



Division of Environmental Health
School of Public Health and Family Medicine
Isikolo Sempilo Yoluntu kunye Namayeza Osapho
Departement Openbare Gesondheid en Huisartskunde



Title: The Link between Climate Change and Chemical Accidents

Date: 20 April 2022

Presenters: Marie-Ange Baucher, OECD; Halshka Graczyk, ILO and Semia Gharbi, AEEFG

1:55 PM Tatum: Good day all! Welcome to the first SAICM UCT CSDG Discussion for 2022! Kindly can you introduce yourself (name, job title, organization and country) in the chat section.

Please note, only the presenter and facilitator will speak. Any comments or questions attendees should be typed in the chat section.

Please kindly keep you microphone muted and cameras off during the discussion.

1:57 PM Ram Charitra Sah: Ram Charitra Sah, CEPHED, Nepal

1:58 PM Andrea Rother - UCT, South Africa: Hello All, I am Andrea Rother, Professor and Head of the Env Health Div at the University of Cape Town in South Africa

1:59 PM Alois Ngonyani: Hello, I am Alois , A chemist at the Government Chemist Laboratory Authority, Tanzania, Currently in Portugal

2:00 PM KENADID SOMALIA: Hello all, I am Kenadid, Directorate of Environment and Climate Change SOMALIA

2:00 PM hyacinth chin sue: Hi, I am Hyacinth Chin Sue Expert Consultant Agrochemicals Product Registration Europe, Jamaican originally

2:00 PM hyacinth chin sue: Company Labcorp

2:01 PM Patricia: Hello. Patricia Chilaisha. Occupational Safety and Health Services, Ministry of Labour and Social Security. Zambia

2:02 PM Girma- Ethiopia: Hello, I am Girma, Environmental Protection Authority- Ethiopia



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2:02 PM Volker Molthan, BUND: Hello Volker Molthan, FoE Germany/BUND e.V.

2:03 PM Maria Delfina Cuglievan Wiese (internal): Hello, I am Delfina Cuglievan the SAICM Secretariat. Welcome everyone

2:03 PM Saily Motladiile: Saily Motladiile, Principal Chemist, Department of Waste Management and Pollution Control, National Environmental Laboratory

2:03 PM Tatum: For those that are just joining us, welcome to the first SAICM UCT CSDG Discussion for 2022! Kindly can you introduce yourself (name, job title, organization and country) in the chat section.

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2:03 PM Anthony Wainaina: Anthony Wainaina, Ministry of Health Kenya and MCRM Student

2:03 PM Lovemore Mutaviri: Hallo, Lovemore Mutaviri, Entomologist, DR & SS, Ministry of Agriculture in Zimbabwe

2:04 PM Blessings Mulima: hello, I am Blessings Mulima, Monitoring and Enforcement Officer, Pesticides Control Board, Malawi.

2:04 PM Ahmad Mahdavi: Hello Ahmad Mahdavi, University of Tehran, Iran.

2:04 PM Saily Motladiile: Saily Motladiile, Department of Waste Management and Pollution Control, National Environmental Laboratory, Botswana



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2:04 PM Emiko Hase: Hello all, I am Emiko Hase Kao (chemical and consumer product company) in Japan, in charge of Kao SAICM promotion secretariate. I'm sorry i may leave in the middle...

2:13 PM Andrea Rother - UCT, South Africa: Please do continue to introduce yourselves with your name, organization and country. Thank you

2:14 PM Joyce Njisy: Joyce Njisy
Government Chemist Laboratory Authority- Tanzania

2:14 PM jane: I am Jane Mdwegale Tanzania working with Plant Health and Pesticides Authority

2:14 PM Ameesha Maharaj: Hi, I'm Ameesha Maharaj, a Product Regulatory Specialist working for Engen Petroleum Ltd. that is based in South Africa

2:16 PM Union Mapxashike: Good day, my name is Union Mapxashike Zimbabwe. I am an Environmental Officer Working for an Environmental Regulatory Body, also a MCRM student

2:18 PM glory boniventure: Hello everyone, I am Glory Boniventure, working with OSHA Tanzania as Occupational Hygienist

2:18 PM Sherika Whitelocke-Ballingsingh: Good time of day, I am Sherika Whitelocke-Ballingsingh CARPIN, UTech, Ja as Poison Information Coordinator

2:18 PM Tom: Hi All. I am Tom Murray Woolworths, based in Cape Town.

2:19 PM Tatum: We have 20 minutes to discuss question 1. You may post your responses.

Question 1: Do you think there is sufficient awareness of Natech risks in your country in relation to climate change? What are the main challenges you can see for establishing prevention measures for Natech?



2:19 PM Ram Charitra Sah: Netech related awareness is not there in Nepal

2:19 PM Andrea Rother - UCT, South Africa: I do not think there is sufficient awareness in South Africa policy makers or academics.

2:19 PM Tatum: to answer the poll on the screen click here
<https://www.menti.com/qh9efqwb5a>

2:19 PM MaXhosa: Good afternoon everyone I'm MaXhosa Lamani, I'm an OHS Inspector working for DoEL in South Africa.

2:19 PM Saily Motladiile: Botswana, No. Hazards have not been mapped as such it becomes difficult to even develop risks measures associated with the hazards

2:19 PM Kanema: I'm Christopher Kanema Zambia

2:19 PM Lovemore Mutaviri: Q1: No. The reason being lack of adequate personnel specific to the risk task.

2:19 PM Anthony Wainaina: Kenya- there is no sufficient awareness on NATECH.

2:20 PM hyacinth chin sue: There is increased flooding in Jamaica. This poses risk to chemical pollution in manufacturing plants, storage

2:20 PM Ahmad Mahdavi: Yes, particularly in recent years related awareness increase, Iran one of vulnerable lands for disasters like earthquake, climate change, flooding, etc. and on the other hand huge petrochemical industries, etc., also need more work to prevent Natech. In recent years there



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are many academic studies published that can be found by searching: <http://www.emro.who.int/emh-journal/eastern-mediterranean-health-journal/home.html> There are many published work.

2:20 PM Susanne Lingard: Challenge would be to ensure that all industries apply the best management practices and risk assessments to ensure protection of communities and environment that may be impacted in the vicinity of their locations. Would need to ensure authorities are staffed to review and inspect with severe penalties for non-compliance.

2:20 PM Tom: Not sure, South Africa

2:21 PM Patricia: I think there is limited information available in Zambia concerning Natech risks in relation to climate change. This is a relatively new area and not much attention has been paid to link climate change to this type of risks

2:21 PM Lovemore Mutaviri: Q: There is civil protection unit (CPU) which is normally reactive when disaster situation has already occurred

2:22 PM Blessings Mulima: In Malawi there is not enough awareness of natech risks in relation to climate change i think due to no recorded cases in the past on climate related incidences. The only recorded incident of chemical accident was due to a fire breakout. i think lack of chemical production facilities in the country or large chemical warehouses and the few incidences of natural disasters could be the reason why as a country we have not put much effort in developing plans towards this

2:22 PM Alois Ngonyani: I think having early warning system is vital and then Preparedness

2:22 PM KENADID SOMALIA: not sure

2:23 PM Andrea Rother - UCT, South Africa: Lovemore - is the CPU in Zimbabwe aware of Natech?



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2:24 PM Tatum: To answer the poll click here: <https://www.menti.com/qh9efqwb5a>

2:24 PM Nosiku Munyinda: In the recent Water and Sewerage infrastructure projects, there has been an effort to ensure that the installations are Climate Resilient.

2:24 PM Girma- Ethiopia: The issue of NATECH is not addressed, I think the issue of the awareness has significant impact for the issue not well addressed and incorporated in the government plan. The other issue is, developing countries have many areas to address which we think that natural hazard completely separate anthropogenic activity or its result. The early warning system is only focus on natural hazard

2:24 PM Tatum: The question we are discussing is Question 1: Do you think there is sufficient awareness of Natech risks in your country in relation to climate change? What are the main challenges you can see for establishing prevention measures for Natech?

2:25 PM Alois Ngonyani: Agreed and think UNDRR has done lots on Early warning systems, preparedness and working with them will also add value into what you are working on

2:25 PM Ameesha Maharaj: I think there needs to more awareness. However, in South Africa, we have the Disaster Management Act (DMA) No. 57 of 2002, which addresses national disaster management. The National Disaster Management Centre (NDMC) is established in terms of Section 8 of the DMA. The NDMC is an intergovernmental process that promotes an integrated and co-ordinated system of disaster management, with special emphasis on prevention and mitigation, by national, provincial, and municipal organs of state, statutory functionaries, other role-players involved in disaster management and communities. We also have advisories such as the South African Weather Service (SAWS) which is useful for early warning systems; DAFF's Climate Change and Disaster Management and ARC: Institute for Soil, Climate and Water.

2:26 PM Union Mapxashike: In Zimbabwe there is not much awareness on Natech risks, however general awareness on natural disasters associated with climate change has increased over the years following the recurrence of cyclone incidences. The main challenges in terms of response preparedness has been largely poor coordination and limited resources.



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2:26 PM Nosiku Munyinda: The main challenges are related to the inadequacy of data and interconnectivity of information sources among institutions. To prepare for Climate Risks, the data has to be robust and collected over a considerable length of time and this is where the main challenge lies.

2:26 PM Maminaiina: Q1: The main challenge is the definition of the criteria for establishing an appropriate security perimeter between the installations and the population living or working near an industry.

2:27 PM glory boniventure: Awareness creation is still challenge in Tanzania

2:27 PM Fatoumata Zahra Niass THIAM: Hi all. I am Fatoumata Zahra Niass Thiam national consultant on risks and vulnerabilities related to chemicals products in Senegal

2:27 PM KENADID SOMALIA: Right now is zero awarness for natech in my country.

2:28 PM jane: There is no sufficient awareness related to Natec.. Challenges could be low stakeholder involvemnt as risk communication tool.

2:28 PM hyacinth chin sue: Hurricanes in Jamaica seasonal. Usually flooding associated with Hurricanes. There is warning system for Hurricanes. efforts made to store pesticides well. May not be full proof

2:28 PM husam :recently we experienced some flash flood results change in rainfall intensity due to climate change

2:28 PM Tatum: To answer the poll click here: <https://www.menti.com/qh9efqwb5a>

2:28 PM Norman Maseko: Hello , Norman Maseko Eswatini, working for the ministry of Health as an EHO



2:28 PM KENADID SOMALIA: SOMALIA

2:29 PM Girma- Ethiopia: No

2:29 PM Tefera Getaneh-Ethiopia: Hi all,I am Tefera Getaneh Environmental and social impact assessment expert in Environmtnal protaction authority of Ethiopia

2:30 PM Nosiku Munyinda: Another challenge is that the training in most Engineering disciplines does not include Climate Change risk and designing 8nfrastructuve to prepare for this. Zambia has a robust Disaster Preparedness and Response Policy... But mostly focused on food security, displacements due to floods and other Public Health emergencies. The technological side still needs development.

2:30 PM Tatum: *We have five minutes left to discuss question 1*

2:30 PM Andrea Rother - UCT, South Africa: Good point Nosiku.

2:31 PM hyacinth chin sue: Location of pesticides sellers are known. that could be mapped. for other chemicals there is no development in Jamaica

2:32 PM Andrea Rother - UCT, South Africa: Does anyone know if chemical companies in their countries have Natech prevention plans in place?

2:32 PM Patricia: @Nosiku. I agree with your point. I believe the policy on disaster preparedness must be enhanced to incorporate natech risks. Although these risks, would have to be covered under the Zambia Environmental Management Agency

2:33 PM Alois Ngonyani: We have the same in Tanzania, but sometimes enforcement and expertise is a problem



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2:35 PM Norman Maseko: Question 1, in Eswatini we have a disaster management department to provide immediate response to natural disasters, There is currently no preparedness to incorporate Natech accidents, I agree with Nosiku.

2:37 PM M-Suresh Lochan Amichand: Guyana/ Suresh Amichand/ Deputy Registrar/ PTCCB

2:40 PM Ameesha Maharaj: @Andrea – I know that Petroleum organizations need to follow the Petroleum Pipeline Act and for this we need to comply and have emergency plans for system failures, accidents and other emergencies – this would include natural disasters and industrial accidents

2:43 PM Andrea Rother - UCT, South Africa: Thanks Ameesha. I wonder if this is the case for pesticide and other chemical companies in South Africa.

2:47 PM Volker Molthan, BUND: Another major environmental risk and risk for people is destruction of chemical installations and storage facilities caused by war, bombing and incompetent handling by occupiers etc, as now in Ukraina

2:47 PM Susanne Lingard: @Andrea - I can't speak for local S. African companies, but if you are a US company, in order to get insurance, you need to assess risks, conduct audits and have risk mitigation measures in place. I will check whether Natech is specifically addressed.

Question 2: What do you see as the role of the world of work in MIA prevention when it comes to increasing occupational safety and risks posed by climate change?

2:49 PM Tatum: To answer the poll click here: <https://www.menti.com/qh9efqwb5a>

2:50 PM Andrea Rother - UCT, South Africa: I wonder if governments should require (or are requiring already) that companies submit a MIA and Natech prevention plan when applying for a registration of a chemical, product or industry?



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2:51 PM hyacinth chin sue: Facilitating dialogue and or negotiation among stakeholders to raise awareness and implementation Jamaica

2:52 PM Ahmad Mahdavi: More involvement of the related global agencies like ILO, WHO, etc. in developing countries. Fortunately, there are enough activities and good work/ help going in developed world but in developing countries mostly due lack of Enforcement the situation is not good and so need more help/ cooperation, etc.

2:53 PM Norman Maseko: Q2, I think implementation of the ILO Code of practice and Natech prevention plans could suffice.

2:53 PM Alois Ngonyani: In Tanzania we have the requirements that when you applying for hazardous chemicals registrations you need to have a contingency plan but is too general and we can learn and include them in the contingency plan

2:53 PM jane: Raising awareness through trainings , workshop and platforms about the risks related to hazardous work environment

2:54 PM M-Suresh Lochan Amichand: I think the risk communication plan for MIA should be encompassed in local OHS policy

2:55 PM Reuben Zulu: Yes in Zambia we have the legal framework on OSH

2:55 PM Tatum: To respond to the poll click here: <https://www.menti.com/qh9efqwb5a>

2:56 PM Joyce Njisy: Awareness training to MI, regulatory authority and policy makers , on accident preparedness and prevention for Natech

2:57 PM Norman Maseko: Good point M- Suresh



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2:57 PM Patricia: Climate change is still considered an emerging risk in Zambia and more needs to be done to promote awareness so that it is well recognised as such

3:00 PM Thulisiwe: Currently in South Africa the OHS legislation does not make provisions of climate change nor management of accidents as a results of climate change. However the legislation is currently under review and it will be ideal to make inputs for this legislation to provide for emergency climate change issues.

3:01 PM Tatum: *We have five minutes left to discuss question 2*

3:01 PM Alois Ngonyani: Having in a document in place is okey, but awareness and implementing what is inside the documents is vital, so apart having in place all those policy documents we need to create awareness to the workers themselves

3:04 PM Ahmad Mahdavi: Mohammad Abdollahi • 1st Highly Cited Researcher of the World, 2021 at Clarivate 1mo •

1 month ago

Evaluation of hematological indices among insecticides factory workers

sciencedirect.com • 1 min read

3:05 PM Tatum: To answer the poll click here: <https://www.menti.com/qh9efqwb5a>

3:06 PM hyacinth chin sue: Flight tipping results in illegal trade

3:08 PM Ahmad Mahdavi: Q.3-One good example is POPs, POPs travel long distances eg are found in body of polar bears, etc. surely increase in temperatures will have its effects on POPs movement. Also climate change related flooding caused already spreading of HW in many parts of the planet, indirectly climate change related disasters caused unwanted movements of Hazardous Wates and spreading them. I am always worry about warming trend in oceans and so increasing HW problems.



- 3:09 PM Mohamed Jalloh: Greetings to all
- 3:09 PM jane: You made a good point Ahmad
- 3:09 PM Ahmad Mahdavi: Chemicals production, chemicals containing products and product usage can give rise to both hazardous chemicals and GHGs
- 3:10 PM MaXhosa: Lack of enforcement
- 3:10 PM hyacinth chin sue: Although there are provisions to manage trade on chemicals, a ship could leave cargo on the port. The cargo has insufficient labelling indicating it was never legally shipped. This is a cheap way to dispose of waste other countries.
- 3:10 PM Lloyd Nundwe-Zambia: Lack of adequate measures to enforce cross border movement of measures. Most border agencies don't have the means to identify what constitutes hazardous waste except trained environmental inspectors.
- 3:10 PM Michael Musenga: CEHF Zambia Michael Musenga; Reason for hazardous waste is still hapening is due to lack f enforcement on international treaties.Even the national law enforcement is usually not there.and monitoring is also not available
- 3:11 PM hyacinth chin sue: There is need for a system to monitor and prevent flight tipping
- 3:11 PM Alois Ngonyani: Green job, green economy, green chemistry....Healthier environment, those three aspects will make our planet resilient to the climate change impacts
- 3:12 PM Joyce Njisy: Poor monitoring mechanism



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3:13 PM jane: Heat Street cause easily breakdown of chemicals into dangerous metabolites which facilitated their movements.

3:15 PM Thulisiwe: In SA, Too many departments responsible for chemicals and no leading agency creates gaps in Chemicals management at the borders.

3:15 PM hyacinth chin sue: Illegal trade is sometimes concealed in other cargo that is not highly regulated eg furniture

3:15 PM Sherika Whitelocke-Ballingsingh: @ Hyacinth, totally agreed with the subtle, strategy that is uses to dump wastes in poor countries.

3:15 PM Tatum: <https://www.menti.com/qh9efqwb5a>

Question 3: How can climate changes increase the problem of hazardous wastes movement and its impact on environment and health?

3:19 PM Ram Charitra Sah: The Climate Change Adaptation plan in Nepal did not considers the chemicals issues at a

3:19 PM Alois Ngonyani: Yes, our climate change adaption strategies are taking account the effects of hazardous chemicals

3:19 PM Alois Ngonyani: Tanzania

3:20 PM Alois Ngonyani: Hazardous chemicals and wastes as well

3:21 PM Volker Molthan, BUND: The increasing frequency and probability of climate change related extreme events is not really taken into account by government regulation. In fact, it is more the



insurance industry which pushes companies to take it into account as their risk of reimbursements is increased with increasing danger of damages

3:22 PM Andrea Rother - UCT, South Africa: That is an important point Volker.

3:25 PM Tatum: @all, in the interest of time, you are welcome to continue sending your responses to Q3 in the chatroom

3:29 PM Joyce Njisya: Extreme events may affect the movement of hazardous waste more further and also can affect the leaching of the chemicals and affect under ground water

3:29 PM Blessings Mulima: q3: development of green tech and appliances to combat climate change will lead to the abandonment of old appliances, machines etc thus resulting into ewaste and other hazardous waste finding their way to less developed countries as demand for these products would still be there.

3:30 PM Mwankhongono-Zao Roy Kaonga: The concept of bio accumulation in relation to climate change is rather worrying. As climate changes for the worse, our bodies may also relate poorly to external conditions especially in relation to chemicals that are absorbed in our bodies.

3:30 PM Andrea Rother - UCT, South Africa: Blessings - a very important point and I wonder if countries are addressing e-waste, for example, while introducing green technology.

3:31 PM Tatum: Announcement: SAVE THE DATE FOR DISCUSSION 2:

Date: 6 July 2022

Time: 14h00 -15h30 GMT+2

Registration link:

<https://unep.webex.com/unep/j.php?RGID=rbf5eb1f72e427b515711de1f1f30693>



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3:33 PM Alois Ngonyani: Yes Mulima that's why we need to have in place a mechanism preventing those getting into less developing countries, however countries moving into green economy have in place mechanisms making sure that those type of products are recycled including mechanisms such as considering waste in their design and use less raw materials, sustainable ones and made their products with parts that can be recycled

3:33 PM Tatum: If you are not a member of the SAICM UCT CSDG CoP you may sign up here:
<https://saicmknowledge.org/community>

3:35 PM Ahmad Mahdavi: Dear Tatum, hi, the link for the next discussion is not working.

3:37 PM Tatum: To answer the evaluation poll click here: <https://www.menti.com/qh9efqwb5a>

3:37 PM Alois Ngonyani: Thank you Andrea and whole team for organizing this, it was real a productive discussion