SESSION 2: POLICIES AND TECHNOLOGIES FOR THE DEVELOPING AND PROMOTING ESM

Anton Purnomo
Director
Basel and Stockholm Conventions
Regional Centre for Southeast Asia
in Indonesia

Asian Network Workshop for Prevention of Illegal Transboundary Movement of Hazardous Wastes
23-25 October 2024
Vientiane, Lao PDR

BASEL CONVENTION REGIONAL CENTRE FOR SOUTHEAST ASIA &
STOCKHOLM CONVENTION REGIONAL CENTRE INDONESIA

RECYCLING OF PLASTIC WASTE, E-WASTE AND OTHER EMERGING WASTE STREAMS

MSW & PLASTIC WASTE RECYCLING - 1

UNCRD & MOEJ, 2020:

- Total MSW for Asia & Pacific projected to increase until 2030,1.6 kg/person/day or ± 1.4 billion ton/year.
- Proportion of plastic is ± 8–12% across all the countries.
- Waste collection rates at 40–80% in developing countries, almost 100% in more developed economies e.g. Japan, Australia, Republic of Korea and Singapore.
- Around 55 to 74% of the MSW is disposed off at disposal sites, zero to 26% incinerated and 1 to 5% composted.
- Recycling rates in high-income countries have increased progressively over the past 30 years; in lower income countries the informal sector often only achieves recycling rates of 20–30% for MSW.

MSW & PLASTIC WASTE RECYCLING – 2

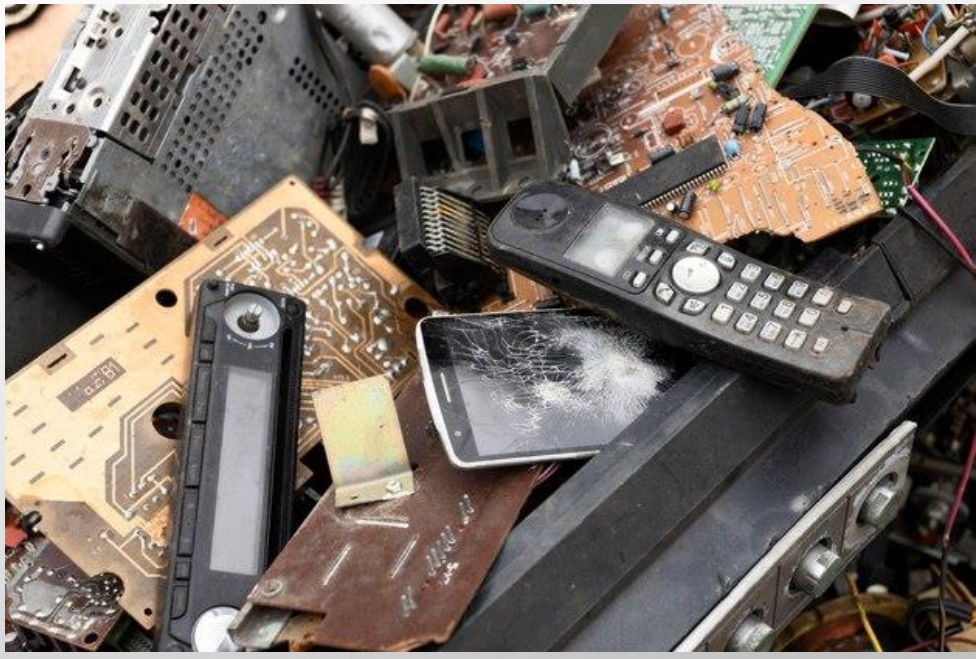
UNCRD & MOEJ, 2020:

- About 1.15 and 2.41 million ton of plastic currently flows from the global riverine system into the oceans every year.
- Plastic waste estimated entering the ocean from Asia & Pacific region ranges from 2.3 to 6.4 million ton in 2030.
- Around 14%-18% of global waste plastics generation is collected for recycling, 24% is thermally treated (e.g. by incineration, gasification or pyrolysis), the rest is disposed off in controlled, landfill, uncontrolled landfill, or the natural environment
- Developed economies such as Japan and Singapore have achieved high rates of plastic recycling (approximately 20% and 20% respectively) in the formal sector .
- Asia & Pacific countries claim > 50% plastic recycling rate, majority is carried out in informal sector and focused on single use plastic recycling (majority PET, PE and PP)

E-WASTE RECYCLING - 1

Global E-waste Monitor 2024 (UNITAR):

- E-waste arising five times faster than documented e-waste recycling.
- A record 62 million tonnes of e-waste was produced in 2022, up 82% from 2010.
- On track to rise another 32%, to 82 million tonnes, in 2030.
- Less than one quarter (22.3%) of the year's e-waste mass was documented as having been properly collected and recycled in 2022.
- Billions of dollars worth of strategically-valuable resources squandered, dumped.
- Just 1% of rare earth element demand is met by e-waste recycling.



E-WASTE RECYCLING – 2

Global E-waste Monitor 2024 (UNITAR):

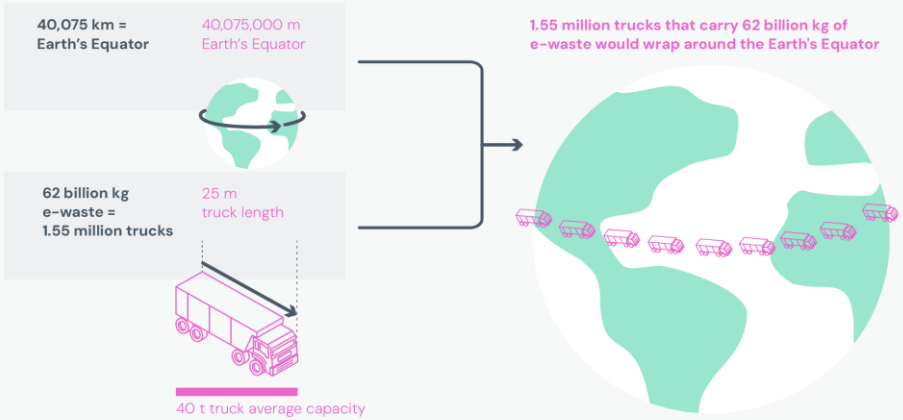
The report foresees a drop in the documented collection and recycling rate from 22.3% in 2022 to 20% by 2030 due to challenges e.g:

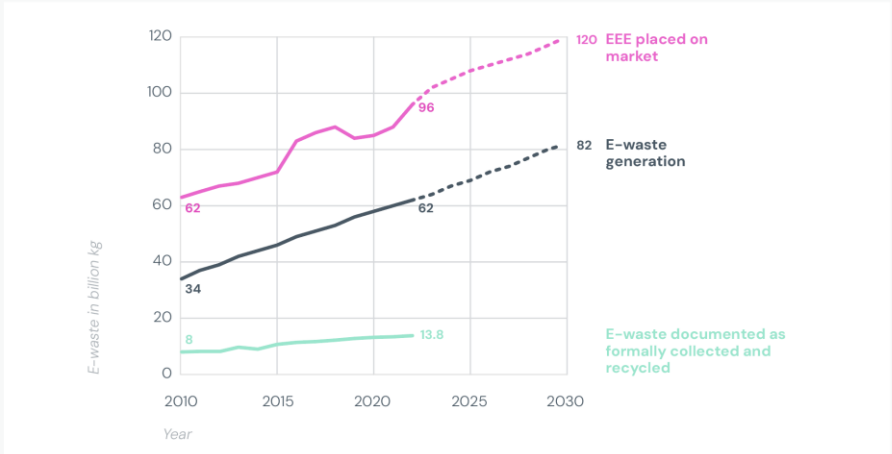
- Technological progress,
- Higher consumption,
- Limited repair options,
- Shorter product life cycles,
- Society’s growing electronification,
- Design shortcomings,
- Inadequate e-waste management infrastructure.

E-WASTE RECYCLING - 3

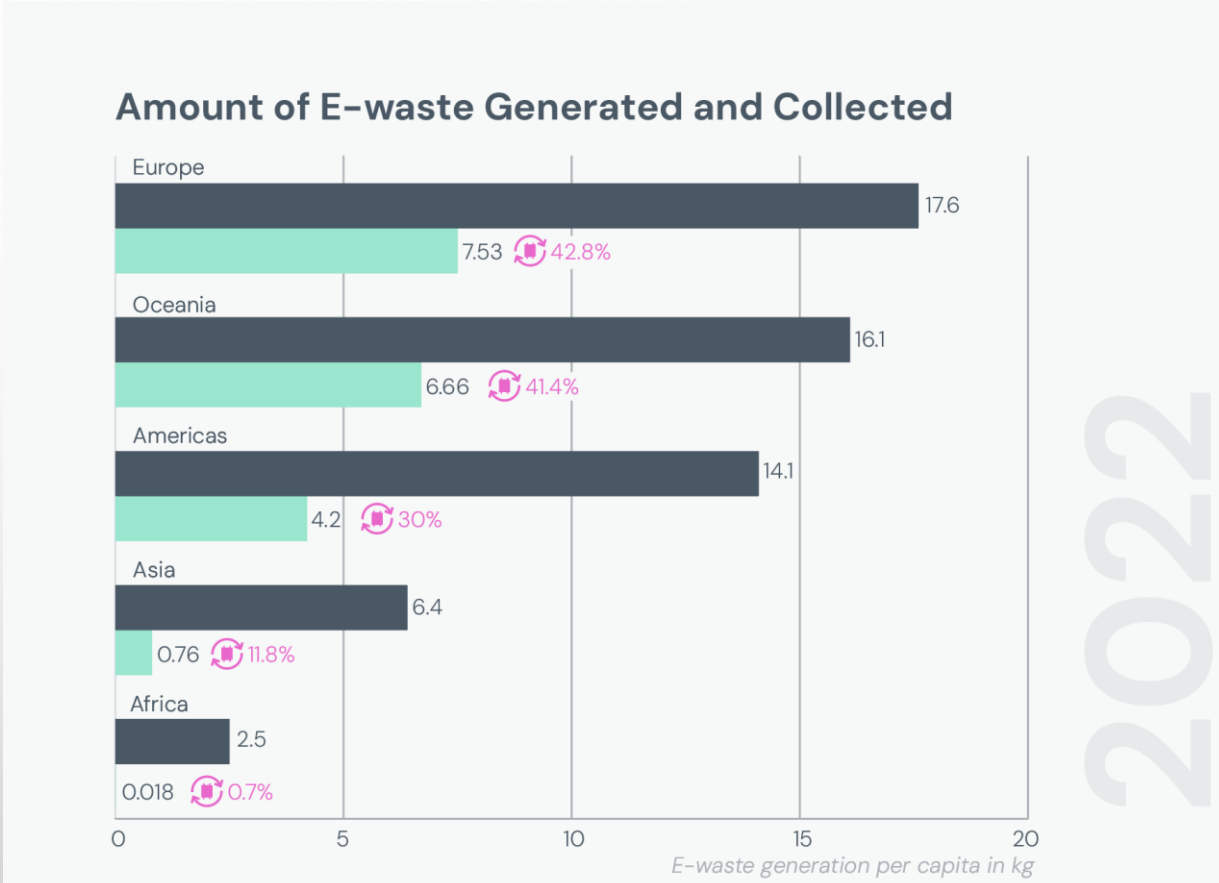
Global E-waste Monitor 2024 (UNITAR):

Figure 3. Headline Figures (2010 - 2030)





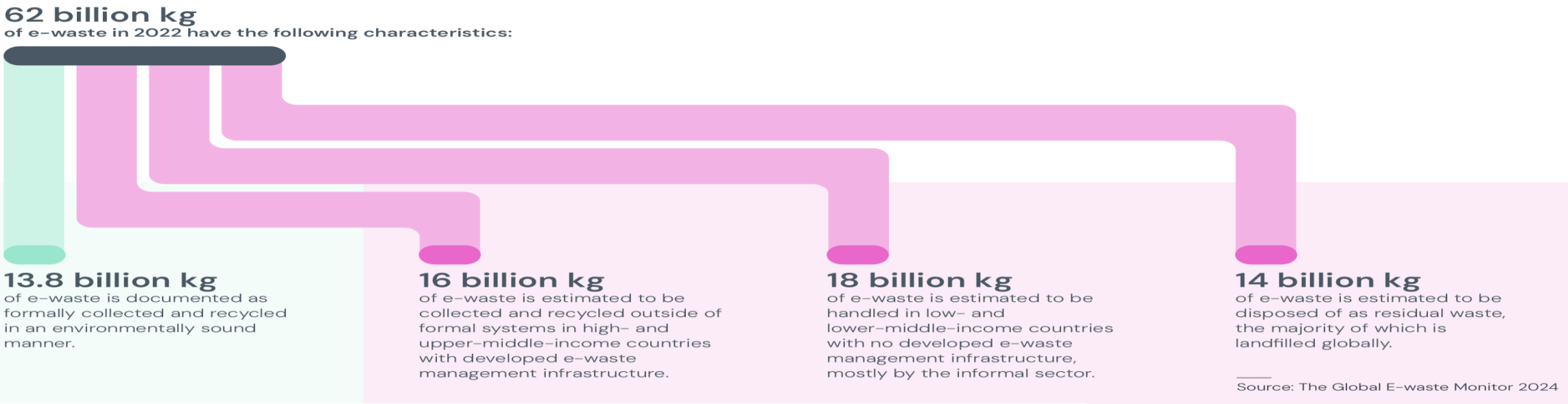
Source: The Global E-waste Monitor 2024



Source: The Global E-waste Monitor 2024

E-WASTE RECYCLING – 4

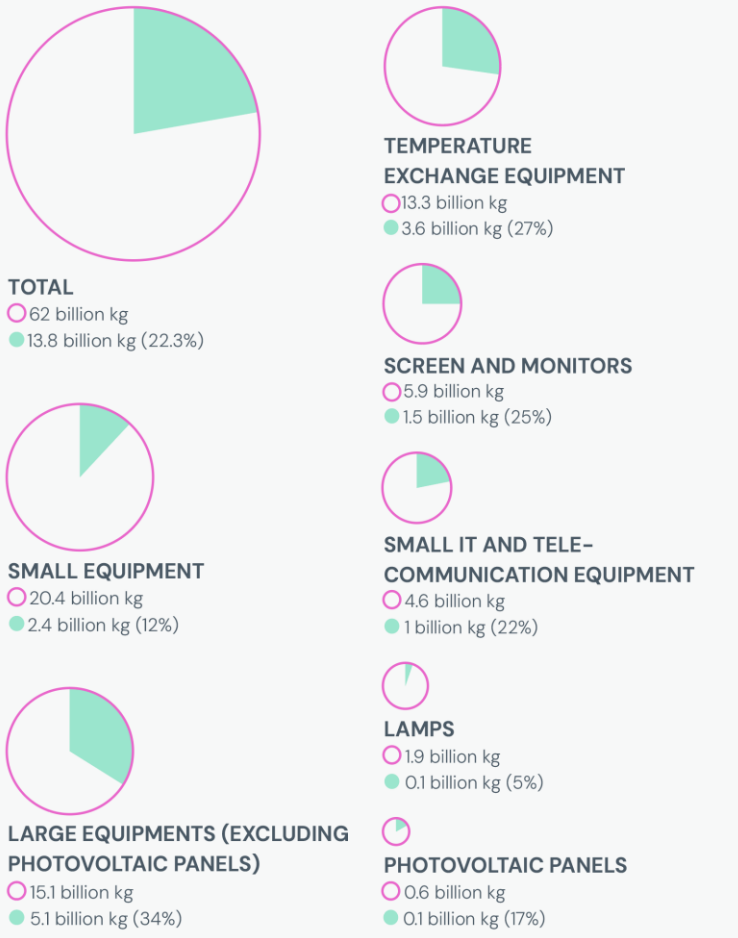
Global E-waste Monitor 2024 (UNITAR):

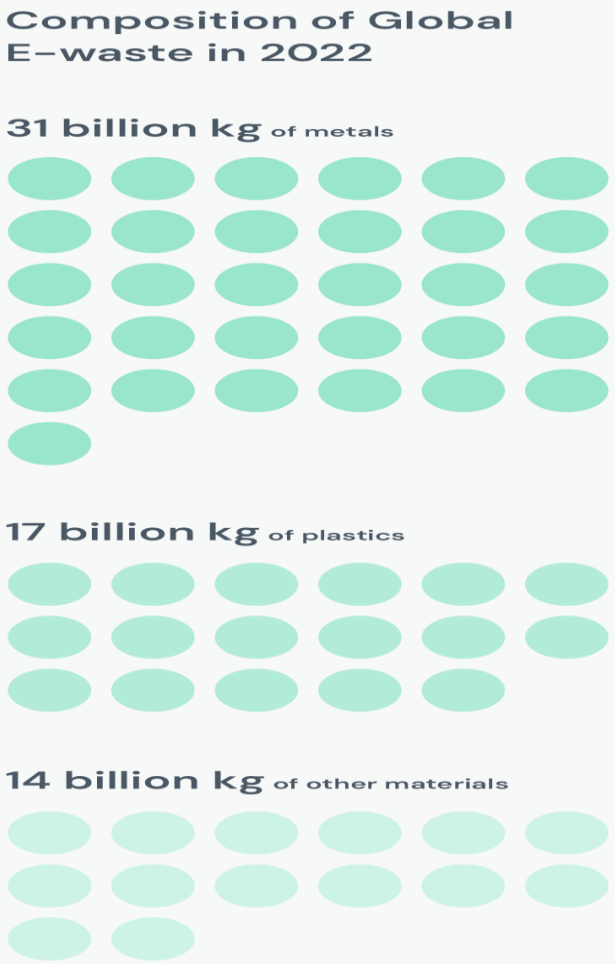


Most e-waste is managed outside formal collection and recycling schemes. As a result of non-compliant e-waste management, 58 thousand kg of mercury and 45 million kg of plastics containing brominated flame retardants are released into the environment every year. This has a direct and severe impact on the environment and people's health.

E-WASTE RECYCLING - 5

Global E-waste Monitor 2024 (UNITAR):





Source: The Global E-waste Monitor 2024

81 countries
have adopted e-waste policy, legislation or regulation.

67 countries
have legal provisions on EPR for e-waste.

36 countries
have provisions on e-waste recycling rate targets.

46 countries
have provisions on e-waste collection rate targets.

Source: The Global E-waste Monitor 2024

EMERGING WASTE STREAM

- **Emerging waste stream:** waste that arises from new developments and technologies, or from the rapid growth of economies in emerging markets.
- **Example:**

  E-waste, MSW in developing countries, waste from renewable energy infrastructure (e.g waste photovoltaics panels, lithium-ion batteries, waste of wind turbines).

- Due to the high costs of recycling and disposal in Europe, there could be a risk that actors will externalise these costs by exporting near end-of-life technologies and electric vehicles for further reuse to non-OECD countries (Oeko-Institut e.V., IDEA consult n.V., IEEP, 2021)

BSCRC-SEA's Recent Activities on Plastic Waste, E-Waste and POPs Waste

Reducing Uses and Releases of Chemicals of Concern, Including POPs, in the Textiles Sector (GEF ID 10523)

- **GEF Focal Area(s):** Chemicals and Waste
- **Country:** Bangladesh, Indonesia, Pakistan, Vietnam
- **Project Type:** Full Sized Project (FSP)
- **Duration:** 2022 – 2027
- **Donor:** Global Environment Facility (GEF)
- **Implementing Agency:** United Nations Environment Programme (UNEP)
- **Executing Agency (ies) :**
  - Basel and Stockholm Conventions Regional Centre for Southeast Asia (BSCRC-SEA)
  - Natural Resources Defense Council (NRDC)
- **Project Partners :** UNEP RMB, ILO, UNECE


SDS CHEMICAL LIST
APD

DEVELOPMENT OF REGIONAL STANDARD REQUIREMENTS FOR TBM OF PLASTIC WASTE INTO THE ASEAN REGION & PILOT STUDY ON OPTIMISATION OF DOMESTIC PLASTIC WASTE UTILISATION

- **Background:** Part of the Small Grant Programme (SGP) on Plastic Waste
- **Cooperation with:** UNEP/BRS Secretariat
- **Country:** ASEAN countries
- **Duration:** 2022 – 2025
- **Donor:** Norwegian Agency for Development Cooperation (NORAD)
- Project Progress Reporting during the 8th AWGCW Meeting in Hanoi, 2023
- Regional workshop on the project output dissemination, planned on 19-20 Nov 2024.

RESEARCH ON THE OPTIMISATION OF PLASTIC WASTE UTILISATION/ABSORPTION IN RECYCLING ACTIVITIES

- **Background:** Part of Partnership on Plastic Waste Working Group pilot projects
- **Cooperation with:** UNEP/BRS Secretariat
- **Duration:** 2023 – 2025
- **Country:** Cambodia, Lao PDR, Malaysia, Philippines, Thailand

The Training to the ASEAN Member Countries on Toolkit for the Development of an Inventory of Plastic Waste under the Basel Convention, Bangkok, 11 Dec 2023.

Development of Priority Action Plans on the ESM of Used Computing Equipment in Cambodia, Indonesia and Pakistan

- **Background:** Follow-up Partnership to the Partnership of Actions on Computing Equipment (PACE)
- **Cooperation with:** UNEP/BRS Secretariat
- **Duration:** 2022 – 2025
- **Project Scope:** Regional
- **Donor:** European Union

SCOPE OF SESSION 3

PRESENTATIONS

- Current progress on the projects promoting ESM in Asia
- Selected countries' reports on their initiatives, incl.:
  - Development of laws/regulations to promote the recycling of plastic waste and e-waste at the national level
  - Initiatives to promote the ESM by industry
  - Introduction of EPR and how it works
  - Experience of using TGs on the ESM of specific waste stream under the Basel Convention (if any)
- Recycling technology and practice in Lao PDR

DISCUSSION POINTS

- What are the important elements in promoting the ESM in each country?
- Do the challenges in promoting ESM vary depending on the type of waste?
- Could successful cases in one country be replicated in other countries or regions? How good practices could be applied in national context, given that legal system and technology level is different in each country?
- How can we enhance the engagement of private sector in pursuing the ESM of plastic waste and e-waste?
- How can the Asian Network contribute to this issue?

Thank you

For more information please contact:

Anton Purnomo
Director
Basel and Stockholm Conventions Regional Centre for Southeast Asia
Email: director@rc-sea.org
secretariat@rc-sea.org
Website: https://rc-sea.org

BASEL CONVENTION REGIONAL CENTRE FOR SOUTHEAST ASIA &
STOCKHOLM CONVENTION REGIONAL CENTRE INDONESIA