



Addressing the Concerns of the Oil Industry: Security Challenges in Northeastern Mexico and Government Responses

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Scope Note

This case study analyzes the Mexican Government's response to recent threats to and attacks against energy infrastructure and personnel in Tamaulipas and Veracruz. The government is addressing the issue of cartel-induced violence in Tamaulipas and Veracruz by mobilizing security frameworks for newly established and existing state law enforcement entities and the Military. The security arrangements, that include policing of major ports and protecting Pemex facilities and operations, should help the oil and gas industry to better absorb the financial risks to its business operations.

Executive Summary

The December 2013 Constitutional Reform and August 2014 secondary legislation to permit private investment in Mexico's oil and gas sector represent significant opportunities for private oil and gas companies. While the overall geopolitical risk landscape in Mexico is low, cartel-related violence and other criminal activities continue to draw concern from international oil companies and other foreign investors. Homicide, kidnapping, extortion, attacks on facilities and organized public unrest challenge regional governance and have the potential to impact a number of stages of the oil and gas value chain. As foreign energy companies prepare to bid on Round One contracts, the Mexican Government, state security entities, and civilian security organizations have begun to put in place the elements of a more secure operational environment.

Key Observations

- **Mexico's recent energy reforms are attracting considerable interest from foreign investors, namely from the U.S. to develop infrastructure projects.** The unification of the Mexican and U.S. energy markets consists of the construction of new gas and oil pipelines, proposed future gas exports to the U.S. and proposed U.S. and other foreign investment in developing oil and natural gas down- and primarily mid-stream lifecycle operations. The states of Tamaulipas and Veracruz represent Mexico's top oil and gas market spaces that are driving an enhanced energy security equation for both countries.
- **Organized crime, notably DTO's and their related criminal surrogates pose a security threat to existing Pemex oil and gas operations and personnel safety.** Continued lethal and violent attacks against Pemex installations and employees by Los Zetas and the Gulf Cartel, the dominant DTO's operating in Tamaulipas and Veracruz, has created a high-risk environment for Pemex employees. Enrique Peña Nieto's administration has launched a revitalized national security strategy to more effectively confront DTO crime and violence in Tamaulipas and most recently in Veracruz at Pemex installations.
- **Organized criminal organizations and cartels continue the upwards trend of clandestinely siphoning oil from Pemex pipelines that results in explosions, fires, and disruption of oil supplies.** Many times, DTO's are intent on committing acts of sabotage so as to disrupt specific life-cycle operations at refineries, or to warn an installation to heed a "narco bribe" demand. As part of the Mexican Government's response to the deleterious economic impact of DTO siphoning activities, the newly

created National Gendarmerie has been tasked to provide protection to those areas of the country lacking an effective police presence.

- **Negative public opinion over fracking in Veracruz, the impact of the Energy Reform bill on Pemex labor contracts and the oil and gas sectors marginally increased vis-à-vis the government’s public relations campaign representing the commercial and security benefits of energy liberalization.** The government is making some dents in the national public debate—notably in social media venues—concerning the benefits of energy liberalization and public security. An increased security presence coupled with efforts at improving transparency and collaboration with civil society in the fight against organized crime also is a necessary step.

Image 1: Map of principal Pemex oil and gas installations in Tamaulipas and Veracruz¹



¹ Analysis in boxes provided by author

National Context: Setting the stage for foreign investment in Mexico

Mexico represents an important component of the United States' (U.S.) energy security for the principal reason that it is one of the United States' major sources of oil imports. Despite the steady decrease in Mexico's oil production since 2005 as a consequence of natural production declines in off-shore fields and a failure to invest in new projects and new technologies, the anticipated potential of significant untapped oil and gas reserves off-shore will help to boost Mexican oil production, with the Energy Information Administration (EIA) predicting that Mexico will reach 3.75 million barrels of oil per day (bbl/d) over the next 20 years. Mexico has untapped oil reserves reportedly totaling 113 billion barrels, including those in the deep water off the coast of Tamaulipas and Veracruz. The Energy Reform legislation ending Pemex's monopoly of the oil and gas sector, represents a critical opportunity for Mexico to modernize its oil and gas industry.

- The established oil and gas infrastructure unifying Mexico and the U.S., particularly pipelines, planned infrastructure upgrades, and construction of additional supply routes contributes to consolidating the energy needs of both countries. Mexico will see its natural gas needs met for the foreseeable future by the pipeline projects currently under construction.¹

Image 3: Map illustrating Mexican-US interconnectivity of oil and gas pipelines²

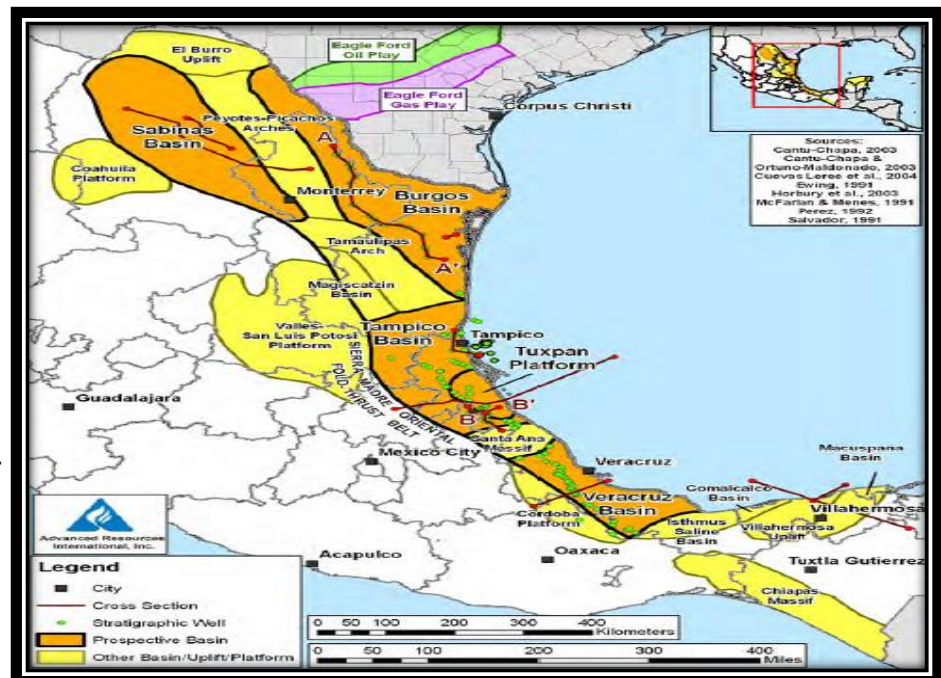


- The reform process will provide a significant push to Tamaulipas' oil and gas down- and mid-stream activities, including the chemical and electrical industries. According to a foreign bank analysis, foreign investors will look to invest predominantly in the state's petrochemical and chemical sectors along the border with Texas, where the Eagle Ford and Burgos Basin are located. Consequently, the Mexican Government anticipates that foreign investment will go a long way to build new, and consolidate existing, infrastructure projects for the purpose of moving crude and gas to Tamaulipas' ports for export, as well as pipelines to the U.S.³
- The anticipated completion in December 2015 of the "Los Ramones" gas pipeline, together with the construction of gas compression plants coupled with the port of Altamira for petrochemical exports will put Tamaulipas on the map as Mexico's most important energy state. The LNG terminal operation in Altamira, Tamaulipas, which began operating in 2006, is currently used by the CFE to supply fuel for electricity generation. Mexico is re-evaluating the terminal and exploring the possibility of using it for export of LNG.⁴
- Other gas projects in Tamaulipas include an offshore terminal to provide new supply routes, as well as a subterranean storage capability.⁵

Through the recent reforms, Mexico is looking to boost oil production, increase its natural-gas supply, and lower the cost of electricity generation. The Energy Reform bill will open up 85 percent of shale gas and oil fields in Mexico to private investment. Foreign energy companies also will be able to gain access to vast untapped oil reserves, including fields in the deep waters of the Gulf of Mexico (the majority of which lie off the coast of Tamaulipas and Veracruz).

Image 4: Map illustrating existing and prospective gas basins on the eastern coast of Mexico⁶

- Mexico has 12 onshore basins although only six currently produce oil or gas. Some estimates note that Mexico could have 29 billion barrels of oil and gas reserves in the Gulf of Mexico, and an additional 13 billion barrels of



recoverable oil shale reserves.⁷

- The U.S. Energy Information Administration ranks Mexico's reserves of shale gas as sixth in the world—Pemex itself estimates that shale formations hold the energy equivalent of 60 billion barrels of oil. The on-shore shale gas basins of Eastern Mexico include Burgos, Sabinas-Burro Picachos, Tampico-Misantla and Veracruz that together hold 49 percent of the country's gas reserves.⁸

The Opportunity in Tamaulipas and Veracruz

Since 2013, southern Tamaulipas has experienced a robust growth in petroleum activity in the form of incentive contracts with private foreign companies to engage in the exploration, extraction, and production activities of existing oil and natural gas fields.⁹ Tamaulipas is home to the Burgos gas basin—straddling the two states of Nuevo Leon and Coahuila—the country's most important gas reserves with on-going production from 2,800 wells employing 4,200 employees. Twenty-six percent of Mexico's natural gas production occurs in the state, with 200 billion daily cubic feet and 18,000 barrels of condensed gas. The National Infrastructure Plan (NIP) 2014-2018 for Tamaulipas demonstrates the government's intention to revitalize its oil and gas infrastructure in preparation for private investment. The NIP seeks to: optimize output at the Francisco I. Madero refinery, strengthen the infrastructure of the Burgos gas basin; establish the South Gasline-Tuxpan (sub-sea) project which would benefit Tamaulipas and Veracruz; establish the Los Ramones-Cempoala gas pipeline to benefit Tamaulipas, Veracruz, and Nuevo Leon; and, create a new storage and distribution terminal (TAR in Spanish) in Reynosa.¹⁰

In the case of Veracruz, the state has up to 755 million barrels of crude oil and almost six thousand cubic feet of gas.¹¹ The state's ports of Veracruz, Coatzacoalcos, Tuxpam and Pajaritos are responsible for 52 percent of all of Mexico's exports, including petrochemical, chemical, and other petroleum-based products.¹² Four hundred and seventy kilometers of oil and gas pipelines cross 140 of the 203 municipalities of Veracruz. The port of Veracruz is the axis for the state as all oil, gas, and petrochemical products travel there for on-ward movement to other parts of Mexico.¹³

The extensive oil and gas basin of Chicontepec comprises nine municipalities in Veracruz and has a total of 26 exploration wells. In the recent past, production from this complex geological field was disappointing in that it declined precipitously and consequently many fields have been abandoned. Of the remaining fields, many have a skeleton staff, in some cases only one person to manage the machinery and provide a semblance of security to protect the installations from oil or gas theft. However, Pemex estimates that Chicontepec

could hold as much as 139 billion barrels and the energy reforms will allow foreign investment to re-activate abandoned fields and enhance recovery at existing fields.¹⁴

The Mexican Government is also seeking to increase foreign investment in the Pemex petrochemical operations in the municipalities of Poza Rica and Agua Fria. The Poza Rica project could, in the next ten years or so, have a production of 166 million barrels of gas, with an estimated value of 16,600 million dollars. It is predicted that the Agua Fria-Coapechaca (also known as Xicotepec) field will produce 710 million barrels of gas in the next 50 years.¹⁵

Pemex has been working to expand the Veracruz port in anticipation of new exploration projects in the state that include exploratory drilling of 268 holes and 385 that are developmental; the construction of infrastructure necessary to transport gas resulting from approximately 22 gas pipelines, 7 oil-gas pipelines, and 96 discharge pipelines. Pemex is also building four new tankers in Veracruz, to be completed in 2015, which should help Pemex compete globally.¹⁶ According to the Minister for Economic Development and Port in Veracruz, a number of large IOCs are planning to operate in Veracruz.¹⁷ Spanish firms have also indicated interest in investing in Veracruz, and have noted that Veracruz is becoming Mexico's most important port.¹⁸

The Security Challenge

Despite the promising investment in Tamaulipas' oil and gas sector, the state remains one of Mexico's most violence-ridden states. DTO's have targeted Pemex gas stations and other businesses as part of their strategy to force financial losses on their enemies.¹⁹ According to a 2013 academic study concerning changes in peace in Mexico over the last ten years, Tamaulipas suffered a 20 percent to 40 percent deterioration in peace.²⁰ The Gulf Cartel and Los Zetas are the two primary DTO's in the region, targeting not only each other but also Mexican government and military officials and civilians. At times, foreign workers, as sub-contractors to Pemex, have been harmed or killed during lethal attacks.²¹

- During the month of April 2014, DTO violence resulted in more than 35 deaths in the cities of Tampico, Ciudad Mier, Miguel Alemán, Matamoros and Reynosa.²²
- According to unconfirmed accounts in various Mexican media outlets, DTO's and their criminal gang surrogates run and control the transportation sector in Tamaulipas, which includes highways and operations at the ports. DTO's also control a number of Pemex gas stations and illegally sell oil that they have stolen from clandestine siphoning activities in the state. In many cases, DTO's directly compete with Pemex in selling

gasoline.²³ The most pernicious impact on the local state economy is the wide-spread activity of “narco rents”, i.e. extortion fees from businesses and businessmen.²⁴

- The municipality of Victoria and the city of Tampico in Tamaulipas rank as having the highest rate of kidnappings in the area.²⁵

Image 2: Mexican blogsite illustrating DTO violent and lethal along the major commercial highways in the state of Tamaulipas with the majority of incidents occurring near Reynosa and Ciudad Victoria.²⁶

Breakdown of DTO violence in major cities:

- Reynosa: From May-July 2014, the city experienced the highest number of narco blockades in Tamaulipas. The majority of blockades occurred downtown when rival Los Zetas and Gulf Cartel members attempted to kidnap and assassinate their rivals in a targeted fashion.

On 9 June, the city was essentially closed down due to narco blockades, shootouts, and other physical violence.²⁷



- Ciudad Mier: In April 2014, suspected members of the Gulf Cartel used an armored vehicle to fire upon a hotel in Ciudad Mier where employees of the Swiss multinational firm Weatherford were residing. At the time of the attack, the company was providing drilling services for Pemex searching for natural gas and shale in the Burgos basin region.²⁸
- Tampico: The city straddles an important gas shale basin and producers would rely on the port to import and export key goods and supplies.²⁹ Tampico has one of the highest

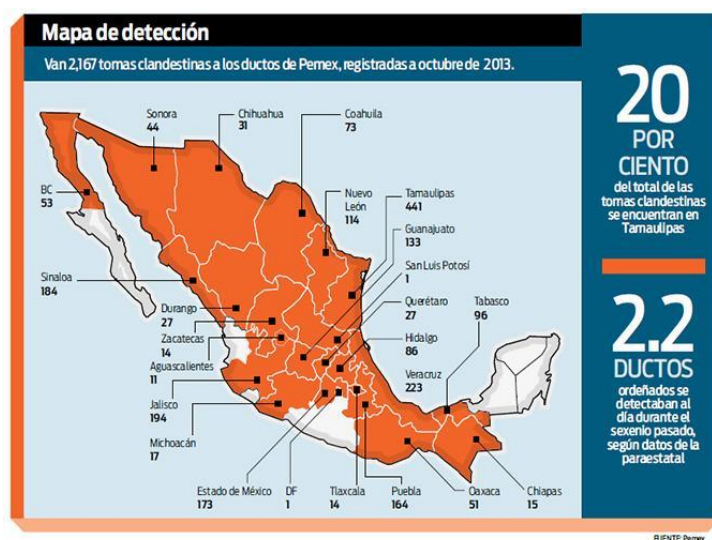
rates of DTO-related lethality, assassinations, kidnappings, and other violent attacks.³⁰ Tampico's port is Mexico's second most important from which major mining, petrochemical, and other industrial goods are exported. In addition, narco-traffickers have come to use the port for deployment of fast boats transporting drugs to the U.S.³¹ In May, a 50-vehicle Gulf Cartel convoy passed through downtown without any push back from security forces, according to Mexican Twitter users.³²

- Altamira: DTO assassinations and narco blockades regularly occur. In June 2014, narco blockades set up with pipe bombs blocked the highway between Altamira and Tampico and closed down the international port in Altamira for an undetermined period of time. The highway is a critical route for Pemex trucks transporting fuel to and from Pemex refineries.³³

Oil and gas companies remain highly interested in participating in oil and gas operations in Tamaulipas. Eleven foreign companies reportedly are interested in settling in Altamira, Tampico, Matamoros, and even some northern areas of Veracruz.³⁴ However, the directors and representatives of a number of IOCs reportedly expressed concern about the security environment in Tamaulipas at a meeting in Mexico in March 2014 with Pemex's director general.³⁵ Partially in response to these concerns, the military is concentrating forces throughout the state.

Image 6: Map of clandestine siphoning in Mexico as of 2013: the time-frame for analysis was January-October 2013.³⁶

Organized criminal organizations and cartels continue to siphon oil from Pemex pipelines that sometimes results in explosions, fires, and disruption of oil supplies primarily in Tamaulipas. Sometimes DTO's are intent on committing specific acts of sabotage so as to disrupt targeted life-cycle operations at refineries, or to warn an installation to heed a "narco bribe." Clandestine siphoning continues to take place despite Pemex's combined security strategy with the Armed Forces and local policies, as well as the implementation of new technologies to monitor the pressure of oil pipelines.³⁷ The Gulf Cartel and Los Zetas are known to engage in undercover



operations using false Pemex vehicles and uniforms to evade and penetrate security measures.³⁸

- In early February 2014, the Pemex Director of Exploration and Production reported the loss of approximately 20,000 bpd of crude due to clandestine siphoning.³⁹ According to a special Mexican 2014 media investigation, Mexican organized crime has created its own infrastructure to siphon oil from pipelines and transport it throughout Mexico and to the U.S., including the use of its own fleet of tankers and boats at ports.
 - The majority of the stolen product enters the black market and is sold to companies and gas stations— some of which are in the U.S. With an average international market price of Olmeca of around 107 dollars per barrel in the first half of 2014, the total loss for Pemex was around 360 million dollars.⁴⁰
 - Pemex also reported that although there is not a specific area for the stolen Olmeca, much of it takes place near the refinery of Salamanca in the area of Tampico, and Madero.⁴¹
- The highest incidents of clandestine siphoning occurred in Tamaulipas with 367 in 2013; Veracruz followed with 303 recorded in 2013.⁴² Altamira and Reynosa are the two cities with the highest incidents of illegal siphoning by Los Zetas.⁴³
- Over the last decade, more than 97 Pemex employees and ten contractors to Pemex have been linked to the clandestine siphoning of oil. In order for the cartels to conduct the siphoning activities, they require technical knowledge—layout of pipelines, de-pressurization of lines: that information is believed to be provided by corrupt Pemex employees.⁴⁴
- Corruption and graft remain a critical economic risk issue in Tamaulipas, threatening the efficacy and safety of oil and gas operations—production, refinement, transportation—as well as petrochemical, chemical, and mining operations.
- Pemex workers regularly complain about the absence of security in remote areas of Tamaulipas where they have to work, and often do not travel to their work sites due to fear about their physical security.
- The risk of bribes, corruption activities, and overall DTO penetration into the gas and oil distribution network leaves foreign companies and their personnel vulnerable to extortion, possible kidnapping, and other violent and non-violent threats.
- The state police forces will continue with the vetting of police officers to ensure that they do not have ties to organized crime. There have been recent instances of police officers having ties to DTO's, most notably in Tamaulipas. Plan Tamaulipas focuses on

vetting and re-accrediting all police officers.

Despite the expectations of significant foreign investment in Veracruz's oil and gas sector, the state faces significant security challenges. According to a 2013 academic study, there was a 5-20 percent deterioration in peace in Veracruz from 2003 to 2012.⁴⁵ As in Tamaulipas, the Gulf Cartel and Los Zetas are the two primary DTO's engaged violent criminal activities. Xalapa and Veracruz City are the two most dangerous cities.

- The port of Veracruz is one of the most significant areas of lethal violence due to an escalating drug territory dispute between the two DTO's, as well as the reported presence of other DTO's such as the Cartel de Jalisco Nueva Generacion. For the DTO's, the port is important for the movement of predominantly cocaine. Narco blockades, shootouts, and other violent attacks frequently close down the immediate port, its operations, as well as businesses and neighborhoods in the immediate vicinity.⁴⁶
- In Coatzacoalcos, this once quiet city recently experienced an increase of DTO-related assassinations, presence of criminal organizations such as Los Zetas. The city is home to the Pajaritos and La Cangrejera petrochemical plants. In July 2014, security forces reportedly captured more than 1,000 criminal elements Coatzacoalcos and Cordoba, 35 of whom were involved in kidnappings.⁴⁷
- In February 2014, media reports from Veracruz discussed kidnapping fears among Pemex workers at the Pajaritos and La Cangrejera complexes. The same article mentioned that there was an attempted kidnapping of the wife of a Pemex employee.⁴⁸

Fracking has emerged as a polemical issue in Veracruz. Fracking and gas wells in Veracruz are prompting growing public concerns about toxins being released into the environment that could harm humans and the environment. In 2013, Pemex was working on 23 exploration and production wells in the south, including Rodriguez Clara, Isla and Chacaltianguis.⁴⁹ In the area called Huasteca Veracruzana (comprised of northern Veracruz, southern Tamaulipas, and sections of the states of San Luis Potosi and Hidalgo), there exist approximately 130 active gas sites.⁵⁰ According to one report, Pemex is anticipating opening 27 new gas wells from now through 2045.

- In early May 2014, residents of the town of Miquetla, in Castillo de Teayo, Veracruz, protested fracking and the Energy Reform bill by using trucks to block access to 128 active Pemex wells and closed operations for an undetermined period of time.⁵¹
- From February – late July 2014, considerable negative opinions about fracking in Veracruz emerged on Twitter and are representative of the on-going Twitter public opinion debate about the harmful effects of fracking in the state:

- An identified user posting on 8 July wrote; “Blockade of 128 Pemex shafts in Veracruz against #fracking @NoFrackingMx @Earthworks⁵² <http://bit.ly/1vXeXAa> pic.twitter.com/2EDBvnIxlN
- On 1 August, an identified user wrote: “With #fracking, water, land and air are contaminated near the ##PozosDeMuerte pic.twitter.com/HoQGRgKtsQ #Veracruz⁵³
- On 27 July, an identified user wrote: “The #FRACKING will cover 3 million hectares in #VERACRUZ ...”⁵⁴
- On 17 June, an identified user wrote: “#FRACKING is devastating the lands of #PUEBLA #VERACRUZ.”⁵⁵
- An identified user posting on 19 February wrote: “Listen #mexico the struggle against #fracking has to begin TODAY! In Veracruz 175 holes are planned through 2016.”⁵⁶

Veracruz has also experienced increased labor unrest, which at times has turned violent, in protest to the energy reform. Labor unrest, although not typically violent, usually targets Pemex installations or highways nearby.

- There have been continuing and large protests by Pemex workers employed at the Pajaritos petrochemical complex, against the sale of the plant to Mexican company, Mexichem. Pemex employees from the petrochemical complexes in Morelos and Cangrejera joined their Pajaritos colleagues at a 17 July protest.⁵⁷
- In July 2014, 500 employees of the Arengal Company (a contractor for Pemex in Alvarado), demonstrated against their termination, which they blame on the Energy Reform bill. The demonstration closed down a section of the Alvarado-Lerdo de Tejada-Paso del Toro highway leading to Pemex well #5.⁵⁸

The Government’s Response

Upon taking office in December 2012, the administration of President Enrique Peña Nieto announced that it would take a different approach to public security and organized crime to that followed by outgoing President Felipe Calderon. While continuing to disrupt the activities of the DTO’s, the new government declared that it would focus on community-based approaches to public security and crime-prevention. In addition, the government recentralized control over security, with the Secretaría de Gobernación (Interior Ministry) playing the most important coordinating role. Furthermore, the administration presented plans to create a National Gendarmerie, which would eventually be created in August 2014

as a rapid-reaction militarized police force of around 5,000 officers.⁵⁹

While the new approach to security has achieved some notable successes, mainly with regards to falling homicide rates and the arrest or elimination of a number of leading DTO figures, Mexico's security situation has not improved significantly. Continued violence in the north of the country, problems with self-defense groups in Michoacán and the September 2014 disappearance of 43 students in the state of Guerrero combine with worsening kidnapping and extortion figures nationwide to highlight the enduring challenge of enforcing law and order in Mexico.

In the case of Tamaulipas, President Peña Nieto announced a new security strategy for the state in May 2014, known as Plan Tamaulipas, in order to halt lethal cartel violence.⁶⁰ The plan divides the state into quadrants controlled by special operational units of the Navy and the Army, and it appears that the city of Nuevo Laredo is, operationally speaking, a fifth zone. The three principal pillars of Plan Tamaulipas are:

1. Dismantle organized crime groups
2. Close the routes for illicit movements of money, persons, drugs and weapons
3. Guarantee effective and reliable local security institutions at the state and municipal levels.

Military units have been directed to disrupt cartel activities, arrest DTO members, patrol highways and roads to prevent narco blockades, and to reinforce security at airports and ports. The military has also arrested more than 40 identified police members associated with narcotrafficking.⁶¹ The state police, now subsumed under the Single Police Command, are charged with deploying better trained officers to engage in patrols at ports, Pemex facilities, and businesses. In addition, President Peña Nieto inaugurated the National Gendarmerie for Mexico, a security force that will provide protection to civilians, economic and industrial activities, local commerce, tourism, as well as to secure local territory where local police capacity is lacking. 200 Gendarmerie units have already been deployed in Altamira to assist with public security efforts.⁶²

The Federal Government, concerned about the escalating public insecurity due to DTO violence, is investing additional money in Veracruz to strengthen the state police's responsibilities to fight crime. Specifically, under the auspices of the Sistema Nacional de Seguridad Publica (SNSP), 115 billion dollars is to be designated for new equipment, training, and the reorganization of the police force.⁶³ The state began consolidating its police force under the Mando Unico (Single Police Command) in May 2014 as part of the SNSP national security strategy.⁶⁴ In addition, deployment of the Gendarmerie is planned

for Veracruz in the near term. The state has an allotment of 1,800 positions to fill for this new security force. Businesses are eager for the Gendarmerie to be deployed to the state to help the police improve the security situation.⁶⁵

The Federal Government is implementing containment policies to deal with the upwards trends of DTO clandestine siphoning of oil from Pemex pipelines. Plan Tamaulipas and the security strategy plan for Veracruz aim to increase the deterrent and containment policy of mitigating financial losses in the energy sector due to continuing siphoning activities. The increased physical presence and involvement of the military at Pemex facilities has both direct and indirect benefits at reducing costs associated with reducing violence as well as demonstrating a commitment to improving peace in the affected areas.

What is disappointing so far about both the Tamaulipas and Veracruz security strategies is that they have not focused more heavily on community-based solutions. As a recent paper by Wilson and Weigend points out, “largely absent from the security strategy is a focus on civil society, social inclusion, economic development and protection of the press,”⁶⁶ all considered crucial in enhancing security in the long term.

However, in the aftermath of the Ayotzinapa student disappearances, President Peña Nieto announced an integral 10-point plan that includes consolidating the country's 1,800 municipal police forces into 32 state-level forces, granting the federal government powers to dissolve local governments allegedly infiltrated by drug cartels, strengthening federal security forces in key areas (including Tamaulipas), the creation of a national anti-corruption commissioner, a national emergency hotline and regional economic development plans for Mexico's poorer regions. While these reforms must be approved by Congress, the plan demonstrates that the administration has recognized that its efforts thus far have been insufficient and need retooling.

The Outlook

The threat of DTO attacks targeting Pemex installations, employees, and civilians throughout Tamaulipas and Veracruz will remain acute and continue to have an economic cost. The deteriorating security environment in Tamaulipas and more recently in Veracruz has forced the military to remain deployed in selected cities of the state for the foreseeable future, and to continue to protect Pemex and foreign workers in exploration, extraction, and refining operations. Although the Mexico Peace Index 2013 estimates the direct cost of violence estimated to be US\$ 45.9 billion and the total national economic impact of violence (including indirect effects such as lost productivity) was calculated to be US\$ 333.5 billion per year,⁶⁷ organized crime represents a low operating cost for the energy sector and does

not represent a significant deterrent to investors due to the industry's experience in operating around the world in risky environments.

Corruption, bribes, and extortions remain an intractable problem for Pemex, and regional governments. Corruption increases premiums for transportation from areas of oil and gas operations to refineries, ports, and other areas involved in the production and distribution of products. Pemex employees constantly are under threat of "narco extortions" from Los Zetas and the Gulf Cartel; the payouts are a constant revenue loss for Pemex and other petrochemical and chemical businesses associated with oil and gas operations. As the public security situation in Tamaulipas and Veracruz deteriorated further during the first half of 2014, the Mexican Government devised a new security strategy to simultaneously increase protection of citizens and of businesses.⁶⁸ The formation of the National Gendarmeries to focus on protecting businesses from bribes and extortions should help to improve the overall business climate for foreign investment.⁶⁹

The rise of self-defense groups in response to the inability of state police and the Armed Forces to protect them from DTO violence is an emerging risk to state governments in some part of the country. Many self-defense groups seek to protect the rights of disenfranchised populations or disgruntled workers at companies such as Pemex and with increasing frequency hold demonstrations—thus far non-violent—at Pemex sites or government offices. While the most obvious case of self-defense groups is in the state of Michoacán, there has been increasing discussion in Spanish-language social media sites by citizens of Tamaulipas expressing the need for the self-defense groups.⁷⁰ In May 2014, thousands of citizens marched in downtown Tampico protesting the escalating violence caused by DTO confrontations and the physical threats to their safety.⁷¹ Moreover, there has been an increase in disruptive civilian blockades outside of Pemex refineries and gas stations in Tamaulipas and Veracruz usually results in economic losses for Pemex. Although the total cost is difficult to ascertain, in other regions of Mexico, such as Michoacán and Tabasco, officials calculated a possible loss of 50 million dollars for the first half of 2014.⁷²

Despite a surge in non-violent demonstrations opposing the energy reform in early 2014, momentum appears to have weakened. A number of protests in early 2014 against the energy reform brought together citizen groups, Pemex employees and labor unions in collaboration with grass-roots organizations.⁷³ Pemex labor union workers have protested on numerous occasions around the country and primarily in Mexico City out of concerns that the Energy Reform bill will force them out in favor of "exterior" interests such as foreign energy companies.⁷⁴ On July 23, 2014, up to 20,000 indigenous people from around Mexico marched in Mexico City to protest the secondary laws of the Energy Reform bill that

they state will expropriate their land for purposes of oil and gas exploration and production activities.⁷⁵

In July 2014, a new political party, the Movimiento de Regeneracion Nacional (Morena), had collected more than 1,600,000 signatures opposing the energy reform because they allege that foreign energy companies will exploit Mexico's natural resources for their own profit and not the Mexicans.⁷⁶ However, with the Mexican Supreme Court ruling that a national referendum on the reforms would not be legally binding and with social media discussions appearing to show that there is a growing sense that the reforms will benefit Mexico, the momentum against the reforms has weakened.⁷⁷

On the opportunity side, the federal public security strategies for Tamaulipas and Veracruz will begin to produce demonstrable results by helping to reduce physical threats and financial risks from sabotage and other criminal activities. An improvement in the overall public and economic security scenario bodes well for both local communities and energy companies looking to invest in these two states. As the security situation in Tamaulipas and Veracruz improves, the oil and gas industry's competitiveness (e.g., production, transportation, supply networks) also will become more favorable. An important component of the government's security framework for both states should include greater transparency in involving the citizens in coordinating plans and responses for reporting crimes and violent security groups, especially those that run the all-important social media sites.²

Conclusions

The security situation in Veracruz and Tamaulipas has worsened in recent years, and the government seems far from being in control. Rising levels of homicide, kidnapping and extortion combine with pipeline theft and protests to create a complex security environment for the energy industry. The intersection between public security risks and energy infrastructure and production projects means that firms will have to invest in security strategies in Mexico much as they do in their operations in other parts of the world. However, the renewed vigor of the Mexican government's approach to security in the states of Tamaulipas and Veracruz means that organized crime groups have seen significant disruption to their activities and the presence of higher numbers of federal troops and police in the Mexican Northeast should help to assuage the concerns of the

² For a solid understanding of the role of citizens in public security and the rule of law, refer to: "Building Resilient Communities in Mexico: Civic Responses to Crime and Violence," Woodrow Wilson Center Mexico Institute, edited by David A. Shirk, Duncan Wood, and Eric L. Olson, March 2014

energy industry. Nonetheless, a more complete and integrated strategy that includes community engagement and community-based security approaches, alongside continued police and justice reform efforts, will be needed to ensure a sustained improvement in the rule of law in this area.

About the Author

Ms. Kathryn L. Haahr is a specialist on international security threat and risk management focusing on Europe and Latin America. She held a variety of analytical positions in the U.S. Government covering the Near East, Europe, and Latin America for fifteen years. Her more recent activities involve assessing Mexican, Spanish, and other Latin American/European security and energy issues. Ms. Haahr has published thoughtful work on terrorism in Spain and Europe, and is a native speaker of English and Spanish. She received her master's degree in international public policy from the School of Advanced International Studies, Johns Hopkins University.

¹ <http://www.sener.gob.mx/portal/Default.aspx?id=1510>

² http://www.theodora.com/pipelines/mexico_pipelines.html

³ <http://www.manufactura.mx/energia/2014/05/13/reforma-energetica-impulsara-inversion-en-tamaulipas>

⁴ <http://www.sener.gob.mx/portal/Default.aspx?id=1510>

⁵ <http://www.sener.gob.mx/portal/Default.aspx?id=1510>

⁶ <http://www.eia.gov/countries/cab.cfm?fips=mx>

⁷ <http://www.desmogblog.com/2014/05/12/no-turning-back-mexico-looming-fracking-and-offshore-oil-and-gas-bonanza>; http://www.nytimes.com/2014/04/22/business/energy-environment/challenges-lie-ahead-for-north-american-oil-production.html?_r=0

⁸ http://www.nytimes.com/2014/04/22/business/energy-environment/challenges-lie-ahead-for-north-american-oil-production.html?_r=0; http://www.washingtonpost.com/world/the_americas/the-fracking-divide-mexicos-oil-frontier-beckons-drillers-in-wake-of-new-law/2014/04/19/1951ba0c-e8ff-452d-84bd-d488f730991c_story.html; http://www.nytimes.com/2014/04/22/business/energy-environment/challenges-lie-ahead-for-north-american-oil-production.html?_r=0; <http://moviendoidideas.com/site/index.php/local/19-cajas-frontales/1719-la-violencia-del-narco-ensombrece-el-potencial-energetico-de-mexico>

⁹ <http://www.elfinanciero.com.mx/economia/11-empresas-petroleras-buscan-instalarse-en-la-zona-sur.html>

¹⁰ [http://tamaulipas.gob.mx/2014/04/liberara-mexico-todo-su-potencial-con-el-plan-nacional-de-infraestructura/;](http://tamaulipas.gob.mx/2014/04/liberara-mexico-todo-su-potencial-con-el-plan-nacional-de-infraestructura/)

¹¹ <http://www.eluniversal.com.mx/finanzas-cartera/2013/impreso/pemex-busca-aprovechar-el-puerto-de-veracruz-106523.html>

¹² <http://www.contactopyme.gob.mx/agrupamientos/Documentos/Capitulos/VERPETC1.DOC>

-
- ¹³ <http://sociedadtrespuntocero.com/2014/04/gigantesco-robo-de-combustible-en-veracruz-289-tomas-clandestinas/>
- ¹⁴ <http://www.diariocambio.com.mx/2014/secciones/zoon-politikon/item/56196-chicontepec-del-sueno-del-oro-negro-a-yacimiento-abandonado#ixzz3A1sdj8Uy> ;
<http://www.diariocambio.com.mx/2014/secciones/zoon-politikon/item/56196-chicontepec-del-sueno-del-oro-negro-a-yacimiento-abandonado>;
<http://www.educacioncontracorriente.org/secciones/economia/27854-en-picada-produccion-de-aceite-en-chicontepec-veracruz>; www.eluniversal.com.mx/graficos/pdf09/riqueza_petrolera_1.pdf
- ¹⁵ <http://esquivel-zubiri.blogspot.com/2014/01/poza-rica-entre-los-zetas-y-la.html>
- ¹⁶ <http://www.televisaregional.com/veracruz/noticias/En-Veracruz-se-construiran-4-buques-para-Pemex-260682401.html>
- ¹⁷ <http://www.mexicanbusinessweb.mx/negocios-rentables-en-mexico/oportunidades-de-negocio-en-veracruz/petroleras-internacionales-alistan-inversiones-millonarias-en-sector-energetico/>
- ¹⁸ <http://www.excelsior.com.mx/nacional/2014/04/29/956416>
- ¹⁹ <http://www.panoramadelpacifico.com/?p=33793>;
<http://www.elperiodicodemexico.com/nota.php?id=725540>; <http://www.elblogdelnarco.info/2014/05/se-dividen-los-zetas-en-pugna-por-el.html#ixzz32IGWrGU3>
- ²⁰ "Mexico Peace Index 2013, Measuring the State of Peace in Mexico Over the Last Decade," Institute for Economics and Peace, IEP Report 23
- ²¹ <http://www.historiasdelnarco.com/2014/04/se-desgaja-el-cartel-del-golfo-en.html>
- ²² <http://www.historiasdelnarco.com/2014/04/se-desgaja-el-cartel-del-golfo-en.html>
- ²³ http://diario.mx/Nacional/2014-01-26_97da94ff/narcos-controlan-todo-en-tamaulipas;
<http://contextodedurango.com.mx/noticias/2014/01/28/narcos-controlan-desde-las-tortillas-hasta-la-universidad/>; <http://www.contra-cara.com/cc/index.php/81-contracara/mexico/301-los-narcos-controlan-el-estado-de-tamaulipas>
- ²⁴ <http://hilodirecto.com.mx/zetas-y-cdg-dominan-tamaulipas/>
- ²⁵ <http://www.imagendelgolfo.com.mx/resumen.php?id=40989132>
- ²⁶ https://www.facebook.com/ValorPorTamaulipas?directed_target_id=0
- ²⁷ http://www.milenio.com/policia/Cartel-golfo-criminales-granadazos-balaceras-Reynosa-enfrentamientos-Tamaulipas-muertos-homicidios-peligro-alerta_0_295770514.html; <http://info7.mx/a/noticia/483796>;
<http://a7.com.mx/pulso/violencia/33422-violencia-imparable-en-tamaulipas-narco-bloqueos-balaceras-granadazos-y-muertos-en-reynosa.html>
- ²⁸ <http://www.proceso.com.mx/?p=368916>; <http://www.historiasdelnarco.com/2014/04/se-desgaja-el-cartel-del-golfo-en.html>
- ²⁹ <http://www.24-horas.mx/por-disputa-interna-del-cartel-del-golfo-crece-violencia-en-tamaulipas/>
- ³⁰ <http://www.24-horas.mx/por-disputa-interna-del-cartel-del-golfo-crece-violencia-en-tamaulipas/>
- ³¹ <http://www.24-horas.mx/por-disputa-interna-del-cartel-del-golfo-crece-violencia-en-tamaulipas/>
- ³² <http://guerrerosme.blogspot.com/2014/05/reportan-narcobloqueos-en-reynosa.html>;
<http://www.narcoviolenca.info/2014/04/conflicto-en-reynosa-convoy-de-hasta-50.html>;
<http://aristeginoticias.com/0501/mexico/fox-anuncia-inversion-por-500-mdd-en-petroleo>
- ³³ <http://www.manufactura.mx/energia/2014/06/26/tamaulipas-vive-entre-el-auge-petrolero-y-el-azote-de-la-violencia>; <http://aristeginoticias.com/tag/tamaulipas/>; <http://asisucedegto.mx/reportan-narcobloqueos-en-altamira-tamaulipas/>;
<http://www.20minutos.com.mx/noticia/14598/0/narcobloqueos/tampico-altamira/sur-tamaulipas/>
- ³⁴ <http://www.elfinanciero.com.mx/economia/11-empresas-petroleras-buscan-instalarse-en-la-zona-sur.html>
- ³⁵ <http://tamaulipasenlinea.mx/tamaulipas/petroleras-extranjeras-condicionan-inversion-en-tamaulipas/>
- ³⁶ <http://www.dineroenimagen.com/2013-12-10/29969>

-
- ³⁷ <http://www.altonivel.com.mx/Pemex-pierde-251-mdd-por-robo-de-combustible.html>;
<http://tierradelnarco.com/2013/06/loszetas-y-el-cartel-del-golfo-tienen.html>;
<http://contralinea.info/archivo-revista/index.php/2012/05/08/ordena-de-gas-condensado-en>;
<http://www.24-horas.mx/se-disparan-tomas-clandestinas-de-pemex/>;
http://www.elmanana.com/diario/noticia/nacional/noticias/surte_el_narco_a_gasolineras/2379813
- ³⁸ <http://noticias.terra.com.mx/mexico/seguridad/pega-crimen-organizado-a-cuenca-de-burgos>;
<http://contralinea.info/archivo-revista/index.php/2012/05/08/ordena-de-gas-condensado-en>;
- ³⁹ <http://www.excelsior.com.mx/nacional/2014/02/04/941887>
- ⁴⁰ <http://www.informador.com.mx/mexico/2014/541008/6/carteles-roban-a-pemex-diez-mil-barriles-de-petroleo-a-diario.htm>; <http://www.elfinanciero.com.mx/economia/desaparecen-20-mil-bpd-de-crudo-ligero.html>
- ⁴¹ <http://www.informador.com.mx/mexico/2014/541008/6/carteles-roban-a-pemex-diez-mil-barriles-de-petroleo-a-diario.htm>; <http://www.elfinanciero.com.mx/economia/desaparecen-20-mil-bpd-de-crudo-ligero.html>
- ⁴² <http://www.unionguajuato.mx/articulo/2014/03/03/seguridad/cada-tercer-dia-ordenan-ductos-de-pemex-en-guanajuato>
- ⁴³ <http://www.unionguajuato.mx/articulo/2014/03/03/seguridad/cada-tercer-dia-ordenan-ductos-de-pemex-en-guanajuato>; <http://www.televisaregional.com/del-golfo/noticias/Concentra-Altamira-mas-tomas-clandestinas-en-el-pais-251023761.html>
- ⁴⁴ <http://oronegro.mx/2014/08/01/cambian-narcos-de-negocio-ahora-saquean-a-pemex/#sthash.auRPr47N.dpuf>;
<http://oronegro.mx/2014/08/01/cambian-narcos-de-negocio-ahora-saquean-a-pemex/#sthash.auRPr47N.dpuf>;
<http://agorarevista.com/es/articles/rmim/features/online/2013/06/14/robos-pemex>;
<http://www.jornada.unam.mx/2014/06/14/politica/015n2pol>
- ⁴⁵ "Mexico Peace Index 2013, Measuring the State of Peace in Mexico Over the Last Decade," Institute for Economics and Peace, IEP Report 23
- ⁴⁶ <http://manzanillo.mexicoxport.com/noticias/9770/veracruz-clave-ruta-la-coca-mafia-mexicana>;
<http://menytimes.blogspot.com/2014/04/muy-fuerte-balacera-en-veracruz.html>;
<http://www.liberal.com.mx/portal/nota.php?id=253051>; <http://www.proceso.com.mx/?p=376645>
- ⁴⁷ <http://www.elpinerodelacuenca.com.mx/epc/index.php/noticias-veracruz/76713-escenarios-zetas-duenos-de-veracruz>; <http://www.diariolostuxtlas.com.mx/2013/12/12/en-alerta-roja-4-municipios-veracruzanos/>
- ⁴⁸ <http://ladobe.com.mx/2014/02/vivir-en-coatzacoalcos-la-paranoia-del-secuestro/>;
<http://www.imagendelgolfo.com.mx/resumen.php?id=40967144>;
<http://plumaslibres.com.mx/2013/11/07/crecen-asesinatos-con-violencia-en-coatzacoalcos-reporta-observatorio-ciudadano/>
- ⁴⁹ <http://www.imagendelgolfo.com.mx/resumen.php?id=41013834>
- ⁵⁰ <http://www.imagendelgolfo.com.mx/resumen.php?id=41013834>
- ⁵¹ <http://regeneracion.mx/defensa-petroleo/bloquean-128-pozos-de-pemex-en-veracruz-contra-fracking/>;
<http://www.buzonxalapa.com/noticias/1-de-mayo-desfile-de-protestas-contra-el-pri-en-veracruz-16496.html>
- ⁵² #PozosDeMuerte pic.twitter.com/HoQGRgKtSg #Veracruz
- ⁵³ #PozosDeMuerte pic.twitter.com/HoQGRgKtSg #Veracruz
- ⁵⁴ #PozosDeMuerte pic.twitter.com/HoQGRgKtSg #Veracruz
- ⁵⁵ #PozosDeMuerte pic.twitter.com/HoQGRgKtSg #Veracruz
- ⁵⁶ <https://twitter.com/search?q=%23fracking%20veracruz&src=typ>

-
- ⁵⁷ http://www.jornadaveracruz.com.mx/Nota.aspx?ID=140721_231525_671#sthash.klWmgxwF.dpuf; :
<http://www.imagendelgolfo.com.mx/resumen.php?id=41015804>
- ⁵⁸
http://www.notiver.com.mx/index.php/primer/280555.html?secciones=&seccion_selected=&posicion=23
- ⁵⁹ “2013: The State of Security in Mexico”, David Shirk, Woodrow Wilson International Center for Scholars, 2014, http://www.wilsoncenter.org/sites/default/files/security_2013_mexico_shirk.pdf
- ⁶⁰ “Plan Tamaulipas: A New Security Strategy for a Troubled State”, Christopher Wilson and Euegnio Weigend, Woodrow Wilson International Center for Scholars, 2014, <http://www.wilsoncenter.org/publication/plan-tamaulipas-new-security-strategy-for-troubled-state>
- ⁶¹ <http://www.puronarco.com/2014/05/desarticular-carteles-sellar-fronteras-y-renovar-instituciones-nueva-estrategia-en-tamaulipas/#more-389064>; <http://www.elblogdelnarco.info/2014/05/militariza-pena-nieto-el-estado-de.html#ixzz32lOBzvGe>
- ⁶² <http://www.elfinanciero.com.mx/sociedad/gendarmeria-nacional-arriba-a-altamira-tamaulipas.html>;
<http://www.animalpolitico.com/2014/09/despliegan-la-gendarmeria-nacional-en-5-estados-mas/>
- ⁶³ <http://eleconomista.com.mx/seguridad-publica/2014/05/19/veracruz-invertira-117-mdp-fortalecer-seguridad-publica>
- ⁶⁴ <http://www.veracruzanos.info/8-municipios-de-veracruz-se-integraran-al-mando-unico-policial/>;
<http://www.veracruz.gob.mx/seguridad/graduacion-650-nuevos-policias/>
- ⁶⁵ <http://www.centinela.mx/nota/8048/estatal/anunciaran-segunda-convocatoria-para-la-nueva-division-de-gendarmeria-nacional.html>; <http://veracruz.quadratin.com.mx/Empresarios-avalan-llegada-de-Gendarmeria-Nacional-Veracruz/>
- ⁶⁶ Wilson and Weigend, 2014, p.22.
- ⁶⁷ “Mexico Peace Index 2013, Measuring the State of Peace in Mexico Over the Last Decade,” Institute for Economics and Peace, IEP Report 23
- ⁶⁸ <http://tamaulipas.gob.mx/2014/04/liberara-mexico-todo-su-potencial-con-el-plan-nacional-de-infraestructura/>
- ⁶⁹ <http://mexico.cnn.com/nacional/2014/08/22/a-20-meses-de-gobierno-el-presidente-pena-nieto-lanza-su-gendarmeria>
- ⁷⁰ <http://hilodirecto.com.mx/zetas-y-cdg-dominan-tamaulipas/> <http://hilodirecto.com.mx/zetas-y-cdg-dominan-tamaulipas/>
- ⁷¹ <http://www.animalpolitico.com/2014/05/miles-marchan-por-la-paz-en-tampico/#axzz34reMjYuF>
- ⁷² <http://diarioavancetabasco.com/cierran-gasolineras-por-desabasto/>
- ⁷³ <https://twitter.com/search?q=protestas%20pemex&src=typd>
- ⁷⁴ <http://www.notiver.com.mx/index.php/nacionales/287251.html>;
<http://oronegro.mx/2014/09/12/protestan-empleados-de-pemex-en-el-distrito-federal/>
- ⁷⁵ http://www.prensa-latina.cu/index.php?option=com_content&task=view&idioma=1&id=2932551&Itemid=1;
<http://www.jornada.unam.mx/ultimas/la-reforma-energetica>
- ⁷⁶ http://www.jornadaveracruz.com.mx/Nota.aspx?ID=140721_231525_671
- ⁷⁷ <https://twitter.com/search?q=%23pemex%20%23reformaenergetica&src=typd>