



AGHAM BAYAN

EDITORIAL

Continue advancing the people's war until victory

LAST DECEMBER, members of Liga ng Agham para sa Bayan (LAB) marked the 50th anniversary of the establishment of the organization through various propaganda actions. From putting up posters, distributing flyers, to organizing lightning rallies, members of LAB expressed the militancy of revolutionary scientists, engineers, professionals, and students in promoting the message of revolution to the Filipino people.

In the 50th anniversary statement of LAB, the organization's spokesperson, Trinidad Ramirez, highlighted the urgent tasks of LAB in the context of the current rectification movement launched by the Communist Party of the Philippines. ► 2

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*Agham Bayan is published by **Liga ng Agham para sa Bayan (LAB)** with the objective of raising the level of awareness of Filipino scientists regarding social issues. It aims to promote the use of science for the nation and the Filipino people within the framework of national democracy and liberation.*

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This 2026, the entire membership of LAB is presented with a clear challenge: to organize and lead the science and technology sector for their democratic rights and in their fight against bureaucrat capitalism, feudalism, and imperialism. This includes heightening their support and participation in the armed struggle in the countryside.

According to the anniversary statement, one of the strengths of LAB over the past years is its improving practice in providing support for the armed struggle in the countryside. LAB has responded to the Cherish the Army campaign through continuous internal and external propaganda work. Members of the organization are once again taking on the task of providing technical support for the NPA, using the skills of its scientists and engineers to address military, economic, and political needs of the people's army. More and more members of LAB are taking part in revolutionary exposure and tour of duty programs, and some have even joined the NPA as full-time Red fighters.

Following these steps in the right direction, there should be nowhere to go but up for the organization. Units of LAB must continue to thoroughly plan their illegal or UG (underground) work, from gathering support for the people's army, disseminating revolutionary propaganda, to identifying and responding to technical needs of armed struggle in the countryside. More than anything, it is essential that more and more youth, students, and professionals are brought to the countryside so that they may directly participate and contribute

One of the strengths of LAB over the past years is its improving practice in providing support for the armed struggle in the countryside.

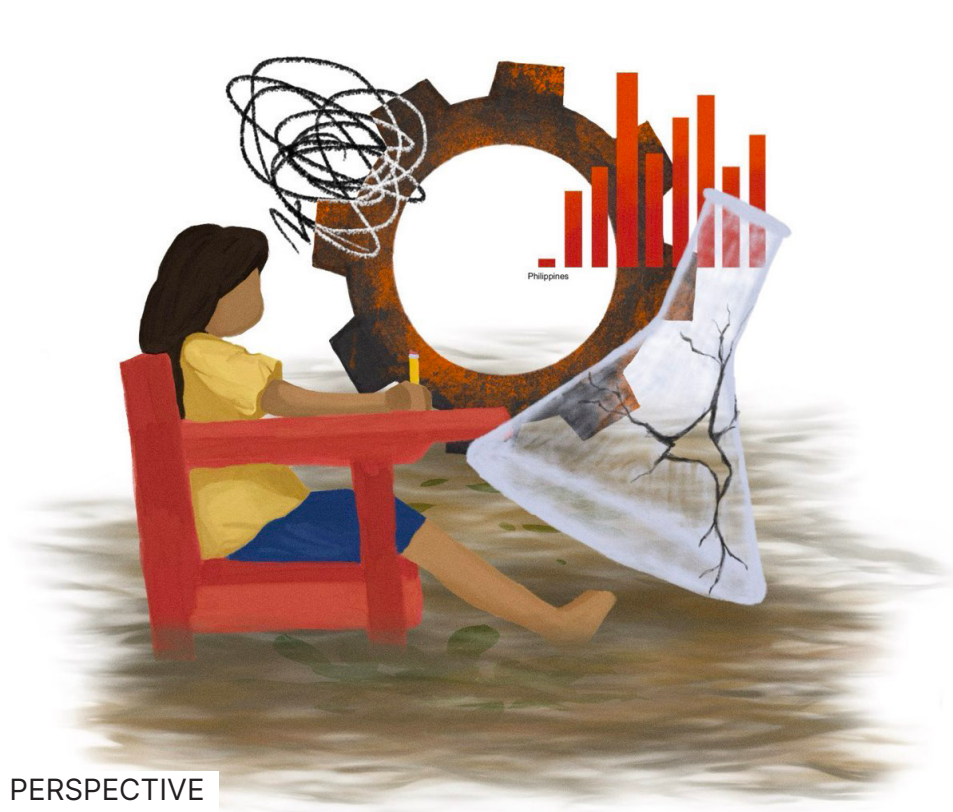
to the armed struggle. We must also draw lessons from our history, as well as the work of our fellow revolutionary organizations under the NDFP. Let us make our fellow revolutionary scientists and engineers appreciate the importance of providing concrete support for the primary form of struggle.

If we look back at the history of our organization, as a result of the application of our skills as scientists and engineers in the concrete conditions of the revolution, our sector has contributed greatly in the development of encryption protocols, explosives, and medical equipment for the NPA. We have also contributed in investigating and applying the proper methods of irrigation and crop planting across different types of terrain for the communal farms of the Pambansang Katipunan ng Magbubukid (PKM). This is one of the best ways to advance science and technology for the people and the revolution: the creative application of our respective disciplines for the benefit of the Filipino people in struggle, in advancing armed struggle, agrarian revolution, and mass base building.

In this line of work, we are not short of inspiration and many outstanding revolutionaries and martyrs have come from

the sector of science and technology. Let us remember and embody the spirit of Jan Michael “Ka Simon” Ayuste, biology graduate and member of LAB, who chose to lay down his entire life for the revolution with his decision to join the NPA. We also have Engr. Ramon “MonRam” Ramirez, electrical engineer and founding member of the organization, who used his skills as an engineer so that the revolution might benefit from advances in the field of science and technology. Cora Casambre, mathematician and former university lecturer, who turned her back on their bourgeois profession to serve the revolution and the Filipino people.

In the coming year, let us firmly grasp our responsibilities as revolutionary scientists and engineers, in both legal and UG work. Let us achieve even more than what we were able to achieve over the past months. Let us forge the unbreakable strength of the organized masses of professionals and students in STEM, and give our all to further advance the people’s war until victory. ▼



PERSPECTIVE

Problems and solutions in Philippine STEM education



Gaea Sumulong & Ka Libra



Bob

FILIPINO STEM STUDENTS are all familiar with the brick wall they run into on the journey to become a STEM professional: the abysmal state of STEM education in the country. From undergraduate education to higher studies, the hardships experienced by STEM students have almost become a running joke to those who were fortunate enough to make it through. While the reactionary Department of Science and Technology (DOST) might chalk up the lack of researchers in the country to “*mahirap [kasi] ang science at math*” (“because science and math are hard”), those who have experienced the

cramped classrooms and lack of lab equipment know where the problem truly lies.

The current state of STEM education reflects the general state of our country’s educational system, which has long suffered under imperialism, bureaucrat capitalism, and feudalism. This situation has pushed many STEM students to think beyond the classroom, and embrace the solutions presented by the national democratic revolution.

Undergraduate hardships

Marvin’s experience in a state university in NCR shows exactly

how basic the problems of STEM education are. "In my university, whatever STEM course you take, you can really see the poor quality and how underfunded everything is."

As computer science majors, Marvin and his classmates are forced to take turns at the teaching laboratory due to — surprise, surprise — the lack of computers. Classrooms built for thirty people are made to accommodate nearly sixty students per class, pushing most professors to hold their classes online instead due to the lack of adequate physical space.

The neoliberal nature of STEM education is also very apparent. In a class discussing different job opportunities for computer science graduates, Marvin's instructor openly promoted taking jobs abroad because "the salary is much higher." No discussions about how computer science can be used to directly help the Filipino people with their basic problems, either.

When asked about how this all made him feel, Marvin was quick to answer. "Of course I'm angry, because there's no sense of security for me, as someone who wants to become a scientist. It's discouraging to study in such a rotten educational system. So I've chosen to go beyond learning in the classroom, to also study Philippine society and serve the people."

Graduate woes

Kala, who is currently taking a graduate degree in another state university, shared how the problems don't end in

undergraduate studies. "Many people prefer taking their graduate degrees abroad because there's the 'prestige', the funding, the better quality of life. Here in the Philippines, there's the lack of equipment, and the lack of support from the [reactionary] government."

So what's it like being a graduate student in Kala's university? Lab experiments take longer because students have to share equipment. Stipends for graduate scholars are relatively small and often delayed; lab principal instructors often end up shelling out their own money to support students and staff. Depending on the field, research opportunities can be very limited. All of these factors make studying abroad all the more attractive for the average Filipino graduate student.

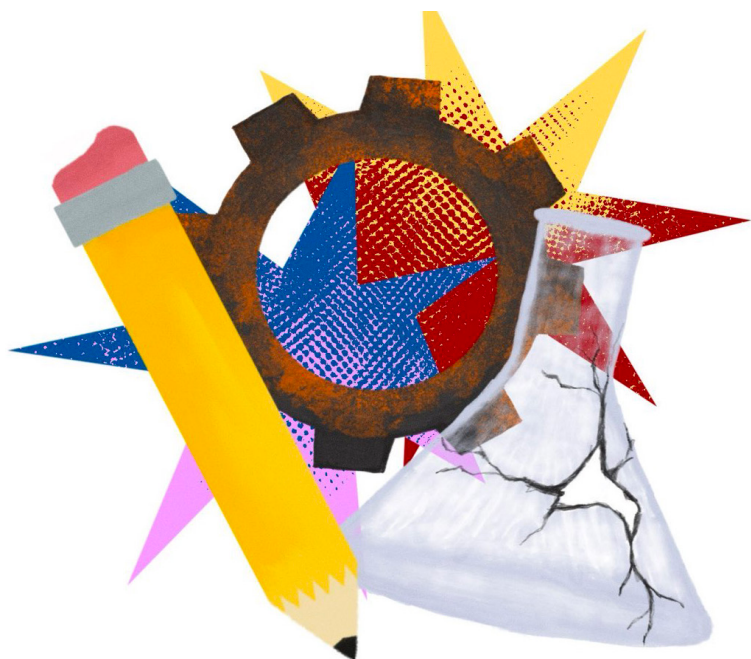
Much of the funding for STEM graduate studies and research is funneled through the DOST. To say the least, Kala is very

much frustrated with the agency: "It's like they don't want to claim responsibility for issues with scholarships, or stipend and salary delays." For Kala, the reactionary state institution is plagued with its own internal contradictions. Chronic underfunding affects how the DOST operates, as well as the petit bourgeois tendency of some career bureaucrats to prioritize their own well-being over others.

"On the one hand, you have all these problems with underfunded labs, lack of support for STEM graduate students. On the other, you hear how billions of pesos are pocketed each year by corrupt officials," said Kala. "The problem is the system. So it's only right for us to fight for alternatives, because we really have nothing to lose."

The scientific solution

Both Marvin and Kala have embraced the national democratic revolution as the solution to



the problems afflicting STEM education in the Philippines. Why? National industrialization will require substantial investment in research for the benefit of the Filipino people. This means greater support for STEM education.

“Under a government that is truly in the hands of the people, we’ll have more experts, which will help us respond better to issues like climate change and pandemics,” said Kala. They shared examples like Cuba, which was able to develop its own medical biotechnology expertise through national industrialization.

“STEM students must be taught that their fields should serve the people, that STEM should be for all. Since these problems cannot be fixed through reactionary elections, revolution is the only solution that will replace the rotten system we have right now,” said Marvin.

For Kala, advancing revolution is completely in line with their work as a budding scientist. “We have such a beautiful world around us, but because of imperialism, bureaucrat capitalism, and feudalism, we’re prevented from learning and studying this world in its entirety. So it’s only right to wage revolution. Our goal to study the world shouldn’t be separate from our goal to change it for the better.” ▼

OCT - DEC 2025

Newsbytes



UPD Scientia

DOST scholars call for greater support. Late October, AGHAM Diliman posted a open letter calling attention to the “scholarship cut” affecting over 70 DOST - Accelerated Science and Technology Human Resource Development Program (ASTHRDP) graduate scholars in University of the Philippines Diliman. The letter/petition garnered over 100 physical signatures, while a separate online petition on the issue organized by Taumbayan Ayaw sa Magnanakaw at Abusado Network Alliance (TAMA NA) - STEM garnered over 1,000 signatures. The physical petition was submitted to DOST in a dialogue with affected scholars held early November.

Hacktivists expose cybersecurity flaws and gov’t corruption. On November 5, several hacktivist groups shut down and defaced government websites to simultaneously condemn widespread corruption and expose poor government cybersecurity. Affected websites included those of the Philippine National Police, Department of Education, University of the Philippines Open University, and others.

STEM day against corruption. Last November 14, STEM professionals and students joined an open call to hold different activities to express their sentiments against corruption and for better support for STEM in the country. Around 200 individuals from nine schools and universities across the country participated in this nationwide event.

COUNTERCURRENT

Typhoon Burkap: The destructive typhoon in the Philippines

 Arsenia Himaya  Cassandra Bigwas

TYPHOONS AREN'T NEW TO FILIPINOS; we're all accustomed to it by now. Data shows that around 18 to 20 typhoons enter the Philippine Area of Responsibility (PAR) yearly. However, in recent decades, typhoons entering the country have become even more destructive due to climate change. Super typhoons enter the PAR more frequently. Even habagat and shear line rains can cause disaster for the Filipino people.

On top of this, however, Filipinos face a certain typhoon which until now devastates our nation. This typhoon is none other than Typhoon Burkap, short for bureaucrat capitalism. The past few months have unveiled the rotten reality of this typhoon in the billions worth of kickback stolen by politicians from ghost and defective flood control projects. But there's more to Typhoon Burkap than just brazen corruption.

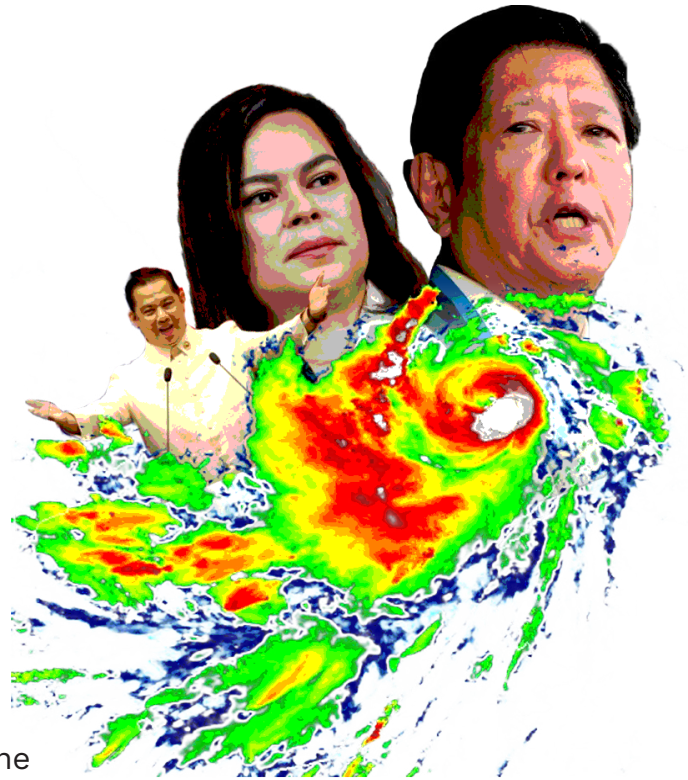
A key characteristic of bureaucrat capitalism is the usage of state machinery for profit. Bourgeois compradors, landlords, and US imperialism join forces to make use of the Philippine government and further drown Filipinos in mud, poverty, and debt. Government institutions, like the civil bureaucracy, courts, and military, are used to pass policies that favor the ruling class. Examples of this are the neoliberal policies that serve foreign investors and businesses, or maintain our

dependence to foreign loans from institutions like the International Monetary Fund, World Bank, and Asian Development Bank.

While the elements of AFP and PNP that are falsely labeled as "heroes", these forces serve as fascist instruments of the ruling class to destroy the lives of the people. The state bureaucracy is also used to fund and carry out counterinsurgency programs like Executive Order No. 70, NTF-ELCAC, and the recently-released National Action Plan for Unity, Peace, and Development (NAP-UPD).

Typhoon Burkap is also nothing new for our country; our nation's history has been a cycle of neglect and impunity of the ruling class. Since the American colonization period until present, bureaucrats have used the government to gain riches. We only need to look at the past presidents and we will see how all of them have records of corruption.

Typhoons are considered as natural phenomena; the disaster caused by bureaucrat capitalism is not. The greed of bureaucrat capitalists is what cuts trees in our forests, pollutes our oceans, and displaces communities. And because they only care about



profit, services and infrastructure supposed to serve the Filipinos — such as flood control and disaster response — remain ineffective.

So who will the people turn to, if the government that is supposed to serve them is instead protecting these corrupt and greedy bureaucrat capitalist politicians?

The CPP-NPA-NDF has long been fighting for people-centered and just governance wherein the people are genuinely treated as equals. Its goal is to break the unequal relation between imperialist countries like the US, and advance genuine land reform and other progressive policies.

Even in the present, these groups are already making these goals a reality. During the onslaught of typhoons, particularly in the countryside, revolutionary organizations and the NPA are among the first to

provide assistance to communities neglected by the reactionary state. They also protect ecosystems that serve as the people's first line of defense against disasters. The NPA uses its arms against the violence that comes with the entry of destructive mining and dam projects. Among the punitive actions carried out by the NPA include the destruction

of equipment used by large-scale mines and quarries in Rizal, Negros Island, and CARAGA.

As Typhoon Burkap continues to intensify, alongside the persistence of other social issues, more and more Filipinos are deciding to join the people's democratic revolution. This isn't just about state neglect, but rather, it comes from the realization that

the ruling class has no interest in giving up its riches to serve the people. There is no other way to address the flood but through taking up arms and taking to the countryside to protect our environment and our people, and to advance the national democratic program in opposition to the decades-long abuses of the reactionary state. ▼

HUKBO SCIENCE

The hidden science of the '*sitsirya*'



Fernando Casibio



Reb Guerrero

WHEN I WAS A RED FIGHTER in a guerrilla front in Luzon, I met the scientists of the sugarcane fields — the farm workers. They don't need any certificate or diploma. The land they till is their laboratory, and to be able to feed their family is prestige enough. They possess the characteristics of a scientist in struggle, in their own ways.

The farm workers covertly practice what they call '*sitsirya*', the planting of vegetables between rows of sugarcane. To many, *sitsirya* is a cheap, salty or sugary snack, with little nutritional value. But for the underpaid farm workers exploited by the wage system, *sitsirya* is the source of nutritious food for the whole family. It is a simple way of pushing back against the rule of landlords and feudalism as a whole.

Landlords forbid the planting of crops other than their sugarcane. Supposedly, these crops steal nutrients and stunt yields. But if you ask the tillers of the land themselves, their knowledge of the earth would tell us otherwise.

This practice is also known as intercropping. As opposed to the monocropping being pushed by landlords, intercropping allows different crops to be planted in one parcel of land. Intercropping's various benefits have long been proven, and it is a practical way to manage a sugarcane field. Usually, rows of sugarcane are planted with a distance of one meter or more between them; this provides sufficient space and sunlight for the *sitsirya*. These



crops are strategically planted before the sugarcane, which are harvested yearly, grows tall. The *sitsirya* is enough to provide food for farm workers, especially during the *tiempo muerto* or dead season.

The idea that the *sitsirya* steal nutrients from the sugarcane is also wrong. In reality, mung beans and string beans — legumes planted by workers — harbor *Rhizobia* bacteria in their root nodules that promote nitrogen fixation. This can reduce dependence on synthetic fertilizer, lowering production costs.

Planted eggplant and tomato serve as natural trap crops, as they are hardier against pests and can help draw these away from the sugarcane. Crawling vines like squash and bottle gourd can help retain soil moisture and suppress weeds, acting as mulch; this can be beneficial to the sugarcane as its quality depends greatly on moisture content when taken to the mill. *Sitsirya* also return organic matter to the soil that can help in the growth

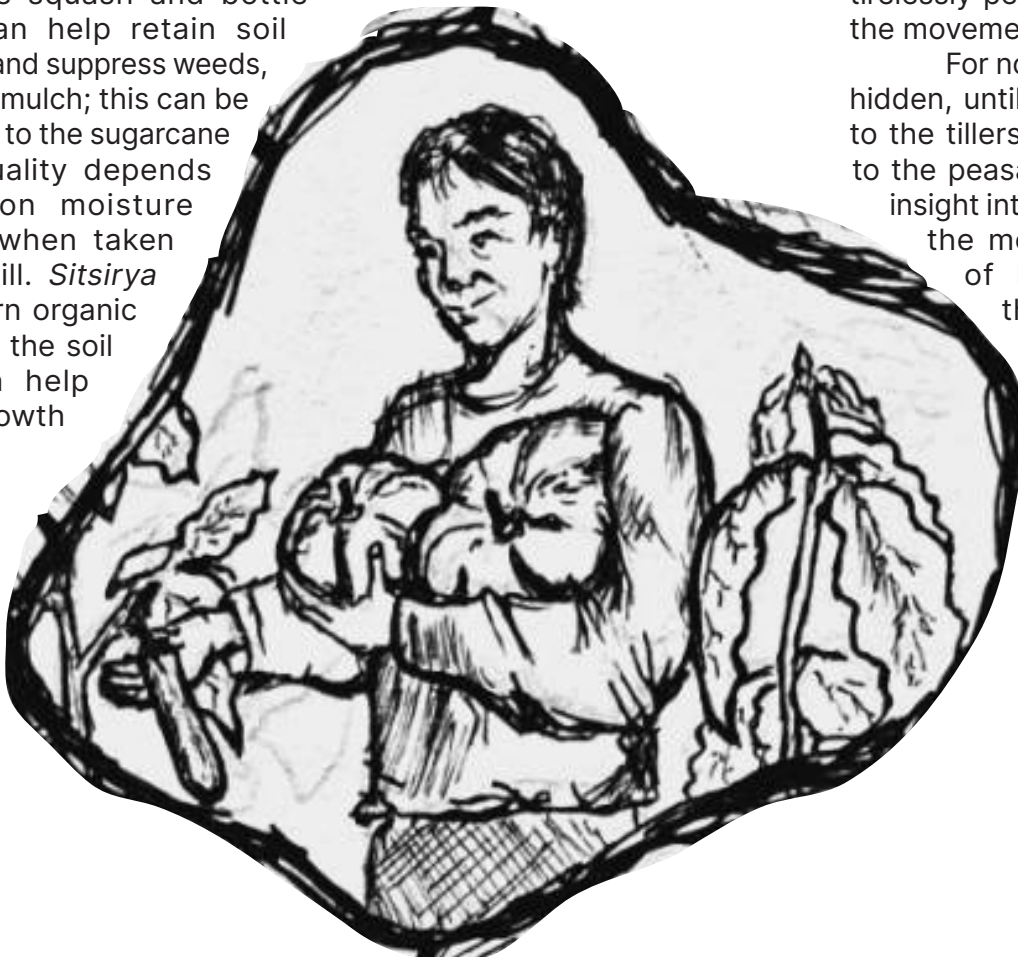
of the sugarcane. Because *sitsirya* are short-cycle crops, farmers can rotate harvests before the cane is ready for cutting.

They may not know all these technical terms, but sugarcane workers possess ancestral, indigenous knowledge, passed down from generation to generation. Most of them used to be vegetable growers from their respective provinces — victimized by land grabbing, displacement, and militarization. They relocated to far-away sugarcane fields to apply their scientific knowledge in farm work, despite the piecemeal rates of the wage system.

In the end, despite their ability to practice their scientific

knowledge, farmers are not able to fully reap the benefits of their practice as the ruling class still controls the land. This is just one of the many reasons on why farm workers easily embrace the program of the revolution. Alongside patriotic scientists who have taken to the countryside, they forge the anti-feudal struggle, from developing farming practices, to taking up arms against the fascist instruments of the state and the landlords. Some of the best Red fighters I've come to know were former farm workers who came to realize that their class will only be liberated if they themselves contributed to the cause of liberation. Scientists are among those who have organized and tirelessly persuaded them to join the movement.

For now, the *sitsirya* remain hidden, until the land is returned to the tillers. It is in contributing to the peasant war that we gain insight into the most advanced, the most meaningful kind of knowledge — and the scientists of the sugarcane fields are waiting for us. ▼

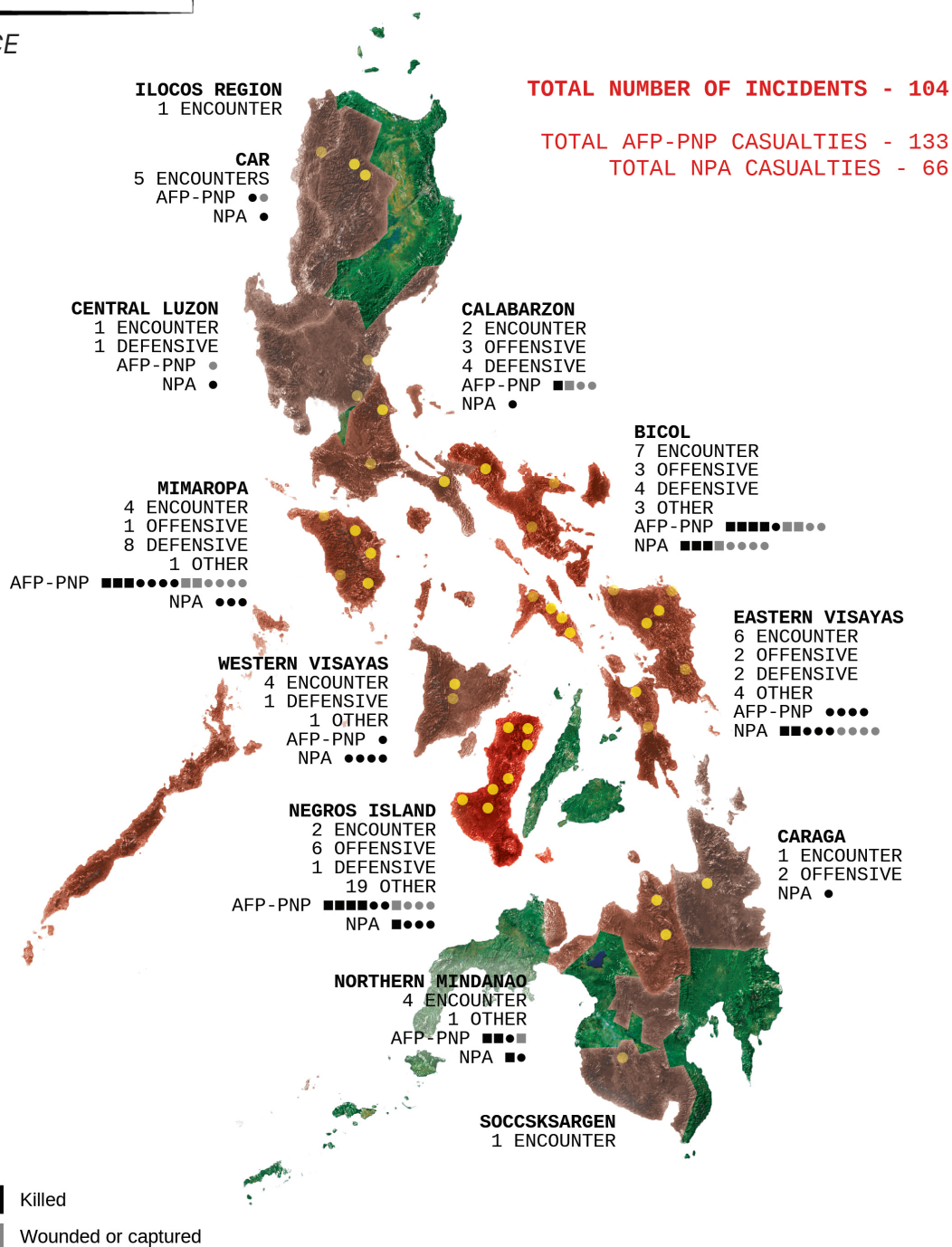


SA ISANG TINGIN

AT A GLANCE

PPW2025

Reported NPA incidents and casualty count
Jan to Dec 2025



OTHER: NPA punitive actions (against AFP-PNP assets or companies), killings of hors de combat carried out by AFP-PNP
Source: Philippine Revolution Web Central (PRWC), accessed of December 26, 2025. Data may be incomplete.
Incidents from January 1, 2025 to December 15, 2025. Locations and regional boundaries on map are approximate only.

CULTURAL / POEM

Sandaang Sangandaan

 Ka Liwayway  Ka Daluyong

Published in original Filipino

Mapanghi, malagkit at mausok sa maingay at
sementadong lugar na ito
Ayaw ko na sa mapanghi, malagkit, mausok at
maingay!
Ayaw ko na sa bulok na sistema!
Sukang-suka na ako sa pagsasamantala!

Gusto ko ng fresh air
Gusto ko ng fresh fruits
Gusto ko ng fresh fish

Ngunit mas matagal nang dumaranas ng
kahirapan ang mamamayan
Bilang mananaliksik sa kalunsuran, madalas na
kaharap ay kompyuter lamang,
marami-rami na rin ang nabasa't narinig na mga
kwentong kahindik-hindik

Sa kanayunan, pinapatay at dinadahas ang mga
magsasaka at katutubo
Sa kanayunan, lupang pinagyabong ng kamay
nilang sintigas na ng lupa – ay pilit na inaangkin ng
panginoong nag-aastang Diyos

Sa kanayunan – naroon ang larangan ng digma
Sa kanayunan – doon sumisibol ang binhi ng
lipunang mapagpalaya
Sa kanayunan – teka, ikaw ba ay handa?

Parati nang dinadalaw ng pagkabagabag ang isip
Maraming tanong, naghahanap ng kasagutan
hanggang sa panaginip
Tama ba itong gagawin ko?
Paano ko ito gagawin? Kaya ko ba?
Paano kung hindi ko kaya?

Maraming beses nang pinagdudahan ang sariling
kakayanan
Palibhasa'y nasanay na sa mapanghusgang
lipunan –
na walang ginawa kundi humigop ng lakas
pagkatapos ay itatapon ito sa tumpok ng walang
katiyakan

Ngunit hindi ba mas nasusukol pa ang

mamamayan sa baha ng walang katiyakan?
Kasabay ng luha at pawis ang nagningingitngit na
galit at poot ng sambayanan
Kasabay ang pag ningas ng nag a-alab nitong
damdamin

Sigaw nila ay tunay na repormang agraryo,
na siyang bubuhay at magpapakain sa buong
sambayanan
Kasama na silang nagpapakain sa atin; at kanilang
sambahayan
Pero paano ito makakamit? Kung mananatili ka
lamang sa kumportableng upuan sa harap ng
kompyuter mong may sticker na nagsasabing
“serve the people?”

Gusto ko ng fresh air
Gusto ko ng fresh fruits
Gusto ko ng fresh fish
Gusto ko nang mag-rebolusyon!

Dahil rebolusyon lang ang solusyon
Sa sistematikong sakit na tumatagos sa kalamnan,
isip, at gawi
Kung lumilikot ang isip at nagtatanong – isabuhay
ang dakilang gabay
Kung lumilikot ang isip at nagtatanong – mag
tiwala sa masa
Ang tanging sagot sa mga tanong ay ang
pakikisangkot sa pakikibaka ng masang
anakpawis

Makibaka, h'wag matakot!
Tumungo sa kanayunan, paglingkuran ang
sambayanan!



RECAP

Revolutionary propaganda work carried out as part of LAB@50 and CPP@57 celebrations



REVOLUTIONARY STEM STUDENTS, scientists, and engineers have continued to demonstrate their steadfast and unwavering commitment in upholding their revolutionary propaganda work duties, in commemoration of the 50th founding anniversary of the Liga ng Agham para sa Bayan (LAB) and the 57th founding anniversary of the Communist Party of the Philippines (CPP) last December 2025.

Members of LAB launched a series of *oplan pinta-oplan dikit* or OP-OD (spray painting and posterling operations) across Metro Manila, including areas in Makati-Ortigas and Kalayaan Avenue, Quezon City. Meanwhile, members of LAB – Manuel Dorotan led another series of OP-OD in universities such as UP Diliman, UP Manila, and PUP Sta. Mesa.

LAB units also distributed hundreds of leaflets, with written excerpts from the previous issue of Agham Bayan, in Ortigas and Quezon City as part of LAB's continuing efforts to evoke revolutionary spirit among the masses, with particular emphasis on the science and technology sector.

Joined by other revolutionary organizations, LAB also participated in the CPP@57 lightning rally protest witnessed by thousands of participants during UP Diliman's lantern parade. The protest action also highlights the lighting of the LAB@50 lantern made by members of the LAB, revealing revolutionary calls to support the advancement of the people's war and to join the New Peoples' Army (NPA). ▼

