







Public - Private Sector Dialogue

Capacity Building on MEASUREMENT, REPORTING & VERIFICATION (MRV) of Climate Change Mitigation Phase 2

March 4, 2022 Friday 9:30 am PH

as part of
Philippine-Japan Environmental Week
https://www.jprsi.go.jp/ew2022ph



AGENDA

March 4, 2022/ Friday 9:30 am PH

01

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Opening

Plan for Pilot Project 2022 Public-Private Sector Dialogue Closing

Opening Remarks

Objectives of the WS

Introduction of Participants

Data for GHG Inventory 2020

Insights from Sectoral Interviews

Q&A

Panel Discussion:

What factors or elements would enable a functional facility-level MRV? Overview of the Pilot Project

Q&A

Closing Remarks



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Philippine-Japan Environmental Week
https://www.jprsi.go.jp/ew2O22ph



OPENING REMARKS

Mr. Albert MAGALANG

Chief Climate Change Information and Technical Support Division Climate Change Service Department of Environment and Natural Resources





OPENING REMARKS

Mr. Naomi INOUE

Deputy Director
Office of International Strategy on Climate Change
Ministry of the Environment, Japan



Workshop Objectives Introduction of Participants

Mr. Riki NAKAJIMA

Overseas Environmental Cooperation Center







Objectives of the Workshop PaSTI Public - Private Sector Dialogue 2022

Riki Nakajima Researcher, Overseas Environmental Cooperation Center, Japan 4 March 2022

OECC

Public-Private Sector Dialogue

Objective of the workshop:

To facilitate the communication between public and private sectors and incorporate ideas from the private sector for the development of a pilot project and potential incentive mechanisms which shall be implemented in 2022 as part of the PaSTI initiative.

Importance of the Dialogue:

In spite of efforts taken by the public and private sectors in relation to measurement of GHG emissions and its corresponding reporting, it is well known that there are gaps in the communication of the purpose of this actions and the support that is needed to comply with such efforts.

This dialogue intends to provide a space where opinions and experiences from both, the public and private sectors can be shared, aiming at getting some conclusions that can further improve measurement and reporting efforts which ultimately can contribute to consolidate the country's MRV system.

✓ PaSTI aims to deliver three key outputs.





Promoting the engagement of non-state actors such as private companies and local governments with incentive mechanism.



Enhancing the capacities and institutional structure in each country under their national development strategies.



Strengthening and streamlining the transparency action at subnational, national and regional level.

Introduction of Participants



Guest speakers:

- Ms. Melissa Cardenas, Environweave
- Mr. Roland Abad Jr., DENR-CCS

Panelists:

- Ms. Gretchen Fontejon Enarle,
 President, Pollution Control Association of the Philippines (PCAPI)
- Engr. Jeffrey Mijares,
 Executive Director, the Chemical Industries Association of the Philippines (SPIK)
- Engr. Cesar Luis Lim,
 The Philippine Society of Ventilating, Air Conditioning, and Refrigerating Engineers (PSVARE)
- Engr. Voltaire Acosta, UN-Habitat



Thank you for your attention!



The PaSTI Secretariat

Email: pasti-sec@oecc.or.jp

WEB: https://www.oecc.or.jp/en/pasti/index.html

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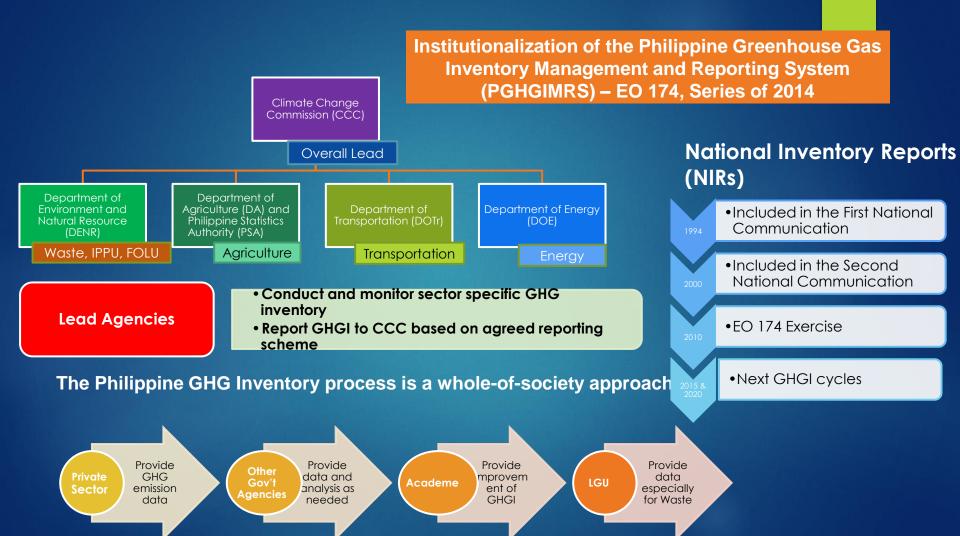
GHG Inventory Requirements for the IPPU and Waste Sector: 2015 & 2020 GHG Inventory

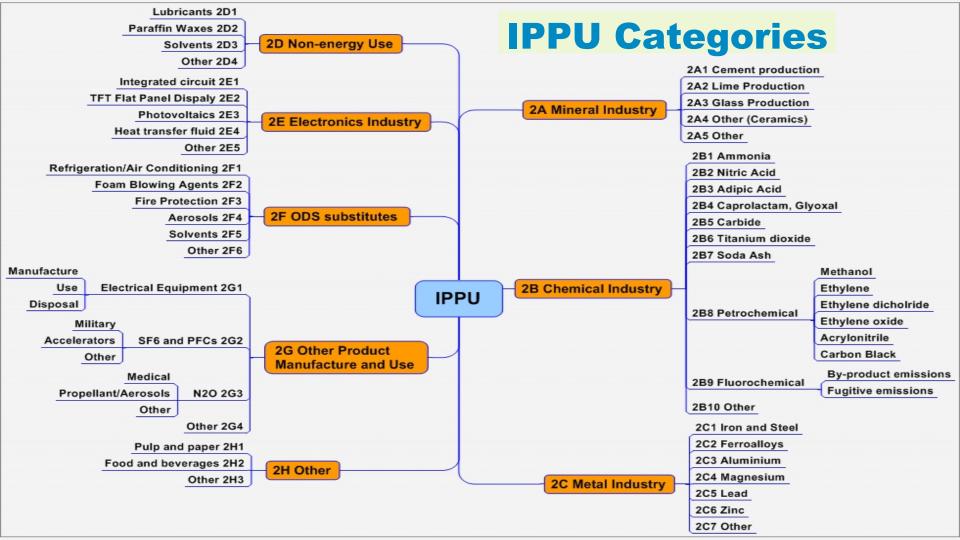
ROLANDO O. ABAD JR.

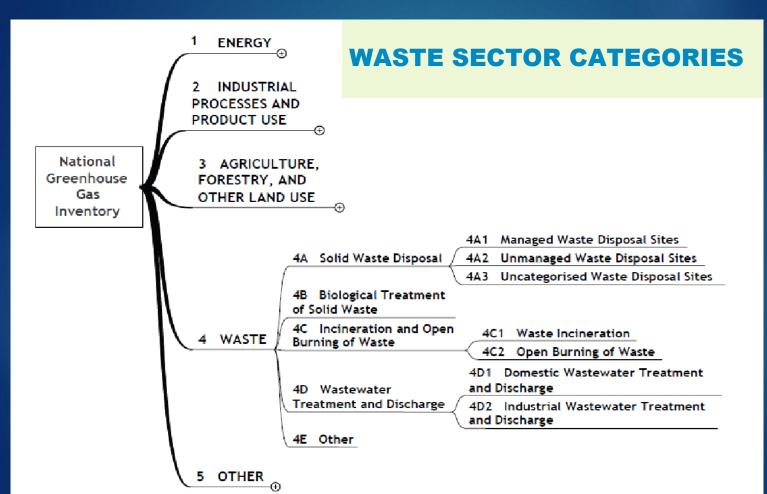
Climate Change Information and Technical Support Division Climate Change Service

Presentation Outline:

- Institutionalization of the Philippine GHG Inventory System
- ▶ IPPU and Waste Sector Categories based on the 2006 IPCC GL
- Results and Experience in Conducting the 2010 GHG Inventory
- Data Collection for the 2015 and 2020 GHG Inventory
- Run through of the Data Collection Matrices







SOLID WASTE Subsector

WASTEWATER Subsector



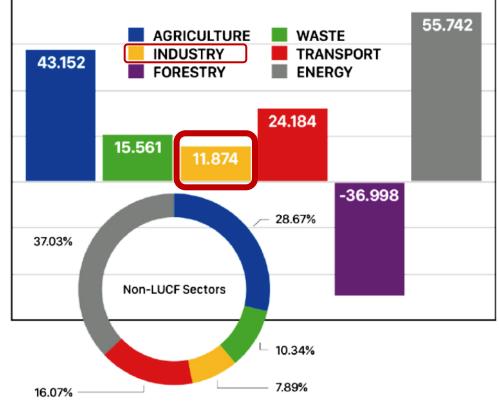
2010 NATIONAL GHG INVENTORY¹

All values are in million metric tons of CO₂ equivalent (Mt CO2e).

-36.998 Mt CO2e | 150.51 Mt CO2e

LUCF Net Uptake

Non-LUCF Emissions



Experience from 2010 GHG Inventory

| Challenges | Details |
|------------------------------------|--|
| Available Data | Incomplete data for use in the data requirements of the 2006 IPCC Guidelines |
| Data Suitability | Some data are not fully suited to the needs of the GHG inventory. |
| GHG Inventory team | Inventory is not fully mainstreamed in the regular functions of the Offices. |
| Activity Data and Emission Factors | No country specific emission factors available for the IPPU and Waste sector. Lack of data particularly for industrial processess and industrial wastewater. Use of assumptions and expert judgements in waste sector. |

Data Collection/ Consolidation for the 2015 and 2020 GHGI

GHG Inventory Trainings have been conducted for the IPPU and Waste Sector on 17-21 and 25-28 January 2022.

A Memorandum was issued dated 16 February 2022 to kick-start the data collection activity.

Data Collection Matrices have been developed.

2015&2020 GHGI¥Data Collection

Matrix¥IPPU Data Collection Matrix.xlsx

2015&2020 GHGI¥Data Collection Matrix¥Solid Waste Data Collection Matrix.xlsx

2015&2020 GHGI¥Data Collection Matrix¥Wastewater Data Collection Matrix.xlsx



Republic of the Philippines Department of Environment and Natural Resources Tel Nos. 929-6626 to 29; 929-6633 to 35 926-7041 to 43; 929-6252; 929-1669 Website: http://www.denr.gov.ph/ 12-mailt.web@denr.gov.ph

MEMORANDUM

TO : THE DIRECTORS

Environmental Management Bureau (EMB) Mines and Geosciences Bureau (MGB)

ALL REGIONAL EXECUTIVE DIRECTORS

REGIONAL DIRECTORS (EMB, MGB)

FROM : THE UNDERSECRETARY

Finance, Information Systems, and Climate Change

SUBJECT : GATHERING AND CONSOLIDATION OF ACTIVITY DATA FOR THE DEVELOPMENT OF THE 2015 AND 2020 IPPU AND

WASTE SECTOR GREENHOUSE GAS INVENTORY

DATE : 16 February 2022

This has reference to the Greenhouse Gas (GHG) Inventory Trainings organized by the Climate Change Commission (CCC) for the Industrial Processes and Products Use (IPPU) Sector and Waste Sector on 17-21 January and 25-28 January 2022, respectively.

The training was conducted to support the Department in preparation for the development of National GHG Inventories as officially announced by the CCC on 21 September 2021. The GHG inventories to be prepared for this cycle will cover inventory years 2015 and 2020 as inputs to the Nationally Determined Contribution and Biennial Update Report, and in consideration to the United Nations Framework Convention on Climate Change (UNFCCC) reporting timeframes.

The DENR, particularly EMB has been assigned as the lead agency to conduct, document and monitor GHG emissions of the IPPU and Waste sectors pursuant to Executive Order No. 174, Series of 2014. The EO provides for the institutionalization of the Philippine Greenhouse Gas Inventory Management and Reporting System (PGHGIMRS) that aims to support better planning, archiving, reporting, monitoring and evaluation of GHG emissions and sources and to enable the country to transition towards a climate-resilient pathway for sustainable development.

The gathering and consolidation of data is a critical part in the GHG inventory process. From the experience in developing the 2010 GHG Inventory in 2018, the availability and accessibility of data was identified as a major constraint and at the same time, the biggest area for improvement. In line with this, a rapid data assessment for the IPPU and Waste sector was conducted during the recently concluded trainings to verify the applicability of the IPPC categories, and identify the data needs to be gathered per region. Attached is the data collection matrix to serve as reference and guide in the data collection and consolidation process.

Thank you for your attention.

Insights from Sectoral Consultations on GHG-MRV

Melissa May F. Cardenas

Environweave For PaSTI









Presentation Outline



01

Policy & Reporting

Monitoring environmental effects from local to global

02

Gathering Insights

Private sector key informant interviews & surveys

03

Designing a Dashboard

You can describe the topic of the section here

04

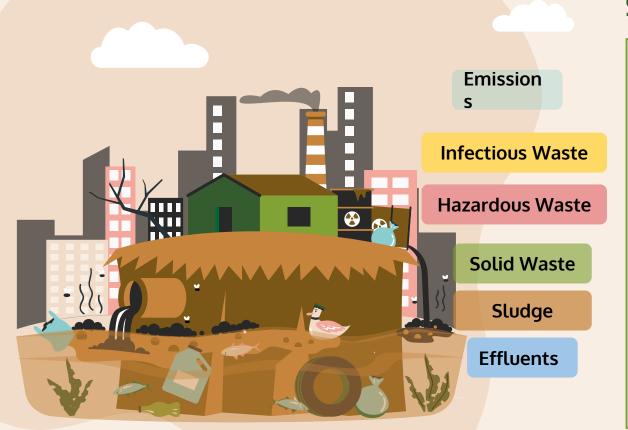
Data Ecosystem

Developing an ecosystem for environmental data

01

Environmental Policy & Reporting Ecosystem





Self Monitoring Reports

RA 8749 (PH Clean Air Act)

RA 6969 (Toxic Substances and Hazardous and Nuclear Wastes Control)

RA 9003 (Ecological Solid Waste Management Act)

RA 9275 (PH Clean Water Act)

PD 1586 (EIS System)





GHGs, SLCPs

ODS/ F-Carbons

Hg emissions & waste

Hazardous Waste

POPs

Plastic Pollution

Marine Litter





Gathering insights





Sectoral Key
Informant Interviews



PaSTI Survey on Greenhouse Gas Measurement, Reporting, and Verification

Good day. This is a survey under the Partnership to Strengthen Transparency for co-Innovation (PaSTI), a collaboration between the governments of the Philippines and Japan.

PASTI aims to support the private sector and other non-state actions to be fully reflected in antional or international efforts. Transparenry systems need to be developed to ensure that the private-sector actions are appropriately Measured, Reported and Verified (MRV), both as part of randomal efforts and being receitable; to the many international pelopies, according every single effort leading to GMG emissions reductions that support NDCs achievement is crucial and should be Measured. Reported and Verified or assessment

We invite members of the IPPU and waste sectors to participate in this survey. Participant can opt to answer anonymously.

Results will be presented during the Public-Private Sector Dialogue on March 4, 2022, as part of the Phillippine-Japan Environmental Week (https://www.iprsi.go.jp/ew2022eh)

For further inquiries, please feel free to contact the PaSTI Secretariat at pastisec@oecc.or.jp.



















Discussion points

What are your challenges in data collection for greenhouse gas emissions/reduction?

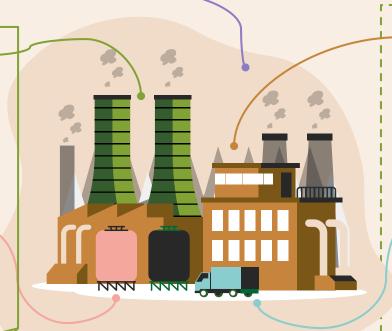
PUSH

Obligations

Do you know of any reports for submitting GHG emissions inventory to government agencies?

Expectations

What are the expectations of the private sector from the government regarding MRV of GHG?



Voluntary

measurement

Are there any ongoing voluntary GHG measurement activities in your company/ facility/ organization?

Increasing engagement

How can the the private sector engage more actively in GHG transparency activities?



Voluntary measurement

Are there any ongoing voluntary GHG measurement activities in your company/ facility/ organization?



PULL

...and may be

converted to

equivalent GHG

reduction if part of company KPI's

Not required by any law re: GHG emissions...

None, but trainings on GHG are encouraged

> Not by our local sales offices, but might be done by our factory abroad

... but we are required to report to the city and DENR-EMB regarding our performance and emissions (of concern).

Indirectly, through our facility energy consumption (Module 1 in SMR)...

Yes, but participating in carbon trade was also costly for the company

Our institution/ school network has a low-carbon roadmap

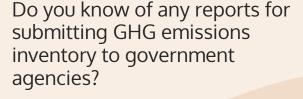
Yes

Yes, as part of CDM/ JCM etc.

Yes, as part of mother company EHS policy.



Obligations to report





Yes

Not required by any law re: GHG emissions...

... We used to, but we delisted so now we no longer submit to SEC

None, but if there is a policy we will comply.

PUSH

All publicly listed companies (PLCs) are required to report sustainability data to SEC annually in compliance to SEC Memorandum Circular No. 4, Series of 2019.s



What are your challenges in data collection for greenhouse gas emissions/ reduction?



Methodology Management

If we knew how, we would.

Provide a framework or baseline methodology/ guidance document

First clarify the standard methodology - where do we start? What to measure for our sector? How do we measure?

Data collection requires instrumentation based on global standards and a special discipline for recording and reporting

> Lack of personnel, equipment, time, funds to start or sustain

PULL

Analysis

accuracy of emission factors used for calculation

Challenge of data cleaning, harmonization

After this, then what?



Show us the comparison of these methodologies so we can provide more accurate data for computations.

Collecting Scope 3 data especially on Transport



What are the expectations of the private sector from the government regarding MRV of GHG?





Process

Purpose

Industries will comply as long as they understand the purpose and there are clear guidelines.

Wary that operations data will be used to issue a new regulatory policy

If it is a part of regulation, we will comply.

Low GHG as part of product standards

Stratified requirements depending on size of operations

An easy platform for reporting e.g. dashboard, online, app, etc.

We hope it won't be a big burden for us to comply (cost, personnel, time)

A helping hand approach rather than regulatory

> Mutual trust and transparency

Communicate that this is for the improvement of the industry or the economy as a whole

As part of overall Good Governance

Harmonization and alignment of environmental policy with economic/ development policy.



How can the the private sector engage more actively in GHG transparency activities?

Demands

If the market demands it

High cost of electricity and utilities in the PH If there is a useful tool for easy MRV

Challenge of EPR concept

Incentives

It is difficult without any incentive

How to measure gains, monetize GHG reduction

Linkage to financial subsidies, grants

Easy adaptation via low-hanging fruits

PULL

Advocacies

This is our company's advocacy as well.

If consumers appreciate environmental sustainability as a good investment despite initial cost.

If consumers appreciate our efforts



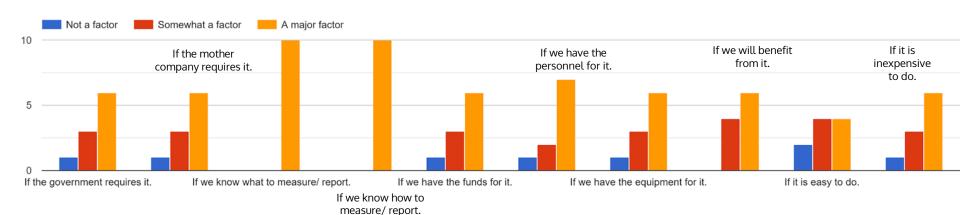


Key Factors for GHG MRV

- 1) If we know what & how to measure/report
- 2) If we **benefit** from doing so
- 3) If we have the **resources** to do so
- 4) If we are **required** to do so



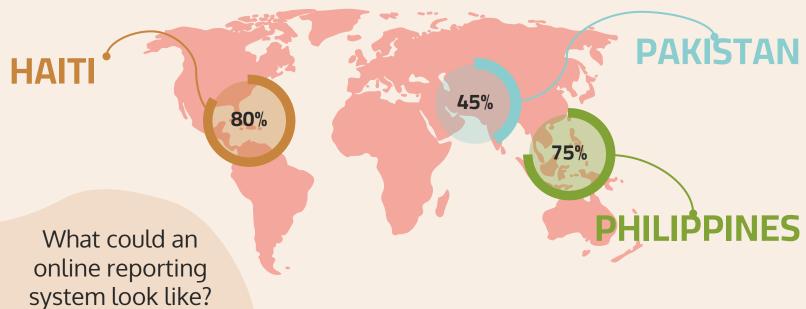
For your company/ facility/ organization, which of the following would be key factors in establishing a GHG reporting system?



03

Designing a Dashboard







Evolution of Reporting



| | 01 | 02 | 03 | 04 | |
|--------------|-------|-----------|----------|----------|--|
| | Paper | Digitized | Digital | Database | |
| | | (0) | | ~~ | |
| Storage | × | ~ | / | ✓ | |
| Organization | × | × | / | V | |
| Processing | × | * | × | ✓ | |

National Integrated Climate Change Database Information and Exchange System



MALACAÑAN PALACE MANILA

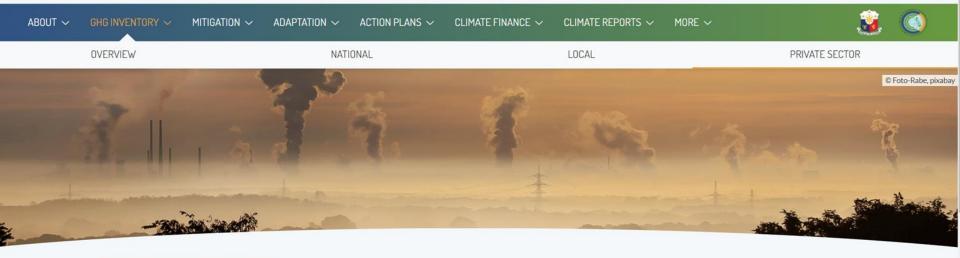
BY THE PRESIDENT OF THE PHILIPPINES

EXECUTIVE ORDER NO. 174

INSTITUTIONALIZING THE PHILIPPINE GREENHOUSE GAS INVENTORY MANAGEMENT AND REPORTING SYSTEM



NATIONAL INTEGRATED CLIMATE CHANGE DATABASE AND INFORMATION EXCHANGE SYSTEM



❖ RESOURCES

Executive Order 174: Institutionalizing the Philippine GHG Inventory

Management and Reporting System (PGHGIMRS)

Philippine Greenhouse Gas Inventory
Management and Reporting System
(PGHGIMRS) Briefer

Intergovernmental Panel on Climate Change

PRIVATE SECTOR

The Climate Change Commission (CCC) has engaged the private sector in the various activities, with the support of the Low Emission Capacity Building (LECB PHL) Project. The private sector is represented in the: (1) National Steering Committee which acts as the Project Board that provides overall guidance and direction in implementing the project; (2) in the Core Technical Working Group (TWG); and, (3) in the sectoral TWGs established in the different focus sectors of agriculture, waste, industry, transport, forestry and energy (AWIT-FE). The government also partnered with the business sector and enhanced synergies through the annual Business Summits which began in 2013 and has now expanded to include regional Summits starting 2017, with the objective of engage the private sector in climate change adaptation and mitigation activities.

To develop long-term comprehensive climate change strategies with the private sector, private/business sector leaders and partners are encouraged to set corporate-wide greenhouse gas (GHG) reduction goal and inventory their





Environmental Statistics

GAD Corner

News Archive

Sylvatrop Website



Air Quality Management Data



Water Quality Management Data



Solid Waste Management Data



Chemical Management Data



Hazardous Waste Management Data



Environmental Impact Assessment Data



Environmental Laboratories



Status of Applications

DENR-EMB Website



2K

1K

Cordillera Administrative Region Mining

Cordillera Administrative Region Mining industry

Cordillera Administrative Region Ore Mining



13.76M **GENERATED (MT)**

REGISTERED HAZARDOUS WASTE GENERATORS (HWGs)



BANKING 500 Region_Generator **HWGs** Region Nature of Business Nature HW Code Details Sub Cordillera Administrative Region Copper Ore Mining Solid A101 Granules / pellets (old stock) NEV Waste containing cyanide with concentration > 70mg/L in Cordillera Administrative Region EDUCATIONAL INSTITUTION Solid NEV A101 liquid waste Dust/Soil with cyanide Cordillera Administrative Region IMPORTER/ DISTRIBUTOR Solid A101 NEV Cordillera Administrative Region Mining Slurry contaminated with Sodium Cyanide NEV Sludge A101 Wastes with Cyanida Haz Waste Mill Tailings Haz Waste

Sludge A101

Sludge A101

A101

ore

Soccsksargen ▲ 504 Bicol 604

Generators

460

422

366

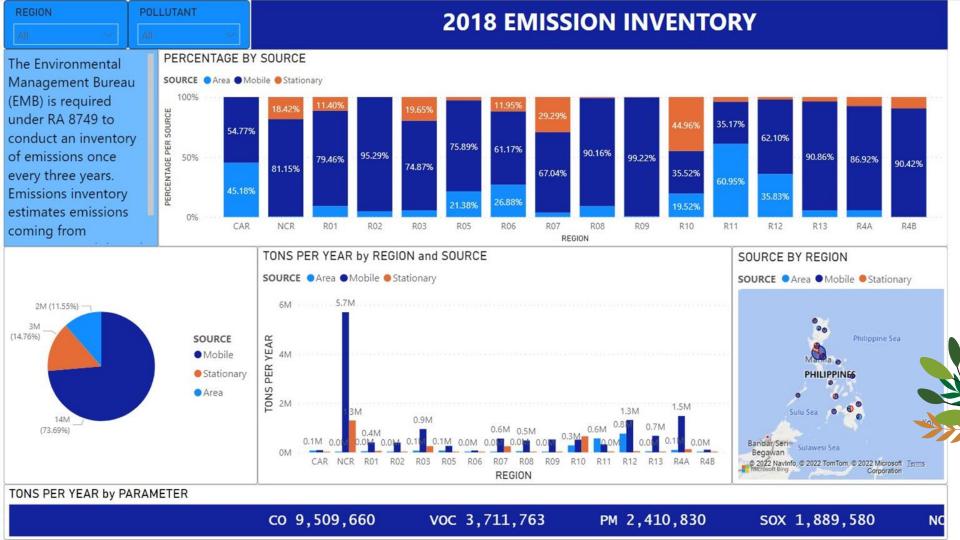
347

Manufacturing

Dental Clinic

HOSPITAL

Restaurant



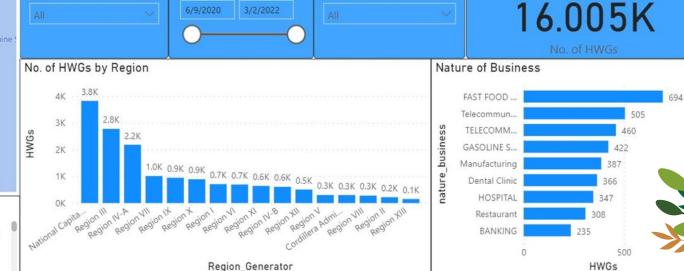




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REGISTERED HAZARDOUS WASTE GENERATORS (HWGs)

HW Code



| Cordillera Administrative Region | Copper Ore Mining | Solid | A101 | Granules / pellets (old stock) | NEV |
|----------------------------------|-------------------------|--------|------|--|------|
| Cordillera Administrative Region | EDUCATIONAL INSTITUTION | Solid | A101 | Waste containing cyanide with concentration > 70mg/L in liquid waste | NEV |
| Cordillera Administrative Region | IMPORTER/ DISTRIBUTOR | Solid | A101 | Dust/Soil with cyanide | NEV |
| Cordillera Administrative Region | Mining | Sludge | A101 | Slurry contaminated with Sodium Cyanide | NEV |
| Cordillera Administrative Region | Mining | Sludge | A101 | Wastes with Cyanide; Mill Tailings | NEV |
| Cordillera Administrative Region | Mining industry | | A101 | Wastes with cyanide is in the form of tailings. | NEV |
| Cordillera Administrative Region | Ore Mining | Sludge | A101 | ore tailings with cyanide | NEV. |
| 3 "" | | o !!! | | | - : |

Nature HW Code Details

Date Approved

Nature of Business

Region

Region

Sub

Get Started About

Get Trained

Do GLOBE

GLOBE Data

Community

News & Events

Support

Home > Asia and Pacific



Asia and Pacific

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How to implement GLOBE in times of COVID-19

Countries

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GLOBE Equipment Suppliers

Collaborating Organizations

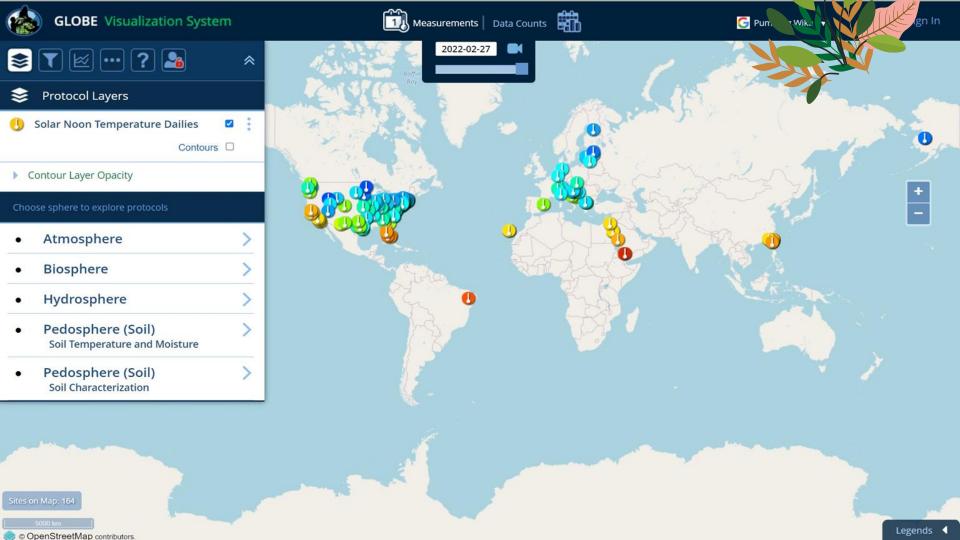
Documents

Asia and Pacific

Contact Us

Countries | Schools | Measurements - Last 7 Days

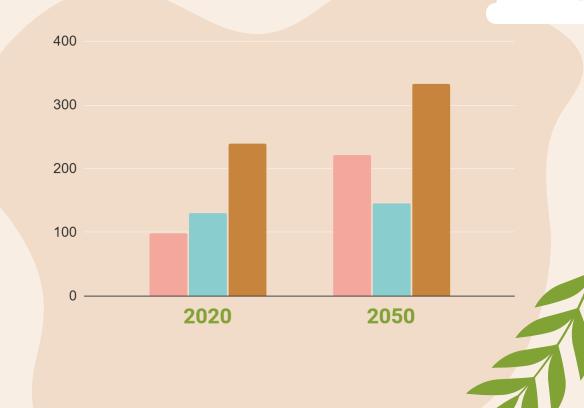






04 Data Ecosystem







Rethinking Reporting

Not just based on what kind of pollution is to be monitored

Envtl Monitoring

Envtl Accounting



but also the **new kinds** of **skill sets** needed

Data
Science
Info
Management

Back to (mass)
Balancing











Do you have any questions?

Melissa May F. Cardenas mel.cardenas@environweave.com

+63 2 8921-1707

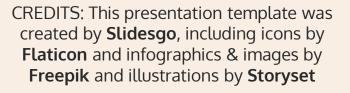
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PANELISTS

Ms. Gretchen Fontejon-Enarle





Engr. Cesar Luis Lim

Pollution Control Association of the Philippines, Inc. (PCAPI)

Engr. Jeffrey Mijares





Mr. Rolando Abad, Jr.

Phil Society of Ventilating, Air Conditioning, and Refrigerating Engineers (PSVARE)

Samahan sa Pilipinas ng mga Industriyang Kimika (SPIK) Climate Change Information and Technical Support Division Climate Change Service, DENR

Engr. Voltaire Acosta



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Overview of the Pilot Project

Mr. Riki NAKAJIMA

Overseas Environmental Cooperation Center







Outline of the Pilot Project under PaSTI

Riki Nakajima
Researcher, Overseas Environmental Cooperation Center, Japan
4 March 2022



The purpose of the pilot project is to ...



- Facilitate the conduction of bottom-up transparency activities with the involvement of the private sector,
- Produce robust GHG accounting and consistent with key international standards (IPCC, GHG Protocol etc.),
- Be flexible to sector specific needs and national circumstances,
- Provide practical suggestions for policy makers and GHG reporting entities.

The outline of the pilot project



Estimated activity period Summer 2022

- Methodologies (TBD) sector, scope, accounting GHG emissions
- Reporting process (TBD)
- Useful tools reporting formats, online workshops

The outline of the pilot project



Estimated activity period Summer 2022

- Methodologies (TBD) sector, scope, accounting GHG emissions
- Reporting process (TBD)
- Useful tools reporting formats, online workshops

Conclusions and suggestions of today's panel discussion and other ideas obtained from Key-informant interviews and desktop study will be taken into consideration.



Thank you for your attention!



The PaSTI Secretariat

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WEB: https://www.oecc.or.jp/en/pasti/index.html









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