

Oldenburg Model United Nations Conference 2011
- Changes and Challenges in a Globalised World -



Guide to

**The United Nations Environment Programme Governing
Council**

*Finding Solutions for the Handling of Electronic Waste with Special Focus on
Recycling*

Personal Introductions

Honourable Delegates,

My name is Matthias Wagner and I have the pleasure of being one of your Chairs in the UNEP this year. I am 19 years old, graduated 2010 in Telgte, near Münster, and am now studying biochemistry at the Freie Universität in Berlin.

It will be my second time being Chair at the glorious OLMUN and my fifth MUN. It all started in 2008 with my first OLMUN as a small and anxious Delegate having no idea what MUNs are about. But don't lose heart; you'll get to know everything very fast. I'm looking forward confidently to having fruitful discussions and interesting work and be sure you will get to know lots of witty people from all over the world very quickly.

I chose to be the Chair of the UNEP, because environmental policy is one of the most important topics in modern politics, especially in international relationships. Pollution knows no borders; there is just one earth for us.

One last note: Please prepare properly! The discussion is more or less senseless if you don't know what everybody is talking about. Furthermore it is very boring, if you are condemned to keep quiet having no clue what is going on.

So, don't hesitate to ask, if you've got any question! See you in June!

Matthias Wagner



Honourable Delegates,

My name is Lisa Kunze and I am going to be one of your Chairs in the United Nations Environment Programme. At the age of 18 I am graduating from high school in Oldenburg this year.

This conference is going to be my tenth MUN and my fourth OLMUN. Last year I chaired the Special Conference at OLMUN and I am really looking forward to chair the UNEP this year.

The first time I was a delegate was when I was in 9th grade and I was really nervous. But I got used to everything really fast and I am sure that you will as well. Now I am remembering every MUN I participated in as something special and I won't forget them.

I hope you are motivated to solve the problem given to us. Destroying the environment is something we have to stop. If we do not try to make a change then who else will? We are the young people; the young people who will live in this world in the years to come. We will become the voice of the nations and we can make a change if we really try.

We are looking forward to meet you all well prepared and motivated in June in my great hometown! We are always open for questions if there are any!

Yours,

Lisa Kunze



Dear delegates of the UNEP,

My name is Ann-Kristin Matthé and I will serve as Assistant President at this year's UNEP. I am 19 years old and attending the 13th grade at the Graf-Anton-Günther-School in Oldenburg.

This MUN conference will be my seventh one but the first MUN conference as a member of the Inner Circle and in a chair position. My MUN history started in the year 2009. The first conference I visited was OLMUN where I represented a country of the orient far away from here. After this great event, conferences in Berlin (BERMUN), Bremen (BRIMUN) and of course here in Oldenburg followed.

The interesting topic of our committee has also a personal side: Do you exactly know how toxic the components of your "little electronic friends" are? When they become electronic waste it is important to ensure a safe disposal and recycling to prevent our earth as a great place to live. Our children should not only read about this wonderful world in history books they should have the chance to experience it.

I am looking forward to constructive and intensive debates held form well informed delegates,

— **Ann-Kristin Matthé**
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How to prepare for the conference

To be able to actively debate within the committee you should prepare yourselves on time and detailed.

The first thing you should do is get information about your country in general. A good page to use is The World Factbook¹ but you can use other sources as well. Through this you might find out which countries are important trade partners or with which nations your country does not get along.

After you broadened your knowledge about your country you should get into the topic and do some research on definitions, background information and the problem in general. When you are done with that you have to find out your countries opinion in the topic. Here it is useful to look which conventions were signed or which resolutions were supported before that.

The next step is the production of a policy statement and a resolution.

If there are problems or questions we are always willing to help!

The UNEP

The United Nations Environment Programme (UNEP) is one of the organs of the United Nations.

The UNEP has various tasks. One of the main tasks is the storage of data concerning the environment. A special focus is for instance placed on the climate change, the extinction of species or hazardous waste and chemicals. Furthermore most of the valid environment conventions were developed within the UNEP. In addition the UNEP assists developing nations when they try to achieve economic growth without polluting the environment too much.²

The topic

The historical development

(Sorry, but the following is partially chemical... Please focus on the political aspect and only use this for background information)

Prior to the 1950s there was hardly any electronic waste. The problem came up with the first refrigerators, TV sets and household appliances and increased with the invention of the microchip and the development of computers and electronic circuits in the late 1960s. In the

¹ <https://www.cia.gov/library/publications/the-world-factbook/>

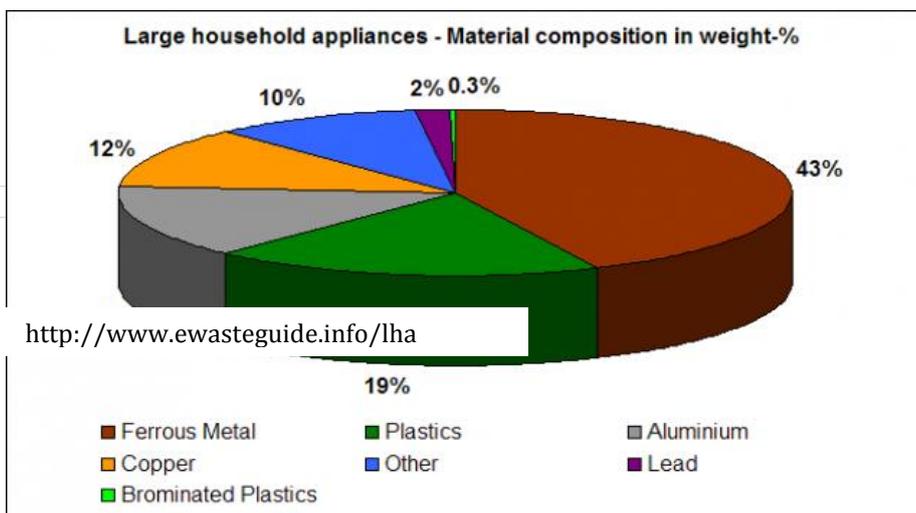
² <http://en.wikipedia.org/wiki/Unep>

following decades the number of electronic devices per household significantly increased. For example, in Germany the number of computers per household rose by 213%³ from 1993 until 2003.

A big problem is that the average life-cycle of an electronic device is more or less short, due to the fast development. Planned obsolescence, meaning that electronic devices are designed to have a short time of usage, tightens the problem.

What is electronic waste and what is the problem with it?

“Electronic waste, e-waste, e-scrap, or Waste Electrical and Electronic Equipment (WEEE) describe loosely discarded, surplus, obsolete, or broken electrical or electronic devices.”⁴ Examples for electronic waste are computer parts, televisions, mobile phones, printers, refrigerators etc. The main difference between common waste and electronic waste are the hazardous contaminants such as lead, mercury, cobalt, brominated flame retardants or other



highly dangerous substances which cause several difficulties in the deposit and recycling of electronic waste and dangers for the workers and the environment in the reach of the recycling industry.

You basically can divide the contaminants into two different groups:

- Hazardous organic chemical compounds, for example brominated flame retardants in plastics or tetrafluoroethane in refrigerators.
- Inorganic elements such as mercury, lead, silicon as main component of many electronic devices or the so called rare earths such as niobium (used in e.g. mobile phones) or tantalum (used in camera lenses) used only in small amounts.

Note that there is a difference between organic and inorganic contaminants. Organic substances consist mainly of carbon, hydrogen, oxygen and sometimes halogens as fluorine and chlorine and thus are more difficult to recycle as the compound has the chemical property, not the elements. But the compound is easier to destroy by burning. Unfortunately you get very hazardous smoke by burning such substances.

Inorganic contaminants are elements, for example lead. It is possible to re-extract the lead or other metals



³ <http://translate.google.de/translate?hl=de&sl=de&tl=en&u=http://www.mieterverein.de/2Fmagazin/2Fonline/2Fmm0107/2F010719.htm>

⁴ http://en.wikipedia.org/wiki/Electronic_waste

out of electronic devices and reuse them for other ones. Burning inorganic contaminants does not destroy these elements. Sometimes just more dangerous compounds and smoke are produced. Unfortunately it is not always easy to recycle these rare earths as they are often used in very small amounts and in a way it is very hard - if not impossible - to re-extract them.

In the glossary there is a short summary of a few organic and inorganic substances and their dangers for humanity and environment composed by Greenpeace.

The mining of rare earths is difficult, needs a high amount of energy and often destroys and pollutes the environment due to open-cast mining and aggressive chemical methods (see cyanide process). Today China has nearly a monopole in digging the rare earths and exports about 35.000 tons per year and about 90% of the global demand⁵. As rare earths are essential in nearly every nation's economy, the United States of America and the member states of the EU search for ways to be more independent from China.



Another problem to keep in mind is that a lot of toxic waste gets exported to developing countries because it is cheaper to recycle it there. Even though this is illegal there are ways to get around these prohibitions. In the developing countries the waste is often stored wrong and therefore gets in the environment or is simply burned and poisons the atmosphere as well as the people living in that area.

What has been done so far?

In the 1980s hazardous waste disposal regulations in the industrialized countries led to a search for cheaper ways. One solution was to ship the waste to developing countries or Eastern Europe. International indignation then led to the Basel Convention.⁶ In this convention toxic waste exports to developing nations were forbidden – without exceptions.

In the Bamako Treaty of 1991 the African countries call for a ban of hazardous waste import and about the way the waste might follow on the African Continent.⁷

Another thing is “StEP”, an initiative to solve the e- waste problem. Its main aims are the increase of re-using electrical and electronic equipment, the increase of material recovery from e- waste and StEP wants to be a knowledge point for the nations concerning e- waste. Furthermore, StEP wants to achieve the safe processing of e-waste and encourage life cycle thinking⁸ which is the attempt to reuse electronic devices through recycling.

You should inform yourselves about these conventions and this initiative (and others as well) to get prepared for the debate. In addition you might find approaches you can add to your resolutions.

Approaches to solve the problem

⁵ http://www.chinadaily.com.cn/business/2011-01/18/content_11876243.htm

⁶ <http://www.basel.int/index.html>

⁷ http://www.ban.org/library/bamako_treaty.html

⁸ <http://www.step-initiative.org/taskforces/tf1.php>

There are several approaches you might take into consideration when you write your resolutions.

One aspect is who actually is responsible for the waste that arises. Is every country responsible for its own waste? Can there be agreements between states that state A takes care of the waste of state B? Is it allowed to export waste at all? Are all states able to cope with their own (e-) waste?

Another aspect is the problem of the storage of hazardous waste. How can a safe storage be achieved? Are there any regulations for the storage?

A third important point is the question of how illegal waste trade can be eliminated. Are more controls needed or is it better to improve the local recycling facilities? Does the local recycling need to be cheaper so that there is no appeal to export the waste illegally? Do we need financial support to achieve this? Do we want to improve the recycling in the developing nations to maintain the jobs there? Is it necessary to revise, enhance and renew the Basel Convention since illegal waste trade is still possible?

But we also have to think about our environment. Therefore another aspect to consider is what should be done to protect the species and the environment from exceeding toxic waste production and wrong hazardous waste storage. A point that plays into this is also the question of measures to re populate regions after decontaminating the poisoned area. Are there measures needed? If we take measures, what are these supposed to be? How can we achieve that there will be no more extinction of species?

Please always keep in mind to find answers to these questions from the point of view of the country you are representing! To write your resolutions you might want to answer some or all of these questions from your nation's standpoint or you can come up with completely different aspects and then put it together to a resolution.

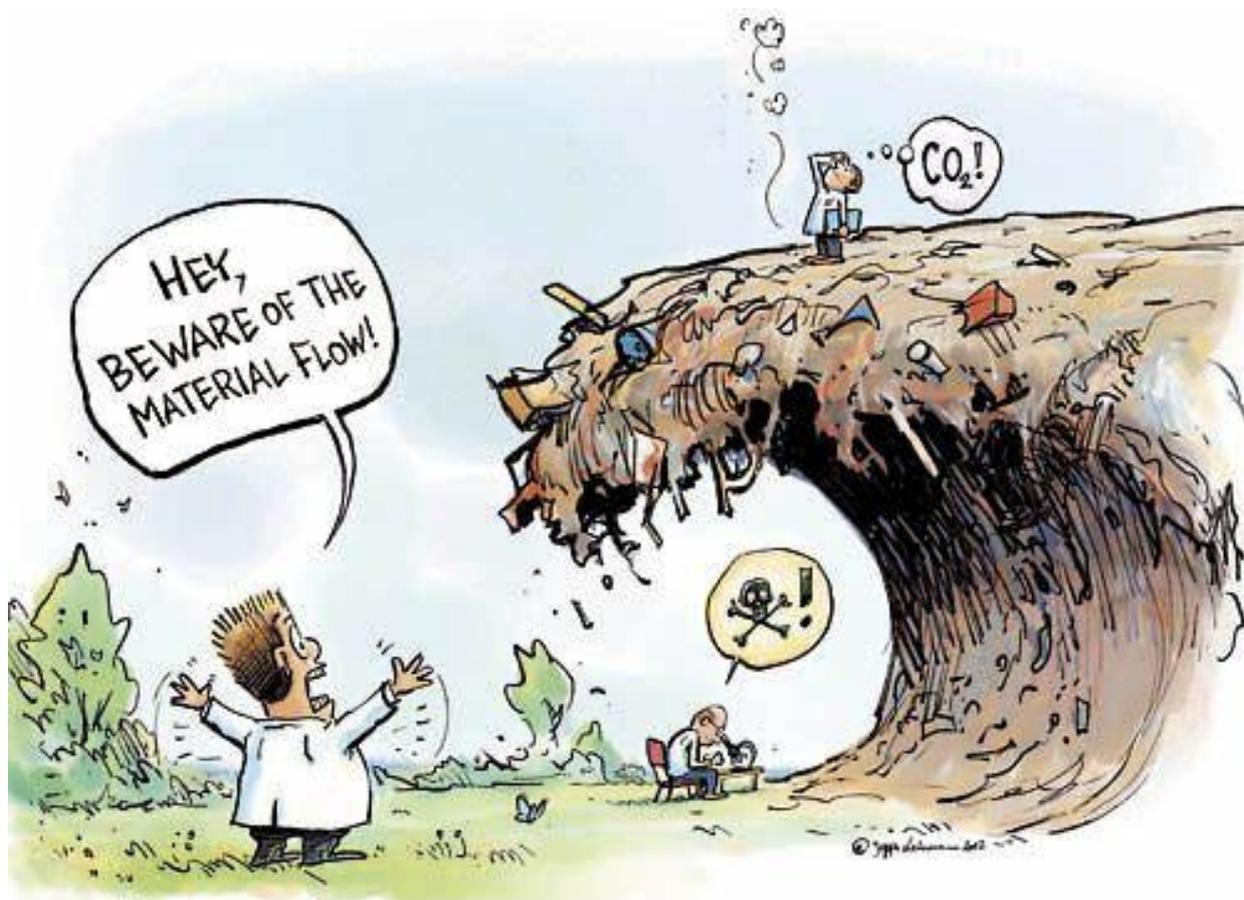
Conclusion

There is a need for an ecological and economical way to handle the electronic waste and meet the demands of the market concerning rare earths and other substances needed for electronic devices. You should focus on how it can be done concretely: By making recycling more efficient, by reducing the demand of these substances and the amount of electronic waste or any other way you can think of. Please always keep the environment in mind and try to think about the consequences your suggestions may cause.

Closing remarks

Please be prepared. This is essential for a fruitful and fun debate on the topic. To ensure this we would like to have all your policy statements sent to us by May 25th so that we can read them. Please do not forget to do so! This is to show us that we can work with you in the best way.

We also would like to offer to look through your resolutions beforehand. If you wish to have your resolution looked through please do not send it to us later than May 25th. To contact us or for submitting your policy statements or resolutions please write us an e-mail to unep@olmun.org. We are really looking forward to see you all in June and we cannot wait to hear your policy statements and read your resolutions.



Glossary

Antimony (Sb) is a metal with a variety of industrial uses, including as a flame retardant (as antimony trioxide) and as a trace component of metal solders. In some forms, antimony shows many chemical similarities to arsenic, including in its toxicity. Exposure to high levels in the workplace, as dusts or fumes, can lead to severe skin problems and other health effects. Antimony trioxide is recognised as a possible human carcinogen.

Cadmium (Cd) occurs in electronics both as cadmium metal, in some switches and solder joints, and as cadmium compounds in rechargeable batteries, UV stabilisers in older PVC cables and “phosphor” coatings in older cathode ray tubes. Like lead, cadmium can accumulate in the body over time, with long-term exposure causing damage to the kidneys and bone structure. Cadmium and its compounds are known human carcinogens, primarily through inhalation of contaminated fumes and dusts.

Chlorobenzenes have been used as solvents in PCB formulations (historically used in transformers), and can also be formed during the combustion of the chlorinated plastic PVC. These chemicals are relatively persistent and bioaccumulate. Effects of exposure depending on the type of chlorobenzene, with common impacts include those on the liver, thyroid and central nervous system (CNS). Hexachlorobenzene (HCB), the most toxic and persistent chemical of this group, is also an endocrine disruptor and a possible human carcinogen.

Lead (Pb) is widely used in electronic goods, as a major component of solders (as an alloy with tin) and as lead oxide in the glass of cathode ray tubes (televisions and monitors), as well as in lead-acid batteries. Its compounds have also been used as stabilisers in some PVC cables and other products. Lead is highly toxic to humans, as well as to animals and plants. It can build up in the body through repeated exposure and have irreversible effects on the nervous system, particularly the developing nervous system in children.

Phthalates are commonly used to soften plastics, especially PVC. There are substantial concerns about their toxicity. The phthalate DEHP, for example, is capable of interfering with development of the testes in early life. Both DEHP and DBP are classified as “toxic to reproduction” within Europe. There are few controls on the marketing and use of phthalates, despite their toxicity, the volumes used and their ability to leach out of products throughout their lifetime. Of the controls which do exist, the best known is the EU-wide ban on the use of six phthalates in children’s toys and childcare articles. While this addresses one important exposure route, exposures through other consumer products remain unaddressed, including electrical and electronic equipment.

PBDEs (polybrominated diphenyl ethers) are one of several classes of brominated flame retardants used to prevent the spread of fire in a wide variety of materials, including casings and components of many electronic goods. They are environmentally persistent chemicals, some of which are highly bioaccumulative and capable of interfering with normal brain development in animals. Several PBDEs are suspected endocrine disruptors, demonstrating an ability to

interfere with hormones involved in growth and sexual development. Effects on the immune system have also been reported.

Until the late 1970s, **PCBs (polychlorinated biphenyls)** were widely used in insulating fluids for electrical transformers and capacitors, as well as flame-retardant plasticisers in PVC and other polymer applications. These chemicals can also be produced during the combustion of chlorinated organic materials, including PVC. They are highly persistent and bioaccumulative chemicals, which rapidly become widespread through the environment and build up several thousand-fold in body tissues of wildlife. PCBs exhibit a wide range of toxic effects including suppression of the immune system, liver damage, cancer promotion, damage to the nervous system, behavioural changes and damage to both male and female reproductive systems.

Triphenyl phosphate (TPP) is one of several organophosphorus flame-retardants used in electronic equipment, for example in the casings of computer monitors. TPP is acutely toxic to aquatic life and a strong inhibitor of a key enzyme system in human blood. It is also known to cause contact dermatitis in some individuals and is a possible endocrine disruptor.⁹

Useful links

To find general facts about your country:

<https://www.cia.gov/library/publications/the-world-factbook/>

For general information on e- waste you might want to look here:

http://www.grid.unep.ch/product/publication/download/ew_ewaste.en.pdf

<http://www.ewasteguide.info/node/201>

http://en.wikipedia.org/wiki/Electronic_waste

<http://www.dtsc.ca.gov/HazardousWaste/EWaste/>

<http://www.calrecycle.ca.gov/electronics/whatisewaste/>

<http://en.wikipedia.org/wiki/Chlorofluorocarbons>

To broaden your knowledge on organic and inorganic substances view this file on pages 12-15:

<http://www.greenpeace.org/raw/content/international/press/reports/poisoning-the-poor-electronic.pdf>

For further information on the practice of shortening the useful life of an electronic device look here:

http://en.wikipedia.org/wiki/Planned_obsolescence

The annual report from StEP you can find here:

http://www.step-initiative.org/pdf/annual-report/Annual_Report_2009.pdf

⁹ <http://www.greenpeace.org/raw/content/international/press/reports/poisoning-the-poor-electronic.pdf>

For more information on the Basel Convention look here:

<http://www.basel.int/index.html>

And for more information on the Bamako treaty follow this:

http://www.ban.org/library/bamako_treaty.html

What also might be very interesting is this video about a TV ending up in Africa as a second hand good even though it was broke:

<http://www.youtube.com/watch?v=LEmOsq7aWD8>

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