UN environment

Perspectives.

Issue No. 30

‘People and Pollution’

Multi-Stakeholder Dialogue at the United Nations Environment Assembly 3

Felix Dodds

Foreword

This edition of ‘Perspectives’, reports on the discussions and recommendations from the multi-stakeholder dialogue, ‘People and Pollution’, held at the third session of the United Nations Environment Assembly (UNEA) on the 5th December 2017.

I served as the moderator for the dialogue, which represents part of UN Environment’s commitment to deliver on the United Nations Conference on Sustainable Development outcome document: ‘The Future We Want’. This document calls for “the active participation of all relevant stakeholders, drawing on best practices and models from relevant multilateral institutions and exploring new mechanisms, to promote transparency and the effective engagement of civil society” within the framework of its decision to strengthen the role of the United Nations Environment Programme as the leading global environmental authority.

Stakeholder engagement has been an important component of the development of UN Environment since its inception at the 1972 UN Conference on the Human Environment. The concept of ‘Major Groups’ was pioneered by the first UN Environment Executive Director, Maurice Strong, when he was Secretary-General of the Earth Summit in 1992. He recognized that categorizing all non-government actors under the term NGO or civil society meant that not all voices were being heard. He understood that in policy discussions it is vital that women are able to provide a gender perspective, that youth can present the views of the next generation, that indigenous peoples are given the opportunity to talk about environmental impacts on their land, and that local and subnational governments

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can help inform national governments of the challenges to implementation at the local level. **In 2004, UN Environment recognized the need to hear the voices of a broader range of stakeholders – beyond the nine Major Groups. This was also reflected by the UN as a whole in the 2030 Agenda.**

Multi-stakeholder dialogues in other forums could also be used to inform the development of UN Environment's own approach to embedding stakeholders in the workings of UN Environment Assembly and UN Environment. The UN Commission on Sustainable Development from 1998 to 2001, is an interesting example. The first two days of each session were given over to four multi-stakeholder dialogues on issues that Member States were going to negotiate, enabling them to draw useful lessons into policy decisions. This approach might be worth considering for future UNEA sessions.

The development of the Sustainable Development Goals provides a good illustration of how governments, the UN and relevant stakeholders can contribute their expertise to negotiations, encouraging them to engage in the implementation of these goals and targets. Multi-stakeholder partnerships will play a critical role in helping to implement UNEA decisions, particularly if stakeholders are engaged in the development of those decisions.

Felix Dodds

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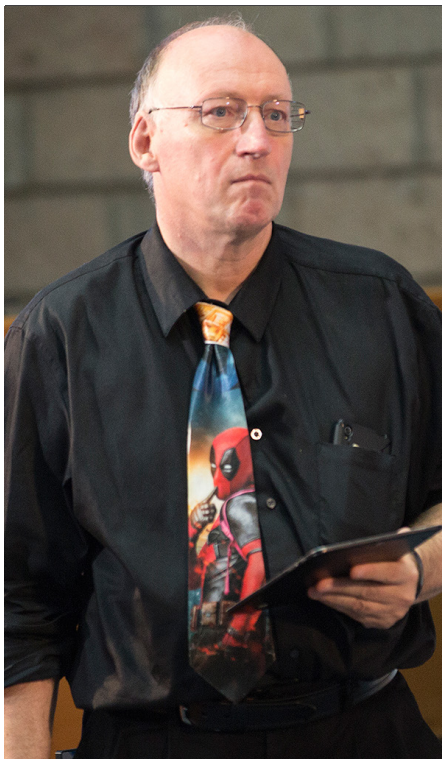

Photo by IISD/ENB Mike Mururakis

Summary of the Multi-Stakeholder Dialogue

The topic of the multi-stakeholder dialogue was 'People and Pollution'. The dialogue was made up of two sessions with a total of five panellists, including two Champions of the Earth. The panellists talked about how pollution affects the lives of their communities, and offered some solutions to these problems and suggestions of how these might be applied in different contexts. The dialogue focused on root causes of different aspects of pollution, citing connections to poverty, the rule of law, women's rights and human rights. Respondents included government ministers and a broad range of stakeholders.

Pollution is ubiquitous: it is in what we eat, it is in the air we breathe, it is in the water we drink. Pollution is not just an environmental problem but is also a social, economic and health issue. Pollution affects people all around the world; however, the most vulnerable, including women, children and those in poverty, suffer the most.

Therefore, addressing pollution contributes to all dimensions of sustainable development: tackling poverty, improving health, creating decent jobs, and protecting our natural resources and biodiversity.

Takeaway messages from the dialogue:

- The implementation of global agreements is critical.
- There is a clear need for multi-stakeholder and multi-level collaboration.
- Member States need to further develop mechanisms to enhance coherence and efficiency.
- Too often laws are ignored; increased capacity support is needed in many developing countries to support the implementation of national laws.
- Governments can do a lot more to incentivize sustainability – a prime example being the carbon tax. They can also establish recycling targets and develop innovative schemes.
- Green Public Procurement needs to be expanded at all levels of government.
- Circular economy is an important approach and in which we need to take out the chemicals from nature – perhaps through a spiral economy would be one where byproducts form a component to another and a platform for other initiatives.
- Data and monitoring underpins all approaches to addressing pollution and should be at the core of multi-level partnerships.
- Building public awareness of the problem will mobilize political will.
- Voluntary commitments are a good first step, but are not enough. More regulation is needed at the international and national level.
- Extended producer responsibility should be built into all products.
- Sustainable products should be made more affordable through government incentives.
- Clean industry and other stakeholders should work together in multi-stakeholder partnerships to promote innovative solutions and help build local capacity to address pollution.
- Addressing corruption in both the public and private sector underpins all approaches to addressing pollution.
- UNEA needs to provide clearer input to the High Level Political Forum (HLPF). This should include UNEA-4 addressing the environmental contribution to the Heads of State HLPF in 2019.

Introduction

The multi-stakeholder dialogue at the 2017 session of the United Nations Environment Assembly, which took place on 5 December, provided an opportunity to discuss how pollution affects people and the initiatives that have been taken to tackle it.

The interactive dialogue built upon the Leadership Dialogues that were held earlier in the day between governments and public sector organizations, incorporating the voice of Major Groups and stakeholders.

Theme

The multi-stakeholder dialogue focused on the topic of 'People and Pollution'. Building on the campaign for pledges to beat pollution and the discussions held during the Assembly and preceding Leadership Dialogues, it examined the root causes of different aspects of pollution, including the connections to poverty, the rule of law and human rights.

The dialogue discussed how pollution affects people's lives and the solutions that might be applied across a variety of contexts. The real-life stories of the participants grounded the discussions in reality and celebrated lifestyle champions.

The multi-stakeholder dialogue approach allows for extensive interaction between government and non-governmental participants in a non-formal environment, providing the opportunity to speak openly and to raise challenges. The audience is encouraged to contribute to the discussions.

The Dialogue

Felix Dodds, the co-director of the 2018 Nexus Conference on Food-Water-Energy-Climate, was the facilitator for the multi-stakeholder dialogue. **Ambassador Marie Chatardová,** the President of the UN Economic and Social Council (ECOSOC), delivered the opening comments. She underlined the importance of the engagement of Major Groups and other stakeholders, and the vital role they play in the implementation of the 2030 Agenda. She reminded us that pollution impacts on all of us, whether we are politicians or citizens.

Session 1 of the Multi-Stakeholder Dialogue: How Does Pollution Affect Us?

The first session opened with three presentations.

The first presentation was given by **Halima Hussein**, a Kenyan lawyer working with Natural Justice: Lawyers for Communities and the Environment.

Photo by IISD/ENB Mike Mururakis

Distinguished Guests, Ladies and Gentlemen. It is a great pleasure to join you this evening for the multi-stakeholder dialogue of the 2017 UN Environment Assembly. I am a community lawyer working with an organization called Natural Justice, and we use the law to support local communities as a means of alleviating the impacts of environmental degradation, including pollution, on their health and livelihoods, and on well-being more generally.

My work is challenging – not solely because of the continued pressures facing many local communities in Kenya and around the world, but also because the existing laws designed to protect communities and their environment are not upheld.

To illustrate this – I will first provide a brief background on Kenya and the Government's desire to fast-track development to propel it from being a developing country to a middle-income nation by 2030; second, I will tell you about these development projects and their polluting impacts on communities; and lastly, I will demonstrate how the rights given to local communities under the Constitution and statute law are often not upheld. After which, I hope, you all will have more compassion for the Sisyphean task ahead of me and other lawyers in Kenya and around the world who are fighting for the rights of local communities and, hopefully, be inspired to join us in demanding that nations uphold the international treaties and domestic laws designed to protect each and every citizen.

First – Kenya is a land of extreme inequalities. Less than 10,000 individuals control nearly two thirds of Kenya's $67 billion economy and half of Kenya's 48 million population survive on less than $2 a day. It isn't just income – there is a disparity of 16 years in life expectancy between different regions in Kenya.

In light of this, my country is currently pushing an ambitious development plan. A plan that is heavily focused on increased energy production, and large-scale infrastructural and industrial development. I understand the motivation for such a plan as it's a means of dealing with poverty and inequality, and transforming Kenya into a country that provides a high quality of life to all its citizens.

However, for this to occur, we must balance the potential for economic growth with the real impacts – including in the form of pollution – that these projects will bring to communities surrounding these areas. These are never easy decisions to make. Ideally, both the benefits and impacts of such projects would be shared across the country. Unfortunately, it's unempowered, marginalized communities that bear the brunt of the environmental burdens even though these are the very people our development agenda insists it is seeking to uplift.

In my work, I have seen all too often how our laws are often ignored: first, in making decisions to award projects, and second, ensuring that projects comply with laws during their operations. And in this lies a huge problem – as it's these very laws – our strong and progressive Constitution and environmental laws – which do promote the sharing of benefits to all citizens

and the minimization of the impacts of pollution, particularly on our most vulnerable citizens.

I will share with you three examples of cases we work on with community members affected by development projects.

The first is the recently proposed 1,050MW coal-fired power plant in Lamu County, on the northern coast of Kenya. The Lamu Coal Plant is not the first, nor is it the only large-scale industrial project that is threatening the coastal communities.

A modelling study based on the specifications of the plant found that over its operating life of 40 years, it will adversely affect 460,000 people living along its emissions path and will be responsible for 1,600 premature deaths and 800 low birth weight births. Furthermore, the Government is pushing this project when the local community that is reliant on fishing and tourism are opposed to it due to the threat to their livelihoods.

Such significant impacts were not adequately assessed in the Environmental Impact Assessment, nor are they necessary when considering the advice from energy experts, hired by the Ministry of Energy and Petroleum, that such additions to our energy grid are not needed.

The Lamu Coal Plant provides a perfect example of the challenges in upholding existing laws, which had they been observed, would have shut down plans for this plant, in the face of threats of pollution to the lives and futures of the local communities.

The second example is the construction of road infrastructure from Isiolo to Moyale towns in northern Kenya. This is a project that people of that area have longed to have for over 30 years. The road has been constructed, but not without significant levels of avoidable pollution impacting local communities.

We saw these when contractors set up a stone-crushing site for road materials adjacent to a town. This led to dust storms frequently sweeping through the town – every 30 minutes at some parts of the year. These led to respiratory illnesses and affected the daily life of community members. Further, water points – so vital for the well-being of thousands of people in the arid north – were polluted by waste from road construction, including sewage from contractor's camps.

Such pollution impacts are completely avoidable and were, in fact, violations of both law and the specific licence conditions given to the project proponent. These acts of non-compliance with law lead to higher levels of pollution and therefore greater impacts on those living in close proximity to project sites.

The last example I wish to share relates to the levels of pollution affecting communities living close to salt producing factories on the coast of Kenya.

While there are undoubtedly benefits from this industry, we are again seeing numerous instances of legal non-compliance that result in high levels of pollution on those closest to projects. To each of the salt factories operating, communities have complained about the impacts of pollution.

For instance, water holes – the only free water sources available to people – have been destroyed or contaminated. Some villages are now forced to purchase water with the little money that they have. This occurs despite specific legal orders not to damage key water sources of local communities.

Salt factories can also generate significant levels of dust. Therefore, Environmental Impact Assessments and environmental licence conditions will usually order buffer zones be installed between a salt pan and a village. However, we have continually seen project proponents' failure in constructing these. In one case, a school was closed for a number of days as the factory failed to install a buffer zone and the levels of dust from the salt factory made schooling impossible given the health risks to children.

It is painful to see such impacts, whose burdens escalate to become dangerous problems affecting the health and wellness of local communities, and which would have easily been prevented and alleviated through enforced laws and licence conditions.

So why – when we know of the impacts such pollution can have – were they not enforced? Why is it that, even despite numerous complaints of community members to regulatory bodies, these problems are often ignored? It can seem to these citizens – and we have heard this many times – that their lives and their dignity are not worth the same as those benefiting from these projects.

While we must continue to explore development, it must be done in a sustainable manner – and this categorically means that compliance with laws must occur. It's something that my organization and I are working towards with many committed community members and also regulatory officials. Failure to observe and enforce existing laws contributes to this pervasion of inequality in our society, where communities such as those I've referred to are forced to bear the burdens of pollution – when they are completely avoidable – and not benefit from the rewards that some of these projects can bring.

The second presentation was given by **Sascha Gabizon,** the Executive Director of Women in Europe for a Common Future. She also co-facilitates the Women's Major Group at the UN, ensuring the participation of over 1,000 Women's organizations in Sustainable Development Goals policy processes.

Photo by IISD/ENB Mike Mururakis

You asked the question of how pollution affects me personally, my community, and what the effects are of pollution. I will start with a testimony from my youth, about the pollution of a chemical factory near my home.

I grew up near a chemical plant, which was dumping untreated wastewater full of pollutants into a nearby pond. Next to the plant were community vegetable gardens, but people were getting ill. That is when the community, my mother and our neighbours created an environmental organization and started a long struggle to get the chemical plant to stop polluting our environment. This was in Holland, in the 1970s. We all had very high levels of dioxin in our blood. Dioxin is one of the worst killer toxins, linked to cancer. Even after the chemical plant was closed, or moved to a developing country (that often happened), many people in the neighbourhood developed cancer. Luckily my family was spared, but the father of my partner later died of it.

It is very sad that first we have to have many victims before action is taken to stop a polluting industry or a polluting product. Often 30, 50 years may pass and millions die as a result of the pollution, as we have seen with lead in petrol, with asbestos and with terrible chemical pollution such as Minamata and Bophal.

And we have still not learned our lessons. You probably read the UNEA messages coming into the building today saying that there are 200,000 deaths from immediate pesticide poisoning every year! 100,000 deaths from chrysotile asbestos every year. The Lancet has reported that we are talking about 9 million deaths EVERY YEAR because of pollution.

Cancers can take years to show, and then it is often too late to show the cause is from the chemical or asbestos plant or incinerator in your neighbourhood.

And many of these deaths are children. I was very moved by the testimony from the coastal community here in Kenya, where a lead smelter was built. First the community was glad, as it brought jobs, but now 200 children and 80 adults have died. And now they are sad that the smelter was ever built.

How many children have brain damage from lead poising? And why did it take us so long to start phasing it out of paints, petrol, and stopping these polluting lead smelters.

Reports on pollution show that those who have least income, those who are most marginalized, often live on or near the most polluted sites – strangely enough you don't find any billionaires living on waste dumps. This is of course a terrible form of discrimination.

The worst are persistent pollutants such as the oil spills in the Niger Delta, or Uranium mines or the nuclear accidents such as Chernobyl and Fukushima, which have made areas as big as Luxembourg uninhabitable for centuries.

And a major problem is that the companies responsible for the damage, mostly don't pay for it – for example, the nuclear operators accountability is limited by law and they can avoid paying for insurance.

Because that is the new reality. Even when the companies are proven to be responsible for the death of workers and neighbours, they will put loads of pressure on governments not to be held responsible or pay, or the polluting business will be moved to a lower income country.

Since the time I lived near the chemicals plant, levels of dioxins and other POPs (persistent organic pollutants) have gone down in my country, but not enough. And hundreds of similar hazardous chemicals have been added by chemical industry.

Now the toxic chemicals are directly in the products which we buy: the non-sticky frying pans and electronics full of PFOA (perfluorooctanoic acid) and PFOS (perfluorooctane sulphonate); and the flame-retardants, Bisphenol-A and phthalates in children's toys and plastics.

The problem with these toxins is that we don't see them, and the current laws, even in Europe where we have a very advanced chemical legislation, do not protect our health. The chemical and pesticide industry need to be made accountable and pay into a global fund to pay for damage to the victims and cleaning up their products from our environment. Let them take the pesticides out of our drinking water, and the plastic waste out of our fields and oceans.

Currently, in our organization we are working with partners in Africa and Asia on social and gender impacts of pollution from plastics, e-waste and industrial waste, working with the secretariats of the international chemicals conventions. There are lots of young and innovative social entrepreneurs and community cooperatives who have already developed alternative, non-polluting solutions. These are the groups we should support and have here at UNEA, not the big fertilizer and chemical companies. We need the social environmental entrepreneurs, the NGOs and the civil movements to help us make the great big leap towards a pollution-free planet.

The final presentation for the first session was by **Olga Speranskaya**, the co-Chair of the International POPs Elimination Network (IPEN), a global network of non-governmental organizations working towards a toxic-free future. Olga Speranskaya's work focuses on the design and implementation of the IPEN global strategy, aimed at addressing pollution sources, and domestic and international chemical safety policies and processes, with a particular focus on the effects of pollution on the lives of women.

Photo by IISD/ENB Mike Mururakis

Yesterday a Memorandum of Understanding was signed between IPEN and UNEP. Its overall theme is to contribute to the work on Gender and Chemicals, through a focus on women. And today I would like to talk about how pollution affects women because this is the constituency that I am from and this constituency represents 50 per cent of the world's population.

Throughout their lives, men and women are exposed to numerous harmful chemicals. But chemicals in women's body can be transferred across the placenta during fetal development and through breast milk to the nursing baby. Exposures during fetal development can cause lifelong diseases and disabilities, and increase the risks of irreversible harm. Adverse effects can also be carried across multiple generations.

For example, when women of childbearing age are exposed to mercury, both the woman herself and her potential children are at risk. Mercury in a woman's body can pass through the placenta and transfer to her fetus during pregnancy, exposing the developing fetus to the brain damaging neurotoxin. IPEN has recently conducted a global analysis to assess the level of mercury in women of childbearing age. Hair samples of 1,044 women in 37 locations, across 25 countries, across 6 continents were collected. Our research revealed a high level of mercury in 55 per cent of the global sample of women, a level associated with the onset of fetal neurological damage.

Women and men both experience occupational exposures to chemicals, but these may differ based on the region, type of occupation, and access to education and information. Women typically work at the lowest level

in global production systems. This feminization of poverty makes women more vulnerable to toxic chemical exposure, putting their health at risk. I will give you a few examples of occupational exposure where women face serious health problems.

Women working in agriculture can represent the majority of workers involved in pesticide spraying. According to Pesticides Action Network, in some countries "women make up 85 per cent or more of the pesticide applicators on commercial farms and plantations, often working while pregnant or breastfeeding."

The IPEN study into rural communities with intensive pesticide application in Georgia revealed a high incidence of endocrine disorders, as well as numerous cases of reported surgeries in connection with tumours among women. In Pakistan, cotton was picked by women just 3-15 days after pesticides had been sprayed. A 2012 survey found that 100 per cent of these women suffered acute pesticide poisoning symptoms.

Beauty salon workers are overwhelmingly women and are often exposed to chemicals in the products they handle. In developed countries it is often immigrant women who work long hours, sometimes as long as 12 hours per day in salons and who can be exposed to harmful chemicals and suffer a wide range of health effects, including dizziness, irritated eyes, skin and throat, asthma, miscarriages, liver and kidney damage, and cancer.

Consumer products, including cosmetics, jewellery and decorations, are recognized as a substantial source of toxic chemical exposure. Women usually do housework using cleaning products containing chemicals and use substantially more personal care products and jewellery than men. The recent study carried out by the Environment and Social Development Organization, an IPEN-participating organization in Bangladesh, revealed high levels of toxic metals in jewellery, including those worn by children. Lead (Pb) concentration varied from 800 ppm to over 10,000 ppm in different jewellery items – the maximum recommended level for adults is 0.03 ppm.

The IPEN global campaign on heavy metals in consumer products, including cosmetics, revealed high levels of mercury in creams and lipsticks. For example, a lipstick for girls purchased in Belarus contained the highest amount of mercury: 371 ppm.

According to WHO, exposure of pregnant women to lead, including lead in paint, can also cause serious lifelong damage, such as miscarriage, stillbirth and malformations. Though lead in paint is not considered a problem in developed countries anymore, the IPEN global campaign in 55 developing countries and countries in transition revealed high levels of lead in paint for internal use available on the markets of developing countries.

And finally, I would like to focus on one more source of pollution that affects women and children: mining waste. This type of pollution is caused by mining and is a serious source of exposure to a variety of hazardous chemicals, including lead, cadmium and mercury that are disposed of in tailings and diffused into the air. Mining waste contaminates groundwater and makes soil infertile. Primary metals production is the key source of mercury releases into the environment in many countries.

Women often stand against the extracting industry, fighting for the future of their children. This is what is happening now in the southern part of Russia, where a strong resistance against plans to construct a huge copper mining and processing facility was spearheaded by a mostly female group of environmental scientists, who conducted environmental and health impact research to stop the mining project before it was too late to prevent the inevitable toxic exposures. According to a Russian official, if it were not for women, this plant would already have been constructed.

These and other sources of pollution affect the lives of women and their children; they may cause irreversible damage and may affect the life of multiple generations. Now is the time for global action to prevent a pollution disaster.

Responses to the presentations:

Dr. Edna Molewa, Minister of Environmental Affairs, South Africa, reiterated that governments need to evidence greater will and commitment if chemical and waste conventions are to be fully implemented. She added that the presentations had identified gaps that need to be addressed and remedied by means of effective legislation.

Since 2011, South Africa has supported calls for the phasing out of mercury, and has implemented a raft of measures domestically to protect human health and the environment by addressing the use of mercury throughout its life cycle.

Dr. Molewa explained that it is often women who are affected the most when chemicals are not effectively managed, and that all countries need to ensure that women and other vulnerable groups are protected from such impacts. She challenged all Member States to unite to address pollution in all its forms and ensure both that its impacts are mitigated and that the problem of pollution is ultimately eradicated.

Dr Lin Li, Director of Global Policy and Advocacy for World Wildlife Fund International, agreed that pollution is not only an environmental problem; it is also a social, health and economic issue. Pollution is ubiquitous: it is in the food we eat and in the air we breathe. She also highlighted the problem of coral bleaching: the US National Oceanic and Atmospheric Administartion reported that by May 2017 the third global mass bleaching event on record had happened, extending from the Pacific to the Indian Ocean, leaving in its wake a swathe of white, dying coral and deeply troubled communities (for example, 60 per cent of the Maldives' coral reefs were hit by bleaching in 2016). Coral reefs are the last line of defence for vulnerable families in low-lying, storm-ravaged regions and often the main provider of essential nutrition. Reefs are also an economic asset that generate billions of dollars in value (from fisheries, tourism, etc.). They provide security to communities the world over. Pollution is a problem that we have created and we now need to work together to find solutions.

Jane Patton, Managing Director of the Plastic Pollution Coalition, an international alliance of over 650 member organizations, businesses and leaders working towards a world free from plastic pollution, stated that nearly 99 per cent of all plastics are made from fossil fuels and increasingly natural gas, the extraction of which poisons soil, air and water, and damages public health.

She explained that employees working in, and communities living near, these extraction and manufacturing centres suffer from exposure to bisphenols, phthalates and other toxic additives used in the manufacture of plastic. This includes residents of her hometown of Baton Rouge, Louisiana in the United States. The town is located in a stretch of land known as 'Cancer Alley', so called because of the effects of petrochemical processing on public health, which have a devastating impact on families and local communities.

And the problem is getting worse: she pointed out that plans are already in place to expand investment in plastic production by $164 billion by 2025, much of which will be used in consumer goods in the form of single-use packaging and transportation materials.

Worldwide, since 1950, only 9 per cent of plastic waste has been 'managed' through recycling. Only 12 per cent has gone through any form of incineration, itself an energy inefficient and harmful process resisted by communities everywhere. The remaining plastic waste – 79 per cent – has built up in the environment; 4,725 million metric tons has accumulated in land and marine environments, entangling and poisoning wildlife and endangering public health.

Mr. Kiisler, Minister of the Environment for Estonia, highlighted the need for increased awareness of the impacts of chemicals and waste on society. In Estonia, levels of awareness were fairly low until in 2008 a group of concerned citizens created an app that enabled people to log the location of illegal dumping and determine the kind of waste. Many private companies got involved and eventually a declaration was made and citizens were invited to collect waste together. For the first event, over 50,000 people showed up. Once they had collected the waste they needed the public sector to help them process it and dispose of it safely. Throughout the following ten years activities grew. This approach is an example of how local initiatives can have a positive and far-reaching impact. In September 2018, the 'Let´s do it!' campaign plans to expand globally, with a clean-up day involving citizens in over 150 countries.

Session 2 of the Multi-Stakeholder Dialogue: How Can We Address the Problem of Pollution?

The second session started with two presentations.

The first was from **Eritai Kateibwi**, a Young Champions of the Earth for the Asia-Pacific region. In January 2017, he organized a major clean-up of Betio Red Beach, Kiribati, an important historical site.

Photo by IISD/ENB Mike Mururakis

As a young man growing up in Kiribati, I was aware of some of the problems that pollution was causing my country. The main island of Tarawa was affected the most. We had to boil our water before we drank it to make it safe. Open defecation was common and generally accepted and garbage was everywhere because, with only two metres of land between our feet and the ocean, there was no place to put it. These problems existed but, as a young man, what could I do?

It was when I left Kiribati to go to school in Hawaii at Brigham Young University that I began to realize I could do something. I became part of our campus sustainability group and as a team we began to talk about solutions.

SWATT, or the Sustainable World Action and Technology Team, is a group of mentored students who look at problems not just as a discussion but with the intent of solving them. The focus is sustainability. A long-term fix, not just a band aid.

We used four basic steps:

1. *We asked: Is it a problem and, if so, to whom?*

We listened to people and asked questions to establish a need. How serious was the problem and who was being affected? Was it widespread? Was it a need or a lifestyle inconvenience? What change could result if the problem was solved?

2. *We researched for a solution.*

Very few of our problems were new. We knew that many other people had spent countless hours developing answers to the world's ongoing problems. If a solution was put in place somewhere else in the world, perhaps with some modifications, the solution could work for us.

3. *Bench test the answer*

Based on what we had learned, we worked on a prototype or small-scale application of the solution. This way we could see if we were on track or if we needed to do more research. We would have hands on experience with the problem and, through that experience, would understand the challenges more fully. This process continued until we had a working solution in place and then…

4. *We acted*

It was never our plan to just solve a problem. We want people to have a buy-in, to be a part of the answer. We teach them the science, the process and the methodology to solve the problem. If anyone feels they can improve upon what we are doing, we are happy for them because it means they understand the problem and hopefully more people can benefit from their answer.

So, it was with our drinking water problem. Our water is contaminated with E. coli and faecal coliform and is unsafe to drink. People were boiling their water. The firewood they used was in short supply and this caused problems. We knew of filters that could be brought in, but they would have to be replaced regularly which would cause more pollution and more cost. We needed a sustainable local idea.

It was during our research phase that we came across a potential solution. The Center for Affordable Water and Sanitation Technology (CAWST), an engineering company from Canada, had developed a biological water filter that mimicked nature. Just as sand filters contaminants from rain and other sources, these filters – once established – would filter at least 99 per cent of the contamination from the water. CAWST had made their information public and thousands of filters had successfully been built throughout the world. Now, I say built because their design used a wooden or steel form to make concrete filters. You ended up with a wonderfully strong filter, but on a Pacific island, concrete is difficult to get and expensive. With more research we found a UV-protected plastic version that would last for years and could use our local sand as the filter medium.

A single filter was purchased and brought to Kiribati, local sand was screened and washed, and after waiting a month to develop the biological layer, the filter was successfully tested. The family that now owns the filter understands how it works and knows how to take care of it. They are committed to teaching their neighbours and family.

We feel this is the beginning of a success. With people engaging in the project we are anticipating healthier happier people. We are currently making arrangements to bring 400 more filters to Kiribati.

This is one of four projects we have started in Kiribati, with more ideas in the works.

We look for solutions that are long-lasting. We do not want people to depend on us emotionally, financially or physically. Given the right tools, they will stand on their own and give Kiribati the future it deserves.

The second presentation was given by **Kaya Dorey**, the founder of NOVEL SUPPLY CO., a sustainable apparel line made in British Columbia. Kaya is also a Young Champion of the Earth, and is striving to create a zero waste, closed-loop model that takes responsibility for the products she creates.

Photo by IISD/ENB Mike Mururakis

NOVEL'S mission is to design, develop and supply rad products that shift the stigma of sustainability. It is my belief that in order for the general public to lead more sustainable lives, we need to make it more accessible – we need to make it cool.

When I went on a mission to find a job with a brand that suited my casual urban style as well as my values in sustainability, I couldn't find one with both so I created it myself.

The turning point for me was learning about textiles waste and how synthetic fabrics never break down. I realized that I needed to create a natural organic apparel option for people, while taking accountability for the products I was creating.

Here's what I am doing to combat the issue of textiles waste and pollution:

I am finding unique alternatives to landfill and collaborating with Abel Wear, a local non-profit in Vancouver who is making my kids line from fabric scraps from my adult production. I am also donating other scraps to another organization called Fabcycle, who will use the scraps for community projects. Businesses need to start taking responsibility for the products they're making at the end of their life and take on zero waste models so that we can shift the economy to one that is circular and not linear with mass amounts of waste. Governments need to regulate and incentivize movement to ensure that this shift happens quickly.

I am implementing an extended producer responsibility strategy by developing a take back programme

that will accept apparel back from consumers and find solutions for the textiles waste through upcycling, downcycling or composting.

I do not use any toxic dyes in my processes. If dyes are used in the future, they will be from natural sources and biodegradable. Designers need to be designing with the end in mind, and sustainability needs to be integrated within design programmes, and all programmes in schools for that matter.

We manufacture and sell locally. When we look to expand, we will look at manufacturing in urban city hubs and ship out from there as opposed to shipping globally from one place, in an effort to reduce our carbon footprint.

Some questions I have for you are:

What's the best way to incentivize sustainable innovation?

How can we make sustainable products more affordable or re-educate consumers on the true cost of products?

How can extended producer responsibility regulations be used to close the loop on plastic products?

Is anyone composting textiles?

Has anyone done research on the negative effects of wearing polyester?

Responses to the presentations:

Minister Kimmo Tiilikainen, Finland's Minister for the Environment, Energy and Housing, highlighted how important it is to incorporate the voice of Major Groups and stakeholders – and the voice of the people affected by pollution – into the ongoing UNEA-3 negotiations. He said it was encouraging to see that there are already a great number of voluntary commitments from civil society to beat pollution.

He went on to say that the implications of pollution affect people all around the world. Often the poorest and most vulnerable people suffer the most. Therefore, tackling pollution contributes to all dimensions of sustainable development by fighting poverty, improving health, creating decent jobs and protecting our natural resources and biodiversity.

He explained that in Finland, implementation of Agenda 2030 is based on a national concept, 'Society's Commitment to Sustainable Development'. The idea is simple: make a commitment, act, measure and report on actions. Currently, there are over 700 voluntary commitments from businesses, cities, municipalities and private individuals. It provides an excellent example of multi-stakeholder cooperation towards a shared vision of a sustainable future.

Minister Alexander Teabo, Kiribati's Minister for Environment, Lands and Agriculture Development, stated how proud he was of Eritai Kateibwi becoming one of the Young Champions of the Earth. He went on to highlight that for Kiribati the effects of climate change are critical. Kiribati is made up of 33 coral atolls spread across 3.5 million km² (1.3 square miles) of ocean. Water provision is a problem for the island and they are introducing rainwater harvesting as a way of capturing more water. Water pollution is also a problem, so the Government is very happy with the design put forward by Eritai and wants to look more into these types of innovation. He reminded those at the dialogue that pollution is man-made and that we need to control it because we will be among the first victims.

Minister Joke Schauvliege, Flemish Minister for the Environment, Nature and Agriculture, and the Network of Regional Governments for Sustainable Development (nrg4SD) President for the North, highlighted the need for multi-level collaboration. Member States need to further develop mechanisms to enhance coherence, coordination and cooperation to improve efficiency.

In addressing pollution, it is vital to have effective monitoring systems and proper data to make informed decisions. Local and regional authorities play a critical role in addressing pollution, so there should be more scope for them to bring their experiences and recommendations to the UN. At the same time, UNEP should consider and develop concrete projects in partnership with subnational governments.

The event was then opened to contributions from the audience.

Vijoleta Gordeljevic, the Health and Climate Change Coordinator of the Health and Environment Alliance, said how encouraging it was to see so many Member States proposing solutions to tackle pollution in their own countries. However, in the view of the Alliance, which represents 75 organizations from the public health and environmental sector, she argued that a big part of the solution is for Member States to start addressing the root causes of the problem and to back up their commitments with funding in order to protect the health of their populations.

She went on to explain that as long as governments continue to give billions of dollars' worth of public (taxpayers') money to the

fossil fuel industry in the form of subsidies – subsidies that support the further exploration, production and profitability of coal, oil and gas (all major pollutants) – absolutely nothing will change.

Governments continue to subsidize fossil fuels in the face of continuing climate disasters and commitments to the Paris Agreement. We know that we must keep fossil fuels in the ground to prevent the death of nine million people who will die, in large part, due to pollution created by fossil fuels. Therefore, one of the first steps in fighting pollution must surely be to stop funding it.

Marc D'Iorio, Director General of Industrial Sectors, Chemicals and Waste for Environment and Climate Change Canada, congratulated Kaya Dorey on being named a Champion of the Earth. He pointed out that complex problems rarely have a simple solution. We need industry and civil society to be engaged, which means reaching out to these sectors. There are so many new tools available and we need to make sure we take advantage of them. A key approach is utilizing the circular economy (keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life) but really, we need to take out the chemicals so maybe it is more of a spiral economy (where the by-products of one organisation or industry not only form a component of another one, but become a platform which spawns endlessly unfolding opportunities).

Nick Palombo from the International Chamber of Commerce (ICC), explained that the ICC is at UNEA-3 to talk about solutions and that to do this we need systems thinking. He pointed out the importance of trade to industry and that to ensure this is undertaken effectively we need to address corruption. When promoting innovative solutions, we need to ensure we can expand good ideas by building capacity to take these new ideas on.

Jane Nishida, Principal Deputy Assistant Administrator for the US Environmental Protection Agency's Office of International and Tribal Affairs, voiced the United States support for working with stakeholders in addressing the issue of pollution and applauded the innovative ideas in this multi-stakeholder dialogue.

The United States believes that addressing today's environmental challenges requires all stakeholders to be engaged, including tapping into the creativity of the youth. Other key stakeholders who need to be engaged in any discussion on pollution are the indigenous populations, who often feel the greatest impact.

She noted, in particular, the US success in substantially reducing air pollution emissions, while expanding economic productivity. Ms. Nishida also highlighted the success of the UNEP-led Partnership for Clean Fuels and Vehicles in phasing out lead from gasoline, and discussed the importance of building on this success to promote the elimination of lead from other sources, including paint.

Ruth Cromie, Birdlife International and Head of Wildlife Health for the Wildfowl and Wetlands Trust, pointed out that human and wildlife health are very closely connected. In support of the Convention on Migratory Species, we need real commitments to address pollution and to implement existing guidelines.

Leida Rijnhout, co-Chair and NGO representative for the Major Group Facilitating Committee for UNEA-3, noted how pollution is, of course, a major environmental issue, but it also has a huge social impact, as often it is vulnerable groups and communities in the global south who suffer the most.

Environmental protection and development are intrinsically linked: both involve tackling the inequality gap. However, the messages from UNEA are not reaching the discussions at the High Level Political Forum (HLPF). Leida Rijnhout pointed out that, for bureaucratic reasons, the President of UNEA was not given an official speaking slot at the last HLPF, as the HLPF falls under ECOSOC, which UNEP is not a part of. She left the dialogue with a question to consider: how can we ensure that the outcomes of UNEA-3 are structurally integrated into ECOSOC and the HLPF General Assembly meetings?

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