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Vietnam, Conflict

Vietnam: The Case for Environmental Activism

Overview of the 2016 Formosa disaster

In April 2016, hundreds of thousands of fish washed up dead on the beaches of the Hà Tĩnh province. The subsequent death of a diver alarmed authorities who promptly concluded that the waters were, in fact, polluted. By the end of the month, marine life in the area was outrageously destroyed; the 125 poisoned miles of Vietnam's central coastline damaged hectares of coral reefs and cut sea creature populations in half. On top of that, the livelihoods of over 200,000 people, including 41,000 fishermen, were disrupted (AP News). Markets plummeted, tourism vanished, and families were left with nothing. As one civilian put it, "We used to eat the meat of the pig, but now all we have to eat is the skin," (Cantera).

While government officials had initially suspected a red tide to have contaminated the waters (Ha), further investigation traced all damage back to a nearby Formosa steel complex. Formosa, a Taiwanese plastics company, had negligently dumped toxins off the Vietnamese coast during a test run at its Hà Tĩnh port (AP News). During a press conference on April 26, 2016, the steel corporation apologized and admitted to all wrongdoing. There were a total of 53 violations identified, a notable one being the use of a wet coking system that generated emissions and cyanide-containing wastewater (Yu and Hung).

Apologies did little to hinder the prevalent outrage among the Vietnamese people, though. Hundreds of protests, prayers, and marches were held in the following months—all calling for justice. Specific demands included higher compensation, government accountability, and the closing of Formosa's Hà Tĩnh steel plant. Rallies have even been led by Catholic priests, who symbolize the overall nonviolent approach (Cantera). Fishermen themselves also took boats to sea to express their anger and dire situation (Reuters Staff). With environmental and economic losses piling up day by day, the only thing preserving the people's cause was a collective spirit.

Consequently, the Vietnamese government acted swiftly and rebuked many of their own bureaucrats, including environmental minister Nguyen Minh Quang and 11 other provincial and industrial officials. An official statement cited that those indicted were "irresponsible and loosened their management and supervision on environment safety, leading to serious damage to the environment and local people." More significantly, Formosa Plastics agreed to pay \$500 million in compensation (Pham), which also allowed Vietnam to aid affected fishermen with direct monthly payments.

Yet, many civilians still felt like the Vietnamese government's response was not enough. Fishermen argued that a \$1600 payout calculated by the General Statistics Office only covered two years of income at best (Sands), contrasting the environment ministry's estimate that it would take a decade for the Hà Tĩnh region to completely recover from the accident. Protests occurred again when the Hà Tĩnh plant was allowed to reopen in May 2017, despite not addressing all known violations (Nguyen). Likewise, authorities were subjected to criticism with how they handled protestors themselves; hundreds of peaceful activists were reportedly subjected to arbitrary detentions, police violence, and imprisonment. Among those unfairly charged was blogger Nguyen Ngoc Nhu Quynh who, in June 2017, was sentenced to 10 years in prison for "distributing propaganda against the state" (Nguyen and Datzberger). Evidently, it

appeared bizarre how a developed country could allow an environmental disaster to brew and subsequently fail to enact reform.

Vietnam's demographics, post-urbanization

To contextualize the Formosa disaster and social uproar that resulted, perhaps a deeper dive into Vietnam's present demographics is needed. Rural lands have decreased from 85% in 1960 to 65% in 2019 (World Bank Group), indicating that agriculture has entered a steady decline. Moreover, the country underwent a massive urbanization in the late 1990s when state markets were opened to foreign competition. As exports diversified and per capita income rose, civilians flocked to cities for industry jobs. However, manufacturing only employs around 8% of the Vietnamese population (Hickey et al.); crops like rice, sugarcane, and cassava remain crucial to the Vietnamese economy and for local farmers. Permanent cultivation primarily occurs along the Red River delta and Mekong River delta, where seafood has been a major source of foreign exchange. Corporate investments—like the \$10.6 billion Formosa complex (AP News)—nonetheless seem to override the livelihoods of thousands of small farmers.

In an average household, there exists a cohesive and patriarchal family unit; Vietnamese men often take on the labor-intensive work, whereas women are expected to tend to children and other household duties (Evason). Children have become increasingly educated in recent years with emphasis on science and career technology training. Many heavily rely on getting their food fresh from local markets, and rice is considered a staple food due to its accessibility and popularity in many meals. Since the late 1970s, the socialist healthcare system in Vietnam has not maintained a high level of standard as a result of minimal funding. Regions experiencing massive population growth—such as urban hub Ho Chi Minh City—have seen a shortage of hospital beds, facilities, and medical supplies. There are government insurance programs that provide for sickness, work injuries, maternity, and old age, though (Hickey et al.).

Water security has always been a major issue for Vietnamese residents in both rural and urban areas. Only 39% of rural populations have accessible sources to safe water and sanitation. Similarly, the river water quality of industrially developed communities has been diminished due to an increase in the concentration of toxins and oil waste. Polluted water is, in turn, responsible for 80% of all diseases in Vietnam, according to the Ministry of Natural Resources and Environment. Millions of civilians, including 7 million living near Hanoi, the nation's capital, are at an increased risk of contracting cholera, typhoid, dysentery, and malaria. Water itself is a vital resource for the Vietnamese economy with 80% of total water production being used for agricultural purposes (Suwal). The underlying issue therefore affects food security, given that the quality of crops is largely dependent on the quality of water.

Expressing concerns over industrialization and water, contrariwise, is particularly difficult in Vietnam due to the current system of government. As a socialist republic since 1976, the country has limited and forcefully suppressed free speech and activism. Vietnam's constitution, which was revised in 1992, inherently circumscribes rights including freedom of speech, freedom of the press, and peaceful assembly and association. Article 88 of the country's penal code has similarly been cited and used to arrest protestors as it strictly prohibits any "propaganda" deemed harmful to the state, despite a 2013 Constitutional adoption that citizens "shall enjoy the right to freedom of opinion and speech, freedom of the press, of access to information, to assemble, form associations and hold demonstrations." (International IDEA 10). Numerous environmental campaigns preceding the Formosa disaster have failed as a result, including an anti-bauxite movement in 2008 (Nguyen and Datzberger). Freedom House classified Vietnam as "not free" in a 2017 internet freedom report, citing digital obstacles to access, limits on content, and violations of user rights. During the Formosa aftermath, the government also utilized digital tools to obstruct protests and weaponized civilian groups to target bloggers (Freedom House). It becomes apparent that conflict between the Vietnamese government and people was inevitable, and the pressing issue of how to provide clean water to residents while alleviating systematic errors remains.

A solution in water wells

Foremost, there are many initiatives that local farmers and families can take to protect their water and food security. A project that warrants further recognition is the construction and drilling of water wells. While water wells are prominent in Sub-Saharan African countries, there are various justifications for their presence in a country like Vietnam. For example, some impoverished and isolated areas in Vietnam often receive lots of rainfall yearlong and have lakes or rivers nearby (Hickey et al.); what they actually lack is the resources to safely use and consume water.

Traditionally, water wells in rural Vietnam are dug by hand and only prove efficient if the water table depth in an area is shallow. These hand-dug wells are low-tech and require only common tools like picks and shovels. To protect against contamination, walls in a hand-dug well must be sealed and the installation of a filtration system would also be ideal. While its less mechanized nature does reduce labor costs and the need for skilled assistance, there are risks when building wells by hand; many are prone to cave-ins and are very difficult to dig past 30 meters as oxygen levels lower around a meter below the water table. Their reliability is also a major area of concern since, during drought seasons, hand-dug wells have trouble accessing deep groundwater and can end up breaking down (Proby). Drilled wells, on the other hand, have the ability to reach vast aquifers in the earth—some even 150 meters in the earth. As a sustainable option, they are very well protected from water surface pollutants that thrive in both rural and urban communities (“Drilling Water”). Though it is undoubtedly a costly and labor-intensive effort, drilling wells across Vietnam’s landscape would critically provide communities with an abundance of water that is sanitary and unaffected by seasonal fluctuations.

The concept of drilling water wells in Vietnam is not entirely new. In fact, Madison Quakers (MQI) is a non-profit 501(c)3 that has worked since 1993 to build schools, deliver medical supplies, and improve the overall health of villages all across Vietnam. The organization started a plan to build a well in the Nghia Tho village in March 2012, which was later completed in February 2013. An existing well failed to provide a yearlong water source, forcing many residents to have to strenuously climb mountains for running water every day. A total of around \$8,000 USD was funded into drilling 300 feet of granite, installing a pipeline, and chopping down nearby forestry. After the well passed multiple quality checks, it was able to permanently provide clean water to 30 families (Wells for Water).

Throughout the well-building process, MQI faced many complications, indicating that there is much room for improving water wells. As noted by organizer Phan Van Do, they initially were unable to produce a significant amount of water after exhausting much of the drilling pipes and equipment. The construction team also had to rely on donations during the fixing of a second tank when they lost Australian aid. Both problems ended up slowing the drilling process and depleted more resources than anticipated.

To save money and increase efficiency, engineers looking to drill water wells should take into account two factors: siting and maintenance. The location, or siting, of a water well will affect both the quality and quantity of water. Experts must properly take into account an area’s geology, water table depth, topography, and distance from potential contaminants—which, in residential areas, may come from oil storage tanks, septic tanks, sewer lines, floor drains, and lawn fertilizer use (“Potential Well”). Within Vietnam, rural lands are a generally ideal candidate for installing wells as compared to floating villages, and flood-prone areas should be avoided as they otherwise risk pollutants like microorganisms, nitrates, and heavy metals seeping into drinking water. Success has been found in regions along the Mekong River Delta, where a multitude of private tub-wells reach groundwater at depths of 80-120 meters (Duy et al.). From 1996 to 2017, the delta’s Holocene aquifer also saw minimal decline in groundwater levels in comparison to major industrial cities like Tan An, Cao Lanh, Long Xuyen, Can Tho, and Ca Mau. MQI’s choice of location was risky in particular as 80% of government-funded wells had previously failed and moderate water flow was far deeper in the ground than average (Wells for Water). Experts proposing to

drill wells in similar conditions should account for more supplies and overall work. Then, after wells are built, communities must keep them up to date, whether it be through regular maintenance or changing parts. Otherwise, they risk breaking down prematurely and costing even more money to repair (Clean Water, Sustainability). With it being imperative that wells are sustainable and long-lasting, local leaders should thus have a plan to conduct routine checkups and keep in contact with engineers.

In instances where hand-dug water wells work poorly, replacing them with a drilled well may not be the only solution—wells can be upgraded. Particularly, mechanical pumping has become a popular alternative for numerous reasons. It requires the installation of a submersible water pump into a water source, which can then distribute water across villages (“Drilling Water”). These mechanical pumps are even eco-friendly, being powered entirely by solar panels and consequently eliminating the cost of electricity (or, in remote areas, serving as a replacement for electricity itself). The use of solar pumps can also benefit and accelerate Vietnam’s agricultural sector by providing irrigation; with safe and abundant water, crops can be nourished according to virtuous weather cycles (“Solar Water”). For instance, when the sun is shining, more water is pumped out of a well to feed crops, and the same is done vice-versa. Overall, their ability to conserve and release energy when appropriate highlights the long-term cost-efficiency that remote farmers and villages desperately need, especially those living with poor infrastructure. Variables to bear in mind when installing a pump include pressure, flow, and input power to the pump, which all can affect the solar pump’s efficiency (Solar Mag). With there being a multitude of different methods and approaches that communities can take to improve their water security and health, assessing the pros and cons of each is a must.

Considering government decentralization

There are, furthermore, diplomatic means to appeasing Vietnamese civilians while preserving the structure of governance. With it being fairly unlikely that the Communist Party of Vietnam (CPV) will wholly dissolve, the topic of decentralization has been brought up more recently. Decentralization, in this context, involves the transfer of authority from a central government—the CPV—to sub-national entities or provinces. The *Đổi Mới*, a series of economic reforms in 1986, laid out the current foundations that gave provincial governments flexibility to a certain extent; it allowed them to borrow, contract, and regulate their own foreign investments. A 2004 resolution to the reforms, Resolution 08, took an opposite approach and broadened ambiguities regarding systemic boundaries, stating that “the conception and awareness of decentralization policies and solutions are unclear, incoherent, and inconsistent between the central and provincial governments,” (Hutt). Debate resparked during the Formosa disaster when activists pointed out the CPV’s focus on national economy—which is sustained by foreign investments—over environment and people.

As indicated by the nearly universal voter turnout every election cycle, the majority of Vietnamese citizens feel represented more by their local government as compared to an oppressive national state. The stark contrast between local and national administrations in Vietnam contributes to such civilian stances; the People’s Council in every province or municipality is directly elected by citizens, whereas the President and Prime Minister are indirectly elected by the National Assembly (Hickey et al.). Decentralization, fundamentally, allows smaller areas to specifically allocate funds based on their needs that constantly change during industrialization and crises. The rapid construction of drilled water wells as mentioned earlier would also be facilitated if local officials are given the power to do so. A nationwide program to combat water security might be too broad and otherwise could fail to analyze a region’s specific needs. Plus, more decentralization comes with more transparency within leaders, which was clearly lacking throughout the Formosa disaster. The culmination of shifting power to regional governments, in its entirety, might allow society in Vietnam to shift more democratically.

Caution should be granted, nevertheless, as decentralization is often hit or miss. Radically shifting the role of the state in a hierarchical system like Vietnam is dangerous and could potentially undermine the entire balance of power. The prominence of localism and regionalism might cause provinces to completely ignore laws introduced by the central government, whether they be considered good or bad. But a restructuring does not have to happen on a widespread scale—it may actually be better off occurring only in economic or environmental affairs. The entire premise arguing in support of decentralizing is that as local officials and politicians are held accountable, they will favor regulations that limit industries from harming human livelihoods. As of now, the trajectory for a complete decentralization is occurring in fragments as necessitated by urgency (Bowie and Timberman). Vietnam should continue this approach, prudently of course.

Remarks

In an ideal world, a government and its citizens are able to work in peace and harmony. The attainment of such has been a struggle for Vietnam and its residents, who have to combat environment pollution and desecration on top of government censorship. The Communist Party of Vietnam has made some significant strides recently to improve water security, including an initiative project in Hanoi for 120,000 households and a \$40 million pipeline in Ho Chi Minh (Caporale). Still, the national government has yet to improve its responsiveness to civilian concerns; activism should be heard, not violently censured or ignored. Worker strikes in garment factories during the COVID-19 pandemic seem to parallel and embody the same rage that existed during the Formosa strikes (Buckley). New problems will continue to arise, and the CPV's urgency to address them will be evermore scrutinized.

There, unfortunately, is not a “one size fits all” resolution to Vietnam's water insecurity issue when considering its complex landscape, history, and peoples. But as thousands of everyday workers and farmers march in the streets for justice, a common message is expressed to the Vietnamese government: we, the people, will not go down without a fight.

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