



NATIONAL STRATEGIC PLAN FOR THE

PHASEOUT *of*
MERCURY

IN ARTISANAL AND SMALL-SCALE GOLD MINING
IN THE PHILIPPINES

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IN THE PHILIPPINES 2011-2021

The National Strategic Plan for the Phaseout of Mercury in ASGM in the Philippines was developed by the Philippine government under the auspices of the Environmental Management Bureau (EMB) of the Department of Environment and Natural Resources (DENR) with assistance from the United Nations Environment Programme (UNEP). The views, expressions and opinions contained in this document do not necessarily reflect an official position or statement of policy by UNEP.



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And above all, to our Creator for providing us the wisdom and strength to enable us to craft a document that will serve as a roadmap for a mercury-free ASGM in the Philippines.

Executive Summary

UNEP and Philippine Process

The United Nations Environment Programme (UNEP) Governing Council, recognizing mercury as a global concern, has requested the UNEP Executive Director to strengthen the UNEP mercury programme partnerships and to continue and enhance international actions on mercury, including the conduct of awareness-raising and the setting up of pilot projects in key countries to reduce mercury use in artisanal and small-scale gold mining (ASGM). In this regard, UNEP initiated regional projects in South East Asia and South America under the Quick Start Programme of the Strategic Approach to International Chemicals Management in cooperation with a number of interested partners. As part of the South-East Asian Quick Start Programme, the Philippines and Cambodia were selected to test the Guidance Document developed by UNEP for the Development of a National Strategic Plan for Artisanal and Small-Scale Gold Mining (National Strategic Plan), the main goal of which is to supplement regional efforts to protect health and the environment from mercury in ASGM.

The plan formulation process commenced with a regional inception workshop in the Philippines on January 2010. The workshop brought together various ASGM key players to review Plan requirements and to identify the next steps leading to plan formulation and finalization. Subsequently, a National Steering Committee and an inter-agency Technical Working Group were created to spearhead the drafting of the NSP. The planning process adopted the combination of bottom-up and top-down approach to provide opportunity for sectors at the frontline of the issue (e.g. small-scale miners, gold and mercury traders and processors, concerned government agencies and large-scale mining companies, among others) to provide firsthand input to the NSP. In this regard, three consultative workshops were conducted in the three regions that are heavily engaged in ASGM. The first of the regional consultations were held from April 19 - May 6, 2010 and ended on March 2011 finalizing the NSP.

The National Strategic Plan for the Phaseout of Mercury in the Artisanal and Small-scale Gold Mining in the Philippines (National Strategic Plan or NSP) identifies and describes those activities considered achievable by the appropriate government agencies in partnership with all concerned and interested stakeholders within a 10-year time frame. The NSP takes into account existing regulations of the Philippines, past projects on improving the state of ASGM, results of consultations with various stakeholders, recommendations from international institutions, ongoing process of international environmental governance and rural development. The Draft Strategic Plan is composed of a strategic text for short to medium term activities (2011-2015) and Action Table that covers the full period of activities from 2011-2021.



ASGM National Overview

The ASGM sector which employs about 200,000 to 300,000 miners is a vital contributor to the Philippine economy as it helps ease rural unemployment while producing about 80 percent of the country's annual gold supply. In spite of the presence of gold buying stations by the Bangko Sentral ng Pilipinas (BSP) which were established to buy gold from ASGM at prices competitive with those prevailing in the world, a big chunk of ASGM production still ends up in the black market due to the difficulty of meeting the standards set by the bank, and their distance to the gold buying centers.

ASGM is the single largest mercury emitting sector in the Philippines, having been recognized to discharge about 70 metric tons or more than 30 percent of the country's annual mercury releases. Small-scale gold mining activities utilizing mercury has been recorded in more than 20 provinces engaged in ASGM. The indiscriminate use of mercury in ASGM contributes to serious long-term environmental and health problems burdened with social, technical and institutional issues, as well as the implementation of regulations. Studies on the effects of mercury pollution in selected ASGM sites reveal that drinking waters and river systems have exceeded recommended water quality criteria, marine mollusks and fishes have mercury levels that are more than the allowable limit, while some people that were examined exhibited symptoms of mercury intoxication. In 2006, the United Nations reported that miners in the Philippines are found to have mercury levels up to 50 times above World Health Organization limits.

Mercury Trade in the Philippines

Since the closure of a mercury mine in the Philippines in the mid-70s, the country's mercury supply, especially those used in ASGM relied primarily on import. The known sources of mercury for gold mining in the Philippines are the United States, European Union, Algeria, Saudi Arabia, Italy and Kyrgyzstan. Some of the mercury flasks reaching the Philippines do not indicate their source, raising suspicion that they may have been illegally brought into the country. Mercury also enters the country legally usually for dental and other permitted uses.

The exemption of dental amalgamation in the application of the requirements for Chemical Control Order for Mercury No. 38 appears to have resulted in the proliferation of dental clinics that supply mercury for gold mining.

Interviews conducted by NGOs with local miners revealed that mercury is sourced out mostly from dental clinics, which aside from supplying the substance, also operate as gold buyers. In some mining areas, mercury is available in local stores at P4 to P10 per gram.

Prevailing Issues Concerning ASGM

Aside from health and environmental concerns, other issues that were noted from the sector include the following: (a) Lack of capacity of Provincial/City Mining Regulatory Boards to regulate ASGM; (b) Weak enforcement of small-scale mining and other related laws; (c) Informal ASGM operations due to costly and difficult permitting and licensing process; (d) Small-scale mining companies undertaking large-scale operations; (e) Uncontrolled ASGM activities in the ancestral domains of indigenous peoples, protected and watershed reservation areas; and (f) Inadequate laws and regulations addressing mercury use in ASGM.

Priority Goal, Objectives and Implementation Strategies

The goal of the National Strategic Plan is to protect human health and the environment through the introduction of responsible ASGM practices focusing on mercury use reduction and eventual elimination of mercury use and releases in the environment, adoption of cleaner and toxic-free gold production technologies and simultaneously address social, institutional, financial, regulatory reform, among others.

The following objectives further define how best to attain the goal set:

- a. Effectively reduce mercury use in the ASGM sector;
- b. Develop and implement coherent national policies and regulations that promote the sustainability of ASGM and its allied sectors, as well as environmental and safety measures to protect miners, communities surrounding ASGM sites and other;
- c. Establish a legal and organized group of ASGM miners with a national constituency and representing the needs of the ASGM sector;
- d. Build and strengthen institutional capacity of PMRBs, LGUs and other ASGM support institutions;

- e. Enhance cooperation and partnership at all levels among miners, public authorities, industry sector, NGOs, Church, Academic Institutions, and other stakeholders; and
- f. Develop and promote the safe handling and long-term storage of excess mercury coming from the ASGM sector.

A set of interrelated and mutually supportive strategies are proposed to support the concrete implementation of the identified objectives. These are:

- Engagement with various government agencies, industry, non-governmental organizations, academe and other stakeholders;
- Adjustment of reduction goals as may be necessary after due evaluation by the National Steering Committee of data provided by academic institutions, non-governmental organizations or other concerned stakeholders.
- Development of an outreach plan that considers broader environmental and health protection initiatives, and links activities to existing programmes and networks building on past and current experiences;
- Formulation and implementation of fundraising strategies to support the National Strategic Plan;
- Increased collaboration with regional and international institutions and networks ;
- Increased awareness and advocacy on the use of local technology/know-how/experience for the reduction of mercury use in ASGM;
- Periodic review, monitoring and evaluation of activities in relation to the agreed milestones; and
- Linking ASGM interventions with national and local development processes and their products.



Acronyms & Abbreviations

ASGM	Artisanal and Small-scale Gold Mining
BOC	Bureau of Customs
BOE	Bank of England
BSP	Banko Sentral ng Pilipinas
BT	Ban Toxics
C/PMRB	City/Provincial Mining Regulatory Board
CAR	Cordillera Administrative Region
CASM	Communities and Small-scale Mining
CCO	Chemical Control Order
CDA	Cooperative Development Authority
CHED	Commission on Higher Education
CIL	Carbon-in-Leach
CIP	Carbon-in-Pulp
DAO	Department of Administrative Order
DENR	Department of Environmental and Natural Resources
DepEd	Department of Education
DILG	Department of Interior and Local Government
DMC	Department of Memorandum Circular
DOF	Department of Finance
DOH	Department of Health
DOLE	Department of Labor and Employment
DOST	Department of Science and Technology
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
EMB	Environmental Management Bureau
ENRO	Environmental Natural Resources Office (LGU)
EO	Executive Order
EU	European Union
GDP	Gross Domestic Product
GEUS	Geological Survey of Denmark and Greenland
GFI	Government Financial Institution
IEC	Information, Educational, Communication
INC	International Negotiating Committee
LGU	Local Government Unit
LSGM	Large Scale Gold Mining
MGB	Mines Geosciences Bureau
MIRDC	Metals Industry Research and Development Center

MROD	Mint and refinery Operations department (MROD)
NCIP	National Commission on Indigenous Peoples
NEDA	National Economic Development Authority
NIMD	National Institute of Minamata Disease
NIPAS	National Integrated Protected Area System Act
NSC	National Steering Committee
NSP	National Strategic Plan
OP	Office of the President
PAMB	Protected Area Management Board
PCU	Project Coordination Unit
PD	Presidential Decree
PENRO	Provincial Environmental Natural Resources Office (DENR)
PLGU	Provincial Local Government Unit
PSSMA	People's Small-scale Mining Area
PSSMPF	People's Small-scale Mining Protection Fund
QSP	Quick Start Program
RA	Republic Act
RDC	Regional Development Council
R&D	Research and Development
SAICM	Strategic Approach to International Chemicals Management
SSM	Small-Scale Mining
SSMC	Small-Scale Mining Contract
SSMP	Small-Scale Mining Permit
TRC	Technology Resource Center (DOST)
TWG	Technical Working Group
UN	United Nations
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
WB	World Bank
WGC	World Gold Council
WHO	World Health Organization

Introduction and Background

United Nations Environment Programme Process

The United Nations Environment Programme (UNEP) Governing Council/Global Ministerial Environmental Forum, at its twenty-fifth meeting in Feb. 2009, recalled the findings of the 2002 global mercury assessment published by the UNEP and the Inter-Organization Programme for the Sound Management of Chemicals that mercury is a chemical of global concern due to its long-range atmospheric transport, its persistence in the environment once anthropogenically introduced, its ability to bioaccumulate in ecosystems and its significant negative effects on human health and the environment.

The Governing Council of UNEP, by its decision 24/3 IV on chemicals management, requested the UNEP Executive Director, working in consultation with Governments and other stakeholders, to strengthen the UNEP mercury programme partnerships by taking a number of steps, including enhancing the artisanal and small-scale gold mining partnership.

Recognizing the role of various sectors, the Governing Council further requested the Executive Director of UNEP to work with Governments, intergovernmental organizations, stakeholders and the Global Mercury Partnership to continue and enhance, as part of the international action on mercury in several areas, including the conduct of awareness-raising and pilot projects in key countries to reduce mercury use in artisanal and small-scale gold mining (ASGM).

In this regard, UNEP initiated regional projects in South East Asia and South America under the Quick Start Programme of the Strategic Approach to International Chemicals Management in cooperation with a number of interested partners. The projects aim to contribute to existing capacity building efforts to tackle the challenging issue of mercury use in artisanal and small-scale gold mining.

Philippine Process

As part of the South-East Asian Quick Start Programme, the Philippines and Cambodia were selected to test the Guidance Document developed by UNEP for the Development of a National Strategic Plan for Artisanal and Small-Scale Gold Mining (National Strategic Plan).

A regional inception workshop (Inception Workshop) was conceived to set the impetus for the development of the National Strategic Plans for Philippines and Cambodia which will supplement regional efforts to protect health and the environment from mercury in the sector. The Inception Workshop was successfully held in the Philippines from 19-21 January 2010. (The Inception Workshop Report is available at:

<http://www.unep.org/hazardoussubstances/Mercury/PrioritiesforAction/Meetings/tabid/4490/language/en-US/Default.aspx>



To facilitate the development of the NSP, the Department of Environment and Natural Resources-Environmental Management Bureau (DENR-EMB) designed three consultative workshops to be conducted in three regions that are heavily engaged in ASGM – Cordillera Administrative Region (CAR); Region 5; and Region 11, for the collection of baseline data covering mercury use in ASGM.

The regional consultations were further designed to adopt a combination of the bottom-up/top-down strategic planning approach in drafting the NSP to create an opportunity for sectors at the frontline of the issue to provide firsthand input to the NSP. Further, to provide a platform for including various ASGM stakeholders the regional consultations were opened to varied stakeholders from government agencies, small-scale miners and large-scale mining companies. The first of the regional consultations were held from April 19-May 6, 2010 and ended on March 2011 finalizing the NSP.

Building on the momentum gained from the Inception Workshop and to provide a structure for the development of the NSP, Director Juan Miguel Cuna of the DENR-EMB executed Special Order No. -2010 creating a National Steering Committee (NSC) to oversee and advise a national inter-agency technical working group (TWG) tasked in developing a National Strategic Plan on improving practices and working conditions and reducing the environmental impacts of artisanal and small-scale gold mining, and a Secretariat within the EMB to provide administrative and logistical support to the NSC and TWG. The National Steering Committee was responsible in bringing together relevant government agencies whose representatives have shared their experiences and expertise on the various facets of ASGM. The committee also provided guidance and direction in the crafting of goals and objectives, in identifying implementation activities and in enlisting commitments for the joint implementation of the agreed activities.



The National Strategic Plan for the Phaseout of Mercury in the Artisanal and Small-scale Gold Mining in the Philippines (National Strategic Plan or NSP), which is presented in the succeeding sections, identifies and describes those activities considered achievable by the appropriate government agencies in partnership with all concerned and interested stakeholders within a 10-year time frame. The NSP takes into account existing regulations of the Philippines, past projects on improving the state of ASGM, results of consultations with various stakeholders, recommendations from international institutions, ongoing process of international environmental governance and rural development. The Draft Strategic Plan is composed of a strategic text for short to medium term activities (2011-2015) and Action Table that covers the full period of activities from 2011-2021.

The draft strategic plan was presented to various stakeholders in the same ASGM regions from 20 October to 10 November 2010 to generate feedback and elicit more inputs pertaining to the formulated goals and objectives, implementation strategies and activities. The third regional consultations were conducted from 23 February to 18 March 2011 for the final review by the stakeholders of the revised plan. Additional inputs generated were considered in the fine-tuning and finalization of the plan.



National Overview

Artisanal and small-scale gold mining (ASGM)

Artisanal and small-scale gold mining (ASGM) is a significant global development issue. An estimated ten million people in more than 70 countries depend on ASGM for income, producing about 12 % of the world's gold supply (Telmer K. and Veiga M., 2008). The number of gold miners is expected to increase as gold mining becomes increasingly lucrative: the price of gold has nearly quadrupled in the past seven years, rising to over US\$900/oz in July 2008, from \$260/oz in March 2001.

The ASGM sector is a vital contributor to the Philippine economy. ASGM occurs in more than 30 provinces in the Philippines and provides a very important source of subsistence to about 200,000 to 300,000 miners and their families. For the last five years, the sector has been producing an average of 30 tonnes or about 80 percent of the country's annual gold supply.

About 30 percent of Philippine territory has been identified to have high potential of mineral deposits. Gold is one of the most important. Based on density of deposits per one-square-kilometer land area, the country is ranked third in the world. In 2002, the Mines and Geosciences Bureau (MGB) of the DENR estimated the country's gold reserves at 5,080,785,289 metric tons, based on its consolidation of resource inventory data supplied by mining companies. Gold deposits have been reported in about 40 provinces while ASGM activities accordingly take place in more than 30 provinces. Annex 1 provides a map for the distribution of gold deposits in the Philippines while Annex 2 provides the location of ASGM activities in the country.

In spite efforts, there is yet no authoritative estimate as to the actual number of people engaged in small-scale gold mining in the Philippines. Studies however suggest that there are about 200,000 to 300,000 small-scale gold miners nationwide, which includes close to 18,000 women and children. ASGM also supports directly and indirectly the livelihood of about two million people mostly in the rural areas.

Gold Trading and ASGM

Pursuant to Republic Act 7076, the Bangko Sentral ng Pilipinas (BSP) has established gold buying stations. Although gold is purchased in Philippine pesos, the prices are competitive with those prevailing in the world. Gold sold to BSP must however conform to certain conditions set by the bank as to physical form, maximum dimension, weight and minimum assay. BSP's current gold buying stations include the Mint and Refinery Operations Department (MROD) in Quezon City and its offices in the cities of Baguio, Naga, Davao and Zamboanga.

Gold produced by small-scale miners which meet the criteria are sold directly at the MROD or at BSP's buying stations which in turn bring them to MROD for refinement and conversion into London gold delivery bars. Some of the gold may also be manufactured into semi-finished material in the form of grains and sheets for re-sale to local jewellers and industrial users. The BSP may enter into a location swap transaction so that bars held in the bullion vault may be mobilized and made readily available for gold-related transactions in the international market.

Due to the difficulty of small scale gold miners to meet the standards set by the bank, and their distance to the gold buying centers, they sell their gold to independent gold buyers and jewellers at a lower price.

In Compostella Valley province for instance, about 60 percent of ASGM production is believed to be diverted into the black market. In Benguet province, it is said that at least 40 percent are traded outside BSP.

In determining the price of gold, the miners merely rely on the information supplied by local gold dealers, who monitor the price of gold. In the international market, gold units are mostly reflected in troy ounce. In the Philippines, troy ounce is converted into grams. Price of gold per gram depends on gold grade or "carat". The term "carat" is used to describe the purity of gold and is based on a total of 24 parts, where pure gold is known as 24 carat and those with lower carats have other metal components like copper or silver.

Mercury Use in ASGM- Environmental and Health Concerns

The indiscriminate use of mercury in ASGM contributes to serious long-term environmental and health problems burdened with social, technical and institutional issues, as well as the implementation of regulations.

Mercury is one of the most toxic metals known to man. It bio-accumulates in the food chain, and becomes increasingly concentrated at higher levels. Mercury poisoning can lead to skin irritation, fever, headaches, nausea, irritability, fatigue, loss of speech and memory, decline in sensory ability blindness, depression, kidney disease, tremors, brain damage, serious birth defects and death.

There are many reasons why mercury use is widespread in ASGM. One of the principal reasons cited by miners is that mercury produces quick money for their family's daily subsistence, after which, they can still bring their mine tailings to cyanide processing plants for further recovery of gold. Another reason mentioned is that mercury is easy to use and is highly effective at capturing gold under field conditions. It is also very accessible and cheap. They can either buy mercury at local stores or source it out from gold dealers. Apparently, the input cost for mercury is minuscule considering that it costs only P4 to P10 per gram while gold prices can be as high as P1,800 a gram. Other reasons cited are lack of awareness of the risks of mercury use and lack of knowledge of mercury-free alternatives.

Mercury release from the ASGM sector in the Philippines is estimated at 70 metric tons per year, making the industry the single largest emitter of mercury pollution in the country. Mercury use in the sector also poses great danger to the life of the miners, their families and communities living in the affected regions. Mercury emitted from the sector also contributes to the mercury contamination of local and global fisheries.



The amount of mercury used by miners varies depending on when it is applied during the gold production process. For every gram of gold produced, miners practicing whole ore amalgamation utilize about 10 to 25 grams of mercury while those who practice amalgamation after grinding use about one (1) to three (3) grams.

In 2002, small-scale gold mining activities utilizing mercury has been recorded in at least ten provinces namely: Benguet, Camarines Norte, Negros Occidental, Zamboanga del Norte, Zamboanga del Sur, Bukidnon, Agusan del Norte, Agusan del Sur, Surigao del Norte and Davao del Norte. There are also recent accounts of mercury use among the small-scale miners in the provinces of Abra, Kalinga, Apayao, Oriental Mindoro, Compostella Valley, Isabela, Nueva Vizcaya, Quezon, Romblon, Southern Leyte, and South Cotabato.

Studies on the effects of mercury pollution in selected ASGM sites reveal that drinking waters and river systems have exceeded recommended water quality criteria, marine mollusks and fishes have mercury levels that are more than the allowable limit, while some people that were examined exhibited symptoms of mercury intoxication. In 2006, the United Nations reported that miners in the Philippines are found to have mercury levels up to 50 times above World Health Organization limits. A summary of health studies and findings related to mercury use in ASGM is provided in Annex 3.





Mercury Trade in the Philippines

Because of its unique properties, mercury is used in a wide range of products and processes. The identified sources of mercury include residual mercury from decommissioned chlor-alkali facilities, recycled or recovered mercury from wastes and mercury products, primary mercury from mercury mines and by-product mercury from other resource extraction operations.

Most of the global mercury supply is mined in Algeria, China, Spain, and Kyrgyzstan. Spain, once a leading producer of mercury from its centuries-old Almaden Mine, stopped mining in 2003, and production is from stockpiled material. In the United States, there are mercury mines in Alaska, Arkansas, California, Nevada, and Texas; however, mercury has not been mined as a primary metal commodity since 1994 when the last mercury mine shut down, hence mercury originating from the country either comes from leftover stockpiles, as a by-product from gold mining and from closed chlor-alkali plants. The United States is the leading exporter of mercury.

In the Philippines, mercury mining was also conducted in the province of Palawan from 1955 to 1976 producing 140 tons annually. Since its closure, however, the country's mercury supply relied primarily on import.

According to research, most of the mercury flask reaching the miners do not reveal their sources, raising suspicion that they may have been shipped into the country illegally, more so that mercury trade for gold mining has accordingly gone underground in the last five to 10 years and is very secretive. The known sources of mercury for gold mining in the Philippines are the United States, European Union, Algeria, Saudi Arabia, Italy and Kyrgyzstan.

Based on interviews with mercury traders and miners, Manila is the main source of mercury for gold mining while Baguio City, Bacolod City, Davao City, Zamboanga City and Paracale, Camarines Norte are the secondary sources.

The exemption of dental amalgamation in the application of the requirements for Chemical Control Order for Mercury No. 38 appears to have resulted in the proliferation of dental clinics that supply mercury for gold mining. Interviews conducted by NGOs with local miners revealed that mercury is sourced out mostly from dental clinics, which aside from supplying the substance, also operate as gold buyers. In some mining areas, mercury is available in retail stores from P4 to P10 per gram.

Prevailing Issues Concerning ASGM

The principal laws governing small-scale gold mining in the Philippines are Presidential Decree 1899 and Republic Act 7076, also known as the People's Small-scale Mining Act. Both laws require artisanal and small-scale miners to secure permits/licenses before commencing operation. Republic Act 7076 mandates the setting up of People's Small-scale Mining Program and the establishment of funds to promote the industry. It also requires the formation of Provincial/City Mining Regulatory Board to regulate small-scale mining activities. Almost all city and provincial mining regulatory boards in the country have been organized; however, it appears that foremost in the agenda pertains to quarry operations save for the case of PMRBs in some provinces which may be cited for their support for small-scale gold mining.

Almost two decades have passed since the enactment of Republic Act 7076 and there is still no officially declared or established People's Small-scale Mining Area, a geographic

- Survey plan with the technical description of the area applied for which must be prepared by a registered geodetic engineer;
- Barangay and municipal endorsement;
- Clearance from various government agencies;
- Environmental Compliance Certificate;
- Surety bond in the amount of Twenty Thousand Pesos (P20,000.00); and
- Articles of partnership/incorporation/association and by-laws duly registered with concerned government agencies.

Weak enforcement of small-scale mining and other related laws. The seeming culture of tolerance and hands-off policy by both the national and local governments have likewise rendered ineffectual the enforcement of small-scale mining laws. Enforcement of other environmental laws such as those that concern air and water pollution, protected area, wildlife, toxic, hazardous and solid waste which are also commonly violated in most mining sites.

While most sectors complain about the non-implementation of the important provisions of extant laws on small-scale mining, others criticize the statute's irresponsive and antiquated provisions, which accordingly discourage them to formalize their operations.

Small-scale mining companies undertaking large-scale operations. Under local small-scale mining laws, small-scale mining permittees are allowed to mine up to 20 hectares per permit and extract up to 50,000 dry metric tons of metallic and non-metallic minerals annually. There have been reports, however, that some small-scale mining companies exceed the extraction and area limits.

Need for the strengthening of local government units (LGUs) for effective local mining governance. While the enforcement of small-scale mining laws have been devolved to the provincial LGUs by virtue of the Local Government Code, there has been little active participation of most provinces with small-scale gold mining activities, let alone smooth coordination in addressing small-scale mining concerns. Existing laws on artisanal and small-scale gold mining likewise grant limited role to municipal and barangay LGUs in the regulation of ASGM activities within their territorial jurisdictions.

Uncontrolled ASGM activities in protected and watershed reservation areas. Small-scale mining activities are also reported to have encroached upon ancestral domains of Indigenous Peoples and in established protected areas as well as watershed reservation areas such as in Mount Guiting-Guiting Natural Park in Sibuyan Island, Romblon, the Bugkalots Ancestral Domain in Nueva Vizcaya, and the Mainit Hotspring Protected Landscape in Maragusan, Compostella Valley to name a few.

Inadequate laws and regulations addressing mercury use in ASGM. There are several laws and policies that directly or indirectly regulate mercury use and emission in the Philippines, however, there is a need to enact or promulgate more stringent laws and regulations to address the issue of unabated mercury use in ASGM. The main piece of legislation that deals with the regulation, restriction or prohibition of the importation, manufacture, processing, sale, distribution, use and disposal of mercury in the Philippines is Republic Act 6969 or the Toxic Substances, Hazardous and Nuclear Wastes Control Act of 1990. DENR Administrative Order 1992-29, the statute's Implementing Rules and Regulations (IRR), include mercury and mercuric compounds (D407) in the table of prescribed hazardous waste. DENR Administrative Order No. 38, Series of 1997 which provides the Chemical Control Order (CCO) for Mercury and Mercury Compounds pursuant to RA 6969, provides additional requirements and procedures in the importation, manufacture, processing, use and distribution of mercury and mercury compounds and addresses the treatment, storage and disposal of mercury-bearing or mercury contaminated wastes in the Philippines. The CCO however permitted, among others, mining and metallurgical industries and dental amalgam as end-users of mercury. Other laws and regulations on small-scale mining such as RA 7076 and DAO 92-34, the Implementing Rules and Regulations of RA 7076 do not explicitly prohibit the use of mercury in ASGM. They however direct small-scale mining contractors to be responsible in ensuring that the use of mercury, cyanide or any other poisonous substance is handled in accordance with provisions directed by the DENR.

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