



Energy Security in Yemen

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Abstract

This Report analyzes the security of the energy industry and its infrastructure in Yemen and also examines the potential impact of insecurity in Yemen on global energy security. To achieve this, the political environment, oil export levels, various security threats, as well as measures taken by government and oil companies to counter these threats are examined. The evaluation of existing security threats including political instability, terrorism, tribal warfare and religious strife and their possible escalation highlight the precarious situation in the country. Findings demonstrate that the decline of oil and gas prices as a result of the global economic downturn has reduced the government's ability to contain the escalation of these conflicts. However, the fundamental problem of Yemen's energy sector is depletion of its oil reserves leading to rapidly declining oil production levels. The decline of Yemen's energy sector will have a very minor impact on global energy supplies, but could facilitate the political collapse of Yemen. This collapse would pose a far bigger threat and could have a negative impact on regional and global energy security.

Résumé

Dans le présent rapport, nous analysons la sécurité du secteur énergétique et de son infrastructure au Yémen et nous examinons les répercussions potentielles de l'insécurité dans ce pays sur la sécurité énergétique mondiale. Pour ce faire, nous nous penchons sur le contexte politique, les niveaux d'exportation de pétrole et les différentes menaces en matière de sécurité ainsi que les mesures que le gouvernement et les sociétés pétrolières prennent pour les contrer. L'évaluation des menaces actuelles à la sécurité, notamment l'instabilité politique, le terrorisme et les conflits tribaux et religieux, et de leur intensification potentielle met en lumière la situation précaire dans le pays. Les constatations montrent que la baisse des prix du pétrole et du gaz par suite du ralentissement économique mondial a réduit la capacité du gouvernement de freiner l'intensification de ces conflits. Toutefois, le problème fondamental du secteur de l'énergie au Yémen est l'épuisement des réserves pétrolières, menant à une réduction rapide des niveaux de production de pétrole. Le déclin du secteur de l'énergie dans ce pays aura un effet très négligeable sur les réserves énergétiques mondiales, mais il pourrait faciliter l'effondrement politique du Yémen, ce qui engendrerait une menace beaucoup plus grande et pourrait avoir un effet négatif sur la sécurité énergétique régionale et mondiale.

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Executive summary

Energy Security in Yemen:

Emil Torosyan; DRDC CORA CR 2009-001; Defence R&D Canada – CORA; September 2009.

Introduction or background: This Contractor Report is the first of several reports in support of the Energy Security Work Breakdown Element within Partner Group 0's project 10aa on the —Strategic Implications of Global, Regional and Functional Developments.”

Results: Yemen is one of the most populous countries in the Arab world with nearly 23 million people. It endures significant poverty, illiteracy and a very heavily armed citizenry. Fundamentalist Islam dominates Yemen with numerous radical elements present including the growing Wahabi movement, al Qaeda, and other like-minded groups. Corruption is endemic in all levels of the government and society, which hampers any efforts to improve and develop Yemen.

Yemen's history is replete with revolts, occupations, civil wars, Islamic radicalism and terrorism. It is a very segregated society with a strong tribal structure that has prevented the central government from exerting its full authority outside of key urban areas. Tribes in Yemen are separate social, political and economic units within the country which have their own laws, customs and traditions. It is important to note that from time to time tribal bonds may be stronger than those of religion.

Yemen is currently facing three challenges that threaten domestic and regional energy security: a Northern rebellion, a Southern secessionist movement and a growing al Qaeda presence.

Since 2004 the Sa'ada region of Northern Yemen has seen renewed violence as members of the al Houthi rebel group carry out an uprising against the government. Government forces have fought several campaigns intending to crush the rebellion. However the complex nature of the conflict has prevented the achievement of a permanent peace deal. Numerous tribes, clans and sub-clans in Northern Yemen are historically incorporated into two powerful tribal federations, the Hashid and the Bakil. The government has recruited thousands of Northern tribesmen - mainly Salafis and Zaidis from the Hashid federation to fight the al Houthi rebels who belong to the Bakil. In 2008 as a result of these tribal rivalries the conflict expanded to regions just 20 km northwest of Sana'a, the national capital.

President Ali Abdullah Saleh is expected to step down in three years and a power struggle over who will replace him has already begun. Rumors abound concerning the rivalry between Ali Mohsen, an army commander and a Salafi convert, and President Saleh's son, Ahmed Saleh. Several Yemeni newspapers have claimed that there is a proxy war between forces loyal to the rivals, under the cover of quashing the Houthis. Thus, the Northern conflict is both tribal and political in nature. Corruption and a lack of cohesion within the army is evident through this conflict and, according to a report by the International Crisis Group (ICG), has led to the creation of a war economy.

Perceived economic and political discrimination of Southerners by the ruling regime fueled the rise of a secessionist movement in the South and, in 1994, led to a two-month civil war. The Northern forces were able to achieve a military victory and kept Yemen united. Nevertheless, current developments signal that the Southern Secessionist movement is once again rising. Demonstrations in support of secession have increased in frequency and have spread throughout the region. Efforts by government forces to disperse these events often turn violent. Southern resentment still lingers over the loss of the civil war and is exacerbated by the perception that the government discriminates against the Southern population by limiting socio-economic opportunity and by appearing unwilling to improve generally poor living conditions. Specific grievances include, land seizures, forced retirement of Southern security officials, the exclusion of Southerners from the Northern patronage networks, corruption, and economic mismanagement.

Hostilities between the Southern population and the government in Sana'a have created a fertile ground for al Qaeda operatives. Many local tribes and officials turn a blind eye to al Qaeda's operations since they are directed against the government and Western interests. This endangers Yemen's oil and gas production which, while relatively small, provides the government with needed revenue.

Currently oil production in Yemen is rapidly declining. It is expected that this trend will continue eventually ending the state's oil revenue, unless new discoveries are made. However it seems unlikely that there will be any new significant discoveries in Yemen suggesting that the oil and gas future is not bright. The installations and operations in Yemen's oil sector are also vulnerable to various threats including natural disasters, tribal sabotage and terrorism.

The growing al Qaeda presence in South Yemen is marked by frequent attacks on western tourists and on oil and gas facilities. The impact of these strikes cannot be overstated since tourism and the oil and gas industry are Yemen's primary economic activities. Tourism has virtually ceased and attacks on the energy infrastructure pose a direct threat to the energy security and economic well-being of Yemen.

Since 2006 terrorist attacks have intensified. Several simultaneous and well planned suicide attacks have been carried out against oil and gas installations in Yemen. Most of these attacks were successfully executed, but failed to cause substantial damage, except those on pipelines. Most of these attacks were coordinated and executed by a younger and more radicalized group of al Qaeda fighters under the leadership of Nasir al-Wuhayshi, the head of al Qaeda in Yemen. The targets have included oil storage tanks or pipelines. Terrorist attacks on the USS Cole (2000) and on the French oil tanker MV Limburg (2002) in the Gulf of Aden are indicative of al Qaeda's capability to strike marine targets. Al Qaeda's presence in the region is growing and the likelihood of more frequent attacks is increasing.

In order to improve their security, oil companies try to engage the tribes on whose territory they operate using different methods. They often hire personnel directly from the tribes and even encourage tribal leaders to set up their own construction and service companies to involve them in the development of oil resources. Tribesmen also provide security for some installations adding an extra layer of protection along with that provided by the army.

Other potential developments, such as intertribal conflicts can also pose a threat to the energy industry. These conflicts have deteriorated security in general and have blocked roads and

damaged infrastructure disrupting operations. Similarly disruptive developments occur when government forces battle insurgent tribes. Friction between western expatriate workers and Yemeni nationals also compounds the threat to oil operations.

Instability in Yemen has broader regional and potentially global implications. If the country fails it could contribute to an increase in acts of piracy in the Gulf of Aden. There is also a risk that insurgents intent on ousting the Saudi royal family could make use of Yemen's ungoverned space to launch attacks on them or on Saudi oil and gas infrastructure.

Yemen is located at the entrance to the Bab el-Mandab strait, which links the Red Sea to the Indian Ocean. The strait is one of the most strategic shipping lanes in the world, with an estimated 3 million barrels per day (bbl/d) of oil transiting its waters. Disruption to shipping in the Bab el-Mandab could prevent tankers in the Persian Gulf and the Gulf of Aden from reaching the Suez Canal/Sumed pipeline complex, instead diverting them — at great cost and significantly increased time — around the Southern tip of Africa.

Saudi Arabia named Yemen the primary threat to its internal security, following the merger, earlier this year, of al Qaeda in Yemen and al Qaeda in Saudi Arabia. Instability in Yemen can threaten Saudi security in several ways, but the most plausible is attacks against the Saudi Royal Family by al Qaeda fighters based in Yemen. The intent of these attacks would be the toppling of the regime. This is the long-standing objective of extreme Sunni movements. Another threat posed by al Qaeda/Jihad fighters is an attack on the oil and gas installations of Saudi Arabia launched out of or prepared in Yemen in order to harm Western economic interests.

In addition to the threat posed by al Qaeda and like minded groups a potential spill over of the Shi'ia rebellion from Northern Yemen to Saudi Arabia is also possible. The conflict is currently limited to Yemen, but a further escalation may well spread to the Shi'ia minorities in Saudi Arabia located along the Yemeni border and in The Eastern Province of the Kingdom. This could also provoke Iran to covertly support Shi'ia rebels since it is the dominant Shi'ia state in the region.

Yemen also poses a dilemma for the United States. On one hand Yemen demonstrated that it is waging an intensive battle against al Qaeda members in its country. On the other hand it has released many prisoners who are known al Qaeda members, some of whom plotted attacks against the United States. This complicates efforts on the part of the US administration to provide financial support to the Yemeni government. The debate over the assistance to Yemen in the US is divided. Supporters argue that Yemen's collapse would hamper efforts to combat terrorism and would destabilize the Arabian Peninsula. Opponents counter that Yemen is not important for the US since it is not a significant oil supplier or importer of arms and other American technology, thus it should not receive American support.

In light of the uncertain future of the US-Yemen relationship, Yemen has attempted to offset the potential loss of Washington's support by improving its ties with Iran and Russia. In February 2009, President Saleh visited Moscow in order to shore up relations. During this visit Russia agreed to cancel Yemen's \$1.2 billion USD debt, dating to the Soviet era, while Yemen agreed to purchase \$2.6 billion USD of Russian arms, to permit Russia to establish a military base on the island of Socotra, and to offer Gazprom a stake — the details are yet to be announced — in Yemen's energy sector. Yemen has also reinforced its ties with the government of Iran. During a high

profile Iranian delegation's visit to Sana'a, Yemen's Parliament Speaker Yahya al-Rae'i announced Yemen's full support for Iran's peaceful nuclear program. In return, Ali Larijani, Iran's Majlis speaker, reaffirmed Iran's support for Yemen's unity.

It seems possible that Yemen could end up as a failed state with serious consequences for the country and its neighbours. Several factors could lead to a collapse. Key amongst these is the decline of the oil and gas industry since Yemen's economy and government depend heavily on its revenues. The oil and gas industry is threatened by armed conflict and instability in production and exporting areas, resource depletion, as well as inadequate expertise and technology to develop new sites. Any disruption or reduction of this revenue stream will limit the ability of the government to function, in turn exacerbating existing domestic strife and armed conflict.

The collapse of Yemen itself would not likely decrease global energy security. However, the potential for spill-over of the conflict into Saudi Arabia could if the Saudi government were to fall or if a successful attack against a major Saudi oil facility is launched by terrorists using Yemen as a staging area.

Future plans: Similar reports will be written for other countries and organizations that are relevant to global energy security as part of this project.

Sommaire

Energy Security in Yemen:

Emil Torosyan; DRDC CORA CR 2009-001; R & D pour la défense Canada – CORA; Septembre 2009.

Introduction ou contexte: Le présent rapport de l'entrepreneur est le premier de plusieurs rapports à l'appui du projet de sécurité énergétique, un élément du volet 10.aa. « Implications stratégiques de l'évolution de la conjoncture mondiale, régionale et fonctionnelle » basé sur des recherches documentaires.

Résultats: Comptant près de 23 millions d'habitants, le Yémen est l'un des États les plus peuplés du monde arabe. Le pays est aux prises avec des taux élevés de pauvreté et d'analphabétisme et une population très lourdement armée. L'islam fondamentaliste domine au Yémen, où de nombreux éléments radicaux sont présents, y compris le mouvement Wahabi de plus en plus important, al-Qaïda et d'autres groupes d'optique commune. La corruption est endémique dans tous les ordres de gouvernement et dans tous les niveaux de la société, ce qui entrave les mesures prises pour améliorer la situation et favoriser le développement du pays.

L'histoire du Yémen est remplie de révoltes, d'occupations, de guerres civiles, de radicalisme islamique et de terrorisme. C'est une société très ségrégationniste s'appuyant sur une structure tribale solide qui a empêché le gouvernement central d'exercer pleinement son autorité en dehors des principales régions urbaines. Au Yémen, les tribus sont des unités sociales, politiques et économiques distinctes qui ont leurs propres lois, coutumes et traditions. Il est important de souligner que de temps à autre, les liens tribaux peuvent être plus forts que ceux de la religion.

Le Yémen se heurte actuellement à trois problèmes qui menacent la sécurité énergétique intérieure et régionale : une rébellion dans le Nord, un mouvement sécessionniste dans le Sud et la présence grandissante d'al-Qaïda.

Depuis 2004, la violence a repris de plus belle dans la région Sa'ada du Nord du Yémen, tandis que des membres du groupe rebelle al Houthi sont derrière un soulèvement contre le gouvernement. Les forces de l'État ont mené plusieurs campagnes destinées à écraser la rébellion. Toutefois, la nature complexe du conflit a empêché la conclusion d'une entente de paix durable. Historiquement, bon nombre de tribus, de clans et de sous-clans du Nord du Yémen font partie de deux fédérations tribales puissantes, Hashid et Bakil. Le gouvernement a recruté des milliers de membres de tribus du Nord, essentiellement des Salafis et des Zaidis faisant partie de la fédération Hashid, pour lutter contre les rebelles al Houthi qui appartiennent à la fédération Bakil. En 2008, par suite de ces rivalités tribales, le conflit s'est étendu à des régions situées à peine à 20 kilomètres au nord-ouest de Sana'a, la capitale nationale.

Le président Ali Abdullah Saleh devrait quitter son poste dans trois ans, et une lutte de pouvoir s'est déjà engagée pour choisir son successeur. Les rumeurs sont nombreuses concernant la rivalité entre Ali Mohsen, commandant de l'armée et converti au salafisme, et le fils du président Saleh, Ahmed Saleh. Plusieurs journaux yéménites ont affirmé que les forces fidèles aux deux rivaux se livrent une guerre par procuration, sous le prétexte d'écraser les Houthis.

Ainsi, le conflit qui fait rage au Nord est de nature tant tribale que politique. Ce conflit révèle la corruption et le manque de cohésion au sein de l'armée, et selon un rapport de l'International Crisis Group (ICG), ils sont à l'origine de la création d'une économie de guerre.

La discrimination économique et politique perçue des habitants du Sud par le régime au pouvoir a alimenté l'essor d'un mouvement sécessionniste dans cette région et, en 1994, elle a abouti à une guerre civile qui a duré deux mois. Les forces du Nord ont réussi à remporter une victoire militaire et à préserver l'unité du Yémen. Néanmoins, l'évolution actuelle de la conjoncture montre que le mouvement sécessionniste sudiste connaît un regain de vie. Des manifestations à l'appui de la sécession sont de plus en plus fréquentes et se sont répandues dans toute la région. Les interventions des forces de l'État pour disperser ces manifestations virent souvent à la violence. Le ressentiment couve toujours dans le Sud, au souvenir de la défaite subie lors de guerre civile, et il est exacerbé par la perception selon laquelle l'État exerce une discrimination contre la population du Sud en limitant ses possibilités socioéconomiques et en semblant peu disposé à améliorer ses conditions de vie généralement mauvaises. En particulier, les griefs ont trait aux saisies de terres, à la mise à la retraite forcée des dirigeants des forces de sécurité dans le Sud, à l'exclusion des sudistes des réseaux de patronage nordistes, à la corruption et à la mauvaise gestion de l'économie.

Les hostilités entre la population du Sud et le gouvernement à Sana'a ont créé un terrain fertile pour les agents d'al-Qaïda. Sur le plan local, bon nombre de tribus et de dirigeants ferment les yeux sur les activités du mouvement puisqu'elles sont dirigées contre le gouvernement et des intérêts occidentaux, ce qui menace la production pétrolière et gazière du Yémen laquelle, bien que relativement petite, procure au gouvernement des recettes dont il a besoin.

La production pétrolière au Yémen diminue rapidement. Cette tendance devrait se maintenir jusqu'à tarir les recettes que l'État tire du pétrole, à moins de nouvelles découvertes. Toutefois, il semble peu probable que des découvertes importantes soient faites au Yémen, ce qui laisse croire que l'avenir du secteur pétrolier et gazier est peu reluisant. Les installations et les opérations dans le secteur pétrolier au Yémen sont aussi vulnérables à différentes menaces, dont des catastrophes naturelles, le sabotage tribal et le terrorisme.

La présence grandissante d'al-Qaïda dans le Sud du Yémen est marquée par des attaques fréquentes contre des touristes occidentaux et contre des installations gazières et pétrolières. On ne peut exagérer les conséquences de ces conflits puisque le tourisme et le secteur pétrolier et gazier sont les principales activités économiques du pays. Le tourisme a pratiquement cessé, et les attaques contre l'infrastructure du secteur de l'énergie représentent une menace directe contre la sécurité énergétique et le bien-être économique du Yémen.

Depuis 2006, les attentats terroristes se sont intensifiés. Plusieurs attentats-suicides simultanés et bien planifiés ont visé des installations pétrolières et gazières au Yémen. La plupart de ces attentats ont été menés avec succès, mais sans causer de dommages substantiels, sauf ceux qui étaient dirigés contre des oléoducs. De plus, ils étaient coordonnés et exécutés par un groupe jeune et plus radicalisé de combattants d'al-Qaïda sous la direction de Nasir al-Wuhayshi, le chef du mouvement au Yémen. Les cibles comprenaient des réservoirs de pétrole ou des oléoducs. Les attentats terroristes contre l'*USS Cole* (2000) et le pétrolier français *MV Limburg* (2002) dans le golfe d'Aden témoignent de la capacité d'al-Qaïda de frapper des cibles en mer. La présence du

mouvement dans la région prend de l'ampleur, et la probabilité d'attentats plus fréquents augmente.

Pour améliorer leur sécurité, les sociétés pétrolières tentent de différentes manières d'établir des rapports avec les tribus dans les territoires où elles sont actives. Souvent, elles embauchent directement des membres de tribus et encouragent même les chefs tribaux à former leurs propres entreprises de construction et de service pour les faire participer à l'exploitation des ressources pétrolières. Des membres de tribus assurent aussi la sécurité de certaines installations, ce qui ajoute un niveau de protection supplémentaire à celui que fournit l'armée.

D'autres incidents potentiels, comme des conflits intertribaux, peuvent aussi représenter une menace pour le secteur de l'énergie. De façon générale, ces conflits ont compromis la sécurité en général et perturbé les activités à cause des routes bloquées et des dommages causés à l'infrastructure. Des perturbations similaires surviennent lorsque les forces de l'État se frottent aux tribus insurgées. Les frictions entre les travailleurs occidentaux expatriés et les ressortissants yéménites aggravent également la menace pour les opérations pétrolières.

L'instabilité au Yémen a des répercussions régionales plus étendues, potentiellement mondiales. La déroute du pays pourrait contribuer à une multiplication des actes de piraterie dans le golfe d'Aden. Il y a également un risque que les insurgés résolus à évincer la famille royale saoudienne puissent tirer parti de l'espace non gouverné du Yémen pour lancer des attaques contre le pays ou contre l'infrastructure pétrolière et gazière saoudienne.

Le Yémen se situe à l'entrée du détroit Bab el-Mandab, qui lie la mer Rouge à l'océan Indien. Le détroit est l'une des voies maritimes les plus stratégiques du monde, puisqu'on estime que trois millions de barils par jour de pétrole y transitent. La perturbation du transport maritime dans le détroit pourrait empêcher les pétroliers dans le golfe Persique et le golfe d'Aden d'atteindre le canal de Suez et le complexe d'oléoducs de Sumed. Ils seraient alors forcés de faire le détour en contournant la pointe australe de l'Afrique, ce qui engendrerait des coûts énormes et des délais considérables.

Selon l'Arabie saoudite, le Yémen représente la principale menace à sa sécurité interne, par suite de la fusion des cellules d'al-Qaïda au Yémen et en Arabie saoudite survenue cette année. L'instabilité au Yémen peut menacer la sécurité saoudienne de plusieurs façons, mais la menace la plus plausible est que des combattants d'al-Qaïda basés au Yémen mènent des attentats contre la famille royale saoudienne dans le but de renverser le régime. C'est l'objectif de longue date des mouvements sunnites extrémistes. Une autre menace posée par les djihadistes d'al-Qaïda est un attentat contre les installations pétrolières et gazières d'Arabie saoudite lancé à partir du Yémen ou préparé au Yémen dans le but de nuire aux intérêts économiques occidentaux.

En plus de la menace que représentent al-Qaïda et les groupes d'optique commune, un débordement potentiel en Arabie saoudite de la rébellion shiite qui a cours dans le Nord du Yémen est une possibilité. Le conflit se limite actuellement au Yémen, mais une nouvelle intensification pourrait bien gagner les minorités shiites en Arabie saoudite situées le long de la frontière yéménite et dans la province de l'Est du royaume, ce qui pourrait également inciter l'Iran à soutenir secrètement les rebelles shiites puisque ce dernier est l'État shiite dominant de la région.

Le Yémen pose aussi un dilemme pour les États-Unis. D'une part, le Yémen a montré qu'il mène un combat intense contre les membres d'al-Qaïda sur son territoire. D'autre part, il a libéré de nombreux prisonniers qui sont des membres connus du mouvement, dont certains ont fomenté des attentats contre les États-Unis, ce qui complique les efforts que l'administration américaine fait pour apporter une aide financière au gouvernement yéménite. La pertinence d'aider le Yémen divise l'opinion aux États-Unis. Les partisans soutiennent que l'effondrement du Yémen nuirait à la lutte contre le terrorisme et déstabiliserait la péninsule arabe. Les opposants rétorquent que le Yémen n'est pas important pour les États-Unis puisqu'il n'est pas un grand fournisseur de pétrole ni un grand importateur d'armes ou d'autres technologies américaines et que, par conséquent, il ne devrait pas bénéficier de l'aide des États-Unis.

À la lumière de l'avenir incertain de la relation entre les États-Unis et le Yémen, ce dernier a tenté de compenser la perte potentielle du soutien de Washington en améliorant ses rapports avec l'Iran et la Russie. En février 2009, le président Saleh a visité Moscou pour renforcer leurs relations. Au cours de cette visite, la Russie a accepté de radier la dette de 1,2 milliard de dollars américains du Yémen, remontant à l'ère soviétique, tandis que le Yémen a convenu d'acheter pour 2,6 millions de dollars américains d'armes russes afin de permettre à la Russie d'établir une base militaire sur l'île de Socotra. Le Yémen s'est aussi engagé à consentir à Gazprom une part du secteur de l'énergie du pays. Les détails de cette entente restent à préciser. Le Yémen a aussi renforcé ses liens avec le gouvernement iranien. Au cours d'une visite très médiatisée d'une délégation iranienne à Sana'a, le président du parlement du Yémen, Yahya al-Rae'i, a annoncé que le pays appuyait sans réserve le programme nucléaire pacifique de l'Iran. En retour, Ali Larijani, porte-parole du Majlis (parlement iranien), a réaffirmé l'appui de l'Iran à l'unité du Yémen.

Il semble possible que le Yémen devienne un État en déroute, ce qui aurait des conséquences graves pour le pays et ses voisins. Plusieurs facteurs pourraient aboutir à un effondrement, dont le plus important est le déclin de l'industrie pétrolière et gazière, puisque l'économie et le gouvernement du Yémen dépendent grandement de ses recettes. L'industrie est menacée par les conflits armés et l'instabilité dans les régions productrices et exportatrices, l'épuisement de la ressource et le manque de savoir-faire et de technologie pour exploiter de nouveaux sites. Une perturbation ou une réduction de cette source de revenus limiterait la capacité de fonctionner du gouvernement, ce qui, en retour, exacerberait les dissensions intérieures et les conflits armés qui ont cours.

L'effondrement du Yémen comme tel ne compromettrait probablement pas la sécurité énergétique mondiale. Cependant, le risque de débordement du conflit en Arabie saoudite pourrait avoir cet effet si le gouvernement saoudien devait tomber ou si des terroristes menaient avec succès un attentat contre une installation pétrolière majeure de l'Arabie saoudite à partir d'une base au Yémen.

Perspectives: Dans le cadre de ce projet, des rapports similaires seront produits pour d'autres pays et organismes importants pour la sécurité énergétique mondiale.

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1 Introduction

The government of Yemen has been able to sustain a relatively stable environment in large urban and some rural areas. However, in recent years the overall security situation in Yemen has faced numerous challenges and seems to be rapidly deteriorating. The aim of this paper is to analyze the security of the energy sector in Yemen and determine its impact on global energy security and the general security situation within Yemen and the Middle East. An analysis of Yemen's contemporary history, political environment, oil and gas industry, various security threats as well as measures taken by government and oil companies to counter these threats will highlight their role in Yemen's current security problem and suggest possible developments as well as their potential impact in the near- to mid-term.

It seems possible that Yemen could eventually end up as a failed state with serious consequences for the country and its neighbours. Several factors need to be evaluated to understand this decline. One is the health of the oil and gas industry. Yemen's economy and government depend on oil and gas revenues. Any disruption or reduction of this revenue stream will limit the ability of the government to function, in turn exacerbating existing domestic strife and armed conflict. However, the oil and gas industry is threatened by armed conflict and instability in production and exporting areas, resource depletion, as well as inadequate expertise and technology to develop new sites. This does not bode well for the security situation in Yemen or the government's ability to quell unrest.

The secessionist movement in Southern Yemen as well as the ongoing rebellion against the government in the Northern Province of Sa'ada, amplified by the growing presence of al Qaeda's terrorist cells and other militant groups, has increased the level of armed conflict in Yemen, although it has not reignited the recently ended civil war. If these conflicts escalate they have the potential of threatening the energy security of not only Yemen but also the entire region. A major civil unrest could very well paralyze the government and force foreign oil and gas companies to once again declare *'force majeure'* and pull out of the country. This will significantly reduce the government's oil revenue thereby limit its ability to deal with the conflict. Should this occur, it seems likely that the government could collapse and instability could spread throughout the region.

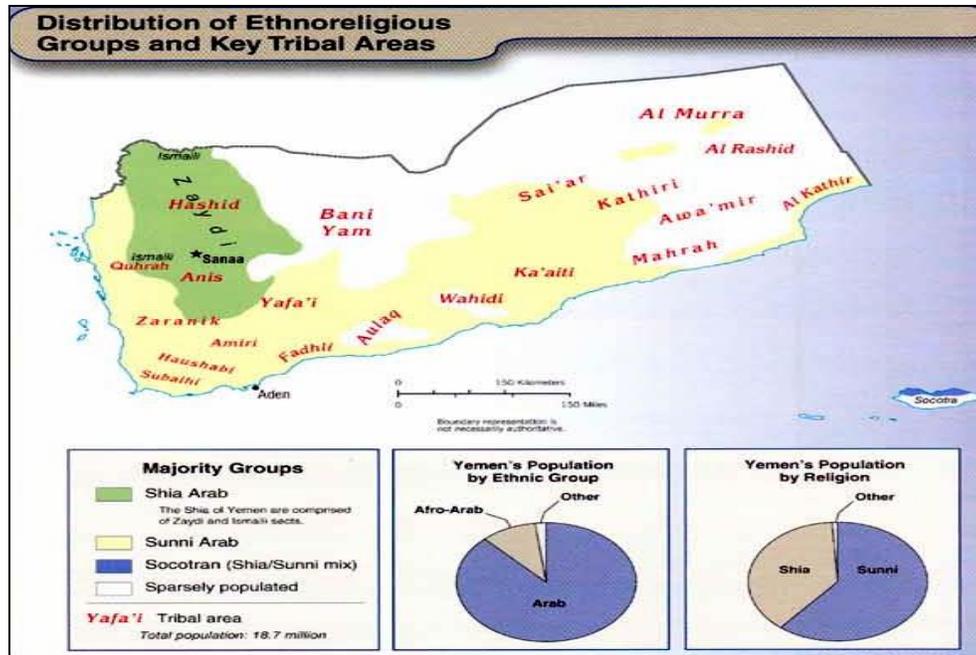
In order to safeguard their revenue and power, Yemeni authorities are attempting to prevent further destabilization of the country. The government provides military escorts to expatriates working in the energy industry and guards oil and gas facilities. Additionally, in an effort to reduce social strain, it has introduced programs aimed at decreasing the unemployment levels in rural Yemen. Foreign oil and gas companies are also taking steps to enhance security particularly by engaging with local tribes to make them stakeholders in the continued viability of the industry. The success of these actions will influence the stability of the producing regions as well as their energy production, exports, and ultimately, company and government revenues.

This paper will consist of four parts. The first will examine Yemen's country profile including its religious and ethnic demographics, existing socio-economic problems and a brief examination of Yemen's recent history. The second will analyze the political environment in Yemen and highlight the main challenges facing the government. The third will provide an overview of the

energy industry, its infrastructure and its known security vulnerabilities. The fourth will conclude with an analysis of the potential energy security future in Yemen and possible implications for the broader Middle East and North Africa (MENA) and those countries that consume oil and gas exports from Yemen.

2 Yemen: Country Profile

Figure 1: Distribution of Ethnoreligious Groups and Key Tribal Areas¹



Yemen is one of the most populous countries in the Arab world with nearly 23 million people.² As figure 1 shows the population is primarily Arab and there are large portions of the country that practice one of the the conflicting sects of Islam, Shi'ia or Sunni. It endures significant poverty, illiteracy and its population is very heavily armed. Fundamentalist Islam dominates Yemen with numerous radical elements present including the growing Wahabi movement, al Qaeda and other like-minded groups. Yemen was the largest exporter of jihadist fighters, during the Cold War period when they fought the Soviets in Afghanistan.³ Jihadists from Yemen continue their fight but today against western forces in Afghanistan and Iraq. Statistics of the Guantanamo prison camp demonstrate that the vast majority of captured foreign fighters in Afghanistan and Iraq are from Yemen.⁴ Corruption is endemic in all levels of the government and society, which hampers any efforts to improve and develop Yemen.

¹ This Figure is cut from a CIA graphic on Yemen that was accessed at:
http://www.lib.utexas.edu/maps/middle_east_and_asia/yemen_2002.jpg

² Library of Congress. "Country Profile – Yemen" August 2008.

³ Asaf Maliach. "The Global Jihad - The Yemeni Connection," International Institute for Counter Terrorism. March 20, 2006. Accessed at:
<http://www.ict.org.il/Articles/tabid/66/Articlsid/207/currentpage/10/Default.aspx>

⁴ Clinton Watts. "Beyond Iraq and Afghanistan," *Small Wars Journal*. April 17, 2008. Accessed at:
<http://smallwarsjournal.com/blog/journal/docs-temp/49-watts.pdf>

Additionally, Yemen receives tens of thousands of refugees annually from the war-torn Horn of Africa. This further strains the dire socio-economic situation in the country. The United Nations High Commissioner for Refugees estimates that there are between 200,000 and 250,000 Somali refugees in Yemen.⁵ Since 2004 Yemen has also endured a humanitarian crisis in its northwestern governorate of Sa'ada, where armed-conflict has led to the displacement of over 77,000 people from rural areas to the town of Sa'ada and other secure areas in the governorate.⁶

In addition to these problems, Yemen is unable to adequately feed its population. The Global Hunger Index ranked Yemen 80th out of 88 countries surveyed in 2008 suggesting that its population is amongst the most poorly fed in the world (Yemen scored 29.8 – the Democratic Republic of the Congo was ranked last with a score of 42.7).⁷ The Global Hunger Index determines levels of hunger and malnutrition in developing countries. It is designed to capture several dimensions of hunger and malnutrition and includes the proportion of undernourished people as a percentage of the population; the prevalence of underweight children under the age of five; and the mortality rate for children under the age of five (partially reflecting the fatal synergy between inadequate dietary intake and unhealthy environments).⁸

Yemeni society is very segregated with a strong tribal structure that has resisted efforts by the central government to exert its authority outside of key urban areas. Understanding the tribal concept is crucial to appreciate Yemen's politics and society. Shelagh Weir, in her book *A Tribal Order, Politics and Law in the Mountains of Yemen*, observes that a tribe —“omprises a population which usually claims patrilineal descent from a common eponymous ancestor and is subdivided into a hierarchy of —“sted” lineages or segments named after subsequent ancestors.”⁹ It is important to note that no segment (typically in ascending order, family lineage, clan, tribe, and confederation) has a specific or permanent political function.¹⁰ Tribes often clash either with each other over various disputes or else with the central government forces who challenge their perceived rights or authority. The idiom of shared male ancestry expresses the occurrence of shared honour. Thus the men of a tribe can be called on to uphold their common honour, which is that of their common ancestry and history. Restoring the good name to a tribe that has been slighted in some way occurs by monetary payment or, more frequently, by blood revenge.¹¹ However peace is fleeting and dormant feuds are repeatedly resuscitated.

Tribes in Yemen are separate social, political and economic units within the country which have their own laws, customs and traditions. It is important to note that from time to time tribal bonds may be stronger than those of religion. During the 1970s and 1980s several Yemenis from Sa'ada region, while studying in Saudi Arabian religious schools, became followers of Wahabism, an

⁵ Refugees International. —Yemen: Durable Solutions Needed,” Bulletin. April 10, 2008. Accessed at: <http://www.unhcr.org/refworld/pdfid/480710522.pdf>

⁶ UNHCR. —Regional Operations Profile - Middle East and North Africa,” Accessed on June 28, 2009, at: <http://www.unhcr.org/pages/4a02db416.html>

⁷ —Global Hunger Index in Full,” BBC News Special Report. October 14, 2008. Accessed at: http://news.bbc.co.uk/2/hi/in_depth/7670229.stm

⁸ Doris Wiesmann. —The Challenge of Hunger,” International Food Policy Research Institute. October 2006. p.10. Accessed at: <http://www.ifpri.org/pubs/cp/ghi06.pdf>

⁹ Shelagh Weir. *A Tribal Order, Politics and Law in the Mountains of Yemen*. (University of Texas Press: Austin, 2007) p.3.

¹⁰ Ibid. p.3-4.

¹¹ Paul Dresch. *Tribes, Government and History of Yemen*. (Oxford University Press: Oxford, 1994) p.79.

extreme branch of Sunni Islam. On their return to Sa'ada the Saudi sponsored Wahabi movement gained ground by establishing several schools, mosques and other religious institutions in the impoverished regions of Northern Yemen. Wahabism attracted many unemployed and poor men, many of whom went to Afghanistan to fight the Soviets. By the early 1990's the Wahabi movement spread significantly in the Sa'ada province and reached levels directly challenging the dominance of the local Zaidi tribes. These tribes united under the banner of protecting Yemeni origins, which they claim to be rooted in the Zaidi Shi'ia movement, and fought fierce battles to restore their dominance in the region.¹² During these clashes, most of the local Wahabi converts sided with their fellow tribesman, despite their religious discordance.

¹² Weir. A Tribal Order, Politics and Law in the Mountains of Yemen. pp. 298-303.

3 The Historical Background

Figure 2: Modern Yemen and Former South Yemen¹³



Reproduced with the permission of Public Relations Manager, B. Genchur, STRATFOR.

Frequent interventions of regional and foreign powers in Yemen have significantly influenced its historical development and some of its contemporary problems can be traced back in its history. The Ottoman Empire has twice invaded Yemen: once in the 16th Century and again in the middle of the 19th Century.¹⁴ In 1911 a rebellion by Northern tribes led the Ottomans to sign a treaty recognizing the sovereignty of Northern Yemen. In 1918 the League of Nations and Great Britain granted the Northern area of Yemen a sovereign status.¹⁵ Southern Yemen was under British control until 1967 when it became independent. The newly formed republic was called the Popular Republic of South Yemen but became the Democratic Republic of Southern Yemen when the Socialists gained power in 1969.¹⁶ Thus, the involvement of these colonial powers in Yemen created two separate political entities.

A struggle between Monarchists and Republicans within Northern Yemen created the grounds for the current al Houthi uprising. On September 26, 1962 a military coup d'etat organized by Republican leaders, overthrew the regime of Imam al-Bader. The toppling of the Imamate by the Republican forces and an attempt to create a Republic sparked a civil war. Saudi Arabia and Jordan supported the Monarchists while Egypt sided with the Republicans.¹⁷ Egypt dispatched army units to Yemen to help suppress the Monarchists rebellion while Saudis financed and armed the Monarchists. However, Egypt's defeat in the Seven Days War with Israel in 1967 compelled them to reach an agreement with Saudi Arabia over the conflict. According to the agreement Egypt withdrew its forces while Saudi Arabia agreed to stop assisting the Monarchists. This agreement ended the Saudi and Egyptian involvement in Northern Yemen. However, the war

¹³ <http://www.stratfor.com/files/mmf/0/a/0ab5d426224f3b1e60b37b8572922ef3efc22fed.jpg>

¹⁴ Elham Manea. *Regional Politics in the Gulf: Saudi Arabia, Oman, Yemen* (SAQI: London, 2005) p.22.

¹⁵ Shaul Shay. *The Red Sea Terror Triangle: Sudan, Somalia, Yemen and Islamic Terror*. (The International Policy Institute for Counter-Terrorism: New Brunswick and London, 2005) p.103.

¹⁶ Shay. *The Red Sea Terror Triangle: Sudan, Somalia, Yemen and Islamic Terror*. p.104.

¹⁷ *Ibid.* p.104

lasted until 1970 with a Republican victory achieved under the leadership of General Ali Abdullah Saleh, who became president in 1978.¹⁸ The present day Sa‘ada rebellion led by al Houthi’s Young Believers movement aims to topple the current government and re-establish the Zaidi Imamate in the Northern Yemen.”¹⁹

Cold War rivalry further deepened the differences between the republics since each aligned with opposing sides. Northern Yemen was supported by the West while Southern Yemen was supported the Soviet Union. The present day Republic of Yemen was created in 1990 after the unification of Northern and Southern Yemen.²⁰ Northern Yemen dominated the unification process and its leaders held the power in the new country since Southern Yemen’s backer, the Soviet Union, had collapsed. Economic and political discrimination against Southerners by the ruling regime led to a rise of a secessionist movement in the south and in 1994 it escalated into a two-month long civil war.²¹ The Northern forces were able to achieve a military victory and kept Yemen united.

¹⁸ Ibid. p.106

¹⁹ Munir Mawari. –Security Threats to Yemen Create Dilemma for United States” Terrorism Monitor. Volume VII, Issue 15, June 4, 2009. p.9.

²⁰ Mark Katz. –Yemeni Unity and Saudi Security,” Middle East Policy Journal 1:1, 1992. p.1.

²¹ Manea. Regional Politics in the Gulf: Saudi Arabia, Oman Yemen. p.57.

4 Contemporary Political Challenges

After its unification in 1990 Yemen became the first country in the Arabian Peninsula to introduce universal suffrage for multi-party parliamentary elections.²² Yemen also holds regular presidential elections. A referendum held in 2001 extended the presidential term from five years to seven years.²³ Executive power is vested in the President and legislative in the parliament. The current Yemeni government consists of three main parties and numerous small ones. The ruling party is the General People's Congress and the two main opposition parties are the Islamist Yemeni Assembly for Reform (or Islah party) and the Yemeni Socialist Party.²⁴

The current President, Ali Abdullah Saleh, has been in power for over thirty years suggesting that Yemen's democratic status is dubious. Currently Yemen is facing several serious political issues. Its two main domestic political problems are the rebellion in Northern Yemen and a revival of the secessionist movement in the South. The continuous crackdown of the secessionist movement could eventually escalate into another civil war. The Northern uprising is complex to the point that it will not be easily solved and it could lead to the collapse of the government and possibly to the break up of Yemen. A closer analysis of each of these issues will illuminate the overall security situation and highlight Yemen's political instability.

4.1 The Sa'ada Rebellion

Northern Yemen has a history of strife between the Zaidi Shi'ia and extremist Sunni groups such as Wahabis and Salafis. In the past, as noted above, there were also conflicts between Monarchists and Republicans. Wahabi radicals from Saudi Arabia also support the spread of their beliefs in Northern Yemen thereby enhancing and strengthening the jihadist tendencies and overall radicalization of Yemen's impoverished population.

In the last few years the Sa'ada region of Northern Yemen has seen renewed violence as members of the al Houthi rebel group carry out an uprising against the government.²⁵ Government forces have fought several campaigns to crush the rebellion. A temporary ceasefire has been brokered through a Qatari mediation.²⁶ However the conflict is very complex and could easily resume at anytime. The complexity is attributed to the tribal and political rivalry in the conflict.

²² Sheila Carapico. "Elections & Mass Politics in Yemen," Middle East Report, November–December 1993.

²³ Foreign and Commonwealth Office. "Middle East and North Africa – Yemen," September 2006. Accessed at: <http://www.fco.gov.uk/en/about-the-fco/country-profiles/middle-east-north-africa/yemen?profile=all>

²⁴ Brian Katulis. "Yemen Country Profile" Freedom House Middle East Project. Accessed May 27, 2009 at: <http://unpan1.un.org/intradoc/groups/public/documents/nispacee/unpan016212.pdf>

²⁵ Andrew McGregor. "Shiite Insurgency in Yemen: Iranian Intervention or Mountain Revolt?" Terrorism Monitor. Vol. 2, Issue 16. August 11, 2004. Accessed at: http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Btt_news%5D=26750

²⁶ Philipp Schweers. "Yemen: Renewed Houthi-Conflict" DIAS. June 2008. Accessed at: <http://www.dias-online.org/254.0.html>

Numerous tribes, clans and sub-clans in Northern Yemen are incorporated into two powerful tribal federations, the Hashid and the Bakil.²⁷ Hashid tribes have long been known as supporters of the regime. The government has recruited thousands of Zaidi tribesmen from the Hashid federation as well as many Salafis to battle al Houthi rebels who belong to the Bakil coalition. This has sparked confrontations between the tribal federations, extending the latest conflict to Amran Governorate and Bani Hushaish, a district 20 km northwest of Sana'a, the national capital.²⁸

The government's ability to quash the uprising is challenged by the topography and the infrastructure of the region. The harsh mountainous terrain coupled with a dearth of asphalt roads limits the military's mobility leading them to rely extensively on artillery and air strikes. This has caused collateral damage to local infrastructure amplifying already existing socio-economic hardships and provoking many other neutral tribes and groups, to also join the Houthi's campaign against the government. The spread of conflict to surrounding regions pose a real threat to the government. The latest battles were waged just a few kilometres from Sana'a's international airport.²⁹

The rivalry of two candidates to succeed President Saleh — who is expected to step down from office when his current term expires in three years — has politicized the conflict. The government's military campaign in Sa'ada province is conducted by an army commander and a Salafi convert Ali Mohsen, a Sanhan kinsman of the President. Mohsen is widely seen as a potential successor to the President as is the President's son, Ahmed Saleh. Rumours abound concerning the rivalry between Ali Mohsen and Ahmed Saleh, whose Republican Guard is also deployed in the Sa'ada region.³⁰ Several Yemeni newspapers have claimed that there is a proxy war between two forces, under the cover of quashing the Houthis.³¹

The International Crisis Group in their report *Yemen: Defusing The Sa'ada Time Bomb*³² divides the insurgents into four groups: a minority embracing a clear, well articulated ideology, maintaining symbolic or political ties with Iran and rallying around anti-Western slogans; a small but distinct group seeking to defend Zaidi and Hashemite tribal identity; groups of armed men with purely financial motivations; and a majority of tribesman defending their families and villages against state violence. The report also states that the conflict had already fought five rounds — each time becoming larger. It warns that if a sixth round is not prevented it could result in the total collapse of the government.

Corruption and a lack of cohesion within the army in this conflict have led to the creation of a war economy according to the same report. It suggests that factions within the military are selling

²⁷ Brian Pridham. *Contemporary Yemen: Politics and Historical Background*. (University of Exeter Centre for Arab Gulf Studies: London, 1984) p.80.

²⁸ "Yemen- The Conflict in Saada Governorate- Analysis," *IRIN News*. July 24, 2008. Accessed at: <http://www.irinnews.org/Report.aspx?ReportId=79410>

²⁹ "Yemen reports crushing Zaidi rebels near capital," *AFP*. May 27, 2008. Accessed on July 04, 2009 at: <http://afp.google.com/article/ALeqM5iAURzVeUAAKIgPDicQc25sT7kazQ>

³⁰ International Crisis Group. — *Yemen: Defusing the Sa'ada Time Bomb*,³¹ *Middle East Report*. N°86. May 27, 2009. Accessed at: <http://www.crisisgroup.org/home/index.cfm?id=6113>

³¹ Ginny Hill. — *Yemen: Fear of Failure*,³² Briefing Paper, Middle East Program, Chatham House, Nov 2008.

³² International Crisis Group — *Yemen: Defusing the Sa'ada Time Bomb*.

supplies, weapons and other military hardware to the rebel groups.³³ The ICG's findings suggest that some military commanders make huge profits from these illicit deals creating an incentive to prolong the conflict.

The power struggle between rivals in the ruling elite should also not be underestimated, particularly since the latest round of fighting touched the outskirts of the capital. The growing support of al Houthi rebellion by economically marginalized northern tribes as well as the controversial ties of the government with the Saudi Salafi movement has prolonged hostilities. Mohsen's affiliation with an extremist Salafi cleric, Askar Zuail, who is the office manager of the army command headquarters, suggests another struggle between the extreme Sunni movement supported by Saudi Arabia and the Zaidi (a stream of Shi'ia Islam) followers.³⁴ In an effort to discredit the Houthis, Zuail called their followers disbelievers during a sermon in one of the local mosques. He also has falsely labeled them as affiliates of the Shi'ia Ja'afari sect (similar to one in Iran).

Yemeni Foreign Minister, Abu Bakr Al-Qirbi, stated that Houthis are receiving support from Shi'ia sources in Iran, but not necessarily from the Iranian government. He also mentioned that the presence of Yemeni Member of Parliament Yahya al Houthi in Libya, the brother of slain rebel leader, Abdulmalik Al-Houthi, is evidence of Libya's support for Houthis, especially since Libya declined the Yemeni government's request to extradite the MP.³⁵ These external interlocutors are complicating an already complex conflict.

Recent media reports indicate that clashes between al Houthi rebels and its allies with government forces are resuming.³⁶ President Saleh has sent a threat of resumption of military operations to the al Houthis via the Mediation Committee. It "seems to be a sixth war declaration," a Houthis' source has said.³⁷

4.2 The Southern Secessionist Movement

In addition to the conflict in the North, the government also faces a Southern Secessionist Movement. Demonstrations in support of secession have increased in frequency and have spread throughout the region. Efforts by government forces to disperse these events often turn violent. Southern resentment still lingers over the loss of the civil war and is exacerbated by the perception that the government discriminates against the Southern population by limiting socio-economic opportunity and because it not taken effective action to improve generally poor living

³³ Ibid.

³⁴ —A Mohsen's Extremist Office Manager Fatwa's Houthis," *Yemen Times*. January 6, 2008. Accessed on June 18, 2009 at: <http://armiesofliberation.com/archives/2008/01/08/ali-mohsens-extremist-cleric-office-manager-fatwas-houthis-and-other-saada-updates/>

³⁵ Mohammed bin Salam. —A Sa'da War Continues, Yemen Recalls its Ambassadors to Iran and Libya," *Yemen Times* May 13, 2007. Accessed at: <http://www.yementimes.com/article.shtml?i=1050&p=front&a=2>

³⁶ Ahmed Al-Haj. —Northern Yemen rebels seize strategic highway post," *Associated Press*. August 06, 2009. Accessed at: <http://www.google.com/hostednews/ap/article/ALeqM5gZmnaDEg7N-m-qZEAMEllvz12p2wD99TIBF02>

³⁷ Sahar Al-Sharjabi. —Interior Minister: Houthis Drug Dealers Saleh sends Al-Houthi Sixth War Threat, Houthis' Information Office," *Yemen Post*. June 27, 2009. Accessed at: <http://yemenpost.net/Detail123456789.aspx?ID=3&SubID=955&MainCat=3>

conditions. Specific grievances include land seizures, forced retirement of Southern security officials, the exclusion of Southerners from the Northern patronage networks, corruption, and economic mismanagement. Protests and demonstrations have been going on for a while and they gained momentum recently when the government cut the pensions and other benefits of the retired Southern army officers. These protests have turned violent and demonstrators have openly demanded separation. Making matters worse, the army cancelled its recruitment campaign in several Southern districts further limiting opportunities for employment. The tension in the South increased when parliamentary elections, initially scheduled for April 2009, were postponed until 2011.³⁸

Discord between the Southern population and the government in Sana'a has created a fertile ground for al Qaeda operatives. Many local tribes and officials turn a blind eye to al Qaeda's operations since they are directed against the government and Western interests — particularly oil and gas operations. The presence of radically armed elements in the South dates back to the Afghan war with the Soviets. Yemen was and still is the main source of mujahidin fighters who, in the past battled the Soviets and their socialist Afghan puppet regime, and presently take part in fighting in Afghanistan and Iraq against the governments of those countries and the Western forces who support them. The Afghan —*lumni*” of jihadists, who had returned to Yemen after the Soviet withdrawal from Afghanistan, became the building block of the Islah party (one of the main opposition parties). The head of the party is Sheikh Abdel Majid al Zindani, who fought against the Soviets and still has close links with the rest of jihadist network. Zindani has publicly supported President Saleh, while the United States is pressuring Saleh to prevent the jihadist inflow into Iraq and Afghanistan.³⁹ Zindani's support for President Saleh complicates his efforts to maintain close relations with Washington.

While some Islamic leaders support Saleh's government, others such as Tariq al Fadhil, who fought the Soviets in Afghanistan along side Osama bin Laden and then helped President Saleh crush Southern separatists in 1994, have defected to the separatist movement.⁴⁰ In addition to the split in Islamic forces another alarming factor that could provoke a full civil war is that all the tribes in the South are now united against Saleh's government.

The global economic crisis and the depletion of oil reserves have added to Yemen's challenges. The World Bank estimates that state revenue from oil and gas sales will rapidly decrease in the short term and fall to zero by 2017.⁴¹ Should this occur, the Yemeni government will lose the oil revenue it depends on to manage its budget. The results could be catastrophic for Yemen. During 2008 Yemen increased its production in order to benefit from record high oil prices and its revenues jumped 113% to \$2.6 billion USD.⁴² This windfall was short-lived however as a recent government report indicates that the proceeds of Yemen's crude oil exports sustained a record

³⁸ Ginny Hill. —Southern Yemen totters dangerously on the edge of secession,” [The Daily Star Lebanon](#). June 11, 2009. Accessed at:

http://www.dailystar.com.lb/article.asp?edition_id=1&categ_id=5&article_id=102882

³⁹ Shay. —The Red Sea Terror Triangle,” pp. 112-113.

⁴⁰ Christian Chaise. —Southern Crisis tests Yemen Leader's Grip on Power,” [Middle East Online](#). June 03, 2009. Accessed at: <http://www.middle-east-online.com/english/?id=32479>

⁴¹ Franz Gerner and Silvana Tordo. —Republic of Yemen: A Natural Gas Incentive Framework,” World Bank. June 2007.

⁴² —Yemen oil revenues rise by 113%,” [Saudi Press Agency](#). July 26, 2008. Accessed at: <http://www.spa.gov.sa/English/details.php?id=577085>

drop of 74 percent in the first quarter of this year to reach \$254 million USD, compared with \$998 million USD in the corresponding period in 2008. Yemen's Central Bank first quarterly report (from January 2009 to March 2009) showed that the government's share of the total output of crude oil in Yemen fell by 43 percent to 5.9 million barrels, compared with 10.4 million barrels in the same period last year.⁴³ Disruptions to the oil revenue curtail the government's ability to finance its security operations, likely worsening the security situation in Yemen.

⁴³ Ministry of Oil, State of Kuwait. "Yemen oil revenues fell to 254 million dollars in 3 months," Accessed July 02, 2009 at: <http://www.moo.gov.kw/Default.aspx?nid=8271&pageId=60>

5 Yemen's Energy Sector and its Threats

Oil was discovered in North Yemen in 1984 by Hunt Oil and the Alif field began production in 1987 sending its crude through a pipeline across the mountains to the Red Sea. In South Yemen Technoexport, a Soviet company, had success in locating oil fields adjacent to Alif field during 1987 and 1988.⁴⁴ Even though the vast majority of oil fields and installations are located in Southern Yemen, Southerners gain very little from the oil and gas profits and they blame President Saleh's government for this. This section will briefly examine the energy industry in Yemen outlining its current challenges and threats and will indicate the overall impact on global energy security.

Yemen's oil industry is regulated by the Ministry of Oil and Mineral's branch Petroleum Exploration and Production Authority (PEPA). Yemen's territory including its potential oil and gas reserves is organized into blocks.⁴⁵ PEPA solicits bids from foreign oil and gas companies to explore and develop these blocks. The blocks are awarded to companies through a competitive bidding process. During this process a commission is set up by the government to evaluate the financial and technical abilities of bidding companies before granting block concessions. All the PSA's must be ratified by parliament and approved by the president.⁴⁶ A legally binding document, a Production Sharing Agreement (PSA), is signed between the company and the government. The PSA outlines the Terms and Conditions under which companies will operate.⁴⁷ The main points of the PSA outline the amount of capital the company is going to invest in exploration activities over a specific period of time, the profit sharing percentage if oil is discovered in the block, as well as other legal matters. In Yemen PSAs are usually valid for 20-25 years with a possibility of extension for five more years, subject to negotiations. After the term is expired foreign oil and gas companies hand over the entire operation and facilities to the government of Yemen which then operates the concession through its national oil company.⁴⁸

There are several foreign oil and gas companies operating in Yemen. They are divided into two categories. One group has already discovered and is producing oil and the second group comprises the companies in the exploration stage. Exploration companies in Yemen are in the process of identifying potential oil and gas plays by conducting and interpreting seismic surveys and by drilling exploratory wells in their blocks.⁴⁹

There are also a handful of service companies that are responsible for the construction, drilling and other related technical works in the energy sector. They work with the oil companies on a

⁴⁴ Energy Files. "Yemen- Arabia, Persian Gulf." Accessed on June 29, 2009 at: <http://www.energyfiles.com/afrme/yemen.html>

⁴⁵ Petroleum Exploration and Production Authority. "Concessions Map." Accessed at: <http://www.pepa.com.ye/Concession/concession.htm>

⁴⁶ "Yemen Country Brief -- Licensing Rounds." United States Department of Energy, Energy Information Agency. Accessed on June 27, 2009 at: <http://www.eia.doe.gov/emeu/cabs/Yemen/Full.html>

⁴⁷ Petroleum Exploration and Production Authority. "Production Sharing Agreement—Investments." Accessed at: <http://www.pepa.com.ye/Investment/psa.htm>

⁴⁸ "Yemen Country Brief -- Licensing Rounds." United States Department of Energy, Energy Information Agency. Accessed on June 27, 2009 at: <http://www.eia.doe.gov/emeu/cabs/Yemen/Full.html>

⁴⁹ Petroleum Exploration and Production Authority. "Exploration Blocks." available at: <http://www.pepa.com.ye/Exploratin%20Activities/exploration%20blocks.htm>

contractual basis and use their PSA duty exemptions to import necessary material and equipment into the country. Regardless, there is still a significant shortage of current technology and equipment, as well as qualified experts to facilitate the exploration and development activities in the region. The main reason for this shortfall is the poor security environment and the reluctance of foreign companies to risk losing their assets. Safeguarding equipment requires special arrangements with local businessmen and officials and even with these in place, there is no guarantee that the equipment will find its way back out of the country.

Yemen has three main oil exporting terminals and each terminal is linked by pipeline to its supplying oilfields. One terminal is located at Ras Isa in the west of the country on the Red Sea. The terminal has a capacity of 225,000 barrels per day and exports Ma'rib Light and Jannah crudes. The other two are located in the south on the Gulf of Aden: one at Ash Shahir the other at Rudhum. The pipeline feeding Ash Shahir is capable of transporting 300,000 barrels per day, and has the largest capacity of pipelines in Yemen. It runs approximately 90 miles from Masila to the export terminal at Ash Shahir. The Rudhum (Bir Ali) at one time carried oil from the Eyad-Shabwa block to the Rudhum terminal on the Gulf of Aden. However, the Rudhum terminal is currently not operational, since the pipeline, constructed during the Soviet presence in Yemen, is in poor condition. It has a capacity of up to 135,000 barrels per day.⁵⁰ A number of national and international oil companies are operating in Yemen. The following is the list of the oil producing companies and the blocks they operate: Nexen, Block 14, and Block 51; Safer, Block 18; Hunt, Jannah, Block 5; Total, Block 10; DNO, Block 32 and Block 43; Dove, Block 53; Calvalley, Block 9; OMV, Block S-2; Vintage (Oxy), Block S-1; KNOC, Block 4.⁵¹ In recent years, oil production in Yemen has been steadily declining as Table 1 indicates.

Table 1: Yemen's Oil Production (Thousand Barrels per Day)⁵²

	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter
2004	425.801	393.588	396.502	409.147
2005	405.69	404.128	400.527	397.499
2006	388.679	369.341	364.927	384.02
2007	331.625	316.916	314.657	318.938
2008	317.573	304.359	291.317	287.46
2009	287.91			

In 2008, Yemen's current crude oil exports averaged 180,000 barrels per day, down from more than 430,000 barrels per day in the first half of 2002.⁵³ The oil production decrease is primarily attributable to the depletion of the oil fields and inadequate new discoveries. During the Gulf Cooperative Council (GCC) Foreign Ministers' meeting in Riyadh in his address, Yemeni Foreign Minister, Al-Kirby, stated that 70 percent of Yemen's revenues depend on oil, the production of which dropped by 40 percent in 2009. The 60 percent decrease in the oil market

⁵⁰ Petroleum Exploration and Production Authority. "Pipelines & Terminals." Accessed at: <http://www.pepa.com.ye/Production%20Activities/pipelines.htm>

⁵¹ "Yemen- Part 2- The Fields and Exports," *All Business*. June 16, 2008. Accessed on June 04, 2009 at: <http://www.allbusiness.com/trade-development/international-trade-exports-imports-by/11411213-1.html>

⁵² "International Energy Statistics - Yemen" United States Department of Energy, Energy Information Administration. Accessed at: <http://tonto.eia.doe.gov/cfapps/ipdbproject/IEDIndex3.cfm?tid=50&pid=53&aid=1>

⁵³ "Yemen- Part 2- The Fields and Exports" *All Business*. June 16, 2008.

prices in 2008, further impacted Yemeni development and investment programs.⁵⁴ It is expected that oil production will continue to drop, unless new discoveries are made either in already producing blocks or in exploration blocks. However, chances of a significant oil discovery in Yemen seem very slim. Even if there is a major discovery it would take several years before the government would become able to profit from it because it takes upwards of five years to get the oil flowing to market.

The oil refining capacity in Yemen is around 120,000 barrels per day from two ageing plants. The refinery in Aden, operated by Aden Refinery Co. (ARC), has a capacity of 110,000 barrels per day. Capacity at the Ma'rib refinery is 10,000 barrels per day. The Aden refinery, with a design capacity of 170,000 barrels per day, sustained significant damage during the country's 1994 civil war, but was later partially rebuilt. Both refineries are state-owned and under the control of the Ministry of Oil and Mineral Resources (MOMR).⁵⁵

The installations and operations in Yemen's oil sector are vulnerable to direct and indirect threats. Direct threats are those that can physically damage or destroy oil and gas installations and disrupt operations. Natural disasters such as flooding, mud slides and lightning are common in Yemen's south and pose a direct threat to oil and gas installations as well as personnel. These threats although temporary, have disrupted operations and exports in the past. These problems are fixed relatively quickly since oil companies spend significant amounts of capital to restore damages and restart operations in order to prevent production losses.

Another form of direct threat to Yemen's energy infrastructure is terrorism. As previously noted, various terrorist groups, including al Qaeda, operate in Yemen. Since 2006 terrorist attacks aimed at oil and gas installations have intensified. Several simultaneous and well planned suicide attacks have been carried out. This current terrorist campaign began in February 2006, when 23 militants escaped from a high security prison in Sana'a. These militants—under the leadership of Nasir al-Wuhayshi, the head of al Qaeda in Yemen, have formed the core of al Qaeda in Yemen's second generation that rejects to the policy of negotiation and non-aggression favored by their older colleagues. This younger, more radicalized group has coordinated several suicide attacks on oil and gas facilities in Ma'rib and Hadramaut, assassinated a government official in Ma'rib, attacked a tourist caravan in Ma'rib, and carried out recent attacks in Hadramaut.⁵⁶ Most of the attacks were successfully executed, but failed to cause substantial damage to oil and gas installations, except those directed at pipelines. Pipelines in Yemen are poorly guarded and are a subject to frequent attacks by either al Qaeda, local tribesmen or other unidentified saboteurs. The latest major pipeline attack happened in the Shabwa region. The explosion damaged 160 meters of pipeline owned by a South Korean oil company, which produces 10,000 barrels of oil per day.⁵⁷

⁵⁴ "Sana'a declares amnesty for Yemenis seeking to harm Yemen," Yemen Online. June 10, 2009. Accessed June 11, 2009 at: <http://yemenonline.info/news-1256.html>

⁵⁵ Ginny Hill. —Southern Yemen totters dangerously on the edge of secession." The Daily Star Lebanon. June 11, 2009. Accessed at: http://www.dailystar.com.lb/article.asp?edition_id=1&categ_id=5&article_id=102882

⁵⁶ Gregory Johnsen. —Attacks on Oil Industry Are First Priority for al-Qaeda in Yemen," Terrorism Focus. Vol. 5, Issue 5. February 8, 2008. Accessed June 15, 2009 at: http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Btt_news%5D=4706

⁵⁷ Mohammed Bin Sallam. —Oil pipeline exploded in Shabwa, foiled in Khawlan," Yemen Times. July 5, 2009. Accessed at: <http://www.yementimes.com/article.shtml?i=1274&p=local&a=5>

Despite the attacks on the oil and gas industry there have been no attempts to strike oil wells. This is explained by al Qaeda's rules of engagement for its economic jihad. Peter Bergen in his book The Osama I know: the Oral History of al-Qaeda's Leader, provides insight into the significance of "Muslim oil" from bin Laden's perspective. This represents the Salafi-jihadists understanding of the matter in general. The strategy behind the attacks is to increase the oil price and damage American and allied government's economic interests. Abd-al-Aziz bin Rashid al-Anzi, an al Qaeda leader in Saudi Arabia, declared that targeting oil facilities was permissible provided:

- “1) The targeting of oil facilities as a legitimate means of economic jihad. —Economic jihad is one of the most powerful ways in which we can take revenge on the infidels during the present stage....”
- 3) —The infidels do not own what they have seized from the Muslims. It is still Muslim property.”
- 4) —The demolition of infidel property as part of a war is legitimate, as long as the benefits outweigh the costs of such an action.”
- 5) —It is okay to destroy Muslim property if infidels have seized control of it, or if there are fears that something like this may happen. This is true as long as the potential damage of the infidels making use of this property is greater than the potential benefit that can be obtained when this property is returned to Muslim hands....”
- 6) There are four types of oil related interests:
 1. Oil Wells: the targeting of oil wells is not permitted as long as an equally powerful alternative exist. This is because the negative consequences of such an operation outweigh the benefits...
 2. Oil Pipelines: these are among the easiest targets to attack. The benefits of attacking pipelines outweigh the costs.
 3. Oil Facilities (such as: Refineries, Oil Plants, Transportation, Pumping Stations): these are not to be targeted if they are privately owned by a Muslim.
 4. Petroleum Industry Personnel: these are among the easiest targets to attack, and the benefits of such operation for outweigh the disadvantages-as long as [spilling] the blood of the person who is being targeted is permissible.”⁵⁸

The threat is not limited to land-based assets only as the strikes on the USS Cole (2000) and the French oil tanker MV Limburg (2002) in the Gulf of Aden demonstrated.⁵⁹ This increases the security challenges facing the government and companies operating in Yemen.

Terrorists are periodically aided in carrying out their attacks by local tribes — particularly in the Ma'rib region — that are upset with the way the government or the oil companies treat them. These tribes either turn a blind eye to al Qaeda activities or encourage them. The attacks harm the interests of the company and the government, but not the local population. The damaged infrastructure results in more employment for the locals who often carry out the repair work. Consequently, tribes in oil-producing regions can be indifferent to al Qaeda attacks on energy infrastructure.

⁵⁸ Murad Batal al-Shishani. —AQaeda & Oil Facilities in the Midst of the Global Economic Crisis,” Journal of Energy Security. April 23, 2009.

⁵⁹ —Imburg Attack” Global Jihad. June 19, 2008. Accessed at: http://globaljihad.net/view_page.asp?id=975

Oil and service companies in Yemen attempt to overcome this indifference by making security arrangements with tribes on whose territory they operate. These engagements can take different forms. For instance oil companies in Yemen hire personnel from tribes and even encourage tribal leaders to set up their own construction and service companies in order to contract them and thus engage them in the development of oil resources. They also use tribes to provide them with transportation to and from locations. The likelihood of an attack against vehicles belonging to a tribe is remote since it would be interpreted as a declaration of war on the given tribe. Tribesmen also provide security for some installations adding an extra layer of protection along with that provided by the army. Since tribes are interested in maintaining the income generated from these activities, companies that engage them tend to operate without attacks. Companies that do not successfully engage tribes are more vulnerable to attack.

Al Qaeda's presence in Yemen seems to be growing and the likelihood of more frequent attacks is increasing. According to reports, many jihad waging fighters in Afghanistan and Pakistan are returning to Yemen.⁶⁰ The media reports that they are escaping the increased US presence and military operations are not accurate, since the concept of jihad is to fight until death. Their return to Yemen is due to the unrest that has erupted and it is likely that some tribal and Islamic leaders are calling them back for support.

The indirect threats to the energy sector of Yemen are those that are not intentionally poised to threaten the oil and gas sector, but create a situation that could threaten its security. For instance, an intertribal conflict over land disputes or as a result of settling old feuds could result in a deteriorated security situation as well as blocked roads and damage to infrastructure, which could, in turn, disrupt oil exports and operations. The same could result when government forces battle insurgent tribes. An indirect threat could also come from friction between western expatriate workers and Yemeni nationals. For example, the rioting of workers and villagers at Total's LNG plant, which left several dead and injured, was sparked by the defilement of the Koran by a French Engineer. As a result rioters caused significant damage to an LNG plant, set fire to nine cars, and shot down a helicopter.⁶¹ Similar incidents have occurred in other places, some even leading to fatalities on both sides.⁶²

Energy industry assets are not the only terrorist targets in Yemen. The recent killing of tourists is alarming since it is a blow to Yemen's other major industry, tourism, and also is a departure from traditional tribal conduct. In one case a suicide bomber drove into a convoy of Spanish tourists killing several. In another case a gunman attacked two Belgian tourists and two Yemeni drivers in the Hadramaut region in eastern Yemen.⁶³ Recently, nine foreigners including two children were

⁶⁰ Abdul Rahim Al-Shawthabi. "Once Things Out of Control, Yemen will be Second Somalia," Yemen Post. June 27, 2009. Available at: <http://yemenpost.net/Detail123456789.aspx?ID=3&SubID=956&MainCat=3>

⁶¹ "Yemen Update," G4S Global Security Risk Briefing. Weekly Intelligence Report. March 23, 2007. p. 22. Accessed on June 16, 2009 at : <http://www.g4s.com.pe/informes/G4S%20Global%20Risks%20Weekly%20Intelligence%20Report%2007%20week%2013.pdf>

⁶² Jane Perlez. "Gunman Kills 3, Then Himself, At American Oil Rig" Washington Post. March 19, 2003. Accessed at: <http://www.nytimes.com/2003/03/19/world/gunman-kills-3-then-himself-at-american-oil-rig-in-yemen.html>

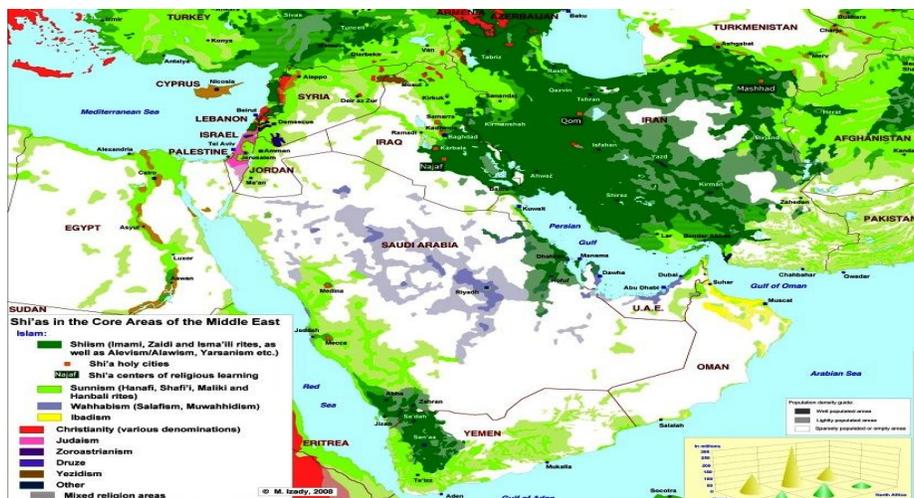
⁶³ Robert Worth. "2 Belgian Tourists Killed in Yemen Ambush," The New York Times. January 19, 2008. Accessed on June 08, 2009 at: <http://www.nytimes.com/2008/01/19/world/middleeast/19sana.html>

kidnapped and three of them killed in the Northern region of Sa'ada.⁶⁴ These attacks undermine the confidence of potential tourists thereby undermining what had previously been a lucrative industry.

⁶⁴ "Yemen recovers hostages' bodies," BBC News. June, 16, 2009. Accessed at: http://news.bbc.co.uk/2/hi/middle_east/8100500.stm

6 The Broader Impact of Conflict in Yemen

Figure 3: Shi'as, Sunnis, and Wahabis in the Core areas of the Middle East⁶⁵



Reproduced by the permission of the map's author, M.R. Izady, at <http://gulf2000.columbia.edu/>

Deteriorating security in Yemen has broader regional and potentially global implications. The regional impact of Yemen's insecurity manifests in three main threats: the rise of piracy in the Gulf of Aden; a threat to the Saudi ruling family; and attacks on Saudi oil and gas installations.

Yemen is located at the entrance to the Bab el-Mandab strait, which links the Red Sea to the Gulf of Aden and on to the Indian Ocean as seen in Figure 3. The strait is one of the most strategic shipping lanes in the world, with an estimated 3 million barrels per day (bbl/d) oil flow. Disruption to shipping in the Bab el-Mandab could prevent tankers in the Persian Gulf and the Gulf of Aden from reaching the Suez Canal/Sumed pipeline complex, instead diverting them — at great cost — around the southern tip of Africa.⁶⁶ Currently, increasing piracy in the region threatens energy security. Some reports suggest that the ruling elite in Yemen are illegally selling government subsidized diesel to Somalia, which eventually gets used by pirates to fuel their boats. A diesel shortage that plagued the country in 2008 was due in part to the siphoning and illicit sale of subsidized petroleum products out of Yemen.⁶⁷ This corrupt practice contributes to the deterioration of the situation in the Somali and Yemeni waters.

Saudi Arabia named Yemen as its number-one security threat, following the merger earlier this year of al Qaeda in Yemen and al Qaeda in Saudi Arabia. In an internet statement released in May, al Qaeda commander Nasser al-Wuhayshi pledged his support for the Southern separatists and declared that — Abdullah Saleh is an infidel and an agent.... The time for the rule of Islam

⁶⁵ http://gulf2000.columbia.edu/images/maps/MidEastReligionCore_lg.jpg

⁶⁶ "Country Analysis Brief – Yemen," United States Department of Energy, Energy Information Agency. October 2007.

⁶⁷ Ginny Hill. "Yemen: Fear of Failure," Briefing Paper. Middle East Program. Chatham House. November 2008. p.9.

has come so that you can bask in the justice and tolerance it brings.”⁶⁸ The situation in Yemen undermines Saudi security in several ways, but the most plausible one is the launch of attacks against the Saudi Royal Family by al Qaeda fighters based in Yemen. These attacks would be mounted with the intent to topple the Saudi regime. This is a long-standing al Qaeda. The second threat posed by al Qaeda and Jihad fighters is possible attacks on Saudi oil and gas installations launched out of or prepared in Yemen in order to harm Western economic interests by driving up the price of oil.⁶⁹

There are two main conflict escalation scenarios in Yemen that could have an impact on Saudi Arabia’s security. One is the secession of the South resulting in the break down of Yemen into North and South. The level of the threat posed by the secession of Southern Yemen to Saudi Arabia and to overall energy security will depend on three main factors: Sanaa’s response; the length of the conflict if it escalates into another civil war; and the fall of Southern Yemen into the hands of extremist elements. However, it is unlikely that the tribes in the region would tolerate such a development. It is important to keep in mind those tribes and Southerners in general are indifferent towards al Qaeda’s presence because of their dislike of the government’s policies in the South. If the government is ousted, Southern tolerance towards al Qaeda’s presence is likely to wane. In the event of a separation Southern Yemen could further breakdown into smaller emirates if —the new leadership” in Aden (former capital of Southern Yemen) fails to secure the support of powerful tribes in the South.

The second scenario is the potential spill over of the Shi’ia rebellion from Northern Yemen to Saudi Arabia. The conflict is currently limited to Yemen, but a further escalation may well spread to the Shi’ia minorities in Saudi Arabia located along the Yemeni border and in The Eastern Province of the Kingdom. A crackdown on Shi’ias by Saudi government could also provoke Iran to covertly support Shi’ia rebels since it is the dominant Shi’ia state in the region.

Yemen also poses a dilemma for the United States. After the 9/11 attacks, Yemen allied with the United States fight against terror. As part of this commitment President Saleh has allowed small numbers of US Special Forces and CIA operatives to operate in Yemen and destroy active al Qaeda cells in the country.⁷⁰ Yemeni-US relations have improved since the anti-terror campaign. However the US administration has accused Yemeni government of secretly releasing detained al Qaeda members, including planners of USS Cole bombing.⁷¹ These contradictory policy decisions on the part of President Saleh’s administration have complicated US efforts to constructively engage with his country.

US President Obama’s administration recently requested approximately \$27.5 million USD Foreign Aid for Yemen — \$7 million USD more than in 2008. However, a recent US Congressional Research Service Report suggests that the money may not reach its intended

⁶⁸ Ginny Hill. —Southern Yemen totters dangerously on the edge of secession.”

⁶⁹ Henry Meyer. “Al-Qaeda Increases Yemen Attacks as Government Control Weakens.” Bloomberg. April 07, 2009. Accessed at:

<http://www.bloomberg.com/apps/news?pid=20601109&sid=aPgZgJFoo6EE&refer=home>

⁷⁰ Jeremy Sharp. —Yemen: Background and US Relations,” Congressional Research Service. January 22, 2009. p.4.

⁷¹ Craig Whitlock. —Probe of USS Cole Bombing Unravels,” The Washington Post. May 04, 2008. available at: http://www.washingtonpost.com/wp-dyn/content/article/2008/05/03/AR2008050302047_pf.html

destination because of noted corruption in Yemen. The debate over the assistance to Yemen in the US is divided. Supporters argue that Yemen's failure would hamper efforts to combat terrorism and destabilize the Arabian Peninsula. Opponents counter that Yemen is not important for the US since it is not a significant oil supplier or importer of arms and other American technology.⁷²

Yemen has also attempted to balance its interests by improving its ties with Iran and Russia, further complicating its relations with the US. President Saleh, on a visit to Moscow at the end of February 2009, agreed that Yemen will purchase \$2.6 billion USD worth of arms, will allow the Russian military to establish a military base on the island of Socotra and offered Gazprom a stake – the details are yet to be announced - in Yemen's energy sector. In return, Russia agreed to cancel Yemen's \$1.2 billion USD debt, dating from the Soviet era.⁷³ Yemen has also reinforced its ties with the government of Iran. During a high profile Iranian delegation visit to Sana'a, Yemen's Parliament Speaker Yahya al-Rae'i announced full support for Iran's peaceful nuclear program. In reply, Ali Larijani, Iran's Majlis speaker, reaffirmed Iran's support for Yemen's unity.⁷⁴

⁷² Sharp. "Yemen: Background and US Relations," pp. 14-15.

⁷³ "Arms for oil: Yemen swaps debt for Russian stake in its energy sector" *World Tribune*. March 25, 2009. Accessed at: http://www.worldtribune.com/worldtribune/WTARC/2009/mc_yemen0247_03_25.asp

⁷⁴ "Yemeni President: Iran has right to nuclear technology" *Tehran Times*. May 16, 2009. Accessed at: http://www.tehrantimes.com/index_View.asp?code=194642

7 Conclusion

This paper has analyzed the state of the energy industry and security within Yemen and their impact on the broader MENA region. The complex nature of the political situation in Yemen makes it very fragile and on the verge of collapse. This fragility stems from the unresolved grievances dating to the formation of the current state. The development of the oil sector has helped the government to sustain an alliance with some of the powerful tribes while crushing the smaller or dissatisfied ones. Its oil revenues were not efficiently used to improve or build a country; instead they were used to apply a temporary fix to most of the problems, including tribal disputes, terrorism and socio-economic development. The selective application of wealth has instead deepened the rift between many faction and territories fuelling the Sa'ada rebellion as well as the recurrence of the Southern secessionist movement. Moreover, declining oil production and declining reserves pose a threat to the government's ability to generate the revenue it needs to maintain its hold on power and to continue fighting the armed resistance it faces throughout the country.

The success and security of foreign oil and gas companies in Yemen largely depends on the successful engagement of the tribes in their areas of operation. Some companies finance local agricultural and social projects to garner local support. They periodically also involve tribal leaders in the concession development process. While these actions significantly decrease the likelihood of an attack on companies they do not guarantee full protection against the actions of other dissatisfied groups or individuals.

Clearly Yemen's collapse would have a negative impact on other regional states although it would not likely damage the global energy market or energy security because of the small amounts of oil in question. In the wake of a major conflict in Yemen the energy sector will be affected, however the damage may not be significant or permanent, since the potential combatants wish to safeguard the revenue stream the industry represents and would attempt to minimize damage to it. It is worth mentioning that Canadian Nexen did not halt its oil exports during the 1994 civil war and continued its operations albeit with limitations. However, the 1994 civil war lasted less than two months, a similar but a longer conflict could eventually paralyze energy sector operations.

However, there is a more global threat posed by al Qaeda and like-minded extremists who operate from Yemen. If Yemen fails the attacks on Saudi Arabia by these groups may occur more frequently. If a successful attack against a major Saudi oil facility, such as the Abqaiq refinery, were launched from Yemen, the impact on global energy security and the world economy would be potentially devastating.

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This Report analyzes the security of the energy industry and its infrastructure in Yemen and also examines the potential impact of insecurity in Yemen on global energy security. To achieve this, the political environment, oil export levels, various security threats, as well as measures taken by government and oil companies to counter these threats are examined. The evaluation of existing security threats including political instability, terrorism, tribal warfare and religious strife and their possible escalation highlight the precarious situation in the country. Findings demonstrate that the decline of oil and gas prices as a result of the global economic downturn has reduced the government's ability to contain the escalation of these conflicts. However, the fundamental problem of Yemen's energy sector is depletion of its oil reserves leading to rapidly declining oil production levels. The decline of Yemen's energy sector will have a very minor impact on global energy supplies, but could facilitate the political collapse of Yemen. This collapse would pose a far bigger threat and could have a negative impact on regional and global energy security.

Dans le présent rapport, nous analysons la sécurité du secteur énergétique et de son infrastructure au Yémen et nous examinons les répercussions potentielles de l'insécurité dans ce pays sur la sécurité énergétique mondiale. Pour ce faire, nous nous penchons sur le contexte politique, les niveaux d'exportation de pétrole et les différentes menaces en matière de sécurité ainsi que les mesures que le gouvernement et les sociétés pétrolières prennent pour les contrer. L'évaluation des menaces actuelles à la sécurité, notamment l'instabilité politique, le terrorisme et les conflits tribaux et religieux, et de leur intensification potentielle met en lumière la situation précaire dans le pays. Les constatations montrent que la baisse des prix du pétrole et du gaz par suite du ralentissement économique mondial a réduit la capacité du gouvernement de freiner l'intensification de ces conflits. Toutefois, le problème fondamental du secteur de l'énergie au Yémen est l'épuisement des réserves pétrolières, menant à une réduction rapide des niveaux de production de pétrole. Le déclin du secteur de l'énergie dans ce pays aura un effet très négligeable sur les réserves énergétiques mondiales, mais il pourrait faciliter l'effondrement politique du Yémen, ce qui engendrerait une menace beaucoup plus grande et pourrait avoir un effet négatif sur la sécurité énergétique régionale et mondiale.

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Ahmed Saleh; al Houthi; al Qaeda; Ali Mohsen; Bakil; Northern Yemen; President Ali Abdullah Saleh; Sa'ada; Salafis; Saudi Arabia; Southern Yemen; Wahabism; Yemen; Zaidis

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