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SPECIAL ISSUE WITH TAIWAN FOUNDATION for DEMOCRACY 財團法人臺灣民主基金會

The Global Taiwan Institute (GTI) is pleased to present a special theme issue of the Global Taiwan Brief, titled "**Civil Society Contributions to Social Resilience in Taiwan**." The articles in this issue follow from a series of public seminars held in 2025 at GTI's office in Washington, D.C. These seminars, covering five major policy areas -- information resilience, NGO diplomacy, civil defense, private industry defense production, and energy security -- featured discussions with influential experts from Taiwan's civil society about the ways in which non-governmental groups could contribute to more effective social resilience and cohesion in the face of authoritarian pressure. (For readers interested in watching our 2025 seminar series with Taiwanese civil society leaders, we encourage you to dive into our event recordings on the GTI website.)

This program of seminars and research was supported by a generous grant from the **Taiwan Foundation for Democracy**. GTI is grateful for the foundation's support for these and other programs that highlight Taiwan's vibrant democratic society and significant issues in the US-Taiwan relationship.

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Taiwan's Efforts Towards "All-of-Society Resilience" in the Face of Chinese Threats

By: John Dotson

John Dotson is the director of the Global Taiwan Institute and editor-in-chief of the Global Taiwan Brief.

Introduction

Since the end of Taiwan's martial law era in the late 1980s and the island's gradual transition into a free and democratic society, the island has seen the flowering of one of the most vibrant civil societies in Asia. The wide network of grassroots non-governmental organizations (NGOs) in Taiwan has not only made progress possible on a host of challenging social issues within Taiwan itself, but has also made the island an example for other regional civil society activists *(see Ben Sando's article "Taiwan as an Exporter of Democracy in Southeast Asia," elsewhere in this issue)* and a regional NGO hub for international organizations.

As a state that faces a broad variety of natural disasters—ranging from typhoons to earthquakes—in recent decades Taiwan has developed a range of civil society organizations that contribute to disaster relief, as exemplified by the Buddhist relief charity Tzu Chi Foundation (慈濟基金會). In times of need, Taiwan has also seen an outpouring of effort from individual volunteers, as demonstrated by the "shovel heroes" (鏟子超人) who contributed to relief efforts following severe flooding in the Hualien region in autumn 2025.

Amidst the multi-faceted threats to Taiwan posed by the People's Republic of China (PRC)—threats that have steadily escalated since 2019 [1]—an increasing number of civil defense NGOs have also emerged to help prepare Taiwan's population for the challenges of a possible future war or other major crisis. These NGOs have arisen to fill a gap in preparedness produced both by the weakness of Taiwan's military reserve forces, which have long been criticized for a lack of meaningful training, and plans for effective integration alongside active duty military units; [2] as well as the weakness of local-area civil defense structures (such as auxiliary police personnel), which have similarly been criticized for a lack of serious training and employment in emergencies. [3]

Civil Defense NGOs in Taiwan

Any effort to list the civil defense NGOs of Taiwan will inevitably omit many organizations engaged in valuable work. However, some of the more prominent organizations include:

Kuma Academy (黑熊學院): Perhaps the largest civil defense NGO is Kuma Academy, which describes its mission as grounded in the belief that "If you want peace, prepare for war." The organization "aims to prepare a pre-war mentality for civilians [and] to cultivate self-defense capability and will to defend Taiwan." Kuma Academy provides training seminars for the public on matters such as basic first aid, and understanding the nature of modern warfare (as observed from conflicts such as the war in Ukraine). One of the distinctive aspects of the work of Kuma is its focus on psychological resilience, in terms of recognizing and countering hostile authoritarian efforts to sow confusion through propaganda and disinformation.

Forward Alliance (壯闊台灣聯盟): Founded by former investment banker and army soldier Enoch Wu (吳怡農), Forward Alliance (FA) is another civil defense organization with an extensive presence in Taiwan, albeit one with a lower public profile than Kuma Academy. FA organizes training activities for the public in skill sets such as first aid and basic firefighting. FA is also engaged in training activities for local public sector personnel, such as local police precincts and firefighting companies.

Academia Formosana (福摩薩學院): Academia Formosana is a civil defense organization closely linked with the Presbyterian Church in Taiwan. The organization describes its efforts as being focused on "community-based civil resilience," intended to "strengthen the resilience and security of small communities throughout Taiwan." Through initiatives such as the "Ark Plan," Academia Formosana seeks to build out logistical support networks and other forms of resilience capacity that could be leveraged in the event of a major conflict.

While such organizations perform valuable work in helping to prepare the public (or at least a small, more engaged element of the public) for a major crisis, they continue to face many challenges of a structural social nature. One such problem that continues to inhibit their work is the high degree of polarization in Taiwan's political system. Many of the people most engaged with civil defense NGOs are linked to the "Pan-Green" side of Taiwan's political spectrum. For example, Forward Alliance founder Enoch Wu is currently the Taipei City chairman of the Democratic Progressive Party (DPP), and a candidate for Taipei City mayor; and Kuma Academy co-founder Puma Shen is currently a DPP legislator in the Legislative Yuan (LY). Conversely, their most vocal critics are on the "Pan-Blue"—i.e., Kuomintang (KMT) and Taiwan People's Party (TPP)—side of the divide, with figures from these parties criticizing civil defense organizations on

alleged grounds that they are profit-making ventures, and/or making military conflict more likely.

Image: Forward Alliance founder Enoch Wu (吳怡農) (right) takes part alongside volunteers in a civil defense training event (undated). (Image source: Spirit of America)

Image: Ljavakaw Tjaljimaraw (謝易宏), CEO of the civil defense organization Academia Formosana, speaks to a church congregation about AF's "Ark Plan" for building civil defense capacity (Aug. 12, 2023). (Image source: Academia Formosana)

The Lai Administration's Moves to Engage "All of Society" in Taiwan's Defense

The administration of Taiwan President Lai Ching-te, in office since May 2024, has made improving "civil defense and resilience" (社會防衛韌性) one of its key policy initiatives. One aspect of this has been a series of 17 measures, announced in a March 2025 speech, to combat espionage and subversive united front activity within Taiwan. The second, and more institutionalized, effort has been centered on the "Whole of Society Defense Resilience Committee" (全社會防衛韌性委員會, WSDRC), first unveiled in June 2024. The WSDRC aims to "serve as a platform for social participation, a bridge for social communication, and an engine for policy effectiveness" by fostering collaboration between government and civil society. Comprising 27 representatives from both government agencies and NGOs, the committee has formally convened six times since its creation, most recently in December 2025.

Image: An organization chart for the Lai Administration's "Whole of Society Defense Resilience Committee," intended to improve coordination between government agencies and NGOs in critical capacities in the event of a potential crisis. (Image source: ROC Presidential Office)

Beyond the WSDRC as an institution, President Lai has also invested personal time and political capital in the larger project of promoting civil defense awareness and involvement. Examples of this include Lai's appearance at a civil defense drill held on March 27, 2025, at the Anping Port Facility (安平港) in Tainan, which simulated the response to a massive explosion at the port's passenger terminal. This has also included attempts at international outreach through events such as the "Resilient Taiwan for Sustainable Democracy International Forum" held on September 20, 2025, which sought to promote international cooperation in facing both "extreme climate-related disasters" and "the expansionary ambitions of authoritarian regimes." And, while such efforts are still halting, the government sought to give a more prominent role to civil defense and disaster response scenarios in the 2025 iteration of *Han Kuang*, the largest annual military exercise conducted by Taiwan's armed forces.

Government agencies operating under the executive branch have also become more public-facing in terms of promoting public awareness in responding to potential crises. In 2025, the All-Out Defense Mobilization Agency (國防部全民防衛動員署)—the Ministry of

Defense's lead agency charged with "planning, supervising and executing all-out defense manpower mobilization policies"—released a civil defense handbook titled *When Crisis Comes* (當危機來臨時). The handbook includes information on topics such as basic first aid, dealing with shortages of consumer goods, and how to respond to air raid alarms.

Image: Taiwan President Lai Ching-te (who was a doctor before entering politics), takes part in simulated first aid treatment during a civil society disaster response drill (November 24, 2024). (Image source: TaiwanPlus News)

Image: "If You Discover the Location of Enemy Troops" (若你發現敵軍行蹤)—a page from the 2025 Civil Defense Handbook, which recommends leaving the area and against attempting to photograph or film suspected enemy soldiers. (Image source: Ministry of Defense All-Out Defense Mobilization Agency)

Another significant initiative intended to harness the contributions of civilian volunteers—and an effort that demonstrates the intersection of government and NGO efforts—is the "Taiwan Community Emergency Response Team" (T-CERT) (臺灣民間自主緊急應變隊) program.

Modeled on the "Community Emergency Response Team" (CERT) program of the U.S. Federal Emergency Management Agency (FEMA), T-CERT seeks to provide civilian volunteers with basic training in skill sets such as emergency search-and-rescue, medical triage, and firefighting. While the T-CERT program is sponsored by the Ministry of Interior's National Fire Agency, much of the training is facilitated by Forward Alliance and the U.S.-based NGO Spirit of America. Interlocutors in Taiwan conversant in civil defense issues have identified T-CERT as one of the more promising civil defense training initiatives on the island. [4]

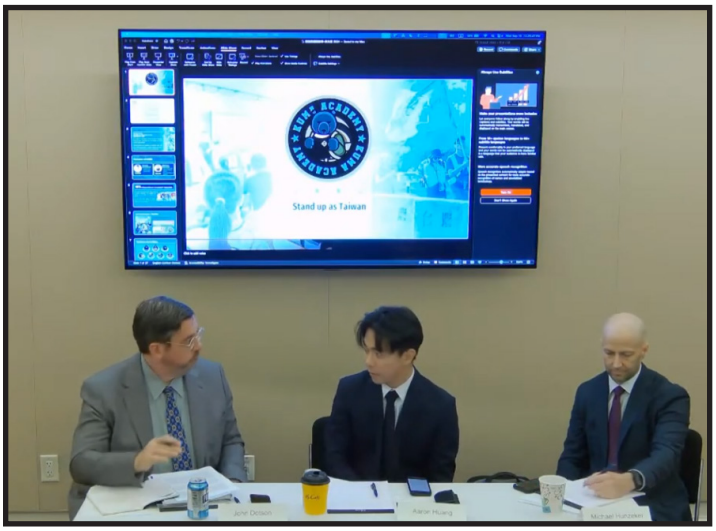

Image: Kuma Academy Director of International Affairs Aaron Huang (center) speaking at a Global Taiwan Institute public seminar on civil defense issues (Sep. 10, 2025). (Image source: Global Taiwan Institute / YouTube)

Continuing Challenges for Civil Defense in Taiwan

Despite such positive signs of progress, Taiwan's civil defense efforts are a work in progress, and many fundamental challenges remain. One such challenge is the still-nascent level of coordination between many of the government agencies responsible for public safety, and their volunteer counterparts in civil society. Some defense policy and civil society stakeholders have expressed criticism that government initiatives such as the "Whole of Society Defense Resilience Committee" represent *pro forma* publicity efforts rather than substantive measures, and that close coordination at the working level between government agencies and

NGOs remains lacking. [5]

There is also an issue with bureaucratic resistance within some agencies to cooperation with civil society organizations—with the Ministry of National Defense (MND) coming in for particular criticism as an insular institution resistant to change, and to the additional capacities that could be gained from leveraging the logistical, medical, and other resources of civil society. (However, multiple interlocutors have indicated a much greater openness from Interior Ministry bodies—such as the National Police Agency and the National Fire Agency—to engage with civil society groups, and to benefit from resulting training opportunities, as compared to the MND.) [6] Additionally, there is the need to integrate and deconflict the overlapping roles of legacy state institutions—such as auxiliary police (義警) and auxiliary fire personnel (義防) *[see endnote #3]* —and competing newer organizations like T-CERT.

Finally, there is the need to overcome the barriers presented by Taiwan's polarized political climate. Government and civil society coordination on civil defense initiatives has been hampered by KMT attacks on some NGOs (particularly Kuma Academy), and opposition to government funding for civil defense initiatives. [7] As long as civil defense preparation is treated as a project for only side of the political spectrum, rather than as a unifying effort in the face of a common threat, Taiwan's quest for greater "social resilience" will be fighting with one hand tied behind its back.

Both the agencies of Taiwan's government, and the activists and volunteers of its civil society organizations, face a daunting task in seeking to prepare Taiwan for a military conflict or other major crisis. Much remains to be done, particularly in terms of breaking down the institutional and cultural barriers between government and private organizations unaccustomed to working with another. But, in halting and uneven steps, progress towards greater "social resilience" is being made.

The main point: In response to increasing threats from the People's Republic of China, Taiwan's civil society has produced a number of active civil defense NGOs focused on skills such as first aid, logistical support, and psychological resilience. Taiwan's government is supporting a series of measures, such as the T-CERT program and the "Whole of Society Defense Resilience Committee," which are intended to better leverage the resources of civil society to support civil defense. While progress has been made, much remains to be done in terms of better coordination between government agencies and civil defense NGOs.

[1] In 2019, the CCP leadership staked out a more assertive political position demanding "unification" with Taiwan—with escalating levels of military activity and subversive political warfare following from this. For a discussion of this, see: John Dotson, *The Chinese Communist Party's Ideological Frameworks for Taiwan Policy* (Global Taiwan Institute, August 2024), pp. 7-9, https://globaltaiwan.org/wp-content/uploads/2024/08/OR_CCP-Ideological-Frameworks-for-TW-Policy.pdf.

[2] Taiwan's military reserve forces have long been subject to criticism, including from this author, on such grounds. See: John Dotson, "Taiwan Contemplates Reforms to Its Reserve Forces," *Global Taiwan Brief* (April 6, 2022), https://globaltaiwan.org/2022/04/taiwan-contemplates-reforms-to-its-military-reserve-forces/; and John Dotson, "Taiwan's Defense Policies in Evolution," *Journal of Indo-Pacific Affairs* (Spring 2025), https://media.defense.gov/2025/Apr/24/2003696549/-1/-1/1/FEAT-JIPA-DOTSON.PDF.

[3] Taiwan has long possessed auxiliary public safety personnel, such as auxiliary police (義警) and auxiliary fire/rescue personnel (義防). These organizations are primarily managed by local (i.e., city/county/township)-level governments. Per multiple conversations held by the author with civil defense stakeholders in Taiwan in 2024-2025, multiple interlocutors offered similar criticisms of such organizations: that they were often tied to local political patronage networks; that their members were often older and conducted little real training; and even that they functioned more as social networks ("mahjong clubs," as stated by one observer) rather than as groups engaged in meaningful ways with public safety. The author has withheld the names of such persons to maintain their confidentiality.

[4] Author's interviews in Taiwan, December 2025.

[5] Author's interviews in Taiwan, 2024-2025.

[6] *Ibid.*

[7] *Ibid.* See also: Brian Hoie, "Pan-Blue Camp Continues to Target Kuma Academy, Focuses on Links with AIT," *New Bloom Magazine* (March 15, 2025), https://newbloommag.net/2025/03/15/kuma-academy-attacks/; and

"KMT Pans Kuma Academy Disaster Prevention Kits," *Taipei Times* (June 20, 2025), https://www.taipeitimes.com/News/taiwan/archives/2025/06/20/2003838933.

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Taiwan's Emerging Indigenous Drone Industry—An Overview

By: Jonathan Harman

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Drones are increasingly central to modern warfare—a fact illustrated by the widespread use of such weapons in Russia's ongoing invasion of Ukraine. In order to modernize its military and counter growing Chinese aggression, Taiwan is aiming to become a drone manufacturing powerhouse. However, unlike previous indigenous defense production projects, Taiwan's Ministry of National Defense (MND, 國防部) is relying more on the private sector than state-owned enterprises (SOE). While this effort is largely succeeding at its early stages, material costs and stymied international cooperation pose challenges to industrial growth.

Drones in Modern Warfare

As the war in Ukraine has demonstrated, drones are highly-effective weapons platforms that can cause disproportionate damage to a much larger enemy force. Within two years of Russia's invasion into Ukraine, the Ukrainian military destroyed approximately one-third of Russia's Black Sea fleet, primarily with its own indigenous sea drones (USVs). As drones have become more prevalent in the war, Ukraine's yearly domestic drone output has increased from approximately 5,000 units in 2022, to over 4.3 million units in 2025.

Ukraine is not alone. Indeed, global interest in military drones has grown exponentially since Russia's invasion of Ukraine. By 2033, the global military UAV market is projected to more than double.

Taiwan's UAV Initiative

Taipei has taken note of Ukraine's example and aims to rapidly build up its drone arsenal in the face of a similar existential threat from China. To do this, the Taiwanese government has established a three-tiered unmanned aerial vehicle (UAV) procurement strategy: purchasing larger military drones from the United States; developing mid-size military drones built by SOEs like the National Chung Shan Institute of Science and Technology (NCSIST, 國家中山科學研究院); and obtaining small dual-use drones from Taiwan's domestic private sector. While Taiwan has certainly made significant purchases from the United States and ramped up SOE drone production, it has seen greater success in dual-use drone production.

Unlike defense-specific military drones, dual-use UAVs are designed for both civilian and military purposes, yielding manufacturers a larger customer base and greater demand when compared to military UAVs alone. This higher demand allows manufacturers to rapidly scale up production. To help build up the country's dual-use drone industry, Taipei has implemented several policy initiatives.

Following Russia's invasion of Ukraine, the Taiwanese government, under President Tsai Ing-wen (蔡英文), rapidly launched the "Drone National Team" (無人機國家隊), an initiative to scale up Taiwan's commercial drone manufacturing capability. As part of this initiative, the Tsai Administration opened a UAV development and production center in Chiayi and created a special budget of NTD 50 billion (USD 1.5 billion) to procure indigenous drones and subsidize half of private drone companies' research and development (R&D) costs.

In 2024, President Lai Ching-te (賴清德) expanded this program with the goal to make a Chinese component-free drone industry, capable of producing 180,000 drone units a year by 2028. The administration seeks to achieve this goal through several initiatives ranging from investing directly in domestic industry to providing frameworks for coproduction with partner nations.

Image: An ROC Servicemember launches a hand-held drone. (Image source: Taiwan Military News Agency)

TEDIBOA

In September 2024, Taiwan's Ministry of Economic Affairs (MOEA, 經濟部), under its SOE Aerospace Industrial Development Corporation (AIDC, 漢翔航空工業股份有限公司), established the Taiwan Excellence Drone Industry Business Opportunities Alliance (TEDIBOA, 台灣卓越無人機海外商機聯盟)—an alliance between the government and domestic drone compa-

nies that facilitates private sector collaboration with MND goals.TEDIBOA oversees and coordinates with a group of over 200 Taiwanese companies that specialize in different aspects of UAV supply chains. These include everything from component manufacturers to drone producers.

With the AIDC at its head, TEDIBOA aims to connect Taiwanese drone and component manufacturers with foreign customers and governments to increase demand, reinforce a China-free or "non-red" supply chain, and further integrate Taiwan into partner and allied countries' defense industrial bases.The TEDIBOA framework also promotes innovation by creating a platform for domestic manufacturers—including small and medium enterprises—to collaborate and share knowledge and technology.

MOEA Investment

In January 2025, the MOEA announced an NTD 348 million (USD 11.05 million) investment plan for drone chip R&D. As part of this, the MOEA allocated a USD 3.4 million budget to support domestically-produced AI image chip modules, low-cost flight control boards, and other advanced drone chip R&D—a move that takes a significant financial burden off of startup UAV manufacturers.

Executive Yuan Investment Plan

On October 16, the Executive Yuan (EY, 行政院) approved an MOEA-proposed plan to spend NTD 44.2 billion (USD 1.43 billion) through the year 2030 to increase market demand, spur innovation, and expand the domestic drone industry. In addition to direct drone orders, this investment plan largely focuses on improving indigenous drone chip production and software development by involving research institutions and spurring industry cooperation, combined with international technology transfers.

As part of this plan, the Taiwanese government has already secured memoranda of understanding with eight countries including the United States, Poland, the Czech Republic, and Japan to gain access to advanced UAV technology. These agreements provide the bases for future coproduction initiatives with foreign firms—something Taiwanese companies have long struggled to achieve.

MOFA Drone Diplomacy Task Force Initiative

To further promote Taiwan's ambitious drone production goals, the Ministry of Foreign Affairs (MOFA, 國際部) announced in October 2025 that it would initiate a two-phased "drone diplomacy task force" (無人機外交工作小組). The taskforce has the mission of seeking foreign government customers for Taiwan's drones.Under the program's first phase, MOFA will donate drone platforms to its diplomatic allies for civilian purposes, including logistics, infrastructure, coastal protection, healthcare, disaster response and prevention, and agriculture. These efforts aim to increase Taiwan's foreign government customer base and boost its reputation.

After Taiwan's drone industry has achieved international recognition, MOFA intends to sell the nation's drones under phase two of the program. In particular, MOFA has targeted drone sales to the European countries most threatened by Russian aggression.

Taiwanese Government Investment in Domestic Drone Production

In addition to these initiatives, the Lai Administration seeks to increase indigenous drone output by directing the MND and other government agencies to make direct purchases from domestic manufacturers that meet MND "non-red" standards (i.e. products that do not involve any parts made in the PRC). Up until last year, indigenous drone purchases by the government were practically non-existent, with the MND only purchasing about 3,400 units in 2023. Since the beginning of 2025, however, the Lai Administration has made two major domestic drone purchases, in July and October 2025, totaling more than 100,000 UAVs that are due to be delivered by 2027.

July 2025 Procurement Plan

On July 23, 2025, the MND announced a NTD 50 billion (USD 1.68 billion) order for nearly 50,000 military drones from domestic private industry over a two-year delivery timeframe. The order, which totals 48,750 units, will see 11,270 units delivered in 2026 and 37,480 units delivered in 2027. The order includes five different kinds of UAVs ranging from multi-rotor vertical take-off and landing (VTOL) drones to fixed-wing variants. While the MND has not yet awarded the contracts, major Taiwanese drone companies like Thunder Tiger, Coretronic, and Aerospace Industrial Development Corporation (AIDC) are likely to be major contenders.

October 2025 Budget Rollout

As part of the EY's October 16 special budget rollout, Taipei announced orders for over 50,000 additional domestically-produced dual-use drones. The additional UAVs, which the Executive Yuan primarily intends for use by civil government agencies, will include sur-

veillance drones for maintaining energy and transportation capabilities. Such assets will complement the MND's order and help Taiwan maintain critical civilian infrastructure in a contingency scenario.

Image: A Taiwanese military drone in operation. (Image source: Taiwan Military News Agency)

International Markets

While the government is the domestic drone industry's largest consumer, Taiwan cannot achieve its UAV production goals through government contracts alone. To reach its goal of increasing production capacity to 180,000 units a year, the Lai Administration is working to encourage and facilitate the export of drones to foreign markets.

China, under its SOE Da-Jiang Innovations (DJI, 大疆创新), currently sells UAVs at prices between 50 and 75 percent cheaper than comparable US-made drones. Because of this, China dominates the drone market, with about 90 percent of the global market share. This oversaturation has led many Western militaries, such as that of Ukraine, to grow reliant on PRC-made variants.

However, Chinese drones pose significant security and privacy risks, encouraging many Western countries to look elsewhere. Taiwan, whose growing UAV industry offers one of the world's only true China-free supply chains, sells its drones at prices only 25 percent more than Chinese-made ones.

Taiwan's industry is growing to meet new demand. According to the Research Institute for Democracy, Society and Emerging Technology (DSET, 科技、民主與社會研究中心), Taiwan exported approximately 26,000 drones between January and July 2025—a 749 percent increase from 2024. Europe made up the vast majority of Taiwan's exports—with Poland, which borders Ukraine, making up about two-thirds of the total export volume.

Coproduction

The Taiwanese government is also seeking to increase UAV production through facilitating and encouraging coproduction agreements between Taiwanese drone companies and foreign counterparts from countries like the United States. Doing so not only increases Taiwanese companies' market opportunities, but also helps firms address supply chain vulnerabilities.While Taiwan can mass-produce advanced chips and many dual-use components necessary for drone production, there are still parts that it cannot source on its own. These parts can be provided by partners from like-minded countries. Likewise, Taiwan's China-free supply chains, and its ability to mass-produce components largely dominated by Chinese manufacturing, makes coproduction a win-win scenario.

Moreover, because the Taiwanese UAV industry is new to the scene, it lacks much of the field-tested tactical knowhow possessed by many well-established foreign companies. Coproduction can help Taiwanese firms develop these skills.Indeed, some Taiwanese companies have begun to strike coproduction deals with US companies—many of which involve NCSIST and US defense contractors like AeroVironment, Anduril, and Auterion. However, a growing number of Taiwanese private companies are finding success as well, exemplified by Thunder Tiger's prominent co-production agreement with Virginia-based UAV firm RapidFlight.

Successes and Continued Challenges

Taipei's efforts to grow its country's drone output are paying off. Between June 2024 and June 2025, Taiwanese producers manufactured approximately 10,000 UAV units. By September, exports alone grew to about 50,000. While Taiwan's UAV industry is growing exponentially, material costs and limited international cooperation continue to pose challenges.

Material Costs

Maintaining a non-red supply chain is not cheap. While Taiwan mass-produces many advanced dual-use components necessary to UAV supply chains, China—due to its ability to steeply undercut competitor's pricing—has long dominated global markets for many raw materials necessary for weapons and technology.

For decades, the Chinese Communist Party (CCP, 中國共產黨) has heavily subsidized SOEs in strategic industries in order to oversaturate the global market with

cheap Chinese products and run most competition out of business. Two prominent examples include steel and rare earth metals, in which China controls over 50 percent and 80 percent of the global market respectively. The Chinese SOE China Baowu Group (中国宝武钢铁集团有限公司) produces steel 76 percent more cheaply than its US competition and ten percent more cheaply than its closest competitor in India. Likewise, Chinese rare earths are 50 percent less pricey than the second cheapest option in the United States.

Limited International Cooperation

While Taiwan is making progress towards coproduction agreements with some companies in partner countries, PRC espionage risks pose a major hurdle in securing these agreements. PRC espionage cases in Taiwan have significantly increased over the past few years, making it more dangerous for foreign companies to share trade secrets with the island's drone manufacturers. So far, only Thunder Tiger has been able to achieve the US Department of Defense's Defense Innovation Unit (DIU) Blue UAS certification—assigned to products secure enough for US government use.

Technology espionage is a major issue in Taiwan; lax punishments for spying on behalf of the PRC government contribute to ongoing leaks and undermine industrial security. While the Lai Administration has stepped up prosecutions and worked to increase penalties for espionage, prison sentences for guilty parties are still comparatively short compared to those of partner countries like the United States. In September of last year, four former Democratic Progressive Party (DPP, 民進黨) employees, including a former aide to President Lai, were convicted of spying for the CCP, but the longest prison sentence of the four was only ten years. By comparison, similar cases in the United States often lead to decades-long sentences.

Policy Recommendations

- **Implement Longer-Term Procurement Agreements** – To address the high overhead costs of maintaining a China-free supply chain, the Taiwanese government must continue to make major drone purchases to increase demand. While the two major government purchases are critical, more procurement agreements that extend beyond 2028 will provide producers with a greater sustained demand signal, motivating Taiwanese drone manufacturers to invest more.
- **Invest in Overseas Non-Red Supply Chains** – To help lower critical material costs, the Taiwanese government may consider investing in rare earth extraction and refinement startups in partner countries like the United States. Not only could this lower the cost of non-Chinese rare earths over time, but it could further improve relations with the US government by aligning more with the Trump Administration's America First agenda.
- **Raise Penalties for Espionage and Improve Vetting** – If Taipei hopes to assuage prospective coproducers, it will need to drastically increase penalties for intellectual theft and espionage to mirror those of the United States. Besides increasing prison sentences, the Taiwanese government should consider revamping its security clearance adjudication standards. As it stands now, security clearance regulations are not standardized across government agencies, leading to major security gaps—a problem that has facilitated leaks of classified information.

The main point: As drone technology is gaining more prominence in warfare, Taiwan is working to meet the demands of the modern battlefield by ramping up its indigenous drone industry. While it is still making use of US foreign military sales and Taiwanese state-owned defense companies, Taipei is for the first time largely relying on the civilian drone market to achieve its defense readiness goals. However, the Lai Administration must still address high material costs and better incentivize international cooperation by continuing government investment and further cracking down on technology espionage.

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Taiwan's Bumpy Road to Energy Resilience

By: Ben Levine

Ben Levine is a programs coordinator at the Global Taiwan Institute.

Introduction

Taiwan is highly reliant on energy from abroad, importing nearly 97 percent of its energy annually. Under current reserves, Taiwan could sustain its energy usage for about two weeks without new supply. As of 2024, Taiwan's energy mix is dominated by fossil fuels. Oil makes up 35.87 percent, coal makes up 31.75 percent, gas 23.73 percent, solar 2.91 percent, nuclear 2.38 percent, and wind and hydropower together represent 3 percent. Although renewables constitute a small share

of Taiwan's current energy mix, recent years have seen rapid growth in capacity and deployment.

Taiwan's energy challenges are further complicated by a growing imbalance between industrial and residential electricity consumption. Taiwan's industrial sector accounts for more than half of its electricity consumption, and its most valuable export—semiconductor chips—consumes nearly half of the sector's energy supply. The growth of artificial intelligence is projected to increase electricity consumption in Taiwan's advanced manufacturing industry, particularly in semiconductor production. Government data from 2024 shows that overall power demand in Taiwan is expected to grow about 1.7 percent annually over the next decade, underscoring the need for creative solutions to meet energy demands. Taiwan's energy debate is no longer focused on the transition to lower-carbon energy sources—it is about testing resilience under crisis and overcoming deficiencies in existing policy.

Taiwan's Energy Vulnerabilities and Taipower

Taiwan faces structural vulnerabilities when it comes to securing and maintaining its own energy supply. Its dependency on energy imports makes Taiwan especially vulnerable to any blockade, supply chain disruption, or price shock. In addition, there are geographic and infrastructural constraints in power generation and demand. Northern Taiwan is densely populated and home to most of Taiwan's critical infrastructure and industry, while most domestic power generation is in the south. Consequently, energy is lost in transit from south to north. This energy waste demonstrates critical inefficiencies in a system that is limited in domestic production and reliant on external inputs.

With industrial customers making up 55 percent of energy consumption, and with some estimates projecting that Taiwan Semiconductor Manufacturing Company Limited (TSMC, 台灣積體電路製造股份有限公司) accounts for 10 percent of total energy consumption, Taiwan's energy system is increasingly shaped by the needs of advanced manufacturing rather than residential users. This concentration of demand heightens systemic risk; disruptions to power supply disproportionately affect a small number of energy-intensive facilities whose operations are deeply embedded in global supply chains. At the same time, the growing electricity needs of the semiconductor sector place additional strain on already vulnerable north-south transmission lines, amplifying concerns over reliability, efficiency, and security. Together, these dynamics underscore how Taiwan's energy vulnerabilities are not merely a function of import dependence, but of a highly centralized and geographically imbalanced system that leaves limited margin for error during crises.

Managing these structural vulnerabilities is the job of Taiwan's state-owned power company, Taiwan Power Company (Taipower, 台灣電力公司). Taipower generates almost 80 percent of its electricity through imported energy sources, leaving it vulnerable to external shocks. The full-scale Russian invasion of Ukraine in 2022 caused input prices to rise considerably, and exposed the depth of this vulnerability. Due to Taipower's status as a state-owned company and the sole electricity provider to most of Taiwan, the government did not allow Taipower to increase electricity prices to match the increase in its input costs. This disparity made Taipower's financial situation untenable. From 2022 to 2024, when the price shock hit, the utility accumulated over NTD 350 billion (USD 11.08 billion) in losses. Taipower is structurally constrained by long-standing government subsidies that keep electricity prices low. Taiwan already has some of the lowest residential and industrial electricity prices in the world, ranking fifth and third lowest in the world respectively**.** While Taipower posted a profit for 2025, recent losses have reduced the utility company's capacity to invest in grid upgrades, storage, and resiliency. Meanwhile, the financial instability slows progress on Taiwan's energy goals, including plans to decarbonize its energy sources.

Government Action Plans

Under President Lai Ching-te (賴清德), resiliency has been promoted to a national priority. In June 2024, the administration established the National Climate Change Committee (國家氣候變遷對策委員會), which aims to coordinate Taiwan's climate and energy transition strategy. The Lai Administration also established the Whole of Society Defense Resilience Committee (全社會防衛韌性委員會), which broadens the scope of resiliency to include critical infrastructure. While these institutional frameworks reflect an effort to integrate energy resilience into both climate governance and national security planning, translating high-level coordination into concrete infrastructure and grid reforms remains an ongoing challenge.

TSMC's Path to Net Zero

With TSMC accounting for roughly 10 percent of Taiwan's energy consumption, its decision to align with the environmental and climate goals of Taiwan's government and commit to net zero greenhouse gas emissions by 2050 is a major undertaking.

To achieve this commitment, TSMC aims to reach peak carbon emissions by 2025, use 60 percent renewable energy for its global operations by 2025, achieve RE100 by 2040, before reaching net-zero emissions by 2050. There are three distinct categories in which TSMC measures its impact on the environment: Scope 1 (direct greenhouse gas emissions), Scope 2 (indirect greenhouse gas emissions), and Scope 3 (supply chain greenhouse gas emissions). For Scope 1 emissions, TSMC installs local carbon scrubbers at their facilities and uses carbon-neutral natural gas. TSMC's international operations have been net zero for Scope 1 and 2 since 2022. For Scope 2 emissions, TSMC joined the RE100 initiative to expand renewable energy usage to 100 percent by 2040. For Scope 3 emissions, TSMC has invited their suppliers to sign the TSMC Greenhouse Gas Reduction, Emissions Elimination & Neutrality (GREEN) Agreement, which aims to help their suppliers reduce their greenhouse gas emissions. As of April 2025, 50 suppliers have signed onto the initiative, representing 90 percent of TSMC's supply chain emissions.

Nuclear Energy

Nuclear energy is politically sensitive in Taiwan. Public opinion in Taiwan on nuclear energy has been divided since the Fukushima nuclear accident in 2011, when a tsunami triggered a nuclear meltdown in Japan. In 2018, a referendum asked Taiwanese voters if they would support the closure of all nuclear power plants by 2025. A clear majority—well past the 5 million threshold needed—voted to keep Taiwan's nuclear power plants running. However, Taiwan's government nevertheless continued to shut down Taiwan's nuclear power plants. In August 2025, the government held another referendum on reopening a nuclear plant. The measure failed to meet the minimum voter threshold to pass (however, of those who did vote, an overwhelming majority supported reopening the plant). With no operational nuclear power plants, the question of nuclear power seems to be strategically unresolved and politically precarious.

Closing down Taiwan's nuclear power plants rules out a source of clean domestic energy, while leaving the island more dependent on imported fuel. Before its phaseout, nuclear power was a steady contributor to Taiwan's energy mix—though not free from controversy during Taiwan's martial law era. In 1982, the government began storing nuclear waste on Lanyu Island without the express consent of the indigenous people. At the time, the government falsely represented to Lanyu Island's residents that the waste site was a fish cannery. This historical controversy further complicates Taiwan's ongoing domestic debates on ethical nuclear energy usage.

Policy Recommendations

In order to enhance Taiwan's energy resilience, the author recommends the following measures:

1. Improve Grid and Infrastructure Resilience

- Expedite north-south high-voltage transmission line construction
- Invest in grid resilience (i.e. power generation in the north) and microgrids
- Be proactive and invest in grid resiliency before crises occur

2. Diversify Energy Mix and Supply Security

- Reopen closed nuclear plants while addressing safety and waste management concerns
- Continue to invest in renewable sources of energy while shifting fossil fuel consumption away from coal to liquefied natural gas (LNG)

3. Promote Institutional and Governance Reform

- Reform Taipower's financial and structural constraints
- Improve transparency and communication with the Taiwanese public on energy resiliency efforts and the challenges that Taiwan faces in the future

4. Implement Demand Management and Pricing

- Gradually shift away from government subsidies for electricity prices for both industrial and residential customers
- Require industrial users—the majority consumers of energy—to bear more of the cost of the transition and encourage power efficiency in heavy-energy use sectors

The main point: Taiwan's path to energy resilience is hampered by structural weaknesses in its energy system, including being almost entirely reliant on imports, energy grid inefficiencies, and politically-driven electricity subsidies. While government initiatives and corporate commitments signal that Taiwan is aware of these challenges, the questions of nuclear power, infrastructure investment, and demand management will have to be resolved in order to further Taiwan's energy resilience in the coming years.

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Taiwan as an Exporter of Democracy in Southeast Asia

By: Benjamin Sando

Ben Sando is a research fellow at the Global Taiwan Institute.

When analysts discuss Taiwan's strategic importance to the West, they commonly note the island's status as a thriving East Asian democracy. In a region where the most powerful country is a one-party authoritarian state, Taiwan's democracy is seen as a living example of the political and economic success of a system in contrast to China's. While observers recognize Taiwan's value as a democracy in and of itself, it is less common to raise its capacity to promote democracy beyond the Taiwan Strait, such as in countries in Southeast Asia.

In recent years, a small but evolving network of Taiwanese civil society groups and international nongovernmental organizations (INGOs) has begun engaging with Southeast Asian activists pushing for greater democratic governance in their respective nations. The work of Taiwanese civil society groups, as well as INGOs with operations on the island, can be broadly divided into three categories: (1) providing civic space to Southeast Asian activists, (2) conducting joint research and advocacy, and (3) offering modest funding to Southeast Asian democracy projects.

The United States, the European Union, and other Western actors have been vital in providing financial support to Taiwanese NGOs conducting outreach in Southeast Asia. But with drastic foreign aid cuts in the United States, and coincident declines in Europe, Western financial support is becoming less fundamental to this work. Even when receiving financial support from foreign funders, the island's civil society activism maintains a uniquely Taiwanese character, drawing from the nation's culture and historical experience to better connect with Southeast Asian activists.

This article will explore the three key categories of Taiwanese engagement with Southeast Asian democracy activists—providing civic space, joint research/advocacy, and funding—before providing policy recommendations for both Taiwan and Western countries to better support these initiatives.

Providing Civic Space to Southeast Asian Activists

As the Taiwan-based NGO Asia Citizen Future Association (ACFA, 亞洲公民未來協會) has reported, the freedom through which Southeast Asian activists can critique their governments and defend human rights is in decline. ACFA is a civil society organization that advocates for the freedom through which both Taiwanese and Southeast Asian activists can associate and express political views, an idea known as "civic space." Its founder, Leah Lin, has argued that Taiwan is an advantageous location for Southeast Asian activists seeking to circumvent constraints on their advocacy at home, strengths conveyed by Taiwan's subtropical climate, proximity to the region, and cultural values oriented around hospitality and mutual respect.

ACFA and other Taiwanese NGOs have provided temporary spaces for advocacy to Southeast Asian civil society. In an interview with this author, Leah Lin shared how her organization hosts an "Asia Citizen Future Week" in Taiwan each year, facilitating dialogue between Taiwanese NGOs and Southeast Asian activists. ACFA's 2025 rendition of the event was attended by 15 Southeast Asian civil society organizations.

Meanwhile, Doublethink Lab—a Taiwanese NGO investigating People's Republic of China (PRC) influence operations (and a former employer of this author)—hosts the Indo-Pacific Information Operations Roundtable on the island each year. The closed-door events assemble actors from across the Indo-Pacific region to explore developments in how malicious actors conduct information operations on social media. Jerry Yu, a senior analyst at Doublethink Lab, told this author that Taiwan-based events offer Southeast Asian activists an opportunity to freely discuss the authoritarian influence of the PRC, a topic far more sensitive in their home countries. In the same vein, Article 19—an INGO focused on free expression and digital rights—regularly holds workshops in Taiwan for Southeast Asian internet freedom advocates. Liu I-chen (劉以正) of Article 19 told this author that his INGO will occasionally hold workshops on less-sensitive digital rights issues in Southeast Asia, but any discussions of the PRC must be held in Taiwan for the safety of activists.

Taiwan's government—in partnership with the United States—has also stepped in to offer opportunities for Southeast Asian activists to temporarily engage in advocacy on the island. In 2023, Taiwan's Ministry of Foreign Affairs (MOFA, 外交部) collaborated with Taiwan AID (台灣海外援助發展聯盟) and the American Institute in Taiwan to place 10 Southeast Asian civil society leaders in month-long fellowship positions within Taiwanese NGOs. MOFA has continued to organize the Taiwan NGO Fellowship Program each year since then.

As civic space grows more constrained in Southeast Asia, several civil society groups have opted to move to Taiwan and continue their advocacy work under

more permissive conditions. ACFA has sought to assist Southeast Asian civil society in making this move and study the barriers it faces. Lin shared her frustration with Taiwan's *Civil Associations Act* (人民團體法), a law grounded in the era of Kuomintang (國民黨) rule over China. The law requires individuals seeking to found a civil association—Taiwan's equivalent of a non-profit—to first enlist 30 local board members, a prohibitive task for a Southeast Asian activist who has just arrived on the island. When a Vietnamese NGO, Legal Initiatives for Vietnam, sought to open an office in Taiwan, it faced a six-month wait until completion.

Image: Former President Tsai Ing-wen (蔡英文) visits an international NGO hub in Taichung in 2018 (Image Source: Taiwan Presidential Office Flickr)

Conducting Joint Research and Advocacy

In addition to helping Southeast Asian activists visit or base themselves in Taiwan, the island's NGOs have joined forces with Southeast Asian civil society groups on research and advocacy projects. Joint advocacy can be beneficial to Southeast Asian civil society, as in certain cases, Taiwan-based NGOs are better-resourced with research expertise or possess broader international followings through which findings can be publicized.

For example, ACFA has formed the Freedom of Association in Taiwan and Southeast Asia (FATASEA) research working group, which published a 2024 report gauging freedom of association in Indonesia, Malaysia, the Philippines, and Thailand. Meanwhile, the Taiwan office of the INGO Article 19 worked with Vietnamese activists to publicize how the Vietnamese government's cybersecurity law had mimicked the oppressive provisions of China's. Article 19 collaborated with Legal Initiatives for Vietnam (the NGO that opened an office in Taipei) and Open Net to submit a brief to the United Nations Human Rights Committee denouncing the restriction of digital freedom in Vietnam. Article 19's broad social media following allowed the campaign to reach more onlookers than if the Vietnamese civil society group had pursued the advocacy alone.

In another instance, Doublethink Lab has sought to provide training and technical tools to civil society groups in Southeast Asia investigating social media information operations. The project, supported by European Union stakeholders, has furnished civil society organizations in Southeast Asia with software toolkits and methodologies needed to uncover PRC foreign information manipulation and interference (FIMI). Doublethink Lab specializes in investigating PRC-origin FIMI in Taiwan, and is extremely well-placed to share tools and insights with Southeast Asian civil society.

Taiwanese collaboration with Southeast Asian civil society on democracy-focused advocacy has encountered one roadblock: an overemphasis on the authoritarian influence of the PRC. While many Taiwanese may view the PRC as the most severe threat to Taiwan's democracy, Liu I-chen of Article 19 told this author that counterparts in Southeast Asia are often more preoccupied with domestic barriers to democratization, such as corrupt politicians or military regimes. Nonetheless, the priorities of funders—particularly Western ones—continue to push Taiwan-based NGOs towards engagement with Southeast Asian activists on PRC-related issues.

Modest Funding

Taiwan has emerged as a source, albeit modest, of funding for Southeast Asian democracy-oriented civil society groups. One Taiwanese government-affiliated institution, the Taiwan Foundation for Democracy (TFD, 台灣民主基金會), notably awards grants to Southeast Asian NGOs that are derived from Taiwanese taxpayer money. (It should also be noted that TFD is the funder of the Global Taiwan Institute program through which this research article is being produced.) In 2024—the latest year for which funding data is available—TFD distributed grants under its "Asia Regional Democracy Movement" to NGOs in Thailand, Indonesia, and the Philippines, among others. Grant project titles included "Shrinking Civic Space in Asia: Stories of Resistance and Pushback" (Thailand), and "Democratising Human Rights in East and Southeast Asia: Protecting Migrant and Refugee Rights" (Indonesia). As a recently-democratized society, these international grants underscore Taiwan's intention to promote similar values among its neighbors in Asia.

However, the impact of this Taiwan-based funding is constrained by the size of the grants themselves. Ac-

cording to TFD's *2024 Annual Report*, the organization dispensed just NTD 1,954,650 (USD 60,874) to Asian civil society groups under the "Asia Regional Democracy Movement" category. While funding of this scale may come with higher purchasing power in Southeast Asian nations, the sums are dwarfed by grants awarded to Southeast Asian civil society by the European Union and the United States—at least until US President Donald Trump slashed American foreign aid at the onset of his administration.

Policy Recommendations

Taiwanese support for Southeast Asian civil society in the three areas outlined above has room for growth, but must first overcome outstanding obstacles:

- **Reform the *Civil Associations Act*** – While Southeast Asian civil society groups are presently able to visit Taiwan with similar ease to other democracies, they struggle to permanently move operations to the island when needed. As ACFA's Leah Lin has argued, the stringent rules of the *Civil Associations Act*—notably that NGO founders must obtain 30 co-signers—have introduced long delays in registering new groups, and have likely deterred other Southeast Asian activists from moving to Taiwan. Therefore, the Taiwanese government should reform the *Civil Associations Act*, notably by removing the requirement for NGO founders to obtain 30 co-signers, and reducing other administrative hurdles such as delayed processing periods.

- **Reduce emphasis on the PRC threat when engaging with Southeast Asian NGOs** – This suggestion may seem counterintuitive for stakeholders invested in countering PRC authoritarian influence in Southeast Asia. However, this suggestion may conversely have a greater effect in counteracting the PRC authoritarian threat, while also overcoming domestic barriers to democratization in Southeast Asia. This is because the shortcomings in civil liberties, digital freedom, and the right to association—which allow the PRC to project influence in Southeast Asia—are the same shortcomings that authoritarian or weakly-democratic Southeast Asian governments use to oppress their citizens. For example, a lack of social media platform oversight that allows a Southeast Asian government to employ armies of bots to influence online discourse is the same loophole that PRC influence actors use to manipulate public opinion in these countries. Meanwhile, Southeast Asian activists have indicated that they are more motivated by the mission of overcoming domestic barriers to democratization, such as their own authoritarian leaders. Since closing the avenues through which domestic governments can strangle the democratic process has the simultaneous effect of blunting the PRC's authoritarian influence—and is a more attractive mission to Southeast Asian NGOs—Taiwanese civil society and Western funders should lean into supporting domestic government-focused activity.

- **Increase Taiwanese government funding for Southeast Asian democracy activism** – This recommendation will be unsurprising to any reader, but the Taiwanese government should increase its financial support for Southeast Asian democracy activists. Especially in light of declining Western foreign aid funding, Taipei ought to boost the allocation that the Taiwan Foundation for Democracy and other government-based grant funders devote to promoting democracy in the region. While the Taiwanese legislature is dealing with significant funding constraints, the funds that TFD devotes to its "Asia Regional Democracy Movement" spending category are paltry and must be increased.

The main point: Taiwan is not merely a model of democracy in comparison to China; the island has also established networks in Southeast Asia to support democratic development and cross-border ties. Taiwan-based NGOs provide civic space, joint advocacy opportunities, and modest funding to Southeast Asian activists. With reform to Taiwan's Civil Associations Act, and a more nuanced funding strategy from Western countries, Taiwan's role as an exporter of democracy in Southeast Asia can grow.

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On the Front Line of Foreign Influence: Enhancing Taiwan's Information Resilience

By: Adrienne Wu

Adrienne Wu was a senior programs manager at Global Taiwan Institute.

As a target of the People's Republic of China's (PRC) political warfare, Taiwan's information environment is constantly flooded with foreign information manipulation and interference (FIMI). For instance, in the lead-up to Taiwan's 2024 presidential elections, Doublethink Lab recorded over 10,000 pieces of suspicious information that aligned with false narratives spread by the PRC. Such influence operations typically amplify political polarization and skepticism towards the Unit-

ed States, which undermine Taiwanese citizens' trust in their government, democratic systems, and US-Taiwan relations.

Taiwan's civil society has worked to develop countermeasures, such as robust fact-checking and more accessible media literacy education. Nonetheless, an evolving global landscape and technological advancements have brought about new challenges, elevating the threat for both Taiwan and the international community. From November 2023 to November 2024 alone, the European External Action Service (EEAS) detected at least 500 FIMI incidents that targeted 90 countries and spanned 38,000 unique channels. These findings suggest that PRC FIMI campaigns are not limited to Taiwan, and may affect dozens of countries throughout the world. In order to enhance international resilience, it is clear that knowledge exchange on countermeasures to deal with FIMI must take priority. While Taiwan is on the front line of PRC FIMI, global democracies must recognize this mutual threat and hear the call to action.

Taiwan's Civil Society

The Taiwanese government first began to recognize FIMI as a growing issue in 2017. By 2018, the Executive Yuan (行政院) initiated a special task force that established a three-element framework to evaluate FIMI through malicious intent, falsified content, and harmful results, and a four-step framework to respond: detect, debunk, contain, and discipline. At the same time, civil society organizations initiated their own responses. Some fact-checking efforts by Taiwanese civil society organizations preceded government initiatives—the fact-checking blog MyGoPen (麥擱騙) was founded in 2015 and the LINE bot Cofacts (真的假的) started in 2017. In 2018, the Taiwan FactCheck Center (TFC, 台灣事實查核中心) was founded by Taiwan Media Watch and the Association for Quality Journalism. Shortly thereafter, Doublethink Lab and the Taiwan Information Environment Research Center (IORG, 台灣資訊環境研究中心) were also established with the aim of researching the overall Mandarin-language information environment and pinpointing larger trends related to disinformation narratives.

Through the work of these civil society organizations, Taiwan was able to mount a multifaceted response to disinformation—including FIMI. PRC-initiated disinformation campaigns were debunked through fact-checking, and enhanced media literacy education helped Taiwanese citizens detect and contain FIMI narratives. According to Doublethink Lab, Taiwan's whole-of-society response could also be replicated by other countries. This approach is structured around five main characteristics—purpose-driven, organic, whole-society, evolving, and remit-bound—that together make up the "Taiwan POWER Model" (as depicted in the image below). Still, despite Taiwan's overall success in countering FIMI, Doublethink Lab admits that there are still vulnerabilities in the island's model. The civil society organization argues that Taiwan's counter-FIMI efforts need to be aligned with global efforts, since "PRC operations *against Taiwan* also take place in other countries." To truly protect Taiwan's international space, those countering FIMI operations need to take into account PRC disinformation narratives that circulate both in Taiwan and abroad. Additionally, challenges—such as limited funding and the impact of generative-AI and large language models (LLMs)—are not only shared globally, but call for transnational cooperation on countermeasures.

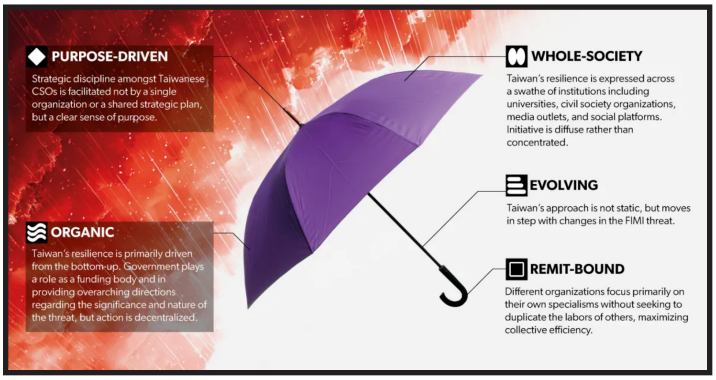

Image: Doublethink Lab's visualization of their "Taiwan POWER Model." (Image source: Doublethink Lab.)

Growing Challenges: PRC Narratives, AI, and Funding

AI-Powered Information Operations

The growing prevalence of AI has created unique challenges when it comes to countering disinformation. While monitoring Taiwan's 2024 elections, Doublethink Lab found that usage of generative AI allowed malign actors to broaden their efforts by reducing the manpower needed to create posts. By creating posts and posting schedules that were not completely identical, generative AI helped to mask coordinated inauthentic behavior (CIB). This allowed FIMI actors to carry out large-scale attacks that were more difficult to counter, despite the fact that the underlying falsehoods in the posts were not much more sophisticated than in the past. As FactLink's Summer Chen and Mary Ma pointed out during the Global Taiwan Institute's June 2025 *Enhancing Taiwan's Information Resilience* event:

while AI-generated disinformation is often not difficult to debunk, the sheer volume of such posts make their impact difficult to contain.

Rapid Response Mechanism Canada (RRM Canada) also detected similar methods being used ahead of the 2025 Canadian elections. Under the strategy of Spamouflage—which refers to the dissemination of "spam-like content and propaganda hidden among more benign, human-interest-style content"—FIMI actors used generative AI to create deepfake videos of a Chinese-speaking political commentator, who had previously released content that was critical of the PRC. Within the videos, the AI-generated commentator accused the Canadian government of corruption, sexual scandals, and bribery. The EEAS also found that Russian agents used AI-generated deepfake videos to interfere with elections in Moldova—illustrating that Russia and the PRC often mimic each other's strategies when it comes to FIMI and political warfare.

While AI generation has allowed FIMI to become more sophisticated, these same tools can be used for detecting AI-generated content. Many organizations countering FIMI already use some level of AI-assistance. For instance, IORG uses a human-AI collaboration model that pairs work by human researchers with open-source tools like CKIP Tagger and OpenAI's Whisper to detect and process CIB. As AI-generated disinformation continues to improve, it is crucial that counter-efforts advance at a faster pace. Special Competitive Studies Project (SCSP) Executive Director Ylli Bajraktari has recommended that NATO invest in content authenticity and transparency tools—such as LLMs—that can then be used to identify AI-generated or altered content. This recommendation has been echoed by Ethan Tu, who noted that Taiwan AI Labs' AI-driven platform Infodemic can also be used to detect disinformation. In 2024, Taiwan AI Labs signed memoranda of understanding (MOUs) with two Lithuanian companies—Turning College and Oxylabs—specifically for collaboration on AI solutions to cognitive warfare.

Biases in Large Language Models

Advancements in AI have also led to a more widespread usage of chatbots, which raises questions regarding the political narratives that may be consumed through these platforms. In particular, many have expressed concerns regarding the PRC-based company Deepseek. In a comparison of the ChatGPT o3-mini-high and Deepseek-R1 models, Taiwan AI Labs discovered that Deepseek-R1 embedded PRC-aligned propaganda in 23.3 percent of its responses when answering Simplified Chinese queries related to geopolitics. Additionally, when answering Simplified Chinese queries related to politics, sentiments critical to the United States were embedded in 23.8 percent of responses.

Some of the propaganda embedded in DeepSeek's models is more overt. An investigation by Investigative Journalism Reportika (IJ-Reportika) found that DeepSeek uncritically parroted official PRC narratives when questioned about issues that the PRC government had strong positions on—such as Tibet's status, China's "debt-trap diplomacy," and Taiwanese independence. As of October 2025, 125 million global users reportedly used DeepSeek tools on a monthly basis. While the majority of these users were based in China (35 percent), there were also a substantial number of users based in India (20 percent), Indonesia (8 percent), and the United States (5 percent). In spite of international pushback against DeepSeek's models, such as restrictions on its use by government workers in Taiwan, India, South Korea, Australia, and the United States, global usage remains relatively high. In addition to the risk of inadvertently consuming PRC propaganda, DeepSeek and other Chinese AI platforms could theoretically share user data with the PRC government and FIMI actors to enhance the sophistication of information operations in foreign countries.

Training and Funding

When it comes to countering biases in large language models and AI-powered information operations, limited training and funding remain central challenges. These obstacles are not new; many independent media and civil society organizations already face restrictions in their funding sources, particularly if they must forgo government funding in order to maintain their independence and nonpartisanship. Meanwhile, many Taiwanese news organizations often lack the resources for fact-checking or to maintain strict editorial standards. During GTI's June 2025 *Enhancing Taiwan's Information Resilience* event, Min Mitchell noted that many Taiwanese media organizations do not employ dedicated fact-checkers. To fill this gap, FactLink's Summer Chen and Mary Ma proposed that one solution could be to form AI-verifying communities where tech experts and journalists collaborate on detecting FIMI. However, such a solution still necessitates that civil society organizations receive enough resources to maintain this collaboration.

Opportunities for Global Cooperation

Global cooperation is important in order to spread in-

ternational awareness of PRC influence operations and to keep PRC propaganda narratives from gaining dominance. Additionally, global cooperation allows countries to pool resources and exchange best practices in order to promote more effective responses to FIMI. As a result, this author presents the following policy recommendations:

- **Enhance international cooperation on countering FIMI** – International initiatives that counter foreign interference and protect human rights, such as G7's Digital Transnational Repression Detection Academy, should work together with Taiwanese civil society organizations to counter FIMI on a global scale. Simultaneously, Taiwanese civil society should continue to pursue and expand regional partnerships, such as the Taiwan FactCheck Center's existing cooperation with Factcheck Initiative Japan.
- **Strengthen domestic data privacy laws** – To prevent Chinese AI models from collecting and providing users' personal information to FIMI actors, governments should review and strengthen data privacy laws within their own countries.
- **Promote partnerships between Taiwanese civil society and private technology companies** – Taiwan civil society organizations should continue to enter into cooperative agreements with private companies, akin to the MOUs between Taiwan AI Labs and the two Lithuanian technology firms. For instance, Microsoft, Google, and Meta all maintain initiatives to counter influence operations, and could partner with Taiwanese civil society. Additionally, past iterations of Taiwan's CYBERSEC Expo have focused on the question of countering FIMI, suggesting that CYBERSEC could also be a forum for building international and cross-industry cooperation on FIMI.

The main point: Taiwan's civil society has long been praised for its efforts to counter PRC foreign information manipulation and interference (FIMI), yet challenges still remain due to limited civil society funding and the growing usage of AI in FIMI operations. It is essential for Taiwanese civil society to foster strong international and cross-industry partnerships to meet these challenges head-on.

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