factbook*, <https://www.cia.gov/library/publications/the-world-factbook/geos/kz.html> (accessed Feb. 8, 2013).
- <sup>562</sup> Robert Z. Lawrence, “Kazakhstan Trade Policy,” In *Growth and Competitiveness in Kazakhstan: Issues and Priorities in the Areas of Macroeconomic, Industrial, Trade and Institutional Development Policies*, *Center for International Development at Harvard University Working Papers* (2011): 66.
- <sup>563</sup> “Country Profile: Turkmenistan,” *CIA World Factbook*, <https://www.cia.gov/library/publications/the-world-factbook/geos/tx.html> (accessed Feb. 8, 2013).
- <sup>564</sup> Mogilevski. “Trends and Patterns in Foreign Trade of Central Asian Countries,” 25.
- <sup>565</sup> *Ibid.*
- <sup>566</sup> *Ibid.*
- <sup>567</sup> *Ibid.*
- <sup>568</sup> Worldbank, “Turkmenistan Trade Brief,” <http://info.worldbank.org/etools/wti/docs/Briefstaags.htm>.
- <sup>569</sup> Sarah Y Tong and Min-Hua Chiang, “China Intensifies Economic Relations with Central Asia,” *EAI Background Brief*, no.697 (2012): 2.
- <sup>570</sup> Niklas Swanstrom, “China and Greater Central Asia: New Frontiers?” *Silk Road Paper*, Central Asia – Caucasus Institute & Silk Road Studies Program (2011): 43
- <sup>571</sup> Swanstorm, “China and Greater Central Asia,” 43
- <sup>572</sup> *Ibid*, 44
- <sup>573</sup> *Ibid*, 44
- <sup>574</sup> Sebastien Peyrouse, Jos Boonstra and Marlene Laruelle, “Security and Development Approaches to Central Asia: The EU compared to China and Russia,” *EUCAM Working Paper*, no.11 (2012): 5.
- <sup>575</sup> *Ibid.*
- <sup>576</sup> Council of the European Union, *Council conclusions on Central Asia*, 3179<sup>th</sup> Foreign Affairs Council meeting, 2012, 3-4.
- <sup>577</sup> Peyrouse, Boonstra and Laruelle, “Security and Development Approaches to Central Asia: The EU compared to China and Russia,” 15
- <sup>578</sup> Johannes F. Linn, “Central Asia Regional Integration and Cooperation: Reality or Mirage?,” *EDB Eurasian Integration Yearbook 2012*, Eurasian Development Bank (2012): 99.
- <sup>579</sup> Asian Development Bank, “Central Asia: Increasing Gains from Trade Through Regional Cooperation in Trade Policy, Transport, and Customs Transit,” Philippines: Asian Development Bank (2012) 38.
- <sup>580</sup> “Commonwealth of Independent States - Ministry of Foreign Affairs of the Republic of Belarus,” <http://www.mfa.gov.by/en/organizations/membership/list/c2bd4cebdf6bd9f9.html> (Accessed February 7, 2013).
- <sup>581</sup> “Commonwealth of Independent States (CIS) (international Organization) -- Britannica Online Encyclopedia,” <http://www.britannica.com/EBchecked/topic/128945/Commonwealth-of-Independent-States-CIS> (Accessed February 11, 2013).
- <sup>582</sup> Center for Nonproliferation Studies, “Commonwealth of Independent States,” James Martin Center for Nonproliferation Studies, <http://cns.miis.edu/inventory/pdfs/cis.pdf>, 1.
- <sup>583</sup> *Ibid*, 1.
- <sup>584</sup> Olga Shumylo-Tapiola, “The Eurasian Customs Union: Friend or Foe of the EU?,” *The Carnegie Papers*, Carnegie Endowment for International Peace (2012): 4.
- <sup>585</sup> Eurasian Economic Community Integration Committee Secretariat, “EurAsEC Today,” Moscow: Integration Committee Secretariat of the Eurasian Economic Community (2011): 6, [www.evrazes.com/i/other/EurAsEC-today\\_eng.pdf](http://www.evrazes.com/i/other/EurAsEC-today_eng.pdf)
- <sup>586</sup> Elena Kuzmina, “Strengthening Regional Economic Cooperation and Integration in Central Asia by Sharing the Asian Experience.” *Speca Economic Forum Paper* (2012): 8. [http://northcentral-sro.unescap.org/documents/Doklad\\_Kuzmina\\_ENG.pdf](http://northcentral-sro.unescap.org/documents/Doklad_Kuzmina_ENG.pdf)
- <sup>587</sup> *Ibid*
- <sup>588</sup> *Ibid.*
- <sup>589</sup> Lawrence, “Kazakhstan Trade Policy,” 66.
- <sup>590</sup> Linn, “Central Asia Regional Integration and Cooperation: Reality or Mirage?,” 105.
- <sup>591</sup> Shumylo-Tapiola, “The Eurasian Customs Union: Friend or Foe of the EU?,” 10.
- <sup>592</sup> *Ibid*, 11-12.
- <sup>593</sup> *Ibid*, 7.
- <sup>594</sup> *Ibid*, 5-6.
- <sup>595</sup> *Ibid*, 23.

---

<sup>596</sup> “Clinton Calls Eurasian Integration An Effort To ‘Re-Sovietize’,” RadioFreeEurope, December 7, 2012, sec. Russia, <http://www.rferl.org/content/clinton-calls-eurasian-integration-effort-to-resovietize/24791921.html> (Accessed Feb 21, 2013).

<sup>597</sup> *Ibid.*

<sup>598</sup> Fabrizio Vielmini, “The Challenges of Eurasian Integration for Kazakhstan,” *Instituto Per Gli Studi Di Politica Internazionale*, no.151 (2013): 3.

<sup>599</sup> *Ibid.*, 4.

<sup>600</sup> “Economic Cooperation Organization.” <http://www.ecosecretariat.org/> (Accessed February 9, 2013).

<sup>601</sup> Economic Cooperation Organization, “ECO at a Glance,”

<http://www.ecosecretariat.org/eco%20at%20a%20glance.doc> (Accessed Feb 9, 2013)

<sup>602</sup> Kuzmina, “Strengthening Regional Economic Cooperation and Integration in Central Asia by Sharing the Asian Experience,” 24.

<sup>603</sup> ECO, “ECO Annual Economic Report 2009,” Economic Cooperation Organization, <http://www.ecosecretariat.org/MainMenu/publication.htm#Bo>, 10. (Accessed Feb 9, 2013)

<sup>604</sup> *Ibid.*

<sup>605</sup> *Ibid.*

<sup>606</sup> ECO, “ECO Annual Economic Report 2009,” 19.

<sup>607</sup> Asian Development Bank, “Central Asia: Increasing Gains from Trade Through Regional Cooperation in Trade Policy, Transport, and Customs Transit,” 45-46.

<sup>608</sup> *Ibid.*, 45.

<sup>609</sup> Lawrence, “Kazakhstan Trade Policy,” 65.

<sup>610</sup> Oil Brown, Faisal Haq Shaheen, Shaheen Rafi Khan and Moeed Yusuf, “Regional Trade Agreements: Promoting conflict or building peace?,” *International Institute for Sustainable Development* (2005): 3.

<sup>611</sup> Lawrence, “Kazakhstan Trade Policy,” 63.

<sup>612</sup> Bureau of Public Affairs Department Of State, The Office of Website Management, “The United States’ ‘New Silk Road’ Strategy: What Is It? Where Is It Headed?,” U.S. Department of State, September 29, 2011,

<http://www.state.gov/e/rls/rmk/2011/174800.htm> (Accessed Feb 25, 2013).

<sup>613</sup> *Ibid.*

<sup>614</sup> CAREC, “CAREC 2020: A Strategic Framework for the Central Asia Regional Economic Cooperation Program 2011-2020,” Asian Development Bank (2012): 8.

---

## Chapter 9

<sup>615</sup> *World Development Indicators 2012* (The World Bank, December 21, 2012), <http://data.worldbank.org/data/catalog/world-development-indicators>.

<sup>616</sup> *Ibid.*

<sup>617</sup> “Azerbaijan 2009 Country Profile,” *European Bank for Reconstruction and Development*, 2009, <http://ebrdrenewables.com/sites/renew/countries/azerbaijan/profile.aspx>.

<sup>618</sup> *Ibid.*

<sup>619</sup> *The World Bank*.

<sup>620</sup> “Azerbaijan 2009 Country Profile,” *European Bank for Reconstruction and Development*.

<sup>621</sup> *The World Bank*.

<sup>622</sup> *Ibid.*

<sup>623</sup> “Kazakhstan 2009 Country Profile,” *European Bank for Reconstruction and Development*, 2009, <http://ebrdrenewables.com/sites/renew/countries/kazakhstan/profile.aspx>.

<sup>624</sup> *The World Bank*.

<sup>625</sup> *Kazakhstan Power Report Q4 2012*, Business Monitor International (Market Research), accessed February 6, 2013, <http://www.marketresearch.com/Business-Monitor-International-v304/Kazakhstan-Power-Q4-7165531/>.

<sup>626</sup> Gennady Doroshin, “Renewable Energy in Kazakhstan: Problems and Prospects,” *Issuu* no. 10, *Development and Transition* (July 2, 2008): 1–24. 13.

<sup>627</sup> “Coal Statistics 2012,” *World Coal Association*, August 2012, <http://www.worldcoal.org/resources/coal-statistics/>.

- 
- <sup>628</sup> “Kazakhstan Overview/Data,” *US Energy Information Administration*, October 16, 2012, <http://www.eia.gov/countries/country-data.cfm?fips=KZ>.
- <sup>629</sup> *The World Bank*.
- <sup>630</sup> “Turkmenistan 2009 Country Profile,” *European Bank for Reconstruction and Development*, 2009, <http://ebrdrenewables.com/sites/renew/countries/turkmenistan/profile.aspx>.
- <sup>631</sup> *The World Bank*.
- <sup>632</sup> “Turkmenistan Renewable Power,” *TurkmenExpo*, September 23, 2009, <http://turkmenexpo.com/news/48/>.
- <sup>633</sup> “Kazakhstan Overview/Data,” *US Energy Information Administration*, October 16, 2012, <http://www.eia.gov/countries/country-data.cfm?fips=TX>.
- <sup>634</sup> *Ibid.*
- <sup>635</sup> *Renewables 2012 Global Status Report*, REN21 (Paris, France: United Nations Environment Programme, June 11, 2012), <http://www.ren21.net/REN21Activities/GlobalStatusReport.aspx>. 21.
- <sup>636</sup> *Ibid.*
- <sup>637</sup> *Ibid.*
- <sup>638</sup> “Climate Information,” *Casp Info*, 2013, [http://www.caspinfo.net/content/content.asp?menu=0140000\\_000000](http://www.caspinfo.net/content/content.asp?menu=0140000_000000).
- <sup>639</sup> “Wind Power,” *The State Agency on Alternative and Renewable Energy Sources*, 2010, <http://abemda.az/?id=125&lang=3>.
- <sup>640</sup> *Ibid.*
- <sup>641</sup> *Ibid.*
- <sup>642</sup> *Ibid.*
- <sup>643</sup> Carenege Endowment for International Peace, *Summary of Renewable Energy in Central Asia: Enhancing Food Security and Improving Social and Economic Conditions in Remote Locations* (Amu Darya Basin Network, 2008), [http://www.carnegieendowment.org/files/Summary\\_Final2.pdf](http://www.carnegieendowment.org/files/Summary_Final2.pdf). 4.
- <sup>644</sup> *Report: Prospective of Wind Power Development in Kazakhstan*. Almaty, Kazakhstan: United Nations Development Program, 2006. [http://www.windenergy.kz/files/1214226182\\_file.pdf](http://www.windenergy.kz/files/1214226182_file.pdf). 8.
- <sup>645</sup> Jaquelin Cochran, *Kazakhstan’s Potential for Wind and Concentrated Solar Power* (Kazakhstan Institute of Magement Economics and Strategic Research, November 2012), [http://www.kimep.kz/css/files/2011/10/Cochran\\_Wind\\_and\\_Concentrated\\_Solar.pdf](http://www.kimep.kz/css/files/2011/10/Cochran_Wind_and_Concentrated_Solar.pdf). 4.
- <sup>646</sup> *Ibid.*
- <sup>647</sup> I.R. Korpeyev, “Priority Directions of Developing Renewable Energy in Turkmenistan” 43, no. 4, *Applied Solar Energy* (October 2007): 254–257. 255.
- <sup>648</sup> *Ibid.*
- <sup>649</sup> “Turkmenistan Renewable Power.” *TurkmenExpo*, September 23, 2009. <http://turkmenexpo.com/news/48/>.
- <sup>650</sup> Ministry of Industry and Energy. “Perspectives of Use of Alternative and Renewable Energy Sources in Azerbaijan.” presented at the Perspectives of Use of Alternative and Renewable Energy Sources in Azerbaijan, Baku, Azerbaijan, 2011. <http://www.osce.org/baku/40012>.
- <sup>651</sup> *Ibid.*
- <sup>652</sup> Carenege Endowment for International Peace, *Summary of Renewable Energy in Central Asia: Enhancing Food Security and Improving Social and Economic Conditions in Remote Locations*, 5.
- <sup>653</sup> Cochran, 5.
- <sup>654</sup> *Ibid.*
- <sup>655</sup> *Ibid.*
- <sup>656</sup> Korpeyev, 255.
- <sup>657</sup> *Ibid.*
- <sup>658</sup> “Turkmenistan 2009 Country Profile,” *European Bank for Reconstruction and Development*.
- <sup>659</sup> Korpeyev, 255.
- <sup>660</sup> S.M. Bayramova and A.A. Bayramov, *Perspectives of Geothermal Use in Azerbaijan* (Baku, Azerbaijan: Institute of Geology National Academy of Science, 2006), [http://www.science.gov.az/physics/lab29/pdf\\_tpe\\_2006/res/z4.pdf](http://www.science.gov.az/physics/lab29/pdf_tpe_2006/res/z4.pdf). 5.
- <sup>661</sup> Bayramova, 4.
- <sup>662</sup> “Kazakhstan 2009 Country Profile,” *European Bank for Reconstruction and Development*.
- <sup>663</sup> *Ibid.*
- <sup>664</sup> Korpeyev, 255.
- <sup>665</sup> “Turkmenistan 2009 Country Profile,” *European Bank for Reconstruction and Development*.
- <sup>666</sup> *The World Bank*.

- 
- <sup>667</sup> “Ministry of Industry and Energy of the State Agency for Alternative and Renewable Energy Sources on the Decree of the President of the Republic of Azerbaijan” (President of Azerbaijan, July 16, 2009), [http://archive.president.az/articles.php?item\\_id=20090716064638302&sec\\_id=29](http://archive.president.az/articles.php?item_id=20090716064638302&sec_id=29).
- <sup>668</sup> “Mission,” *State Agency for Alternative and Renewable Energy Sources*, July 16, 2009, <http://abemda.az/?lang=3&id=253>.
- <sup>669</sup> Zulfugar Agayev, “Azerbaijan Plans \$7 Billion Boost for Renewable Energy by 2020,” *Bloomberg*, January 3, 2013, <http://www.bloomberg.com/news/2013-01-30/azerbaijan-plans-7-billion-boost-for-renewable-energy-by-2020.html>.
- <sup>670</sup> “Projects,” *State Agency for Alternative and Renewable Energy Sources*, June 2010, <http://abemda.az/?lang=3&id=253>.
- <sup>671</sup> “Fresh Wind from Kazakhstan: New Renewable Energy Law” (Renewable Energy and Energy Efficiency Partnership, June 17, 2009), <http://www.reeep.org/news/fresh-wind-kazakhstan-new-renewable-energy-law>.
- <sup>672</sup> *Ibid.*
- <sup>673</sup> Nariman Gizitdinov, “Kazakhstan to Add 1 Gigawatt of Renewable Energy by 2020,” *Bloomberg*, February 4, 2013, <http://www.bloomberg.com/news/2013-02-05/kazakhstan-to-add-1-gigawatt-of-renewable-energy-power-by-2020.html>.
- <sup>674</sup> *Ibid.*
- <sup>675</sup> “Turkmenistan Energy Profile,” *Reegle*, 2012, [http://www.reegle.info/countries/turkmenistan-energy-profile/TM#energy\\_efficiency](http://www.reegle.info/countries/turkmenistan-energy-profile/TM#energy_efficiency).
- <sup>676</sup> “Turkmenistan Renewable Power,” *TurkmenExpo*.
- <sup>677</sup> “Martifer Solar Installs a 4.5 kWp Off-Grid System in Turkmenistan, Central Asia,” *Global Solar Technology*, October 26, 2011, [http://www.globalsolartechnology.com/solar/index.php?option=com\\_content&view=article&id=8493:-martifer-solar-installs-a-45-kwp-off-grid-system-in-turkmenistan-central-asia&catid=1:news&Itemid=27](http://www.globalsolartechnology.com/solar/index.php?option=com_content&view=article&id=8493:-martifer-solar-installs-a-45-kwp-off-grid-system-in-turkmenistan-central-asia&catid=1:news&Itemid=27).
- <sup>678</sup> Jamalya Imanova, “Renewable Energy [R]evolution Through Institutional Analysis in Azerbaijan: Case Study of Solar Photovoltaic Local Application” (Lund University Center for Sustainability Science, 2011), [http://www.lumes.lu.se/database/alumni/09.11/Thesis/Imanova\\_Jamalya\\_thesis\\_2011.pdf](http://www.lumes.lu.se/database/alumni/09.11/Thesis/Imanova_Jamalya_thesis_2011.pdf). 38
- <sup>679</sup> *Ibid.*
- <sup>680</sup> *Ibid.*
- <sup>681</sup> *Ibid.*
- <sup>682</sup> *Ibid.*
- <sup>683</sup> Renat Tashkinbayev, “Kazakhstan Will Wait for Cheaper Alternative Energy,” *Tengri News*, October 3, 2012, sec. Tech, <http://en.tengrinews.kz/science/Kazakhstan-will-wait-for-cheaper-alternative-energy--13426/>.
- <sup>684</sup> “Kazakhstan 2009 Country Profile,” *European Bank for Reconstruction and Development*, 2009, <http://ebrdrenewables.com/sites/renew/countries/kazakhstan/profile.aspx>.
- <sup>685</sup> *Renewables 2012 Global Status Report*, 21.
- <sup>686</sup> *Renewables 2012 Global Status Report*, 19.
- <sup>687</sup> “Turkmenistan Renewable Power,” *TurkmenExpo*,
- <sup>688</sup> *Ibid.*
- <sup>689</sup> “Azerbaijan Benefits from New Wind Power Tariffs,” *US Agency on International Development*, June 23, 2009, [http://www1.usaid.gov/locations/europe\\_eurasia/press/success/2009-06-23.html](http://www1.usaid.gov/locations/europe_eurasia/press/success/2009-06-23.html).
- <sup>690</sup> *Ibid.*
- <sup>691</sup> Richard Weitz, “New Kazakhstan-US Energy Partnership Plan Adopted,” *Eurasia Daily Monitor* 9, no. 201 (November 2, 2012), [http://www.jamestown.org/programs/edm/single/?tx\\_ttnews%5Btt\\_news%5D=40059&cHash=7926dcc75e445edef6f1ff0f4e1566e0](http://www.jamestown.org/programs/edm/single/?tx_ttnews%5Btt_news%5D=40059&cHash=7926dcc75e445edef6f1ff0f4e1566e0).
- 

## Chapter 10

- <sup>692</sup> Aryn Baker and Walid Fazly, “The New Silk Road,” *Time International (Atlantic Edition)* 179, no. 24 (June 18, 2012): 42-46.
- <sup>693</sup> *Ibid.*
- <sup>694</sup> Joel Brinkley, “Money Pit,” *World Affairs* 175, no. 5 (January 2013): 13-24.
- <sup>695</sup> Baker and Fazly, “The New Silk Road.”

- <sup>696</sup> Alissa Rubin, "World Bank Issues Alert on Afghanistan Economy," *The New York Times*, November 2011, [http://www.nytimes.com/2011/11/23/world/asia/world-bank-issues-alert-on-afghanistan-economy.html?\\_r=0](http://www.nytimes.com/2011/11/23/world/asia/world-bank-issues-alert-on-afghanistan-economy.html?_r=0) (accessed February 20, 2013).
- <sup>697</sup> Baker and Fazly, "The New Silk Road."
- <sup>698</sup> United States Agency for International Development, *Where does the money go?*, December 2012, <http://www.usaid.gov/results-and-data/budget-spending/where-does-money-go> (accessed January 18, 2013).
- <sup>699</sup> Ibid.
- <sup>700</sup> William Byrd, "Improving the Effectiveness of Aid to Afghanistan," World Bank, May 2008, P4, <http://siteresources.worldbank.org/AFGHANISTANEXTN/Resources/305984-1201489063036/4608353-1213149149023/AidEffectiveness.pdf> (accessed February 22, 2013).
- <sup>701</sup> Ibid.
- <sup>702</sup> Ibid.
- <sup>703</sup> Richard Norton-Taylor, "40% of Afghan Aid Returns to Donor Countries, Says Report," *The Guardian*, March 2008, <http://www.guardian.co.uk/world/2008/mar/25/afghanistan.internationalaidanddevelopment1> (accessed January 18, 2013).
- <sup>704</sup> Anthony Cordesman, "The US Cost of the Afghan War: FY2002-FY2013," Center for Strategic and International Studies, May 2012, <http://csis.org/publication/us-cost-afghan-war-fy2002-fy2013> (accessed January 18, 2013).
- <sup>705</sup> Ibid.
- <sup>706</sup> Ibid.
- <sup>707</sup> Brinkley, "Money Pit," P15.
- <sup>708</sup> Stella Dawson. "US ready to cut off development aid to Afghanistan if graft persists," *TrustLaw*, February 2013, <http://www.trust.org/trustlaw/news/us-ready-to-cut-off-development-aid-to-afghanistan-if-graft-persists/> (accessed January 26, 2013).
- <sup>709</sup> United States Government Accountability Office, *Management and Oversight Improvements Needed in Afghanistan*, March 2012, <http://www.gao.gov/products/GAO-12-290> (accessed January 24, 2013).
- <sup>710</sup> Ibid.
- <sup>711</sup> Ibid.
- <sup>712</sup> Ibid.
- <sup>713</sup> Ibid.
- <sup>714</sup> Ibid.
- <sup>715</sup> Brinkley, "Money Pit," P16.
- <sup>716</sup> Ibid P16.
- <sup>717</sup> Ibid P17.
- <sup>718</sup> United States Government Accountability Office, *Management and Oversight Improvements Needed in Afghanistan*.
- <sup>719</sup> United States Senate Committee on Foreign Relations, *Evaluating U.S. Foreign Assistance to Afghanistan*, United States Senate, June 2011, <http://www.gpo.gov/fdsys/pkg/CPRT-112SPRT66591/html/CPRT-112SPRT66591.htm> (accessed February 2, 2013).
- <sup>720</sup> Joshua Kucera, "The New Silk Road?" *The Diplomat*, November 2011, <http://thediplomat.com/2011/11/11/the-new-silk-road/> (accessed February 2, 2013).
- <sup>721</sup> Frederick Starr, "Afghanistan Beyond the Fog of Nation Building," *Silk Road Paper*, January 2011, <http://www.silkroadstudies.org/new/docs/silkroadpapers/1101Afghanistan-Starr.pdf> (accessed February 8, 2013).
- <sup>722</sup> Baker and Fazly, "The New Silk Road."
- <sup>723</sup> Ibid.
- <sup>724</sup> Ibid.
- <sup>725</sup> Ibid.
- <sup>726</sup> Ibid.
- <sup>727</sup> Scott Radnitz, "Waiting for Spring," *Foreign Policy*, February 2012, [www.foreignpolicy.com/articles/2012/02/17/waiting\\_for\\_spring](http://www.foreignpolicy.com/articles/2012/02/17/waiting_for_spring) (accessed February 8, 2013).
- <sup>728</sup> Alexander Cooley, *Great Games, Local Rules*, (Oxford University Press, 2012), P155.
- <sup>729</sup> Ibid P155.
- <sup>730</sup> Asian Development Bank, *Central Asia: Increasing Gains from Trade Through Cooperation in Regional Trade Policy, Transport and Customs Transit*, Manila, 2006.

---

<sup>731</sup>United States Chamber of Commerce, *Survey of Investment Climate, Transport & Trade Facilitation*, Prepared for the Eurasian Business Platform, February 2008, [www.uschamber.com/sites/default/files/international/files/amchamsurvey.pdf](http://www.uschamber.com/sites/default/files/international/files/amchamsurvey.pdf) (accessed February 8, 2013).

<sup>732</sup>Ibid.

<sup>733</sup>Malika Rakhmanova, "Complex Customs and Transportation Procedures Breeding Ground for Corruption, Says Expert," *ASIA-Plus*, June 2008, <http://www.news.tj/en/news/complex-customs-and-transportation-procedures-breeding-ground-corruption-tajikistan-says-expert> (accessed February 8, 2013).

<sup>734</sup>Ibid.

<sup>735</sup>Richard Orange, Russia Worries that Customs Union Outpost is Smugglers' Paradise," *Eurasianet*, February 2011, <http://www.eurasianet.org/node/62843>, (accessed February 8, 2013).

<sup>736</sup>Cooley, *Great Games, Local Rules*, P156.

<sup>737</sup>Radnitz, "Waiting for Spring."

<sup>738</sup>Ibid.

<sup>739</sup>Ambassador Earl Anthony Wayne, *Capital Flight and its Impact on Future Stability*, Embassy Kabul, October 2009, WikiLeaks cable, 09KABUL3364 (accessed February 22, 2013).

<sup>740</sup>Ibid.

<sup>741</sup>Ibid.

<sup>742</sup>Quil Lawrence, "Dreams Of A Mining Future On Hold In Afghanistan," National Public Radio, March 2012, <http://www.npr.org/2012/04/04/149611352/dreams-of-a-mining-future-on-hold-in-afghanistan> (accessed February 22, 2013).

<sup>743</sup>Ibid.

<sup>744</sup>Ibid.

<sup>745</sup>John Herbst and William Courtney, "After the Afghan Pullout, the Dangers for Central Asia," *Radio Free Europe*, February 2013, <http://www.rferl.org/content/central-asia-afghan-pullout/24904747.html> (accessed February 23, 2013).

<sup>746</sup>International Crisis Group, "Central Asia: Decay and Decline," Asia Report N°201, February 2011, Pi-ii <https://eres.lib.washington.edu/eres/download.aspx?docID=181096&shortname=icgdecay11.pdf>, (accessed February 18, 2013).

<sup>747</sup>Ibid.

---

## Chapter 11

<sup>748</sup>Helen Milner and Dustin Tingley, *The Choice for Multilateralism: Foreign aid and American Foreign Policy*, (Princeton and Harvard University: November 2010,) 222.

[http://ncgg.princeton.edu/IPES/2010/room2/F340\\_pres2.pdf](http://ncgg.princeton.edu/IPES/2010/room2/F340_pres2.pdf)

<sup>749</sup>Emily Bosch and Suzanne Steenson, *2012 DAC Report on Multilateral Aid*, (OECD, Paris: 2012)

<sup>750</sup>Milner, Helen and Dustin Tingley, *The Choice for Multilateralism*, 223.

<sup>751</sup>US Department of State, *2012 Report to Congress: US policy and the Organization for Security and Cooperation in Europe*, (2012). <http://www.state.gov/p/eur/rls/rpt/190079.htm>

<sup>752</sup>US Department of State, *Azerbaijan: Foreign Operations Assistance Fact Sheet*. (Office of the Coordinator of U.S. Foreign Assistance to Europe and Eurasia, April 2012).

<http://www.state.gov/documents/organization/193977.pdf>

<sup>753</sup>Jim Nichol, *Azerbaijan: Recent Developments and US Interests*, 5.

<sup>754</sup>Ibid, 12.

<sup>755</sup>Gary Robbins, *US statements on convictions of April 2 protesters in Azerbaijan*, (Vienna: US Mission to the OSCE, 13 October 2011).

<http://iipdigital.usembassy.gov/st/english/texttrans/2011/10/20111013164520su0.9534571.html#axzz2Ir5TNQhF>

<sup>756</sup>Jim Nichol, *Azerbaijan: Recent Developments and US Interests*, 23.

<sup>757</sup>Ibid, 16.

<sup>758</sup>Jim Nichol, *Central Asia: Regional Developments and Implications on US Interests*, (Washington DC: Congressional Research Service, 13 January 2013), 3.

<sup>759</sup>Sebastien Peyrouse, Jos Boonstra and Marlene Laruelle, *Security and development approaches to Central Asia, The EU compared to China and Russia*, (Finland: EUCAM, May 2012), 9.

- 
- <sup>760</sup> Jim Nichol, *Central Asia: Regional Developments and Implications on US Interests*, (Washington DC: Congressional Research Service, 13 January 2013), 28.
- <sup>761</sup> Ibid. 16
- <sup>762</sup> Ibid.
- <sup>763</sup> Jim Nichol, *Central Asia: Regional Developments and Implications on US Interests*, (2013), 29.; Reporters without borders. Official Website: <http://en.rsf.org/kazakhstan-main-opposition-media-silenced-in-28-12-2012,43751.html>
- <sup>764</sup> Reporters without Borders. "Main Opposition Media Silences Within a Month." Kazakhstan: Reporters without Borders. 25 December 2012. <http://en.rsf.org/kazakhstan-main-opposition-media-silenced-in-28-12-2012,43751.html>
- <sup>765</sup> Jim Nichol, *Turkmenistan: Recent Developments and US Interests*, 3.
- <sup>766</sup> US Department of State, *Turkmenistan: Foreign Operations Assistance Fact Sheet*. (Office of the Coordinator of U.S. Foreign Assistance to Europe and Eurasia, April 2012). <http://www.state.gov/documents/organization/193935.pdf>
- <sup>767</sup> Jim Nichol, *Turkmenistan: Recent Developments and US Interests*, 4.
- <sup>768</sup> Ibid, 4.
- <sup>769</sup> Joshua Kucera, *U.S. Military Aid to Central Asia: who benefits?* (New York: Central Eurasia Project, September 2012), 8.
- <sup>770</sup> Ibid, 8.
- <sup>771</sup> Jim Nichol, *Central Asia: Regional Developments and Implications on US Interests*, (2013), 60.
- <sup>772</sup> Joshua Kucera, *U.S. Military Aid to Central Asia: who benefits?* 16.
- <sup>773</sup> Ibid, 21.
- <sup>774</sup> Ibid, 29.
- <sup>775</sup> Ibid, 5.
- <sup>776</sup> Jim Nichol, *Central Asia: Regional Developments and Implications on US Interests*, (Washington DC: Congressional Research Service, 19 January 2012), 9.
- <sup>777</sup> Sebastien Peyrouse, Jos Boonstra and Marlene Laruelle, *Security and development approaches to Central Asia, The EU compared to China and Russia*, (Finland: EUCAM, May 2012) 8.
- <sup>778</sup> Patty Gray, "Looking 'the gift' in the mouth: Russia as a donor," *Anthropology Today*, 27 No. 2, (Ireland, April 2011), 5.
- <sup>779</sup> Sebastien Peyrouse, Jos Boonstra and Marlene Laruelle, *Security and development approaches to Central Asia, The EU compared to China and Russia*, 7.
- <sup>780</sup> Ibid. 7
- <sup>781</sup> Ibid. 8
- <sup>782</sup> Patty Gray, "Looking 'the gift' in the mouth: Russia as a donor," 8.
- <sup>783</sup> Global Legal Research Center, *Regulation of Foreign Aid in Selected Countries 2011/2012*, (Washington DC: Law Library of Congress, 2012), 212.
- <sup>784</sup> Ibid, 212.
- <sup>785</sup> Helen Milner and Dustin Tingley, *The Choice for Multilateralism*, 224.
- <sup>786</sup> Sebastien Peyrouse, Jos Boonstra and Marlene Laruelle, *Security and development approaches to Central Asia, The EU compared to China and Russia*, 9.
- <sup>787</sup> Ibid, 9.
- <sup>788</sup> Jim Nichol, *Central Asia: Regional Developments and Implications on US Interests*, (2012), 10.
- <sup>789</sup> Sebastien Peyrouse, Jos Boonstra and Marlene Laruelle, *Security and development approaches to Central Asia, The EU compared to China and Russia*, 8.
- <sup>790</sup> Research Center for Economic Cooperation and Development. *Russia: National Strategies on Foreign Assistance*. <http://en.rcicd.org/national-strategies-on-development-assistance/russia/>
- <sup>791</sup> Global Legal Research Center, *Regulation of Foreign Aid in Selected Countries 2011/2012*, 213.
- <sup>792</sup> Chinese Ministry on Commerce, *White Papers on Chinese Foreign Aid Policy*, (12 April 2012), 3. [http://english.gov.cn/official/2011-04/21/content\\_1849913.htm](http://english.gov.cn/official/2011-04/21/content_1849913.htm)
- <sup>793</sup> BBC, *Xinjiang Timeline*, (Accessed 14 January 2013). <http://news.bbc.co.uk/2/hi/asia-pacific/8138866.stm>
- <sup>794</sup> Graham Fuller and S. Frederick Starr, *The Xinjiang Problem*, (Baltimore: Central Asian Institute, John Hopkins University, 2003), 5.
- <sup>795</sup> Joshua Kucera, *Central Asia: what is China's policy driver?* (Eurasianet News, 18 December 2012). <http://www.eurasianet.org/node/66314>

---

<sup>796</sup> Ibid.

<sup>797</sup> Sebastien Peyrouse, Jos Boonstra and Marlene Laruelle, *Security and development approaches to Central Asia, The EU compared to China and Russia*, 11.

<sup>798</sup> Chinese Ministry on Commerce, *White Papers on Chinese Foreign Aid Policy*, 1.

<sup>799</sup> Sebastien Peyrouse, Jos Boonstra and Marlene Laruelle, *Security and development approaches to Central Asia, The EU compared to China and Russia*, 9.

---

## Chapter 12

<sup>800</sup> Y. Zeinolabedin and Z. Shirzad, "Geopolitics and Environmental Issues in the Caspian Sea," (Report and Opinion, University of Guilan, 2009), 113-121.

<sup>801</sup> Ibid.

<sup>802</sup> N. Jafari, "Review of Pollution Sources and Controls in Caspian Sea Region," *Journal of Ecology and the Natural Environment*, no 2. (2010): 25-29.

<sup>803</sup> N. Jafari, "Review of Pollution Sources and Controls in Caspian Sea Region," *Journal of Ecology and the Natural Environment*, no 2. (2010): 25-29.

<sup>804</sup> Ibid.

<sup>805</sup> N. Rogozhina, "The Caspian," *Problems of Economic Transition*, no. 5 (2010): 86-93.

<sup>806</sup> Ibid.

<sup>807</sup> Joseph McKay, "Running dry: international law and the management of Aral Sea depletion," *Central Asian Survey*, no. 1 (2009): 17-27.

<sup>808</sup> Joseph McKay, "Running dry: international law and the management of Aral Sea depletion," *Central Asian Survey*, no. 1 (2009): 18.

<sup>809</sup> Jafari, *Review of Pollution Sources and Controls in Caspian Sea Region*, 25-29.

<sup>810</sup> Ibid.

<sup>811</sup> Ibid.

<sup>812</sup> Philip Micklin, "The Aral Sea Disaster," *Annual Review of Earth and Planetary Sciences*, no. 35 (2006): 47-72.

<sup>813</sup> Ibid.

<sup>814</sup> Philip Micklin and Nikolay Aladin, "Reclaiming the Aral Sea," *Scientific American*, no. 4 (2008): 64-71.

<sup>815</sup> "Aral Sea Foundation," *The Aral Sea Agenda*. <http://www.aralsea.org/>, (accessed Feb. 18, 2013).

<sup>816</sup> Micklin, *The Aral Sea Disaster*, 47-72.

<sup>817</sup> Kathleen Purvis-Roberts and Cynthia Werner, "Perceived Risks from Radiation and Nuclear Testing Near Semipalatinsk, Kazakhstan: A Comparison Between Physicians, Scientists and the Public," *Risk Analysis*, no 2 (2007): 291-302.

<sup>818</sup> Bernd Grosche and Daniel Lackland, Charles Land, Steven Simon, Kazbek Apsalikov, Ludmilla Pivina, Susanne Bauer, and Boris Gusev, "Mortality from Cardiovascular Diseases in the Semipalatinsk Historical Cohort, 1960-1999, and its Relationship to Radiation Exposure," *Radiation Research Society*, no. 5 (2011): 660-669.

<sup>819</sup> "The Lasting Toll of Semipalatinsk's Nuclear Testing," *Bulletin of the Atomic Scientists*, <http://www.thebulletin.org/web-edition/features/the-lasting-toll-of-semipalatinsk-nuclear-testing>, (accessed Feb. 18, 2013).

<sup>820</sup> Purvis-Roberts and Werner, *Perceived Risks from Radiation and Nuclear Testing Near Semipalatinsk, Kazakhstan: A Comparison Between Physicians, Scientists and the Public*, 291-302.

<sup>821</sup> S.A. Geras'kin, "Effects of Chronic Exposure in Populations of *Koeleria Gracilis* Pers. From the Semipalatinsk Nuclear Test Site, Kazakhstan," *Journal of Environment*, no. 104 (2012): 55-63.

<sup>822</sup> T.I., Evseeva, "Assessment of Soil Degradation in Areas of Nuclear Explosions at the Semipalatinsk Nuclear Test Site," *Biophysics*, no 56 (2011): 747-754.

<sup>823</sup> Purvis-Roberts and Werner, *Perceived Risks from Radiation and Nuclear Testing Near Semipalatinsk, Kazakhstan: A Comparison Between Physicians, Scientists and the Public*, 291-302.

<sup>824</sup> Grosche, Lackland, Land, Simon, Apsalikov, Pivina, Bauer, and Gusev, *Mortality from Cardiovascular Diseases in the Semipalatinsk Historical Cohort, 1960-1999, and its Relationship to Radiation Exposure*, *Radiation Research Society*, 660-669.

<sup>825</sup> Ibid.

- 
- <sup>826</sup> “The Lasting Toll of Semipalatinsk’s Nuclear Testing,” *Bulletin of the Atomic Scientists*, <http://www.thebulletin.org/web-edition/features/the-lasting-toll-of-semipalatinsk-nuclear-testing>, (accessed Feb.18, 2013).
- <sup>827</sup> Alice Sigurdson, Charles Land, et.al, “Thyroid Nodules, Polymorphic Variants in DNA Repair and RET-Related Genes, and Interaction with Ionizing Radiation Exposure from Nuclear Tests in Kazakhstan,” *Radiation Research Cancer Society*, no. 1 (2009): 77-88.
- <sup>828</sup> “The Lasting Toll of Semipalatinsk’s Nuclear Testing,” *Bulletin of the Atomic Scientists*, <http://www.thebulletin.org/web-edition/features/the-lasting-toll-of-semipalatinsk-nuclear-testing>, (accessed Feb.18, 2013).
- <sup>829</sup> “Types of Cardiovascular Disease,” *World Health Organization*, [http://www.who.int/cardiovascular\\_diseases/en/cvd\\_atlas\\_01\\_types.pdf](http://www.who.int/cardiovascular_diseases/en/cvd_atlas_01_types.pdf), (accessed Feb. 18, 2013).
- <sup>830</sup> *Ibid.*
- <sup>831</sup> “Smoking and Tobacco Use,” *Centers for Disease Control and Prevention*, [http://www.cdc.gov/tobacco/basic\\_information/health\\_effects/heart\\_disease/](http://www.cdc.gov/tobacco/basic_information/health_effects/heart_disease/), (accessed Feb. 18, 2013).
- <sup>832</sup> “WHO Report on Global Tobacco Epidemic, 2011,” *World Health Organization*, [http://www.who.int/tobacco/surveillance/policy/country\\_profile/kaz.pdf](http://www.who.int/tobacco/surveillance/policy/country_profile/kaz.pdf) (accessed Feb. 18, 2013).
- <sup>833</sup> *Ibid.*
- <sup>834</sup> *Ibid.*
- <sup>835</sup> *Ibid.*
- <sup>836</sup> *Ibid.*
- <sup>837</sup> “Central Asia in the Spotlight: Growing HIV Epidemic Among People Who Inject Drugs,” *World Health Organization*, <http://www.euro.who.int/en/what-we-publish/information-for-the-media/sections/latest-press-releases/central-asia-in-the-spotlight-growing-hiv-epidemic-among-people-who-inject-drugs>, (accessed Feb. 18, 2013).
- <sup>838</sup> “UNICEF: Young of Central Asia and Eastern Europe Suffering Blame and Banishment,” *UNAIDS*, <http://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2010/july/20100719prviennaunicef/>, (accessed Feb. 18, 2013).
- <sup>839</sup> *Ibid.*
- <sup>840</sup> “Central Asia in the Spotlight: Growing HIV Epidemic Among People Who Inject Drugs,” *World Health Organization*, <http://www.euro.who.int/en/what-we-publish/information-for-the-media/sections/latest-press-releases/central-asia-in-the-spotlight-growing-hiv-epidemic-among-people-who-inject-drugs>, (accessed Feb. 18, 2013).
- <sup>841</sup> *Ibid.*
- <sup>842</sup> “Turkmenistan,” *World Health Organization*, [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0008/158471/TKM-HIV-AIDS-Country-Profile-2011-rev1.pdf](http://www.euro.who.int/__data/assets/pdf_file/0008/158471/TKM-HIV-AIDS-Country-Profile-2011-rev1.pdf), (accessed Feb. 18, 2013).
- <sup>843</sup> S. Healy, “Public Health Advocacy for the Berlin Declaration on Tuberculosis in the Former Soviet Union: The View of Medicins Sans Frontiers,” *European Journal of Microbiology and Immunology*, no. 4 (2012): 282-286.
- <sup>844</sup> “Global Tuberculosis Report 2012,” *World Health Organization*, [http://apps.who.int/iris/bitstream/10665/75938/1/9789241564502\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/75938/1/9789241564502_eng.pdf), (accessed Feb. 18, 2013).
- <sup>845</sup> *Ibid.*
- <sup>846</sup> “UNAIDS and the Stop TB Partnership join forces to stop HIV/TB deaths,” *UNAIDS*, <http://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2012/november/20121127prstoptb/>, (accessed Feb. 18, 2013).
- <sup>847</sup> “TB/HIV Facts 2011-2012,” *World Health Organization*, [http://www.who.int/tb/publications/TBHIV\\_Facts\\_for\\_2011.pdf](http://www.who.int/tb/publications/TBHIV_Facts_for_2011.pdf), (accessed Feb. 28, 2013).
- <sup>848</sup> UNAIDS and the Stop TB Partnership join forces to stop HIV/TB deaths,” *UNAIDS*, <http://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2012/november/20121127prstoptb/>, (accessed Feb. 18, 2013).
- 

## Chapter 13

<sup>849</sup> “The Universal Declaration of Human Rights.” Accessed February 11, 2013.

<http://www.un.org/en/documents/udhr/index.shtml>.

<sup>850</sup> *ibid*

<sup>851</sup> John Herbst and William Courtney, “After The Afghan Pullout, The Dangers For Central Asia,” *RadioFreeEurope/RadioLiberty*, February 17, 2013, sec. Commentary, <http://www.rferl.org/content/central-asia-afghan-pullout/24904747.html>.

<sup>852</sup> Arch Puddington, *Freedom in the World 2013: Democratic Breakthroughs in the Balance* (Freedom House, 2013), 7 <http://www.freedomhouse.org/sites/default/files/FIW%202013%20Overview%20Essay%20for%20Web.pdf>.

<sup>853</sup> “OCCRP Names Aliyev ‘Person of the Year’,” accessed February 20, 2013, <https://reportingproject.net/occrp/index.php/en/ccwatch/cc-watch-indepth/1772-occrp-names-aliyev-qperson-of-the-year-q->.

<sup>854</sup> Ibid

<sup>855</sup> Arch Puddington, *Freedom in the World 2013*, 2

<sup>856</sup> Ibid, 2

<sup>857</sup> “Amnesty International | Working to Protect Human Rights.” Accessed February 11, 2013. <http://www.amnesty.org/en/region/kazakhstan/report-2012>.

Bureau of Public Affairs Department Of State. The Office of Website Management, “Kazakhstan,” Report, *U.S. Department of State*, May 24, 2012, <http://www.state.gov/j/drl/rls/hrrpt/2011/sca/186466.htm>.

<sup>858</sup> Department Of State. The Office of Website Management, Bureau of Public Affairs. “US Policy in Central Asia.” Remarks|Remarks. *U.S. Department of State*, January 25, 2012. <http://www.state.gov/p/sca/rls/rmks/2012/182643.htm>.

<sup>859</sup> “Amnesty International | Working to Protect Human Rights.”

<sup>860</sup> Bureau of Public Affairs Department Of State. “Kazakhstan”

<sup>861</sup> Jim Nichol, *Kazakhstan: Recent Developments and US Interests* (Congressional Research Service, August 10, 2012), 1.

<sup>862</sup> Bureau of Public Affairs Department Of State. “Kazakhstan”

<sup>863</sup> Jim Nichol, *Kazakhstan*, 3

<sup>864</sup> Human Rights Watch (Organization), *World report 2013 : events of 2012*. (United States; New York: www.hrw.org ; Seven Stories Press, 2012), 447 [https://www.hrw.org/sites/default/files/wr2013\\_web.pdf](https://www.hrw.org/sites/default/files/wr2013_web.pdf).

<sup>865</sup> Bureau of Public Affairs Department Of State. The Office of Website Management, “Azerbaijan,” Long Releases, *U.S. Department of State*, May 24, 2012, <http://www.state.gov/j/drl/rls/hrrpt/2011/eur/186330.htm>.

<sup>866</sup> ibid

<sup>867</sup> “Picking a Winner in Turkmenistan - Institute for War and Peace Reporting - P220,” January 13, 2012, <http://iwpr.net/report-news/picking-winner-turkmenistan>.

<sup>868</sup> Ibid

<sup>869</sup> Human Rights Watch (Organization), *World report 2013*, 494

<sup>870</sup> Bureau of Public Affairs Department Of State. The Office of Website Management, “Turkmenistan,” Long Releases, *U.S. Department of State*, May 24, 2012, <http://www.state.gov/j/drl/rls/hrrpt/2011/sca/186479.htm>.

<sup>871</sup> Jim Nichol, *Turkmenistan: Recent Developments and US Interests* (Congressional Research Service, August 17, 2012), 3.

<sup>872</sup> Jim Nichol, *Kazakhstan*, 7

<sup>873</sup> “Kazakhstan: Growing Crackdown on Free Speech | Human Rights Watch.” Accessed February 11, 2013. <http://www.hrw.org/news/2012/12/13/kazakhstan-growing-crackdown-free-speech>.

<sup>874</sup> Bureau of Public Affairs Department Of State. “Kazakhstan”

<sup>875</sup> “Kazakhstan Must Not Muzzle Media Outlets.” Accessed February 11, 2013. <http://www.amnestyusa.org/news/news-item/kazakhstan-must-not-muzzle-media-outlets>.

<sup>876</sup> Andrew E. Kramer, “Human Rights Watch Report Says Kazakhstan Abuses Oil Workers,” *The New York Times*, September 10, 2012, sec. World / Asia Pacific, <http://www.nytimes.com/2012/09/10/world/asia/human-rights-watch-report-says-kazakhstan-abuses-oil-workers.html>.

<sup>877</sup> ibid

<sup>878</sup> ibid

<sup>879</sup> “Kazakhstan: Growing Crackdown on Free Speech | Human Rights Watch.” Accessed February 11, 2013. <http://www.hrw.org/news/2012/12/13/kazakhstan-growing-crackdown-free-speech>.

<sup>880</sup> Shahin Abbasov, “Azerbaijan: Popular Frustration Explodes in Provincial Town,” *EurasiaNet*, January 24, 2013, <http://www.eurasianet.org/node/66445>.

<sup>881</sup> ibid

<sup>882</sup> “Dozens Arrested After Azerbaijan Protests.” Accessed February 11, 2013. <http://www.aljazeera.com/news/asia/2013/01/201312623135907244.html>.

---

<sup>883</sup> *ibid*

<sup>884</sup> “Amnesty International | Working to Protect Human Rights.” Accessed February 11, 2013.  
<http://www.amnesty.org/en/region/azerbaijan/report-2012#section-9-6>.

<sup>885</sup> Bureau of Public Affairs Department Of State. “Azerbaijan,”

<sup>886</sup> *ibid*

<sup>887</sup> Bureau of Public Affairs Department Of State. “Turkmenistan.”

<sup>888</sup> *ibid*

<sup>889</sup> Human Rights Watch (Organization), *World report 2013*, 450-451

<sup>890</sup> *Ibid*, 451

<sup>891</sup> “Kazakhstan: Growing Crackdown on Free Speech | Human Rights Watch,” accessed February 11, 2013,  
<http://www.hrw.org/news/2012/12/13/kazakhstan-growing-crackdown-free-speech>.

<sup>892</sup> “Kazakhstan Must Not Muzzle Media Outlets.” Accessed February 11, 2013.  
<http://www.amnestyusa.org/news/news-item/kazakhstan-must-not-muzzle-media-outlets>.

<sup>893</sup> *ibid*

<sup>894</sup> *ibid*

<sup>895</sup> Human Rights Watch (Organization), *World report 2013*, 451

<sup>896</sup> *Ibid*, 451

<sup>897</sup> Jim Nichol, *Kazakhstan*, 7

<sup>898</sup> “Amnesty International | Working to Protect Human Rights.” Accessed February 11, 2013.  
<http://www.amnesty.org/en/region/kazakhstan/report-2012>.

<sup>899</sup> *ibid*

<sup>900</sup> Human Rights Watch (Organization), *World report 2013*, 401

<sup>901</sup> *Ibid*, 401

<sup>902</sup> *Ibid*, 496

<sup>903</sup> Jim Nichol, *Turkmenistan*, 5

<sup>904</sup> Bureau of Public Affairs Department Of State. “Kazakhstan”

<sup>905</sup> “Amnesty International | Working to Protect Human Rights.” Accessed February 11, 2013.  
<http://www.amnesty.org/en/region/kazakhstan/report-2012>.

<sup>906</sup> Bureau of Public Affairs Department Of State. “Kazakhstan”

<sup>907</sup> *Ibid*

<sup>908</sup> Bureau of Public Affairs Department Of State. “Azerbaijan.”

<sup>909</sup> “Amnesty International | Working to Protect Human Rights.” Accessed February 11, 2013.  
<http://www.amnesty.org/en/region/azerbaijan/report-2012#section-9-6>.

<sup>910</sup> “Amnesty International | Working to Protect Human Rights.” Accessed February 11, 2013.  
<http://www.amnesty.org/en/region/turkmenistan/report-2012#section-22-3>.

<sup>911</sup> Bureau of Public Affairs Department Of State. “Turkmenistan.”

<sup>912</sup> “Kazakhstan Acts Against Human Trafficking,” *Central Asia Online*, accessed February 28, 2013,  
[http://centralasiaonline.com/en\\_GB/articles/caii/features/main/2012/09/25/feature-01](http://centralasiaonline.com/en_GB/articles/caii/features/main/2012/09/25/feature-01).

<sup>913</sup> “484 Human Trafficking Cases Found in Six Years (UPDATE),” *AzerNews*, accessed February 28, 2013,  
<http://www.azernews.az/azerbaijan/47248.html>.

<sup>914</sup> Bureau of Public Affairs Department Of State. The Office of Website Management, “Trafficking in Persons Report 2012,” June 15, 2012, <http://www.state.gov/j/tip/rls/tiprpt/2012/index.htm>.

<sup>915</sup> “Kazakhstan Acts Against Human Trafficking,” *Central Asia Online*, accessed February 28, 2013,  
[http://centralasiaonline.com/en\\_GB/articles/caii/features/main/2012/09/25/feature-01](http://centralasiaonline.com/en_GB/articles/caii/features/main/2012/09/25/feature-01).

<sup>916</sup> Bureau of Public Affairs Department Of State. “Trafficking in Persons Report 2012”

<sup>917</sup> “OSCE Workshops on Human Trafficking Begin in Kazakhstan,” *Central Asia Online*, accessed February 28, 2013, [http://centralasiaonline.com/en\\_GB/articles/caii/newsbriefs/2012/03/19/newsbrief-11](http://centralasiaonline.com/en_GB/articles/caii/newsbriefs/2012/03/19/newsbrief-11).

<sup>918</sup> *ibid*

<sup>919</sup> Bureau of Public Affairs Department Of State. The Office of Website Management, “Foreign Operations Appropriated Assistance: Kazakhstan,” Press Release|Fact Sheet, *U.S. Department of State*, April 1, 2011,  
<http://www.state.gov/p/eur/rls/fs/167305.htm>.

<sup>920</sup> Bureau of Public Affairs Department Of State. The Office of Website Management, “Foreign Operations Assistance: Kazakhstan.” Press Release|Fact Sheet. *U.S. Department of State*, April 1, 2012.  
<http://www.state.gov/p/eur/rls/fs/193577.htm>.

- 
- <sup>921</sup> Bureau of Public Affairs Department Of State. The Office of Website Management, “Foreign Operations Assistance: Azerbaijan.” Press Release|Fact Sheet. *U.S. Department of State*, April 1, 2012. <http://www.state.gov/p/eur/rls/fs/193765.htm>.
- <sup>922</sup> Bureau of Public Affairs Department Of State. “Foreign Operations Appropriated Assistance: Kazakhstan,” 2012
- <sup>923</sup> Bureau of Public Affairs Department Of State. “Foreign Operations Assistance: Turkmenistan.”
- <sup>924</sup> Bureau of Public Affairs Department Of State. “Foreign Operations Appropriated Assistance: Kazakhstan,” 2012
- <sup>925</sup> Bureau of Public Affairs Department Of State. “Foreign Operations Assistance: Turkmenistan.”
- <sup>926</sup> Jim Nichol, *Kazakhstan*, 17
- <sup>927</sup> Courtney and Herbst, “After The Afghan Pullout, The Dangers For Central Asia”
- <sup>928</sup> Sebastian Peyrouse, Jos Boonstra, and Marlene Laruelle, *Security and Development in Central Asia. The EU Compared to China and Russia* (EUCAM, May 2012) 22.
- <sup>929</sup> Axyonova, Vera, and EUCAM. *The EU-Central Asia Human Rights Dialogues: Making a Difference?* EUCAM : Open Society Foundations, 2011. [www.eucentralasia.eu](http://www.eucentralasia.eu).
- <sup>930</sup> Jim Nichol, *Central Asia: Regional Developments and Implications for US Interests* (C, January 9, 2013), 28.
- <sup>931</sup> Peyrouse, Boonstra, and Laruelle, *Security and Development in Central Asia*, 19.
- <sup>932</sup> *Ibid*, 15
- <sup>933</sup> *Ibid.*, 15
- <sup>934</sup> *Front Line Defenders 2013 Annual Report: Global Trends in 2012 for Human Rights Defenders* (Front Line Defenders, 2013), 3, [http://www.frontlinedefenders.org/files/frontline\\_annual\\_report2013\\_0.pdf](http://www.frontlinedefenders.org/files/frontline_annual_report2013_0.pdf)
- <sup>935</sup> *Ibid*, 12
- <sup>936</sup> “Picking a Winner in Turkmenistan - Institute for War and Peace Reporting - P220,” January 13, 2012, <http://iwpr.net/report-news/picking-winner-turkmenistan>.
- <sup>937</sup> *Front Line Defenders 2013 Annual Report*, 12
- <sup>938</sup> Philip Shishkin, *Central Asia’s Crisis of Governance* (Asia Society, January 2012), 31.
- <sup>939</sup> Courtney and Herbst, “After The Afghan Pullout, The Dangers For Central Asia”
- <sup>940</sup> Peyrouse, Boonstra, and Laruelle, *Security and Development in Central Asia*, 17.
- <sup>941</sup> Philip Shishkin, *Central Asia’s Crisis of Governance*, 32-33.

---

## Chapter 14

- <sup>942</sup> I-Fang Elise Cheng, “Early Childhood Education in Azerbaijan,” *Expanding Access to Quality ECE*, (UNICEF), 99, <http://www.unicef.org/ceecis/ECE.pdf>.
- <sup>943</sup> “Azerbaijan,” *Index Mundi*, <http://www.indexmundi.com/turkmenistan/>, (accessed January 20, 2013).
- <sup>944</sup> UNICEF, “Education in Kazakhstan,” *Country Profile, Central and Eastern Europe Commonwealth of Independent States* (2008), 1, <http://www.unicef.org/ceecis/Kazakhstan.pdf> (accessed January 20, 2013).
- <sup>945</sup> “Kazakhstan,” *Index Mundi*, <http://www.indexmundi.com/kazakhstan/> (accessed January 20, 2013).
- <sup>946</sup> “Turkmenistan,” *Index Mundi*, <http://www.indexmundi.com/turkmenistan/> (accessed January 20, 2013).
- <sup>947</sup> UNICEF, “Education in Turkmenistan,” *Country Profile, Central and Eastern Europe Commonwealth of Independent States*, (2008)1, <http://www.unicef.org/ceecis/Turkmenistan.pdf> (accessed January 20, 2013).
- <sup>948</sup> Central Intelligence Agency, “Age Structure in in Turkmenistan,” *The World Factbook* (2012). <https://www.cia.gov/library/publications/the-world-factbook/geos/tx.html>
- <sup>949</sup> Bureau of South and Central Asian Affairs, “U.S. Relations with Turkmenistan-Fact Sheet,” *US Department of State*, (November 16, 2012), <http://www.state.gov/r/pa/ei/bgn/35884.htm> (accessed January 20, 2013).
- <sup>950</sup> Bureau of South and Central Asian Affairs, “U.S. Relations with Azerbaijan-Fact Sheet,” *US Department of State*. (September 20, 2013), <http://www.state.gov/r/pa/ei/bgn/2909.htm> (accessed January 20, 2013).
- <sup>951</sup> Bureau of South and Central Asian Affairs, “U.S. Relations with Kazakhstan-Fact Sheet,” *US Department of State*. (November 16, 2012), <http://www.state.gov/r/pa/ei/bgn/5487.htm> (accessed January 20, 2013).
- <sup>952</sup> Lars Sondergaard and Mamta Murthi, “Skills Not Just Diplomas: Managing Education for Results in Central Asia and Eastern Europe,” *Directions in Human Development*. (The World Bank, 2012) 21.
- <sup>953</sup> Federal Research Division, “Azerbaijan: Education, Health, and Welfare,” *A Country Study: Azerbaijan*, (The Library of Congress Country Studies. March 1994), [http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field\(DOCID+az0040\)](http://lcweb2.loc.gov/cgi-bin/query/r?frd/cstdy:@field(DOCID+az0040)) (accessed January 20, 2013).

- 
- <sup>954</sup> UNESCO, "Azerbaijan." *World Data on Education, 7<sup>th</sup> edition*, (2011), 3.  
<http://unesdoc.unesco.org/images/0021/002112/211298e.pdf> (accessed January 20, 2013).
- <sup>955</sup> Nigar Baimova, "Issues of Equity, Increased Drop-Out Rate in Education System in Azerbaijan," (Center for Policy Studies, Central European University, Open Society Institute, 2002), 3,  
[http://pdc.ceu.hu/archive/00001872/01/baimova\\_2.pdf](http://pdc.ceu.hu/archive/00001872/01/baimova_2.pdf) (accessed January 20, 2013).
- <sup>956</sup> OECD, "PISA rankings 2006." *PISA Country Profiles*, 2006, <http://pisacountry.acer.edu.au/>
- <sup>957</sup> UNESCO, "Azerbaijan." *World Data on Education, 7<sup>th</sup> edition*, (2011), 4.  
<http://unesdoc.unesco.org/images/0021/002112/211298e.pdf> (accessed January 20, 2013)
- <sup>958</sup> "Azerbaijan to Switch to 12-year Education by 2020," APA, (December 12, 2012) <http://en.apa.az/news/184365> (accessed January 20, 2013).
- <sup>959</sup> I-Fang Elise Cheng, 99.
- <sup>960</sup> UNESCO, "Azerbaijan," 7.
- <sup>961</sup> Ibid.
- <sup>962</sup> Ibid.
- <sup>963</sup> "Azerbaijan," *Index Mundi*.
- <sup>964</sup> Baimova, 6.
- <sup>965</sup> Ibid.
- <sup>966</sup> UNESCO, "Azerbaijan," 11.
- <sup>967</sup> Baimova, 3.
- <sup>968</sup> Rena Effendi, "Caspian Basin: The Energy Boom and the Region's '99 Percent'," *EurasiaNet*, (December 15, 2011) <http://www.eurasianet.org/node/64708>, (January 27, 2013).
- <sup>969</sup> Baimova, 5.
- <sup>970</sup> Ibid.
- <sup>971</sup> Arife Kazimova and Daisy Sindelar. "Is Azerbaijan Ready For Its Own Revolution?" *Eurasia Net*. (March 13, 2011). [http://www.rferl.org/content/is\\_azerbaijan\\_ready\\_for\\_its\\_own\\_revolution/2334286.html](http://www.rferl.org/content/is_azerbaijan_ready_for_its_own_revolution/2334286.html) (accessed January 19, 2013)
- <sup>972</sup> Ibid.
- <sup>973</sup> Rashad Aliyev, "Inequitable Access to Higher Education in Azerbaijan." *Central Asia-Caucas Institute Analyst*. (March 30, 2011). <http://www.cacianalyst.org/?q=node/5523> (accessed January 28, 2013).
- <sup>974</sup> Baimova.
- <sup>975</sup> Ibid.
- <sup>976</sup> Aliyev.
- <sup>977</sup> "Israel Is Ready to Apply Virtual Education System in Azerbaijan," APA, (October 13, 2012)  
<http://en.apa.az/news/181660> (accessed January 19, 2013).
- <sup>978</sup> "More Than 10000 Azerbaijan Students Get Education Abroad," APA, (August 18, 2012)  
<http://en.apa.az/news/177399> (accessed January 19, 2013).
- <sup>979</sup> "The Biggest Education Fair of 2012 to Be Held in Baku," APA, (November 5, 2012)  
<http://en.apa.az/news/181942> (accessed January 19, 2013).
- <sup>980</sup> "Azerbaijan: Baku Wants School Uniforms to 'Eliminate Social Inequality,'" *Eurasia Net*, (February 11, 2010),  
<http://www.eurasianet.org/departments/news/articles/eav021110a.shtml> (accessed January 19, 2013).
- <sup>981</sup> Shahin Abbasov, "Azerbaijan: Hijab Ban in Schools Fuels Debate in Baku on Role of Islam," *Eurasia Net*, (accessed January 6, 2011), <http://www.eurasianet.org/node/62670> (January 20, 2013)
- <sup>982</sup> Ibid.
- <sup>983</sup> UNESCO, "Kazakhstan," *World Data on Education, 7<sup>th</sup> edition*, (2011) 3.  
<http://unesdoc.unesco.org/images/0021/002113/211305e.pdf> (January 20, 2013)
- <sup>984</sup> UNDP, "Human Development Report: Education for All: the key goal for a new Millennium," *Human Development Report Kazakhstan 2004*, (2004) 23.  
[http://hdr.undp.org/en/reports/national/europethecis/kazakhstan/kazakhstan\\_2004\\_en.pdf](http://hdr.undp.org/en/reports/national/europethecis/kazakhstan/kazakhstan_2004_en.pdf) (accessed January 20, 2013)
- <sup>985</sup> UNDP, "Human Development Report: Education for All: the key goal for a new Millennium," 23.
- <sup>986</sup> Paul Bartlett, "Kazakhstan: Elite Schools May Limit Opportunities," *EurasiaNet* (February 22, 2012).  
<http://www.eurasianet.org/node/65035> (accessed January 21, 2013)
- <sup>987</sup> Bartlett.
- <sup>988</sup> UNESCO, "Kazakhstan," 7.
- <sup>989</sup> Bartlett.

- 
- <sup>990</sup> UNESCO, "Kazakhstan," 8.
- <sup>991</sup> UNESCO, "Kazakhstan," 3.
- <sup>992</sup> UNESCO, "Kazakhstan," 9.
- <sup>993</sup> UNESCO, "Kazakhstan," 11.
- <sup>994</sup> Bartlett.
- <sup>995</sup> UNICEF, "Education in Kazakhstan," 4.
- <sup>996</sup> UNICEF, "Education in Kazakhstan," 2.
- <sup>997</sup> UNESCO, "Kazakhstan," *World Data on Education, 7<sup>th</sup> edition*, (2011) 17.  
<http://unesdoc.unesco.org/images/0021/002113/211305e.pdf> (accessed January 20, 2013)
- <sup>998</sup> UNESCO, "Kazakhstan," 17.
- <sup>999</sup> UNICEF, "Education in Kazakhstan," 3.
- <sup>1000</sup> "Kazakhstan," *Index Mundi*, <http://www.indexmundi.com/kazakhstan/> (accessed January 20, 2013)
- <sup>1001</sup> UNDP, "Human Development Report: Education for All: the key goal for a new Millennium," *Human Development Report Kazakhstan 2004*, (2004) 68.
- <sup>1002</sup> UNICEF, "Education in Kazakhstan," 4.
- <sup>1003</sup> Lars Sondergaard and Mamta Murthi, "Skills Not Just Diplomas: Managing Education for Results in Central Asia and Eastern Europe," *Directions in Human Development*, (The World Bank, 2012) 41.  
[http://siteresources.worldbank.org/ECAEXT/Resources/101411\\_FullReport.pdf](http://siteresources.worldbank.org/ECAEXT/Resources/101411_FullReport.pdf) (accessed January 31, 2013).
- <sup>1004</sup> Bartlett.
- <sup>1005</sup> Ibid.
- <sup>1006</sup> Dean C. K. Cox. "Interview 180: Where Does Kazakhstan's Higher Education Stand?" *Eurasia Net*, (December 28, 2012) <http://www.eurasianet.org/node/66339> (accessed January 20, 2013).
- <sup>1007</sup> Ibid.
- <sup>1008</sup> UNDP, "Human Development Report: Education for All: the key goal for a new Millennium," 51.
- <sup>1009</sup> Farangis Najibullah, "Kazakh Schools Getting 'Kazakhified'," *RadioFreeEurope/Radio Liberty*, (July 5, 2011), [http://www.rferl.org/content/kazakh\\_schools\\_leave\\_russian\\_for\\_kazakh/24256150.html](http://www.rferl.org/content/kazakh_schools_leave_russian_for_kazakh/24256150.html) (accessed January 19, 2013)
- <sup>1010</sup> "Kazakh Schools Sued For Ending Russian-Language Instruction," *RadioFreeEurope/RadioLiberty* (July 5, 2011) [http://www.rferl.org/content/kazakh\\_schools\\_sued\\_over\\_language\\_switch/24256513.html](http://www.rferl.org/content/kazakh_schools_sued_over_language_switch/24256513.html) (accessed January 19, 2013)
- <sup>1011</sup> "Kazakh Schools Sued For Ending Russian-Language Instruction."
- <sup>1012</sup> "Turkmen Education System in Downward Spiral," *Eurasia net*, (May 4, 2010), <http://www.eurasianet.org/departments/rights/articles/eav050504.shtml> (accessed January 21, 2013).
- <sup>1013</sup> Iveta Silova and Gita Steiner-Khamsi, *How NGOs React: Globalization and Education Reform in the Caucasus, Central Asia and Mongolia*, (Kumarian Press, 2008) 217-218.
- <sup>1014</sup> Iveta Silova and Gita Steiner-Khamsi, 217-223.
- <sup>1015</sup> Iveta Silova and Gita Steiner-Khamsi, 215.
- <sup>1016</sup> "Turkmen Education System in Downward Spiral."
- <sup>1017</sup> Ibid.
- <sup>1018</sup> Ibid.
- <sup>1019</sup> UNESCO, "Turkmenistan," *World Data on Education, 7<sup>th</sup> edition*, (2011) 3.  
[http://www.ibe.unesco.org/fileadmin/user\\_upload/Publications/WDE/2010/pdf-versions/Turkmenistan.pdf](http://www.ibe.unesco.org/fileadmin/user_upload/Publications/WDE/2010/pdf-versions/Turkmenistan.pdf) (accessed January 20, 2013)
- <sup>1020</sup> Iveta Silova and Gita Steiner-Khamsi, 228.
- <sup>1021</sup> "Turkmen kids to receive 12 years of education, not ten," *Radio Free Europe/Radio Liberty*, (March 3, 2013), <http://www.rferl.org/content/turkmenistan-education/24917829.html> (accessed March 4, 2013)
- <sup>1022</sup> UNESCO, "Turkmenistan," 5.
- <sup>1023</sup> UNICEF, "Education in Turkmenistan," *Country Profile, Central and Eastern Europe Commonwealth of Independent States*, (2008) 3, <http://www.unicef.org/ceecis/Turkmenistan.pdf> (accessed January 20, 2013).
- <sup>1024</sup> UNESCO, "Turkmenistan."
- <sup>1025</sup> Iveta Silova and Gita Steiner-Khamsi, 214.
- <sup>1026</sup> UNESCO, "Turkmenistan," 7-8.
- <sup>1027</sup> Catherine Fitzpatrick, "Turkmenistan: Berdymukhamedov's Failed Internetization," *EurasiaNet* (January 11, 2012) <http://www.eurasianet.org/node/64817> (accessed January 20, 2013)
- <sup>1028</sup> Ibid.

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<sup>1029</sup> Ibid.

<sup>1030</sup> “Turkmenistan: Education Minister Dismissed Amid Corruption Scandal,” *Eurasia Net* (July 5, 2009), <http://www.eurasianet.org/departments/news/articles/eav070609b.shtml> (January 19, 2013).

<sup>1031</sup> Fitzpatrick.

<sup>1032</sup> Institute for War and Peace Reporting, “Foreign Study Provides Escape for Turkmen Students,” <http://iwpr.net/report-news/foreign-study-provides-escape-turkmen-students>, (accessed January 13, 2013).

<sup>1033</sup> “Turkmenistan Eases Restrictions For Studying Abroad,” *RadioFreeEurope/RadioLiberty*, (August 20, 2009) [http://www.rferl.org/content/Turkmenistan\\_Eases\\_Restrictions\\_For\\_Studying\\_Abroad/1804269.html](http://www.rferl.org/content/Turkmenistan_Eases_Restrictions_For_Studying_Abroad/1804269.html) (accessed January 19, 2013).

<sup>1034</sup> “New Dilemma For Turkmen Students Abroad,” *RadioFreeEurope/RadioLiberty*, (April 7, 2011) [http://www.rferl.org/content/dilemma\\_turkmen\\_students\\_abroad/3550259.html](http://www.rferl.org/content/dilemma_turkmen_students_abroad/3550259.html) (accessed January 13, 2013).

<sup>1035</sup> Institute for War and Peace Reporting.

<sup>1036</sup> Embassy, U. S. “American Centers in Azerbaijan,” *State Department*. (November 26, 2012)

[http://usembassy.state.gov/us\\_az\\_center2.html](http://usembassy.state.gov/us_az_center2.html) (accessed January 19, 2013).

<sup>1037</sup> “US-Azerbaijan Education Center Hosts Forum,” *APA*, (May 11, 2012) <http://en.apa.az/news/171426> (accessed January 20, 2013)

<sup>1038</sup> “U.S. increases security assistance to Central Asia by 40%, Assistant Secretary Blake says,” *Central-Asian News Service*, Feb. 27, 2013 (<http://en.ca-news.org/news:521418#sthash.75CUpQc1.dpuf>)

<sup>1039</sup> Necia L. Quast, “Tajik Youth Experience America at Summer Camp.” *DipNote—The US Department of State’s Official Blog*. August 2, 2010. [http://blogs.state.gov/index.php/site/entry/tajik\\_youth\\_camp](http://blogs.state.gov/index.php/site/entry/tajik_youth_camp) (February 1, 2012)