Creating a Circular Economy for Electronics

BETTER E-WASTE DATA
Minimize Generation
of E-waste
Prevent Illegal Dumping

ITU REGIONAL DEVELOPMENT FORUM

ITURDF
ASIA-PACIFIC REGION
ONLINE 2020

2-5 November

itu.int/go/RDF-ASP2020

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Organized by

#ICT4SDG   SUSTAINABLE DEVELOPMENT GOALS   World Summit on the Information Society Turning targets into action 2025 Geneva 2003 | Tunis 2005 | New York 2015   ITU
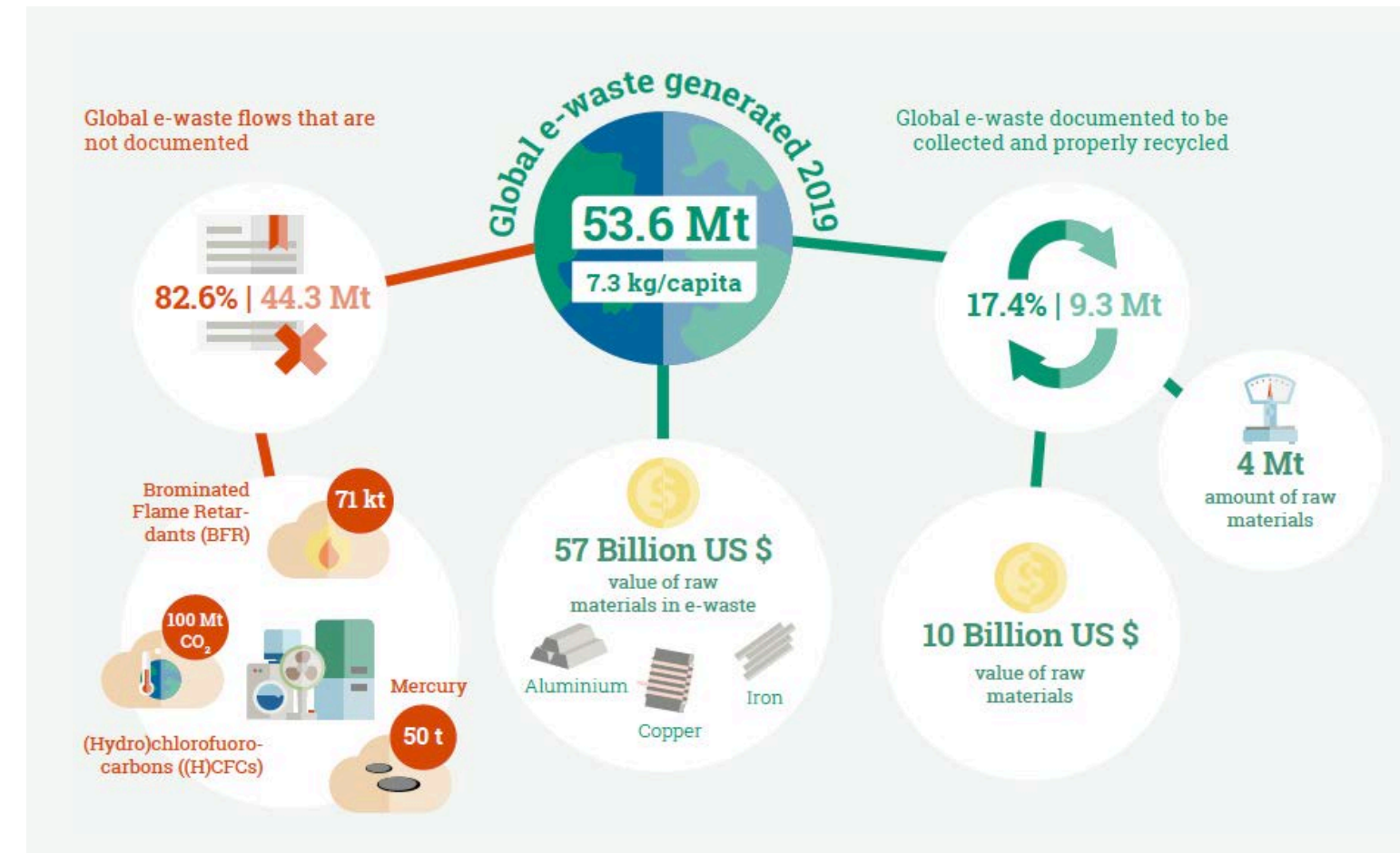
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Global landscape for E-waste generated (2019 data)

A record **53.6** million metric tonnes (Mt) of e-waste is reported generated worldwide in 2019, up 9.2 Mt in five years.

Since 2014, the global generation of **e-waste has grown by** 9.2 million **metric tonnes (Mt) (21%).**

The value of raw materials in the global e-waste generated in 2019 is equal to approximately **$57 billion USD.**

Global e-waste flows that are not documented

Global e-waste generated 2019

Global e-waste documented to be collected and properly recycled

82.6% | 44.3 Mt

53.6 Mt
7.3 kg/capita

17.4% | 9.3 Mt

4 Mt
amount of raw materials

Brominated Flame Retardants (BFR)

71 kt

100 Mt CO$_2$

57 Billion US $
value of raw materials in e-waste

Mercury

Aluminium   Copper   Iron

10 Billion US $
value of raw materials

(Hydro)chlorofluoro-carbons ((H)CFCs)

50 t

82.6% (or 44.3 Mt) of Global e-waste flows that are not documented, and 43.7Mt of e-waste is unknown, this is likely dumped, traded or recycled in a non-environmentally sound way.

2014
61 countries
covered by legislation, policy and regulation

2017
67 countries
covered by legislation, policy and regulation

2019
78 countries
covered by legislation, policy and regulation

Currently, only 78 out of 193 (40% of countries) are covered by an e-waste policy, legislation or regulation.

WEEE in Asia-Pacific at Glance

WEEE Challenges

1 E-WASTE HAS BECOME ONE OF THE FASTEST-GROWING WASTE STREAM IN THE WORLD.

Rapid innovation and lowering costs have dramatically increased the access to electronic products. The world now discards approximately 53.6 million Mt of e-waste per year – only 17.4% is formally collected and recycled.

2 E-WASTE CONTAINS SUBSTANCES THAT CAN BE HAZARDOUS TO HUMAN HEALTH AND THE ENVIRONMENT IF NOT DEALT WITH PROPERLY – INCLUDING MERCURY, CADMIUM AND LEAD.

In addition, e-waste puts the health and lives of some of the world's poorest adult and child workers who dispose of e-waste at risk, by exposing them to toxins and poisoning.

3 IN MANY DEVELOPING COUNTRIES, COLLECTION AND PROPER RECYCLING INFRASTRUCTURES ARE STILL LACKING.

EVEN WORSE, INCREASING E-WASTE CAN ALSO BRING PRESSING GLOBAL WARMING ISSUE.

4

A total of 98 Mt of CO_2-equivalents were potentially released into the atmosphere globally in 2019 from the discarded fridges and air conditioners that were not managed in an environmentally sound manner.

Turning problem into opportunity

A System of E-waste Management

1 **E-WASTE CONTAINS SEVERAL VALUABLE RAW MATERIALS SUCH AS GOLD, COPPER AND IRON.**

In 2019, the value of raw materials in e-waste generated was estimated at $57 billion USD. At the current collection and recycling rate (17.4%), a raw material value of $10 billion USD could be recovered.

A system in which all discarded products are collected and then the materials or components reintegrated into new products could:

2 **A 'CIRCULAR ECONOMY' FOR ELECTRONICS AND THE ENVIRONMENTAL IMPACT COULD BE REDUCED.**

through greater collaboration between multinationals, small- and medium-sized enterprises (SMEs), entrepreneurs, academia, trade unions, civil society and associations.
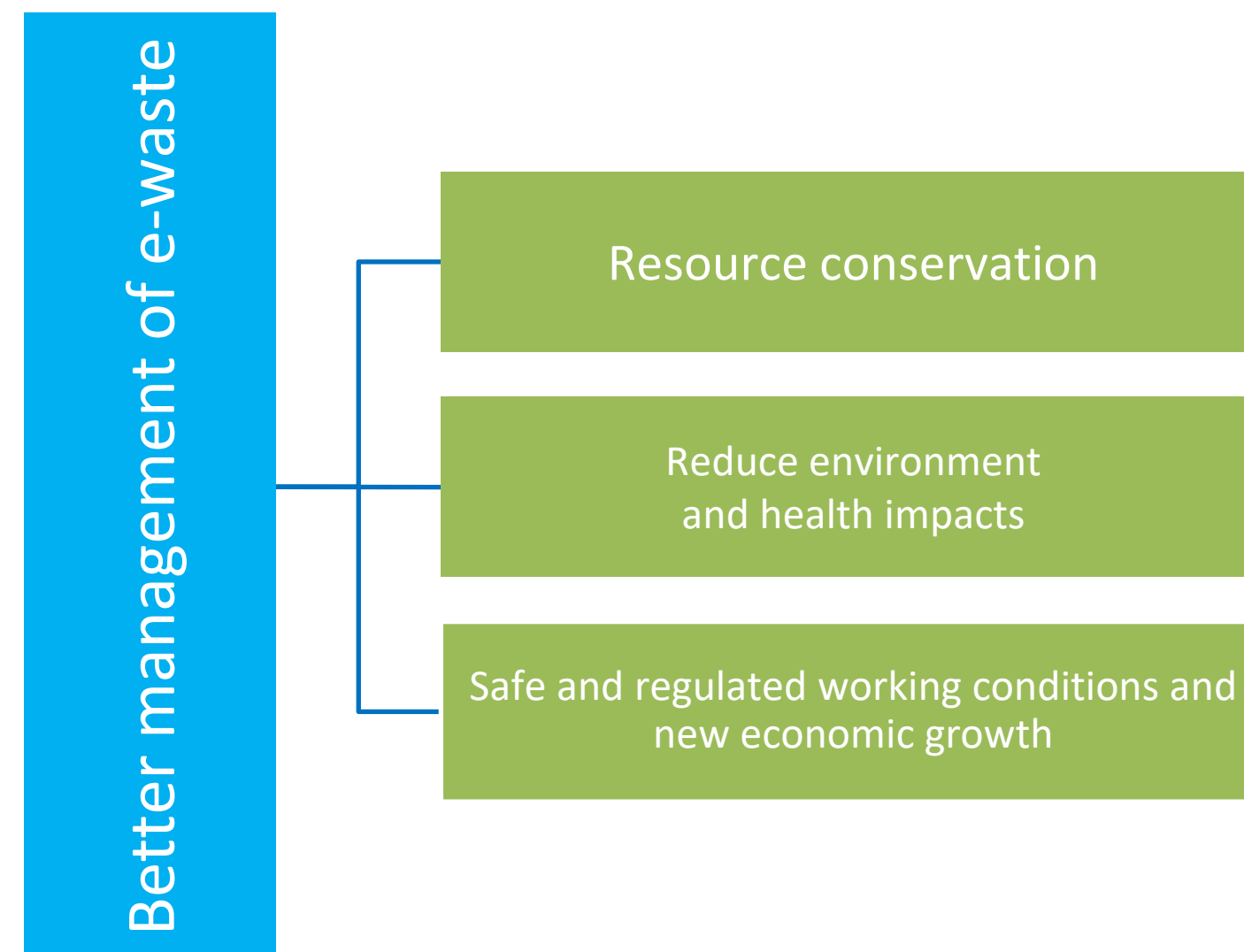
RELIABLE, OFFICIAL AND COMPARABLE E-WASTE DATA AND STATISTICS PROVIDE THE FOUNDATION FOR THE DEVELOPMENT OF SOUND DOMESTIC E-WASTE MANAGEMENT POLICIES AND LEGISLATION.

3 As of 2020, people from 60 different countries have been trained by the Global E-waste Statistics Partnership (GESP) to compile national e-waste statistics through an internationally adopted methodology.

Better management of e-waste

- Resource conservation
- Reduce environment and health impacts
- Safe and regulated working conditions and new economic growth

Source: Sofies

WEEE in Asia-Pacific at Glance

ITU's Mandate

30% the global e-waste recycling rate in 2023

50% the percentage of countries with an e-waste legislation in 2023

By adopting the Connect 2030 Agenda, ITU Member States have set a global ITU e-waste target for 2023 to increase the global e-waste recycling rate to 30% and to raise the percentage of countries with an e-waste legislation to 50%. They have also committed to reducing the volume of redundant e-waste by 50%.

Tackling e-waste helps to address the Sustainable Development Goals, in particular goals 3, 6, 8, 11, 12 and 14.

ITU's Solution

Creating a circular economy for ICT equipment

Creating a circular economy for ICT equipment

Three Impact Pathways:

1. **WEEE DATA & KNOWLEDGE to improve expertise in the collection of WEEE data**

2. **WEEE POLICY SUPPORT to increase coverage of national WEEE policy**

3. **ADVOCACY & MEDIA to enhance business circularity of the ICT industry**

The Global E-waste Monitor 2020

Quantities, flows, and the circular economy potential

International E-Waste Day

Circular Electronics Partnership

E-waste Policy Support: Namibia, Malawi, Niger etc.

Statistics comparison between GEM 2020 and GEM2017 in ASP

The Global E-waste Monitor 2017
Quantities, Flows, and Resources
Authored by Baldé, C. P., Forti, V., Gray, V., Kuehr, R., Stegmann, P.

The Global E-waste Monitor 2020
Quantities, flows, and the circular economy potential
Authored by: Forti, V.; Baldé, C.P.; Kuehr, R.; Bel, G.

1 **A 6.7 Mt increase in 2019**
More E-waste generated in Asia in three years

2 **From 15% (2016) to 11.7% (2019)**
E-waste collection rate in Asia has dropped 3.3%

3 **46.5% (a 5.8% increase)**
Of Global E-waste generated in Asia in 2019. In 2017, the fraction is 40.7%

4 **11 Countries with e-waste policies |25 countries don't (5 unknown)**
26.8% of coverage on e-waste legislations in ASP region*.

Each country's e-waste status is in the Annex*

Source: Global E-waste Monitor 2020, 2017

Information about the legislative coverage in Asia

THE SOUTH ASIAN REGION HAS BEGUN TO RECOGNIZE THE IMPORTANCE OF PROPER E-WASTE MANAGEMENT.

India is the only country in Southern Asia with a legislation on e-waste.

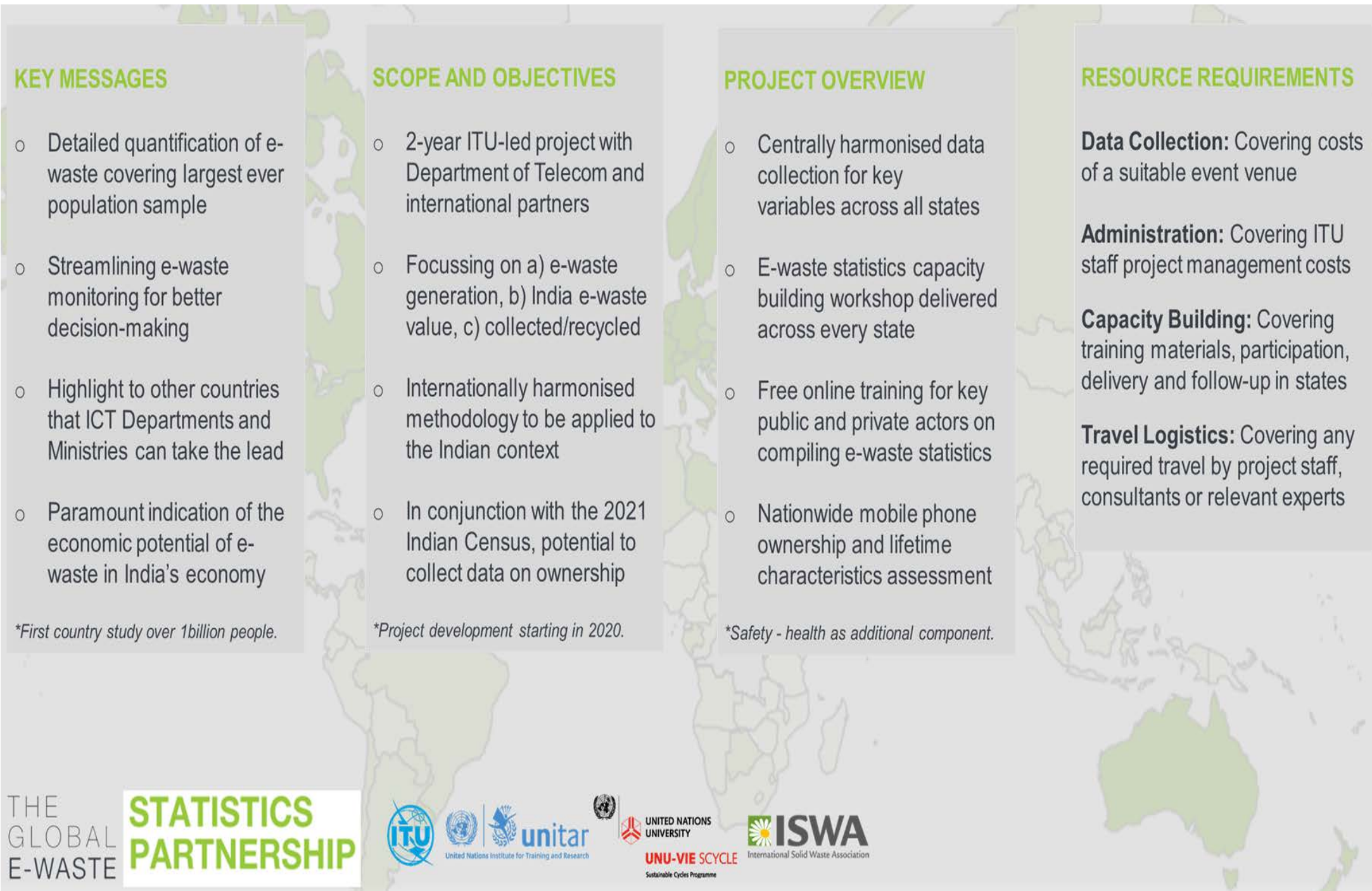**SOME COUNTRIES IN EASTERN ASIA HAVE ADVANCED E-WASTE REGULATION, SUCH AS JAPAN AND SOUTH KOREA.**

Japan was one of the first countries in the world to implement an EPR-based system of e-waste.

IN SOUTH EAST ASIA, SOME COUNTRIES ARE MORE ADVANCED.

Philippines, Cambodia and Myanmar have formulated their national regulations on e-waste management.

Project Proposal : Pan India E Waste Monitor

Asia-Pacific Regional Webinar

KEY MESSAGES

o Detailed quantification of e-waste covering largest ever population sample

o Streamlining e-waste monitoring for better decision-making

o Highlight to other countries that ICT Departments and Ministries can take the lead

o Paramount indication of the economic potential of e-waste in India's economy

*First country study over 1billion people.

SCOPE AND OBJECTIVES

o 2-year ITU-led project with Department of Telecom and international partners

o Focussing on a) e-waste generation, b) India e-waste value, c) collected/recycled

o Internationally harmonised methodology to be applied to the Indian context

o In conjunction with the 2021 Indian Census, potential to collect data on ownership

*Project development starting in 2020.

PROJECT OVERVIEW

o Centrally harmonised data collection for key variables across all states

o E-waste statistics capacity building workshop delivered across every state

o Free online training for key public and private actors on compiling e-waste statistics

o Nationwide mobile phone ownership and lifetime characteristics assessment

*Safety - health as additional component.

RESOURCE REQUIREMENTS

Data Collection: Covering costs of a suitable event venue

Administration: Covering ITU staff project management costs

Capacity Building: Covering training materials, participation, delivery and follow-up in states

Travel Logistics: Covering any required travel by project staff, consultants or relevant experts

THE GLOBAL E-WASTE
STATISTICS PARTNERSHIP

ITU | unitar | UNITED NATIONS UNIVERSITY UNU-VIE SCYCLE Sustainable Cycles Programme | **ISWA** International Solid Waste Association
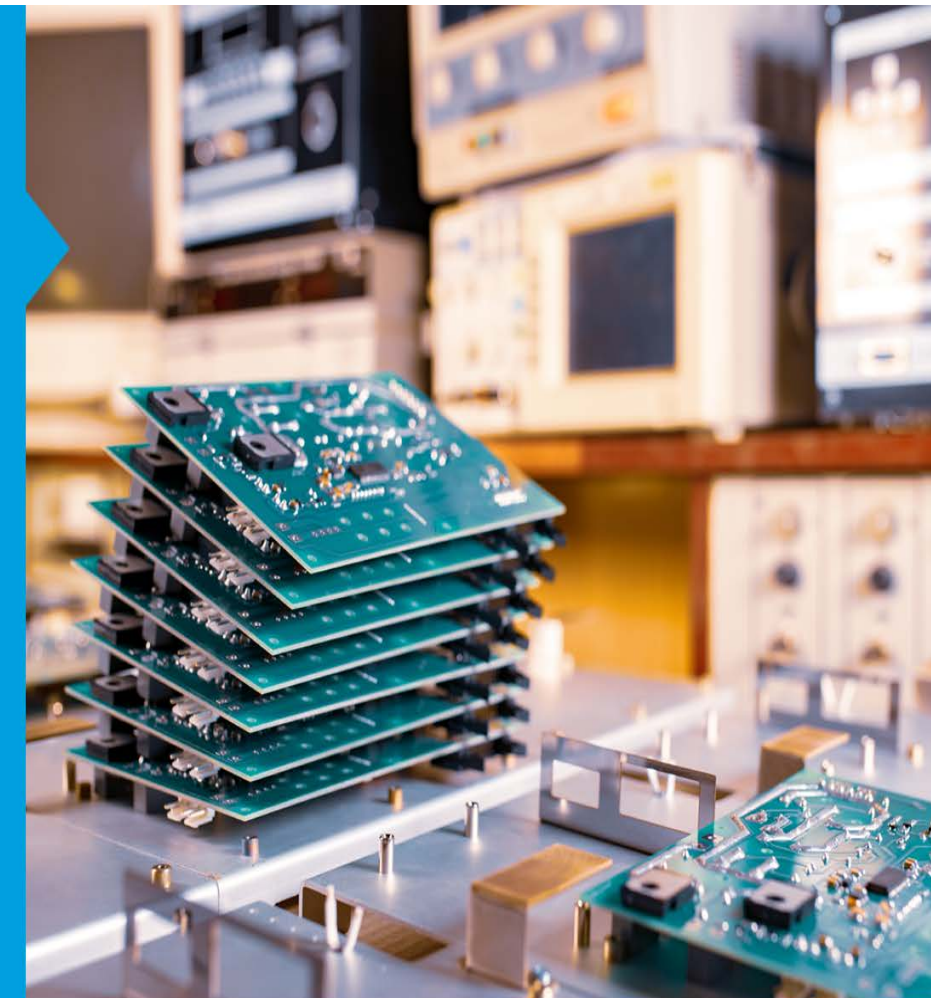
ITUWebinars

E-Waste in the Asia and the Pacific

One step towards circular economy

26 November 2020
13:00 to 15:00 (BKK time)

Join us online!
itu.int/

#endEwaste

UN environment programme | unitar United Nations Institute for Training and Research | ITU

Information Sharing Session

Planned Policy Assistance : Bangladesh, Nepal

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Join our efforts in creating a circular economy for ICT equipment to improve expertise in collection of WEEE data , coverage of national WEEE policy and enhance business circularity of the ICT industry

THANK YOU

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