

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

DATE : 04 AUG 2016

DAY : Thursday

DENR

IN THE NEWS



04 AUG 2016

DATE

UPPER HALF

B-6

PAGE

LOWER HALF

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

Philex unit defers Surigao mine operations

By LOUISE MAUREEN SIMEON

The Silangan Mindanao Mining Co. Inc., a subsidiary of Philex Mining Corp., expects its mine in Surigao del Norte to commence commercial operations by 2020 or a year later than it initially planned.

Businessman Manuel V. Pangilinan said the company is currently completing the requirements for the planned feasibility study on the Silangan mine, which has estimated reserves of five billion pounds of copper and nine million ounces of gold for the first 30 years.

Initial ore production at the

Silangan mine was targeted to start as early as 2019.

The Silangan project is located at the northern part of Mindanao that combines the development of Boyongan and Bayugo deposits, which comprise gold, copper and silver.

It is classified as a mid- to large-scale mining operation by international standards.

The Silangan project is Philex's next big prospective mine that will replace the Padcal mine whose mine life is expected to end by December 2022.

The company has invested

over P13 billion for the initial exploration and related works on the site as of the end of 2014.

Pangilinan has placed the estimated cost of developing the Silangan copper-gold mine at \$900 million, lower than the \$1.2 billion indicated earlier.

Meanwhile, Philex reported a 34 percent jump in its first half profit to P757 million, largely driven by higher metal prices and improved production.

Revenue from gold rose to almost P3 billion from P2.8 billion due to improved gold

prices in the world market.

Copper revenues, on the other hand, fell four percent to P1.79 billion while revenues from silver slid to P37 million.

The Padcal mine milled 4.7 million tons of ore, translating to 17.3 million pounds of copper and 49,589 ounces of gold produced.

The increased metal production for the six-month period was driven by improved equipment efficiency, manpower optimization and better ore grades as new draw points started to deliver higher grades.

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

Philex to operate new mine in 2020

By Anna Leah E. Gonzales

PHILEX Mining Corp. chairman Manuel Pangilinan said Wednesday the company's Silangan mine in Mindanao is expected to start operations by 2020.

Pangilinan said at the sidelines of PLDT Inc.'s financial briefing Silangan mine could start its operations a year later than the original schedule because of the extended mine life of Padcal project in Benguet province.

"We are completing the requirements for the feasibility study of Silangan mine," Pangilinan said.

The mining company earlier said it was hoping to commence ore production at Silangan mine in Surigao del Norte by 2018 or early 2019.

Philex said it invested more than P13 billion for the initial exploration of the project. The amount is on top of the estimated commercial operations project cost of about \$1.2 billion. Once operational, the mine will have a mine life of 30 years.

"The estimated cost for the development of the Silangan mine has been reduced to \$900 [million]," Pangilinan said.

The Mines and Geosciences Bureau approved Silangan's declaration of mine project feasibility last year, which would allow Philex to proceed with the development of the mine.

Silangan mine combines the development of Boyongan and Bayugo deposits, which are comprised of gold, copper and silver. It has an estimated reserves of 5 billion pounds of copper and 9 million ounces of gold.

Philex earlier announced it identified additional ore reserves that would extend Padcal's mine life by two more years from 2020 to 2022.

BusinessWorld

INCREASE YOUR BUSINESS INTELLIGENCE

04 AUG 2016

DATE

2

PAGE

UPPER HALF

LOWER HALF

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

Abra Mining losses continue to mount

ABRA Mining and Industrial Corporation saw its net loss widen in the second quarter of 2016, as the listed firm has yet to start commercial mining operations.

In a regulatory filing submitted on Wednesday, Abra Mining reported its net loss stood at P682,571 in the April to June period, up from P540,945 during the same period last year. Its first half net loss ballooned to P1.32 million from the P1.12 million loss a year ago.

"For the past several years, the company has not derived any income from operations as there were no commercial operations yet," Abra Mining said.

Shares in the company were unchanged at P0.0041 apiece on Wednesday. — **Janine Marie D. Sollman**

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

Joint visit would end 'mining word war'

TO RESOLVE the word war between Environment Secretary Regina Lopez and the Chamber of Mines of the Philippines (COMP) once and for all, Lopez should accede to the call of the chamber to visit mining localities ("Visit mining communities, DENR chief urged," News, 7/30/16), but on condition that COMP will in turn agree to a joint visit with her to the places that she said suffer the adverse impact of mining operations.

In all its press statements since the exchange began, COMP deliberately refused to confront the allegation of Lopez that mining causes poverty and suffering; that is, even after Lopez presented statistics from the Philippine

Statistics Authority, showing that poverty incidence in localities with mining operations like Leyte, Eastern Samar and the Caraga is very high. COMP has been limiting its discussions to the immediate environ of the mining operations, claiming that the residents there are better off on account of mining.

COMP spokesperson Nelia Halcon said, "We do not cause suffering in areas where we operate, contrary to Lopez's belief." Halcon deliberately misleads the unwary: The statement is technically true because, usually, the adverse effects of mining are not felt in the immediate area of operation. But the statement dis-

counts the cruel irony of the mining industry in this country: It is the people who gain nothing from mining operations who bear the brunt of the environmentally destructive activity. COMP wants to blindfold people to the economic impact of the massive environmental toll of large-scale mining—such as dead bodies of water, deforested mountains, erosion, and silted and polluted rice lands—by highlighting the alleged good life their operations has brought to mining communities.

Consequently, I doubt if COMP would want to come face to face with farmers of Pangasinan and La Union whose rice fields have

been virtually "cemented" by the wastes dumped by mines into the river systems from which they draw their irrigation. Neither would they want to trace the path of the 20 million metric tons of mine wastes which flowed from a breached tailings dam in Itogon, Benguet, nor to extol mining before the fishermen of Lake Bito, Leyte, where a fish kill occurred in 2012 on account of mine wastes from a mining operation in MacArthur, Leyte.

COMP's refusal to acknowledge the environmental damage wrought by their operations and its adverse impact on the livelihood of the communities confirms the allegation of Lopez: There is no re-

spor-
si-
ble
mining

PHILIPPINE DAILY
INQUIRER
LETTERS

("Gina Lopez: Where there's mining, there is also poverty," News, 6/24/16). A responsible person or group would humbly and readily acknowledge any damage they wreak upon others and would immediately retribute for the same. But not COMP which tries to project itself as innocent of any wrongdoing or shortcoming, and which claims it has brought nothing but good to the country.

—ESTANISLAO C. ALBANO JR.,
secretary, Kalinga Anti-
pollution Group,
casigayan@yahoo.com

Abante**UNA SA BALITA**

DATE

6

PAGE

UPPER HALF

LOWER HALF

PUBLIC AFFAIRS OFFICE NEWS CLIPPINGS**Sec. Gina Lopez, pinuri ng komunista**

ZAMBOANGA CITY — Pinuri kahapon ng National Democratic Front of the Philippines (NDFP) si Environment Secretary Gina Lopez sa matibay na katayuan nito kontra open-pit mining sa bansa.

Maging ang pagpigil umano ni Lopez sa \$5.9-billion Tampakan copper-gold project sa South Cotabato ay pinalakpakan rin ng NDFP, ang political front ng Communist Party of the Philippines at rebeldeng New People's Army (NPA) na kasalukuyang nakikipag-usap ng kapayapaan sa pamahalaang Duterte.

"DENR Sec. Gina Lopez is commendable for her remarkably firm stand against open-pit mining in the country, as well as her decisive asseveration of the Duterte administration's disapproval

of the controversial and environmentally destructive \$5.9-billion Tampakan copper-gold project in South Cotabato," ani Ka Efren Aksasato, ang tagapagsalita ng NDFP sa Southern Mindanao.

Mahigpit na ipinagbawal rin ng South Cotabato ang open-pit mining sa lalawigan, ngunit patuloy naman ang open-pit mining sa Zamboanga Peninsula na kung saan ay may gold mining activities doon ang TVI Resource Development (RD), Inc.

Iniwan ng TVIRD ang Mount Canatuan sa bayan ng Siocon sa Zamboanga del Norte na wasak ang mga kabundukan at ngayon ay sa Balabag sa bayan ng Bayog sa Zamboanga del Sur naman ito pumasok at ipino-protesta ito ng mga natibong Subanen. **(Al Jacinto)**

The Manila Times

04 AUG 2016

DATE

A-7

PAGE

UPPER HALF

✓
LOWER HALF

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

End destructive mining in Mindanao—NDFP

ZAMBOANGA CITY: The National Democratic Front of the Philippines (NDFP) on Wednesday called for an absolute end to destructive mining as it commended Environment Secretary Regina Lopez for her firm stand against open-pit mining in southern Mindanao.

Efren Aksasato, spokesman for the NDFP in Mindanao, said Lopez even stood against the giant Tampakan copper-gold project in South Cotabato province.

He noted that Lopez's announcement to stop mining operations in Tampakan is consistent with the people's stand in objecting to the "disastrous" open-pit mining project.

"DENR (Department of Environment and Natural Resources) Secretary Regina Lopez is commendable for her remarkably firm stand against open-pit mining in the country, as well as her decisive asseveration of the Duterte administration's disapproval of the controversial and environmentally destructive \$5.9-billion Tampakan copper-gold project in South Cotabato," Aksasato said.

He cited numerous reports of alleged human rights violations raised by indigenous peoples in South Cotabato, especially within their ancestral domain, and accused government soldiers and paramili-

tary forces as behind these.

Aksasato said the open-pit mining in South Cotabato approved by the Aquino administration also violated the provincial environment code, which prohibits such mining practice because of the hazards it poses to the environment and safety of the people.

He added that the previous administration approved on February 2013 the Environment Compliance Certificate of Xstrata-SMI, operator of Tampakan gold mine project, despite massive protests from environmentalists and natives in the province.

Aside from South Cotabato, open-pit mining was also reported in Zamboanga Peninsula where Canadian miner TVI Resource Development Inc. previously operated inside the Subanen's ancestral domain at Mount Canatuan in Siocon town, Zamboanga del Norte.

The company is now operating a gold mine in the mountains of Balabag at Bayog town in Zamboanga del Sur.

Aksasato said the communist New People's Army (NPA) will continue to protect the indigenous peoples and their ancestral domain against destructive and large-scale mining activities in the South.

AL JACINTO

Can we afford cleanliness?

LET ME make it clear from the start: I fully support a green world and the reduction, even elimination, of pollution of all kinds. But I am a realist. I realize that I have to pay for my stance. And I am willing to, but many other Filipinos are not able to. So President Duterte is right in questioning last December's Paris agreement on climate change. Developing nations like the Philippines must be financially supported so that economic progress is not hampered. We must give all Filipinos a decent standard of living first. That means we must create jobs even if they are pollutants to some degree or other.

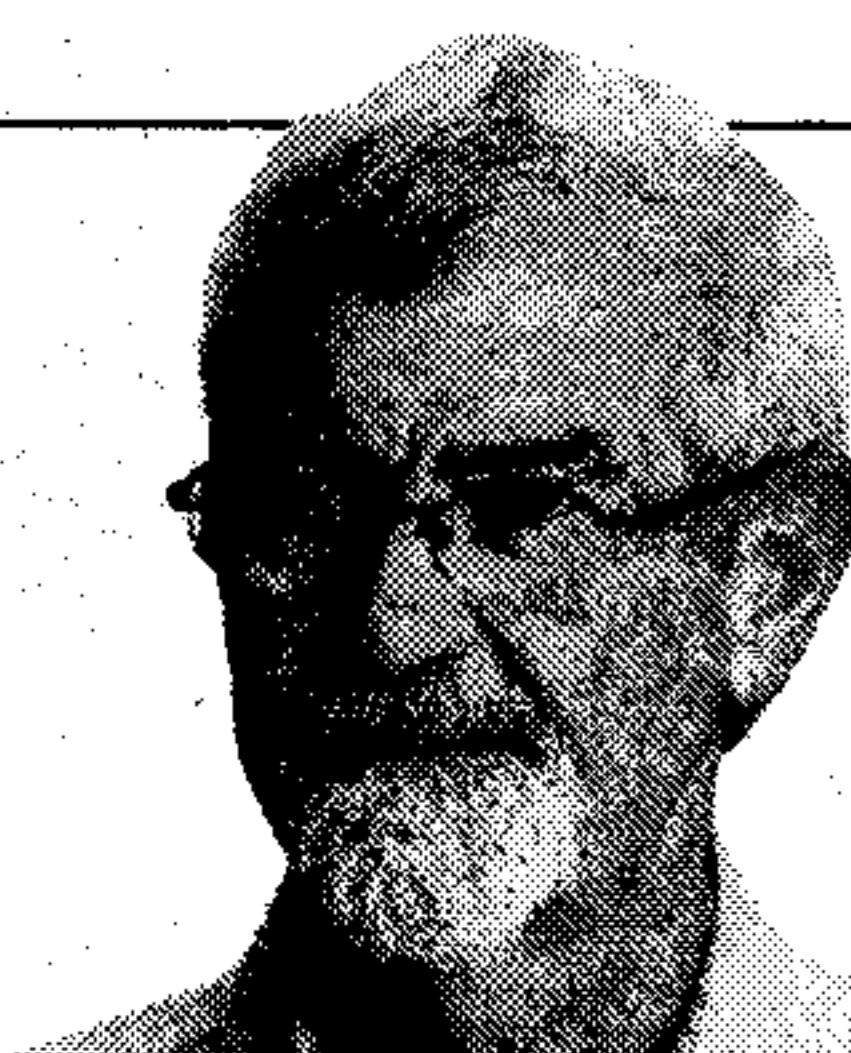
Mining is an obvious activity that pollutes while it's in operation. But it creates jobs, and if it's responsibly managed, it cleans up after itself. Without mining our modern lifestyle can't exist, so we must make that trade-off: Allow mining, but minimize the damage. Mining companies operating under ISO 14001 do. (Incidentally, they don't need the independent audit that Environment Secretary Gina Lopez is demanding. ISO 14001 is professionally and independently done by world experts. How would you find a group more knowledgeable than that, and why would you?)

Jeepneys are massive pollutants, with their old (or should I say antique), ill-maintained diesel engines. But if they were banned without a clean alternative, the Philippine economy would come to a halt. They must go, but only when the alternative is in place and working.

One pollutant I raised in my column titled "A clean Philippines" (5/19/16) was trash. Much of it, the bulk of it, can be eliminated just by people disposing of their trash properly. The Pasig River is filthy because people have nowhere else to dump their trash—and don't care. I suggested that this be done under a "Clean Philippines" campaign. It got no reaction from the government. Back when incineration was discussed in Congress, I argued that the law should control the level of pollutants out of a "black box." Leave engineers to design incinerators that can meet that pollution level. It was ignored,

LIKE IT IS

Peter Wallace



and incinerators were banned. So the land has to be polluted by mountains of rubbish, some of it toxic.

Then there's electricity. Diesel is dirty, and fortunately little used. Coal is, too, but much, much less than in the past. Natural gas is pretty clean—not entirely, but close enough. The renewables are clean, so why not use only them? Two simple reasons: cost and continuity. As I read it, the public wants cheaper electricity and puts it ahead of cleanliness. Geothermal can be relied on as a stable, continuous power source, but its supply is limited. It can't supply the needs of the populace. Hydro is also a stable source—if there's water. And as Mindanao can tell you in the blackness of night, that's not all the time. Biomass needs burnable crops, but people need food, too, so there's competition for available land.

Solar and wind are good, but need sunshine and wind. Both cost more than coal now, but their cost is coming down such that in a few years they'll be cheaper than coal. But not now. And both aren't 24/7. Both can use batteries, but these add a lot more to the cost we must pay for. And enough reserve must be stored to cover not only nighttime but also several days of typhoons. The Philippines is hit by an average of 20 typhoons and heavy storm weather annually. And with the poorly-thought-out law, we'll be paying a subsidy for 1,000 megawatts of solar and wind for the next 20 years.

Natural gas meets standards of cleanliness, but China won't let us explore for more. Malampaya will run out of gas in 2024 or thereabouts. Add to that an administration (the previous one) demanding P53 bil-

lion in taxes that the contract says were not required (or who'd risk investing?). Mr. Duterte needs to drop this claim now. He should show that he does honor contracts, as he promised in his inaugural speech.

Modern coal plants using the fluidized bed system emit close to acceptable levels of pollution, and provide stable power every hour of the day. They are the essential foundation of the grid. The older plants aren't as clean as we'd like, but they can't just be shut down. Investors have poured money into them and have every right to get the investment back. And they must, if you want anyone else to invest—in anything. Allowing the private sector to recoup its investment is the bedrock of the world's economies. And you can't single out one sector without sending a message to all.

Last weekend, we went down to Red Alert. There wasn't enough power. With a growing economy, that situation is going to get worse if the government doesn't approve power plants that can be built quickly and provide reliable power at all hours. Having the ideal sources requires the luxury of time, which we don't have. We need the coal plants that exist now, and we will need more in the next few years, until renewables can competitively replace coal as a base-load, not intermittent, source.

The last thing we want is the eight- to 12-hour blackouts that Cory Aquino left us with, and that Fidel Ramos had to fix at relatively high cost. Because he was over a barrel, power was needed fast and it cost more than if he had been able to negotiate from strength over time. We seem to be repeating history.

Then there's cost. The public clamor for lower prices is intense. But as I'll argue next week, you're not going to see much reduction whatever the government does. And if the government continues to intervene in the market, whatever little can be achieved won't be at the level hoped for.

See you next week.

E-mail: wallace_likeitis@wbph.ph. Read my previous columns: www.wallacebusinessforum.com.

6 BAYBAYING DAGAT SA VISAYAS POSITIBO SA RED TIDE

IPINAGBABAWAL ang paghango, pagbenta, pagbili at pagkain ng mga shellfish sa anim na baybaying dagat sa Visayas dahil sa red tide.

Sa Shellfish Bulletin No. 23 ng Bureau of Fisheries and Aquatic Resources (BFAR), sinabi ni Assistant Director Drusila Esther E. Bayate na ang naturang mga baybaying dagat ay ang Carigara Bay sa Leyte,

Matarinao Bay sa Eastern Samar at Irong-Irong Bay, Cambatutay Bay, Villareal Bay at Maqueda Bay sa Western Samar.

Sakop ng shellfish ban ang tahong, talaba, tulya, balay, paros at alamang.

"All types of shellfish and acetes sp. or alamang gathered from Irong-Irong Bay, Cambatutay Bay, Villareal Bay and Maqueda Bay in Western Samar are not

safe for human consumption," nakasaad sa BFAR Bulletin.

Binigyang-diin ni Bayate na maaari namang kainin ang mga isda pero kailangang linising mabuti, alisin ang mga bituka at hasang at lutuing maigi.

Muling siniguro ng BFAR na patuloy ang kanilang monitoring, testing ng tubig at mga shellfish sa iba't ibang baybaying dagat sa bansa

para sa kaligtasan ng publiko.

Ang ibang baybaying dagat gaya ng Cavite, mga lugar malapit sa Manila Bay, Sorsogon area, Palawan, Mahinog Camiguin Island, coastal water ng Dauis at Tagbilaran sa Bohol, Murcielagos Bay sa Zamboanga del Sur at baybaying dagat sa Misamis Occidental at Surigao del Sur ay ligtas naman sa red tide toxins.

MONCHET LARANO

PHILIPINO MIRROR

04 AUG 2013

DATE

4

PAGE

PPER HALF

AMIN NG KATOTOHANAN •

OWER HALF

PUBLIC AFFAIRS OFFICE NEWS CLIPPINGS

MGA NAGKANULO SA PILIPINAS PANANAGUTIN

DAPAT lamang na pananagutin ang mga Pilipinong nakipagkuntsabahan sa mga Chinese na kompanya upang buwagin at patagin ang tatlong bundok sa lalawigan ng Zambales.

Ibayong pagdurusa ng mga mamamayan sa nasabing lalawigan ang idinulot ng pagkawasak ng kalikasan sa Zambales. Mismong ang kakaupong si Gob. Amor Veloso ng lalawigan ang nagbunyag na malaki ang partisipasyon ng dating opisyal nito sa pagyurak at pagpatag sa tatlong bundok na ginamit umano ng China sa mga reclamation project nito sa West Philippine Sea.

Ayon naman kay Pangulong Rodrigo Roa Duterte, napag-alaman niya na maaaring malaki rin ang ginampanang papel ng SR Metals, Inc. sa pagkakanulo

sa Pilipinas.

"You sell your country to the dogs," pahayag ng pangulo ukol sa pagkaka-sangkot ng mga opisyal ng pamahalaan.

Hinihimok din natin ang pamahalaan, kasama na si DENR Sec. Gina Lopez, na imbestigahan at pananagutin sa taumbayan ang mga dating opisyal ng ahen-siya na maaaring malaki rin ang ginampanang papel sa pagkawasak ng kalikasan doon at pagkakanulo sa bansang Pilipinas.

Napapabalita na rin ang may P7 bilyon na nilustay ng pamahalaan sa ilalim ng dating pamunuan ng DENR para sana sa tree-planting program na nauwi lamang sa wala. Katulad ng idineklarang digmaan kontra droga, dapat na ring ideklara ang pakikipagdigma ng pamahalaan laban sa



MASAlamin
ni Ed Cordevilla

mga yumuyurak at yumurak na sa buhay ng ating mga kabundukan at kagubatan at bigyan ng karampatang kaparusahan ang mga ito sa pagkakanulo sa ating inang-bayan.

Bukod sa droga, ang pagsira sa kalikasan ay multi-bilyong piso ring negosyo na yumuyurak sa buong bansa. Nakikiisa tayo sa reaksiyon ni Pangulong Duterte dahil tunay ngang nakasusulasok ang iginagawi at iginawi ng marami nating kababayan lalo't mga opisyal pa man din ng pamahalaan na nakikipagsabwatan sa banyaga sa

pagwasak sa ating kalikasan upang ipang-angkin at ipansira naman sa mga coral reef sa parte ng karagatan sa pagawa sa mga artipisyal na isla ng mga nananakop gamit ang mga panambak na lupa na hinango mismo mula sa pagpatag sa mga kabundukan ng Pilipinas.

Ano ang katumbas na kaparusahan dito? Kayo na ang magsabi, mga kamasa, dahil talos naman ninyo ang kalubhaan ng ginawang kasalanan ng mga tao at mga opisyal na ito na ibinenta at ipinagkanulo ang ating sariling kalikasan, bansa at mamamayan.

The Manila Times

04 AUG 2016
DATE

A-1
PAGE

UPPER HALF

LOWER HALF

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

PALACE FIRM DESPITE NEW CHINA REGULATION

'Filipinos can fish in Panatag

BY CATHERINE S. VALENTE
AND MICHAEL JOET. DELIZO

AMID CHINA'S threat to penalize foreign fishermen in what it claims is its territory, Malacañang said that Filipino fishermen can go to Panatag (Scarborough) Shoal, but with "caution."

Speaking to reporters, presidential spokesman Ernesto Abella said "safeguards" are in place to ensure the safety of Filipino fishermen in the disputed West Philippine Sea (South China Sea).

"They can proceed but they're also advised to proceed with caution," Abella said.

The Manila Times

04 AUG 2016

DATE

A 1

PAGE

UPPER HALF

LOWER HALF

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

China's Supreme Court said on Tuesday people caught "illegally" fishing in Chinese waters, including Panatag Shoal, could be fined and jailed for up to a year.

On July 12, the Permanent Court of Arbitration in The Hague, Netherlands ruled in favor of the Philippines and invalidated China's so-called nine-dash line, its basis for claiming almost the entire South China Sea.

China has refused to recognize the ruling and has been turning away Filipino fishermen attempting to fish at Panatag Shoal.

Panatag Shoal, also known as Bajo de Masinloc, had been a traditional fishing ground for fishermen from Luzon.

Abella said Scarborough Shoal is not off-limits to fishermen, but only "artisanal" fishing is allowed.

"It's not that we're not allowing our fishermen to go there. We're simply saying that there are certain kinds of fishermen who are allowed and who should be there and can't fish inside," Abella said.

►PanatagA8



04 AUG 2016

DATE

✓
UPPER HALF

8

PAGE

LOWER HALF

STRATEGIC COMMUNICATION AND INITIATIVES SERVICE

First Person

By ALEX MAGNO

Mode

The 1987 Constitution is not only imperfect in that it has too many contradictory provisions and carries so much obsolete economic orthodoxies. It has also proven to be nearly impossible to amend.

The Ramos, Estrada and Arroyo administrations all tried, one way or the other, to introduce amendments to the Charter. They all failed.

True to form, the Noyoyo Aquino administration did not even attempt constitutional renovation. For the former president, his mother's Constitution is perfect.

Today, there is a broad-based effort to try and reframe the Charter. It is led by President Duterte no less and supported by the leadership of the two chambers of Congress.

A movement demanding a shift to federalism has sprouted. Seminars are being organized all over. Volunteers for the campaign are eagerly signing up.

Studies are being prepared. The emerging consensus, articulated by House Speaker Pantaleon Alvarez, is to have President Duterte issue an executive order calling for a panel of experts to be convened. The two chambers of Congress will then deliberate the document produced by the panel. Should it pass both chambers, the new Constitution will be submitted to the people in a plebiscite.

Former President Ramos, we will recall, went the way of a popular initiative to outmaneuver the congressional blockade put up by the conservatives. The tedious process caused the entire effort to stall.

Former President Estrada, for his part, convened a panel of experts limited to amending the economic provisions of the 1987 Charter. That panel did submit its recommendations. But Estrada's own term in office was aborted.

Former President Arroyo convened in 2005 a Consultative Commission for Charter Change. That commission completed a draft for an entirely new basic law. That draft was submitted to Congress for its consideration. The politics of the time, however, prevented any more progress beyond that.

President Duterte did promise a shift to a federal form of government during the campaign. Initially, he wanted an elected Constitutional Convention to do the job. Last week, he was apparently won over to Speaker Alvarez's idea of convening a panel to draft the basic document.

It revising the Charter, time is of the essence.

Considering previous attempts, it is important that the process begins in earnest early in a presidential term. This will enable the new president to use his political capital to push the effort and allow the complex process to be completed before the end of a presidential term. Otherwise, everything is lost.



The Alvarez proposal has the advantage not only because it's quicker but also because it is cheaper. If we elect a full-scale constitutional convention, the cost of conducting the election alone will run up to P7 billion.

Not everyone is happy with the more feasible option. But if it is not done, this effort will collapse under the sheer tediousness of it all.

Coal

Unless we return to the use of bunker fuel, which is a hundred times dirtier and ten times more expensive, we will have to reconcile with the use of coal to fire up our power plants.

Last week, Energy Secretary Al Cuñi asked Environment Secretary Gina Lopez to be "more open" to the use of coal to fire up our biggest power generation plants. These plants account for our base load capacity and helped bring down the cost structure of our energy.

Given our level of economic development and the cost of renewable energy technologies, we will have to reconcile with the use of coal the next few decades unless we perfect the use of potential replacements like cold fusion. There is simply no other way.

Renewable energies are fashionable but too costly. They are also unreliable as base load capacity. Our economic growth already paid dearly for decades of very high power costs since Cory Aquino decided to mothball the Bataan nuclear plant. Our industry hollowed out and we lost jobs to our neighbors.

This is the consideration behind President Duterte's disinterest in the recently signed Paris Accords on climate change. The accords might delay the effects of global warming but it will also trap us in a high-cost energy regime.

We learned from the blackouts of the late eighties that insufficient power is costlier than any other source. Since then, we learned that some environmental costs have to be borne to keep our economy running.

Our energy costs remain among the highest in the world. That is the reason we have too few jobs in industry and morphed into a service economy.

Hydroelectricity is clean, but we do not have large rivers to build dams on. We saw from the Mindanao experience, heavy reliance on hydroelectric generation brings brownouts during droughts.

Solar energy is clean, but it is also most unreliable and very expensive. So is wind generation. We are currently ranked high in thermal energy production, thanks to our volcanic abundance. But this is a limited source with finite supply.

There are new technologies that will allow us to use this source more efficiently. The key is adept regulation and the assurance that a competitive market is at work to allow our consumers the best price.

There is a powerful lobby to abandon cheaper energy sources to benefit economic growth in favor of newfangled renewable energy (RE) sources. This lobby pushed for the passage of Feed-in Tariffs (FIT) that forces consumers to subsidize RE start-ups.

So far, it has only succeeded in keeping our power costs high.