



Daiichi Institute of Technology

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June 15, 2020

The Head
UNEP Chemicals and Health Branch

Dear Sir/Madam,

RE: Letter of Support to the UNEP Global Mercury Partnership

My name is Satoshi Murao. I work with Daiichi Institute of Technology (DIT) in Japan as professor of environmental studies focusing on the management of the artisanal and small-scale gold mining (ASGM). The purpose of this letter is to express my commitment in contributing to meeting the goal of the UNEP Global Mercury Partnership as well as SDGs.

DIT is located close to Minamata city and we are already cooperating with a community advocacy group *Soshisha* at Minamata. This year we invited foreign trainees under the auspices of Japan International Cooperation Agency (JICA) and took them to a closed gold mine near the city where the large-scale mining and ASGM had a contract and shared the profit.

Before joining DIT I was a researcher at the Geological Survey of Japan (GSJ) and conducted ASGM projects in Asia. When I was seconded from GSJ to an international organization CCOP, I was also responsible for small-scale mining issues. Following are part of my ASGM projects during the GSJ time.

- Impact of Artisanal and Small-scale Gold Mining on Agricultural Products: Tempo-spatial assessment and Countermeasures (2016-2019)
- Policy Study for Green Economy: Study on Possible Application and Expected Effects of Economic Measures for Mercury reduction in Response to Minamata Convention (2016-2019)
- Development of PIXE Exclusively for Food Safety Issues in Asia (2010-2013)
- Development of Multi-elemental Analysis for International Cooperation of Environmental issues (2007-2009)
- Interdisciplinary study on Environmental management, Planning and Risk Communication in Gold Rush Regions (2000-2004)

In addition to the projects mentioned above, I convened international meetings/workshops as an individual scholar or as the chair of *Community and Small-scale Mining* an initiative by the World Bank.

- Ethical Mining: For Cleaner Gold, pro Cleaner Life (2015) Tuguegarao, Philippines.
- Prospect for the Fair Trade of Gold in Mongolia: A Discussion Based on the Fairtrade and Fairmined Gold Standard (2011) Ulaanbaatar.
- UNEP-AIST Workshop on Responsible Production and Industrial Risk management (2011) Bangkok.
- A Meeting to Examine and Discuss Scientific Data of Mercury in and around the Municipality of Itogon, Itogon, Philippines.
- International Symposium on the Diversity of Mining and Sustainable Development: A meeting to Study the Business Practices of Small-scale Mining in Benguet, Philippines (2004) Baguio.

In your homepage it reads that “the overall goal of the UNEP Global Mercury Partnership is to protect human health and the global environment from the release of mercury and its compounds by minimizing and, where feasible, ultimately eliminating global, anthropogenic mercury releases to air, water and land.”

I hereby commit myself to contribute to this goal from academic point of view based on experiences and human network developed through my projects. The following list includes some of my publications with respect to the ASGM description and management.

- Murao, S. and others (2019) Mercury distribution in artisanal and small-scale gold mining area: a case study of hot spots in Camarines Norte, Philippines, International Journal of Environmental Studies and Development, 122-129.
- Murao, S. (2015) Final Report on Risk of Mercury Contamination in Asia and the Pacific, UNEP Official Report.
- Murao, S. and others (2006) Mercury content of electrum from artisanal mining site of Mongolia, Nuclear Instruments and Methods B249, 556-560.
- Murao, S. and others (2003) Risk Communication Between Mineral Property Developers and Local Communities, Mining Journal, London.
- Murao, S. and others (2002) PIXE measurement of human hairs from a small-scale mining community, benguet, Philippines, Nuclear Instruments and Methods B189, 168-173.
- Murao, S. and others (eds.) (2002) Small-scale Mining in Asia: Observations Towards a Solution of the Issue, Mining Journal, London.

Time to time I am exchanging information with experts who have collaborated with me for the ASGM communities. Thus I can assist UNEP as a coordinator of projects or facilitator of discussion using my wide network: experts who have worked with me are engaged in air monitoring, mercury analyses, mining geology, mining engineering, forest management, material flow analysis, risk assessment, risk management, risk communication, responsible jewelry, advocacy, etc. It is because of such background that I can contribute to the following areas by cooperation, collaboration, coordination and facilitation:

- Creation of user-friendly monitoring system which incorporates citizen science
- Development and implementation of new technology and protocols for mercury elimination in the ASGM subsector
- Development and improvement of product inventories, mercury use inventories, and other databases that help government officials and other stakeholders to understand and track mercury uses and releases
- Introduction of risk management and risk communication to the ASGM subsector and administration by training and learning events
- Raising public awareness about the need to reduce global mercury releases to air, water, or land that may occur from ASGM
- Improving awareness and information exchange on non-mercury substitutes and effective regulatory or voluntary approaches to reducing mercury use in products.
- Information provision on economic and financial incentives as well as loans for the conversion from amalgamation to mercury-free technologies in order to eliminate mercury in rod-mill stations
- Development of pilot projects which give economic and educational benefits to partners and the general public by promoting commercially competitive and environmentally responsible solutions for reducing the use of mercury in ASGM.
- Seeking for collaboration with key international organizations such as UNEP, UNIDO and the World Bank
- Advocacy for reunion of local communities who lost or are losing the unity due to the mercury issues

Although DIT is a small institution the faculty is willing to work for the achievement of SDGs and my participation to the UNEP Global Mercury Partnership is recognized to be in harmony with this principle.

Sincerely yours,

Professor and Head
Department of Regional Revitalization Design and Engineering
Daiichi Institute of Technology



UNEP GLOBAL MERCURY PARTNERSHIP

INFORMATION ON BECOMING A PARTNER

This information sheet provides an overview of the United Nations Environment Programme (UNEP) Global Mercury Partnership for prospective partners. Further information is available at:

web.unep.org/globalmercurypartnership

GOAL OF THE PARTNERSHIP

The overall goal of the UNEP Global Mercury Partnership is to protect human health and the global environment from the release of mercury and its compounds by minimizing and, where feasible, ultimately eliminating global, anthropogenic mercury releases to air, water and land.

PARTNERSHIP AREAS

The UNEP Global Mercury Partnership is a voluntary and collaborative relationship between various parties, governmental, non-governmental, public and private, in which all participants agree to work together in a systematic way to achieve its goal.

Initiated in 2005¹, the Partnership today focuses its work on supporting timely and effective implementation of the Minamata Convention on Mercury; on providing state of the art knowledge and science on mercury; and on delivering outreach and awareness raising towards global action on mercury.

¹ UNEP Governing Council Decision 23/9

The Partnership is structured around eight areas:

- Artisanal and small-scale gold mining
- Mercury cell chlor-alkali production
- Mercury air transport and fate research
- Mercury in products
- Mercury releases from coal combustion
- Mercury waste management
- Mercury supply and storage
- Mercury releases from the cement industry

OUR PARTNERS

Over 190 partners from governments, IGOs, NGOs, private sector and academic institutions:

- Support the overall goal of the Partnership.
- Contribute resources or expertise to the development and implementation of Partnership activities.
- Network with other organizations, agencies, entities and individuals addressing mercury issues.

BECOMING A PARTNER

To become a partner, interested entities or individuals should submit a letter to UNEP signifying their support for the UNEP Global Mercury Partnership and their commitment to achieving its goal. The letter should also specify how they will contribute to meeting the goal of the Partnership.

Together with this letter, UNEP requests interested entities or individuals to also complete and submit the registration form (see reverse). Participation in the UNEP Global Mercury Partnership will be confirmed by UNEP. Partners' letters of support will be made public through the UNEP's website.

SUPPORT LETTER AND REGISTRATION FORM SHOULD BE SUBMITTED TO:

**Head, Chemicals and Health Branch
Economy Division
United Nations Environment Programme**
Palais des Nations
8-14 avenue de la Paix
CH-1211 Geneva 10, Switzerland
E-mail: metals@un.org



UNEP GLOBAL MERCURY PARTNERSHIP

PARTNERSHIP AREAS

Please check the partnership area(s) to which your organization intends to contribute to:

- Artisanal and small-scale gold mining
- Mercury releases from coal combustion
- Mercury cell chlor-alkali production
- Mercury waste management
- Mercury air transport and fate research
- Mercury supply and storage
- Mercury in products
- Mercury releases from the cement industry

> Please specify in your support letter how your organization intends to contribute to each of the selected partnership area(s).

ORGANIZATION APPLYING TO BECOME A PARTNER

Name of Organization:

Type of Organization: Government Industry
Intergovernmental Organization Academia
Non-governmental Organization Other, please specify

Mailing Address:

Postcode: City: Country:

E-mail:

Telephone: Website:

ORGANIZATION'S REPRESENTATIVE TO THE UNEP GLOBAL MERCURY PARTNERSHIP

Mr. Ms.

First Name: Last Name:

Functional Title:

Section / Department:

E-mail:

** UNEP Global Mercury Partnership registration forms are to be accompanied by a letter to UNEP signifying support for the UNEP Global Mercury Partnership and commitment to achieving its goal. The support letter should specify how the organization intends to contribute to meeting the goal of the UNEP Global Mercury Partnership. Please submit the support letter and registration form to:*

**Head, Chemicals and Health Branch, Economy Division
 United Nations Environment Programme**
 Palais des Nations
 8-14 avenue de la Paix
 CH-1211 Geneva 10, Switzerland
 E-mail: metals@un.org