



REPUBLIC OF THE PHILIPPINES
Senate
Pasay City

Journal

SESSION NO. 46
Wednesday, December 8, 2010

FIFTEENTH CONGRESS
FIRST REGULAR SESSION

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CALL TO ORDER

At 3:29 p.m., the Senate President, Hon. Juan Ponce Enrile, called the session to order.

PRAYER

Sen. Franklin M. Drilon led the prayer, to wit:

Almighty Father,

We praise and thank You today as we celebrate the Feast of the Immaculate Conception —

A day when we celebrate Your infinite grace to the Blessed Virgin Mary whom You prepared to be a worthy dwelling place for Your Son.

As we gather today as legislators,

May we be like the Blessed Mother — humble, unassuming and obedient;

Humble in front of our people who gave us this responsibility;

Unassuming in spite of the extraordinary treatment we get as public officials; and

Obedient to the will of the electorate who bestowed us their trust and confidence.

Let us always be inspired by the examples of the Blessed Mary, not only today but in our everyday lives.

All these we ask through Jesus Christ our Lord and Savior.

Amen.

SUSPENSION OF SESSION

With the permission of the Body, the Chair suspended the session.

It was 3:31 p.m.

RESUMPTION OF SESSION

At 3:33 p.m., the session was resumed.

ROLL CALL

Upon direction of the Chair, the Secretary of the Senate, Atty. Emma Lirio Reyes, called the roll, to which the following senators responded:

Arroyo, J. P.	Honasan, G. B.
Cayetano, C. P. S.	Legarda, L.
Drilon, F. M.	Osmeña III, S. R.
Ejercito Estrada, J.	Revilla Jr. R. B.
Enrile, J. P.	Sotto III, V. C.
Escudero, F. J. G.	Zubiri, J. M. F.

With 12 senators present, the Chair declared the presence of a quorum.

Senators Guingona and Pangilinan arrived after the roll call.

Senator Cayetano (A) was on official mission.

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Senators Defensor Santiago and Villar were on sick leave.

Senators Angara, Lacson, Lapid, Marcos and Recto were absent.

Senator Trillanes was unable to attend the session as he was under detention.

APPROVAL OF THE JOURNAL

Upon motion of Senator Sotto, there being no objection, the Body dispensed with the reading of the Journal of Session No. 45 (December 7, 2010) and considered it approved.

At this juncture, Senate President Enrile relinquished the Chair to Senate President Pro Tempore Ejercito Estrada.

ACKNOWLEDGMENT OF THE PRESENCE OF GUESTS

Senator Sotto acknowledged the presence in the gallery of the following guests:

- Political Science students from De La Salle University led by Professor Victor Andres Manhit; and
- Erwin Emata and Janet Belarmino, the first Filipinos to reach the Mount Everest Summit, in 2006 and 2007, respectively.

Senate President Pro Tempore Ejercito Estrada welcomed the guests to the Senate.

SUSPENSION OF SESSION

Upon motion of Senator Zubiri, the session was suspended.

It was 3:35 p.m.

RESUMPTION OF SESSION

At 3:37 p.m., the session was resumed.

PRIVILEGE SPEECH OF SENATOR ZUBIRI

Availing himself of the privilege hour and with a slide presentation, Senator Zubiri spoke on the practice of using mercury in gold mining that has impacted not only the environment but also the health of many Filipinos, especially the miners.

The full text of his speech follows:

ARTISANAL AND SMALL-SCALE GOLD MINING IN THE PHILIPPINES MERCURY RISING!

In August of 2007, I delivered my maiden speech and talked about *Mercury Rising*. I was referring then to the rising global temperature which is causing climate change. Today, I will again discuss *Mercury Rising* but in its more literal context, that is the rising mercury contamination in our environment and our people.

My speech today coincides with the on-going Global Forum on Artisanal and Small-Scale Gold Mining or ASGM which is being hosted by the Philippines through the Department of Environment and Natural Resources under the auspices of the United Nations Environment Programme. The forum started yesterday and will end tomorrow, December 9. The forum is a multisectoral event with participants coming from all over the world. This is a prelude to the UN's Intergovernmental Negotiations Council second meeting on January 2011.

Part of my speech is the presentation of Atty. Richard Gutierrez, executive director of Ban Toxics, during a forum in the Senate on ASGM sponsored by the Committee on Environment and Natural Resources and the Committee on Health chaired by Sen. Pia Cayetano last 6 December 2010.

There is a great universal demand for gold throughout history. It has evolved into a depository of wealth, as a form of currency or medium of exchange and as adornments that signify beauty, status and power. Now, we are all surrounded by gold as its qualities lend itself well for industrial uses. It is so highly in demand although extracting it from the earth is proving to be very costly; not just in terms of the havoc on the environment as we destroy ecological niches such as forests in order to mine for gold.

There is no end to the demand for gold especially in communications. Citing cellphones alone, a ton of cellphones contains 280 grams of gold – a very viable enterprise for so-called urban miners, comparing this to processing one ton of ore to get 3.8 grams of gold or more.

The current production of gold in the Philippines just for the first semester of this year was P49.8 billion, of which small-scale gold mining accounted for P19.3 billion. As the average world price of gold today is \$1,416 per ounce, it would seem that there is much money

from gold to go around. Sadly, we are not seeing that among the Filipino ASGM miners, including generations of children who have not risen beyond doing the dangerous job fit for grown-up men and machines.

In gold rush areas like Mt. Diwalwal, and the traditional mines of Cordillera, the extraction of gold seems to be their lot, but the glitter belongs to some other people. Many poor attracted to the quick cash from gold sales remain poor and suffer from the ill-effects of using mercury and other chemicals, such as cyanide.

What is artisanal and small-scale gold mining?

Artisanal and small-scale gold mining (ASGM) refers to mining activities that use rudimentary techniques in extracting minerals, most commonly gold, by miners working in small-sized operations.

Based on studies, there are gold deposits in about 42 provinces of the country.

The table shows that since 1998, gold production by small-scale mining has overtaken the gold production of large-scale mining and has been steadily increasing, while that of the large-scale mining has been on the decline.

Why is artisanal and small-scale gold mining important?

Artisanal and small-scale gold mining plays an important economic role in the Philippines. It provides significant source of livelihood to about 300,000 miners and their families while directly and indirectly supports the livelihood of about two million people. For the last five years, the sector has been producing an average of 30 tons or about 80% of the country's annual gold supply, and which placed the Philippines in the list of top twenty gold-producing countries in the world.

What is the current state of artisanal and small-scale gold mining in the Philippines?

Artisanal and small-scale gold mining occurs in 30 provinces of the country with varying intensity and scale of operation. Extraction of gold-laden deposits takes several forms: surface, underground and underwater. Gold processing techniques also range from the customary gold-panning method and use of sluice box to the more sophisticated method like mercury amalgamation and cyanidation.

How is mercury lost in the process?

Mercury or quicksilver or *asoge* in Tagalog is being used during the rodmilling or ballmilling

to form the amalgam of gold and mercury. During this process, some of the mercury used is disposed of with the tailings which will then end up in our water bodies. The amalgam is formed after the ballmilling, heat is then applied to it to separate gold and mercury. What is left is the sponge gold while the mercury has evaporated into the air, some of it possibly inhaled by the miner.

Cyanidation

Others use the tailings for reextraction of gold by adding cyanide which is another dangerous and harmful process.

Why is mercury use in ASGM a serious concern?

Mercury poses great danger to the life of miners, their families and communities living in the affected regions. Several studies conducted in mining areas and adjacent regions have also revealed that drinking waters and rivers have exceeded recommended water quality criteria; marine species such as fish and mollusks have mercury levels beyond the allowable limit; while miners and children examined exhibited symptoms of mercury contamination. In 2006, the United Nations reported that miners in the Philippines are found to have mercury levels up to 50 times above the World Health Organization limits.

What are the issues confronting ASGM in the Philippines?

Aside from the need for most miners to legalize their operations, some environmental, social, health, legal and institutional concerns were noted in most mining sites. The cutting of timbers to support mine tunnels, for instance, has aggravated the denudation of our forests and the distortion of scenic landscapes. The indiscriminate discharge of waste rocks in water bodies has also resulted in soil erosion and siltation which, in turn, caused instant flooding, with consequent damage to crops, properties and even lives. The excessive use and emission of toxic substances like mercury and cyanide during gold processing has also resulted in the consequent contamination of several water bodies, thus undermining their beneficial use. Overflowing and often leaking mine tailings contaminated with mercury and cyanide are discharged directly in rivers and creeks and in due time end in seas and oceans.

Social and health concerns include unregulated migration in mining sites especially in "gold rush areas," land tenure and resource-

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use conflicts, limited access to health and basic services, exposure of miners to occupational health and safety hazards, exploitation of workers especially minors and absence of social security benefits are some of the social issues identified.

Legal and institutional concerns, on the other hand, are weak and non-operational mining regulatory boards, costly and difficult permitting and licensing process, ineffectual enforcement of small-scale mining and other related laws, insignificant role of LGUs, and uncontrolled ASGM activities in protected and watershed reservation areas.

To amplify these concerns, let me cite some few historical cases. I cite as a palpable testament to the harmful effects of mercury exposure the "Minamata Mercury Disaster of 1956" in Minamata, Japan which left hundreds of people dead and tens of thousands contaminated with mercury.

The Philippines was one of the important sources of mercury worldwide as we are in the Circum-Pacific belt along with the large mercury deposits in Peru and California. From 1953 to 1976, the mercury mine in Palawan was a major source and produced 2,900 tons. At the time it stopped operations, more than two million tons of mine-waste calcines were produced. Part of these mercury-contaminated waste ended up in Honda Bay as building material for a wharf. Mercury concentration went as high as 43 mg/kg-660 mg/kg total Hg. Similarly, the pit lake and Tagbueros Creek had concentrations of 4 mg/kg-400 mg/kg. The papers of Messrs. Maramba and Feng detail their findings. World Health Organization drinking water standards were exceeded. This contamination then migrated to the sea by natural processes and became part of the food chain of fish, and molluscs, and finally people. This continues to this day.

Similarly, a news report last October cited rising mercury levels in Pula Bato River from the contaminated sluice water of mines in Danlag, Pula Bato, Tablu and Palo 19 in South Cotabato. This data gathered by the DENR is backed up by data from the Sagittarius Mines, Inc. operating in gold-rich Tampakan in South Cotabato.

Add to this, the accidental spillage of a beaker of mercury during a science experiment at the St. Andrew's School in Parañaque City, Philippines sometime in 2006 left a 14-year-old student suffering from nerve damage with symptoms similar to that of Parkinson's disease. *The effects are as appalling as they are real.*

Thus, the negative effects of mercury on the

various media – air, land, water and on biota – plants, animals, including fish and humans – go on a vicious cycle as the pervasive and persistent characteristics of mercury take over from its initial release to the environment by men. I also came upon the UNEP study which clearly states the various bonds that mercury exhibits. Let me quote:

Mercury bond to organic matter. Mercury has a high affinity to organic matter and is often found absorbed to substances like humic acid (Guedron et al. 2009).

Mercury bond to inorganic matter. In many places, mercury is especially enriched in the fine grained fraction, consisting of sand, silt and clay (Ashley et al. 2002). It should be noted that this fraction might also be transported as dust. Moreover, mercury bound to clay-size particles is bioavailable and may serve as a precursor for microbial methylation (Guedron et al. 2009).

ASGM miners and their communities may be subject to immediate direct exposure, while long-term release into rivers, seas, soil and air, spells extended contamination of plants, animals and men. Surely, contamination is not limited to their tribes.

There is no denying that exposure to mercury is highly toxic to humans, most especially to pregnant women, children, and the developing fetus. It has adverse effects on the nervous system and causes irreparable neurological disorders.

I positively note the international and national action on mercury which needs reinforcement through a ban on production, export, import and strict management of use, storage and/or disposal. A global treaty is now in the works, as I have been informed, and this has my support especially with the Philippine position that is strong on the "polluter pays principle."

As the most affected in the use and/or abuse of mercury, the ASGM miners may have to seek new technology or re-assess the indigenous peoples traditional mining practices. Several papers have been written on the subject. One of those is a paper by Ms. Caballero of the Ateneo de Manila University which differentiated the traditional ASGM from the gold-rush miners. Higher gold prices and the rush to get as much gold ahead of the others have forced many small-scale gold miners to use mercury. An

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interesting thing that Ms. Caballero mentioned was the Kankanaey mix, the juice extracted from tobacco, calamansi, sunflower or sayote leaves, to prevent fine gold from rising to the top of the panning concentrate. Likewise, the family-based and gender-differentiated roles in gold extraction put a premium on the value of women's labor, saying women are more reliable in physical separation of the gold.

But over the course of time, the differences between the gold-rush miners and the traditional artisanal small-scale miners are vanishing. More and more are gravitating towards the use of mercury and cyanide.

Let us not forget that a common problem faced by traditional and gold-rush ASGM is the government's failure to identify areas assigned for small-scale mining despite the enactment of the People's Small-Scale Mining Law. On the other hand, areas for large-scale miners have been identified and covered by various instruments such as Financial or Technical Assistance Agreement, Mineral Production-Sharing Agreement, Joint Venture Agreement and Co-Production Agreement. Traditional ASGM miners have complained of the cumbersome permitting process. This aggravates the situation wherein large mining firms displace them from their traditional mining sites.

I stand before you now not as a senator of the Republic but primarily as a citizen and foremost a concerned father to two loving and wonderful children. I daresay I speak in behalf of all the parents across the globe when I say that we want nothing more than a safe and healthy environment for our children to live in and subsequently grow up to in the near future. I sincerely believe that this may very well be the greatest legacy that we shall leave behind for our children and their children's children for generations to come

Most important of all, if protection of the environment occupies our priorities, then our people will be assured of ecosystem services that are contributed by uncontaminated air, soil and water. When our food source and people's health are affected, it is best that we choose caution and go slow on mining. We could not sacrifice our environment and the health of our people for all the glitters of a gold bar.

INTERPELLATION OF SENATOR GUINGONA

At the outset, Senator Guingona revealed the current scare on the consumption of tuna from

Mindanao because of probable contamination with mercury from small-scale mining operations in the Davao Peninsula, Misamis Oriental and other areas in Mindanao. Confirming the report, Senator Zubiri said that tuna, which is a predator fish, eats smaller fish from Davao Bay and other tributaries of the Agusan River that are contaminated with high levels of mercury.

Asked whether there is need for further legislation to address the matter, Senator Zubiri replied in the affirmative as he noted that R. A. No. 7076, or the People's Small-Scale Mining Act of 1991, is more inclined towards the promotion of small-scale mining and is deficient insofar as the provision pertaining to the use of mercury and other chemicals in mining is concerned. He expressed hope that the law could be amended to control or totally ban the use of such toxic substances.

For his part, Senator Guingona stressed the need for additional legislation that would set up protocols for handling dangerous substances and to create a regulatory body for the monitoring and granting of licenses and permits of mining operations.

Senator Guingona surmised that it is mostly the small-scale mining operators that practice improper handling of such substances because giant mining corporations have protocols in handling dangerous substances. Senator Zubiri said that the previous day, he had the opportunity to speak before an audience of large-scale miners who informed him that they no longer use mercury in their operations. In response to the clamor for safe ecosystems, he said that large-scale mining corporations, like Benguet Mining Corporation, encourage small-scale miners to bring their gold ore to their facilities for which they would be charged corresponding processing fees.

In the absence of similar processing centers in Mt. Diwalwal, Senator Zubiri said that there are several mine shops in the area where thousands of miners burn their gold ore using mercury to which the gold sticks. He said that in the process of washing the gold nuggets, mercury flows with the water into tributaries thereby wreaking havoc to the ecosystem. He said he was glad that large-scale miners already utilize a more sophisticated and efficient processing system.

Senator Guingona said that while a ban on small-scale mining could be one solution to the

environmental problem, it would not be realistic because people would always find a way to circumvent the law. Another option, he said, would be the big brother, small brother approach whereby big players who are situated in the area can process the gold ores of small miners for a fee.

Senator Zubiri agreed that it would be difficult to ban small-scale mining activities given the fact that about 300,000 families, or about two million people, are dependent on the industry. He disclosed that in the previous day's forum, two plans were proposed: first, to retool small-scale miners and their equipment and to come up with safer methods of extracting gold; and second, to utilize the big brother, small brother concept mentioned by Senator Guingona, whereby bigger plants process the gold for a fee, not in cash but in gold, similar to a production-sharing scheme. Senator Guingona, however, said that this could only happen in areas where there are large-scale mining plants.

Senator Zubiri expressed hope that the Mines and Geosciences Bureau could study the feasibility of investing in such plants, possibly through a public-private partnership.

REFERRAL OF SPEECH TO COMMITTEES

Upon motion of Senator Sotto, there being no objection, the Chair referred the speech of Senator Zubiri to the Committee on Environment and Natural Resources as the primary committee, and to the Committee on Health and Demography as the secondary committee.

REFERENCE OF BUSINESS

The Senate Secretary read the following matters, and the Chair made the corresponding referrals:

MESSAGE FROM THE HOUSE OF REPRESENTATIVES

Letter from the House of Representatives, dated 2 December 2010, informing the Senate that the correspondence dated 21 September 2010 is the official letter of Speaker Feliciano Belmonte Jr. re: House panel members to the CONGRESSIONAL OVERSIGHT COMMITTEE ON COMPREHENSIVE TAX REFORM PROGRAM; CONGRESSIONAL OVERSIGHT COM-

MITTEE ON LABOR AND EMPLOYMENT; and CONGRESSIONAL COMMISSION ON SCIENCE AND TECHNOLOGY, AND ENGINEERING.

To the Committee on Rules

RESOLUTION

Proposed Senate Resolution No. 307, entitled

RESOLUTION DIRECTING THE SENATE COMMITTEES ON ENVIRONMENT AND NATURAL RESOURCES; AND ECONOMIC AFFAIRS TO CONDUCT AN INQUIRY, IN AID OF LEGISLATION, AND TO LOOK INTO THE IMPLEMENTATION OF REPUBLIC ACT NO. 7942 OTHERWISE KNOWN AS THE PHILIPPINE MINING ACT OF 1995, PARTICULARLY THE COMPLIANCE OF EXISTING GRANTEEES OF EXPLORATION PERMITS AND CONTRACTORS UNDER MINERAL AGREEMENTS TO SAFETY AND ENVIRONMENT PROTECTION, AND THE IMPACT OF THESE MINING AGREEMENTS TO THE COUNTRY'S ECONOMIC GROWTH

Introduced by Senator Legarda

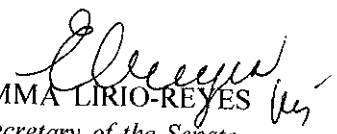
**To the Committees on Environment and
Natural Resources; and Economic Affairs**

ADJOURNMENT OF SESSION

Upon motion of Senator Sotto, there being no objection, the Senate President Pro Tempore declared the session adjourned until three o'clock in the afternoon of Monday, December 13, 2010.

It was 4:07 p.m.

I hereby certify to the correctness of the foregoing.


EMMA LIRIO-REYES
Secretary of the Senate

Approved on December 13, 2010