**Session 10:** **Simulation e-waste workers**

Unit 2c: Global Organization of Production: Value Chains and Labour, Sara Geenen

**Information for students**

**Background**

The global ‘e-waste problem’ is often framed as a problem of rich countries dumping their toxic waste in poor countries in the Global South. Commonly cited figures on the magnitude of the problem say that global e-waste production is estimated to be between 20 and 50 million tonnes and that e-waste has been the fastest growing segment of the global waste stream at 3 to 5% per year over the past decade. Between 50 to 80% of e-waste produced in the USA is said to be exported rather than being recycled domestically. And around 80% of e-waste in the Global North is believed to be shipped – often illegally – to developing countries, where it is recycled by hundreds of thousands of informal workers working in conditions that are extremely harmful to both workers’ health and safety, and the environment.

In preparation for this simulation you are required to read three academic articles that help to put this problem in a different perspective. Lepaswky (2015) draws on quantitative data on international trade flows to document the changing geographies of e-waste trade. His data contradict the dominant narrative about ‘dumping’ of e-waste from the Global North in the Global South; instead they highlight the importance of South-South trade and domestic production of e-waste in the South. His analysis also calls for more nuance in conceptualizing this commodity as mere ‘waste’, as much of it is reused, repaired and recycled. As Lepawsky (2015: 157) puts it: “E-waste moves in complex trade circuits that, along with significant toxic risks to people and environments, also underpin extensive and dynamic rubbish recovery economies that support livelihoods and employment, access to technology, technological upgrading, skill and knowledge transfer, innovation and creativity, as well as material inputs for productive industry”.

This point is further illustrated by Wong (2015). Based on fieldwork among waste workers in Malaysia and Singapore, he analyses the role of informal labour in collecting and processing e-waste, and in particular the ways in which value is created and captured in the value chain. Wong’s chapter sheds light on the labour process, the different activities such waste-workers engage in, and their livelihoods. It shows that waste is not an end-product in the value chain, but a commodity that is re-valued through disassembling, dismantling, sorting and recycling. It also demonstrates the key role played by informal labour, and the multiple ways in which informal labour is connected to the formal production network.

Focusing on Agblogboshie, Ghana’s hub for informal e-waste dumping and recycling, Grant and Oteng-Ababio (2016) develop the concept of ‘urban mining’ to think about sustainability, waste and value, consumption and production, and the informal economy. Their article provides an interesting overview of the legal framework as well as flows and actors in Ghana’s e-waste economy.

**Simulation : objectives**

In this exercise we will **simulate a negotiation process between different stakeholders** in Ghana’s e-waste sector. The objective of the simulation is to come to a negotiated consensus between these stakeholders on the question how to improve workers’ conditions in the e-waste value chain. This objective will be reached in different steps, as outlined in the instructions for students below. The 3 main questions that will guide the discussion, are the following:

1. What are the main problems or priorities that should be tackled in Ghana’s e-waste sector, according to your organization? What are the main problems related to workers’ conditions? (= diagnosis)
2. What concrete projects or policies does your organization propose in order to improve workers’ conditions? What can be your own role and what do you expect the others to do? (= policies)
3. What projects or policies do you propose as a group? (= negotiated consensus)

This simulation will help you to achieve two of the **subunit’s learning outcomes**, more particularly:

* You can apply the conceptual tools to selected case studies and formulate your own policy proposals through a simulation exercise.
* You are able to critically assess the opportunities and constraints for social upgrading, examine severe forms of exploitation and its causes, look at the role of public and private actors, and assess the implications for labour and different groups of workers and producers.

The case to which you will apply the concepts (social and economic upgrading, global value chain, governance, regulation of labour, informality, waste and value), are the living and working conditions of e-waste workers in Ghana. There is also an assignment attached to this simulation (see below).

In addition, the simulation will help you to achieve **learning outcomes of IOB’s master programmes**.

* You should be able to collect and analyse a large amount of information on a concrete topic in a relatively short period of time (= detective skills)
* You should be able to translate this information to your classmates in the form of a group discussion (= translator skills)
* You should be able to come to a negotiated consensus, on the basis of your own arguments and those advanced by your classmates (= diplomat skills)

**Simulation : instructions**

At the start of the Global Organization of Production course (session 2), the simulation will be introduced and you will be assigned to one of the groups. There are **8 groups**.

1. The first group consists of representatives of informal e-waste workers from Agbogbloshie.
2. The second group consists of young Ghanaian entrepreneurs, more particularly representatives of the Agbogbloshie Makerspace Project, a youth-driven project aimed at promoting ‘maker ecosystems’ in Africa.
3. The third group consists of representatives of a local NGO, Green Advocacy Ghana, which has been among the first to communicate about the e-waste problem in the country. They have also been involved in some research.
4. The fourth represents the national government. In Ghana, the Environmental Protection Agency (EPA) has been very active in dealing with the e-waste problem.
5. The fifth group represents the international institutions and consists of ILO staff.
6. The sixth group consists of Basel Action Network, and international NGO that is particularly overseeing the implementation of the Basel Convention on e-waste.
7. The seventh group consists of Fairphone, a Dutch company founded in 2013. It produces ethical, modular smartphones and has been involved in a project to reduce electronic waste in Ghana.
8. The eighth group represents the lead firms in the electronics sector. In this case there are representatives of Nokia, a company that has also taken up the issue of e-waste as part of their corporate social responsibility.

In preparation for the simulation you’ll have to read the **compulsory literature** (see below) as well as the **specific group resources** (see below). Some of these specific resources are (quite long) reports; others are links to websites and videos. The point is not that you master all the details of these resources, but that you can identify and understand the most relevant information, i.e. the information that helps to build your group’s argument, or the concrete policy recommendations that you can propose to the group. Part of the exercise is to be able to ‘digest’ a considerable amount of information on a particular topic in a short period of time. The **recommended literature** is on Blackboard to provide you with some additional facts and figures and useful background information. These may help you strengthen your argument and provide you with fresh ideas for policies.

On the basis of all these resources and in preparation for the session, you should:

* Organize an in-group meeting.
* Think about what the most important issues or problems in Ghana’s e-waste sector are, according to the organization you represent. More specifically you think about problems related to e-waste workers. You need to be aware of why your group argues this. Whose interests do you represent?
* Think about what your group wants to achieve in this negotiation? What is your ideal outcome? What is your strategy? Who are your allies and your opponents?
* Think about concrete policies or projects you can propose to improve the conditions of e-waste workers. What can your organization do? And what do you expect others to do?
* **Write a brief statement** (between 750 and 1000 words) summarizing your group’s answers to these 3 questions (1. Issues and interests; 2. Objectives and strategy; 3. Policies and projects).
* **Send this statement** to sara.geenen@uantwerpen.be by **Sunday 17 February 10pm**.

On Monday 18 February, the simulation will take place (10.30-12.30). The programme is as follows:

* 10.30-10.50: Class discussion on question 1: What are the main problems or priorities that should be tackled in Ghana’s e-waste sector, according to your organization? What are the main problems related to workers’ conditions? (= diagnosis). One member will come to the fore to discuss this.
* 10.50-11.10: Class discussion on question 2: What concrete projects or policies does your organization propose in order to improve workers’ conditions? What can be your own role and what do you expect the others to do? (= policies). Another member will come to the fore to discuss this.
* 11.10-11.20: Break
* 11.20-11.30: Back to in-group meeting. : Based on what others have proposed, you may now again consult with your group members and formulate an answer/ a strategy for question 3. Keep in mind that you have certain interests to protect and certain outcomes you want to achieve. You cannot give in too much, but you will need to show some flexibility in order to come to a consensus. Also keep in mind that the negotiated policies which are proposed should be feasible, both politically and financially.
* 11.30-12.00: Class discussion on question 3: What projects or policies do you propose as a group? (= negotiated consensus). One member will come to the fore to discuss this. The lecturer moderates and will try to steer all groups towards a negotiated consensus on which policies to adopt.
* 12.00-12.30: Debriefing. Now you step out of your role and become a student again. The lecturer will lead a short debriefing.

**Compulsory literature**

1. Lepawsky, J. (2015). The changing geography of global trade in electronic discards: time to rethink the e-waste problem. The Geographical Journal181 (2): 147-159.

2. Wong, A. (2015). Articulation of informal labour: interrogating the e-waste value chain in Singapore and Malaysia. In: Newsome et al. (eds). Putting labour in its place. Labour process analysis and global value chains. London, Palgrave, 100-116.

3. Grant, R. and Oteng-Ababio, M. (2016). The Global Transformation of Materials and the Emergence of Informal Urban Mining in Accra, Ghana. *Africa Today* 62 (4): 3-20.

**Recommended literature (general resources)**

1. Baldé, C.P.; Wang, F.; Kuehr, R.; Huisman, J. (2015a). The global e-waste monitor 2014. United Nations University, Bonn.

2. Baldé, C.P.; Kuehr, R.; Blumenthal, K.; Fondeur Gill, S.; Kern, M.; Micheli, P.; Magpantay, E.; Huisman, J. (2015b). E-waste statistics: Guidelines on classifications, reporting and indicators. United Nations University, Bonn.

3. [Basel Convention](http://www.basel.int/Implementation/TechnicalAssistance/EWaste/EwasteAfricaProject/tabid/2546/Default.aspx)

4. ILO (2012). Global impact of e-waste. Addressing the challenge. ILO, Geneva.

5. SBC (2011). Ghana e-waste country assessment. SBC e-waste Africa project.

6. UNEP (2009). Recycling. From e-waste to resources. UNEP and UNU, Bonn.

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| **Groups** | **Specific resources** |
| Group 1: Informal e-waste workers from Agbogbloshie | Fernandez-Font Perez (2014). Tools for informal e-waste recyclers[Recyclers turn Kenya’s e-waste into cash](http://www.aljazeera.com/video/africa/2014/09/kenya-e-waste-recyclers-turn-trash-into-cash-20149106229390430.html) [E-waste market](https://www.youtube.com/watch?v=DXMbR7ZrSGU) |
| Group 2: Young entrepreneurs from Agbogbloshie Makerspace Project  | Fernandez-Font Perez (2014). Tools for informal e-waste recyclers[Agbogbloshie Makerspace Project](https://qamp.net/)[The burning truth behind an e-waste dump in Africa](http://www.smithsonianmag.com/science-nature/burning-truth-behind-e-waste-dump-africa-180957597/)[Ghana to benefit from e-waste project to the tune of USD 100 million](https://www.modernghana.com/news/874489/ghana-to-benefit-from-e-waste-project-to-the-tune-of-100-mi.html) |
| Group 3: Green advocacy Ghana | [E-waste recycling project](http://www.pureearth.org/project/agbobloshie-e-waste/)Green Advocacy Ghana (2011). E-waste strategy |
| Group 4: Ghana Environmental Protection Agency (EPA) | [Ghana parliament finally passes e-waste law](https://www.ghanabusinessnews.com/2016/07/08/159491/)[Ghana to benefit from e-waste project to the tune of USD 100 million](https://www.modernghana.com/news/874489/ghana-to-benefit-from-e-waste-project-to-the-tune-of-100-mi.html)Oko Institut (2010). Socio-economic assessment and feasibility study on sustainable e-waste management in Ghana |
| Group 5: International Labour Organization (ILO) | ILO (2014). Tackling informality in e-waste |
| Group 6: Basel Action Network (BAN) | [Basel Action Network](http://www.ban.org/)[Wasteland](https://www.youtube.com/watch?v=_PgbrPiUG0M)Basel Action Network (2002). Exporting harm. The high-tech trashing of Asia |
| Group 7: Fairphone | Fairphone [website](https://www.fairphone.com/en/our-goals/)[Latest news on Ghana e-waste collection programme](https://www.fairphone.com/en/2015/03/26/latest-news-on-ghana-e-waste-collection-program/) |
| Group 8: Nokia  | [Nokia’s take back programme](https://www.itu.int/en/ITU-T/Workshops-and-Seminars/Documents/URY-2014/E-WASTE/S3P2_Ed_Butler.pdf)Nokia (2015). Nokia. Connecting the world in a responsible way. CSR report.  |