



THE 서울 AGREEMENT: Creating a more equitable EV battery value chain

Se-yeon Lee, Lidewij Nollkaemper, Ioannis Kerentzis, Dónal O'Regan, Lea Yamamoto,
Ryan Callahan & Janine Micah B. Vicente

Group 5: Global Equity and Justice

THE PROBLEM: Non-Equitable Battery Waste



WHAT

Gasoline and diesel vehicles are being displaced by electric vehicles (EVs) due to decarbonization efforts



WHERE

The Global North has established battery disposal networks for effective recycling of critical minerals



WHY

Batteries contain valuable rare-earth minerals but pose health and environmental risks



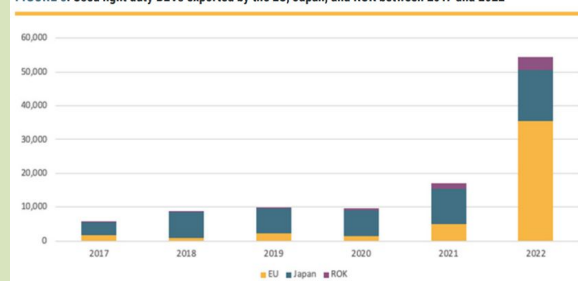
HOW

Risks include toxic chemical exposure to humans and soil/water contamination

INEQUITY WITHIN THE EV VALUE CHAIN

- Global South export most raw battery materials, but lack processing and recycling capacity
- Global North dominates battery production and later export used cars back to Global South
 - 23% of Global North e-waste is exported annually to the Global South (UN), while used EV exports from the EU rose 82% between 2017 and 2020 (UNEP)
 - End-of-life vehicles are sent to Global South by bypassing fair and sustainable practices
- This creates an inequitable EV value chain and waste burden
 - Despite the inequity, informal recycling economies support local livelihoods
Example: Agbogbloshie district in Accra, Ghana

FIGURE 8: Used light duty BEVs exported by the EU, Japan, and ROK between 2017 and 2022



Source: UNEP 2023

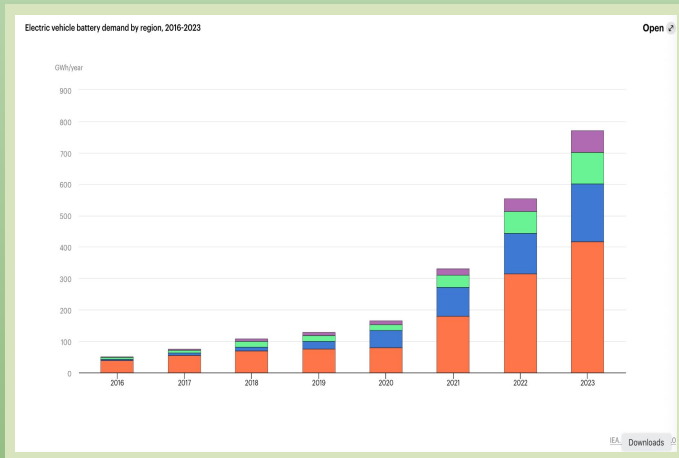


Source: Arnika. Agbogbloshie, Ghana

THE URGENCY



- ★ In the Global North, regulations promote extended producer responsibility (EU Battery Regulation, Korea's upcoming traceability system, California's AB 2440)
- ★ The automotive industry is increasingly securing and disclosing supply chain information
- ★ Imports of small batteries from gasoline vehicles are not safely or effectively managed
- ★ The rise in EVs will significantly increase battery waste and toxic materials
- ★ **Current disposal systems risk being overwhelmed, and can environmental and human health impacts**



GAPS

Capacity gap

Global South lacks infrastructure and technical know-how for safe battery management

Jurisdictional Limits

National laws on batteries cannot be enforced beyond borders

Transparency Challenge

Cross-border enforcement of equitable battery practices remains unsolved

Global Example: the 2015 UN Paris Agreement:

Signed by 195 countries, covering nearly all countries; recognizes shared responsibility based on capabilities; promotes a flexible, bottom up approach to address a global crisis.

We introduce the ...

SEOUL AGREEMENT



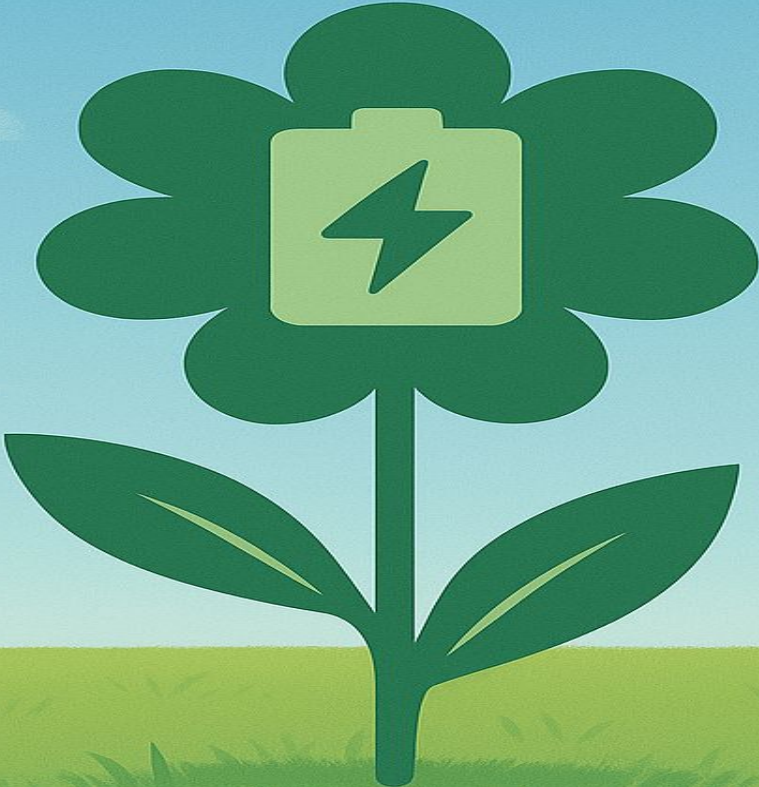
UNITED NATIONS

2025

To ensure **equitable and safe management of batteries worldwide**, we agree to create an international legally binding instrument introducing:

1. **Cross Border Enforceability**
2. **Minimum Viable Obligations for Battery Disposal**
3. **National Implementation**
4. **Public-Private Partnerships for Capacity Building**
5. **Transparency Reporting & Independent Review Body**

REMEMBER WHY WE'RE HERE...



Equity

Humanity

Hope

Biodiversity

Justice

Action

Collaboration

REFERENCES

- Richa, K., Babbitt, C. W., Gaustad, G., & Wang, X. (2014). *A future perspective on lithium-ion battery waste flows from electric vehicles*. *Resources, Conservation and Recycling*, 83, 63–76. <https://doi.org/10.1016/j.resconrec.2013.11.008>
- 대한민국 정책브리핑 . (2024, June 4). *전기차 폐배터리 자원순환 관리체계 구축 본격 추진*. <https://www.korea.kr/briefing/policyBriefingView.do?newsId=156689142>
- Global Battery Alliance. (n.d.). *Battery Passport*. <https://www.globalbattery.org/battery-passport/>
- IndustriTAG. (n.d.). *Shipping & Labeling EV Car Batteries*. <https://blog.industritag.com/shipping-labeling-ev-car-batteries/>
- Suppliers Partnership for the Environment. (n.d.). *Responsible Battery Work Group*. <https://www.supplierspartnership.org/responsible-battery-work-group/>
- Baldé, C. P., Kuehr, R., Yamamoto, T., McDonald, R., D'Angelo, E., Althaf, S., Bel, G., Deubzer, O., Fernandez-Cubillo, E., Forti, V., Gray, V., Herat, S., Honda, S., Iattoni, G., Khetriwal, D. S., Luda di Cortemiglia, V., Lobuntsova, Y., Nnorom, I., Pralat, N., & Wagner, M. (2024). *Global E-waste Monitor 2024*. International Telecommunication Union (ITU) & United Nations Institute for Training and Research (UNITAR). Geneva/Bonn. <https://ewastemonitor.info/>
- Biedenkopf, K. (2022). Hazardous waste. In *Routledge eBooks* (pp. 485–497). <https://doi.org/10.4324/9781003008873-41>
- IEA (2024), *Global EV Outlook 2024*, IEA, Paris <https://www.iea.org/reports/global-ev-outlook-2024>, Licence: CC BY 4.0