

REGIONAL FORUM

ON SUSTAINABLE DEVELOPMENT FOR THE UNECE REGION

21-22 APRIL 2026 | PALAIS DES NATIONS | GENEVA



Women and Water

A multi-stakeholder panel discussion to strengthen partnerships among women's organizations, research, governments, and UN agencies to accelerate combined progress toward SDG 5, SDG 6, SDG 16 and SDG 17.



Diana Barragán

President and UN Representative of the International Federation of Business & Professional Women



Dr. Alena Lohrmann

Researcher at the Chair of Energy Systems Analysis, ETH Zürich



Ruth Richardson

Founder of the Women's Network VIEW at the Dutch Ministry of Infrastructure and Water Management



Pascale Muylaert

UN Representative of Soroptimist International



Mariia Anapreichyk

Member of the ALLATRA Global Research Center



Sheerah Kim

UN Representative of the International Federation of Business & Professional Women

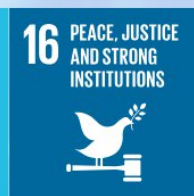


Side Event (in-person)

21 April 2026

Time: 08:30 - 10:00 CET

Room: Concordia 4



Side Event at the UNECE Regional Forum on Sustainable Development 2026

Women and Water

Date & Venue: 21 April 2026, UN Geneva

Room: [Concordia 4](#), floor 2, access: A15



Lead Organizer: International Federation of Business & Professional Women (BPW International)

Collaborating Organizations: NGO CSW Geneva, International Network of Liberal Women, Women's Federation for World Peace, Make Mothers Matter, National Alliance of Women's Organizations UK, Soroptimist International, Latter-Day Saint Charities, Widows Rights International

Background

Water is a fundamental driver of sustainable development, linked to health, food security, climate resilience, and peace. Across the UNECE region and globally, women and girls bear a disproportionate burden of inadequate water access, yet their experiential knowledge and leadership remain underutilized in water governance.

As the 2030 Agenda deadline nears, addressing the intersections of SDG 6 (Clean Water and Sanitation), SDG 5 (Gender Equality) and SDG 16 (Peace, Justice and Strong Institutions) becomes imperative. Empowering women as active agents, not just beneficiaries, of water management is key to building resilient, and sustainable systems.

This side event will spotlight innovative approaches led by women and amplify the voices of female leaders, practitioners, and advocates who are shaping the agenda in their communities and beyond.



Objectives

- Strengthen partnerships among women's organizations, research, governments, and UN agencies (SDG 17: Partnerships for the goals) to accelerate combined progress toward SDG 5, SDG 6 and SDG 16.
- Highlight the critical role of women in advancing sustainable water management and governance and share innovative insights to address SDG 6 from Switzerland (and across the UNECE region).

Expected Outcomes

- Strengthened multi-stakeholder partnerships promoting women's leadership in water governance.
- Increased visibility and engagement of women's organizations in UNECE and national water policy dialogues.
- A concise policy brief summarizing key recommendations and commitments emerging from the event.

Agenda

08:30	Welcoming participants	09:05	Input: Pascale Muylaert
08:40	Opening	09:15	Panel and interactive session
08:45	Input: Dr. Alena Lohrmann	09:45	Closing
08:55	Input: Ruth Richardson	09:50	Transfer to Forum Opening

Speakers and Panelists (updated list)

- **Diana Barragán**, President and UN Representative of the International Federation of Business & Professional Women | Opening
- **Dr. Alena Lohrmann**, Researcher at the Chair of Energy Systems Analysis, ETH Zurich | Focus topic: Water-energy nexus, interdependence of water as a resource
- **Ruth A. Richardson**, Secretary General and Advisor at the International Network of Liberal Women, Founder of the Women's Network VIEW at the Dutch Ministry of Infrastructure and Water Management | Focus topic: Role of women's organizations in bridging policy and practice in water management, Video: [WaterAid Nederland](#)
- **Mariia Anapreichyk**, Legal advisor, Research & advocacy assistant at WFWPI, Member of ALLATRA GRC global research center | Focus topic: Clean drinking water
- **Sheerah Kim**, UN Representative of International Federation of Business & Professional Women, Member of the UNECE taskforce at NGO CSW Geneva | Moderation



Opening



Diana Barragán is the President of BPW International (2024–2027) and Senior Partner at BARRAGAN HONEGGER Partners Law Firm, bringing over 30 years of experience in institutional leadership, legal practice, and international advocacy. She is a multilingual lawyer and development expert, holds academic qualifications in law in Ecuador, psychology, and development studies from the University of Geneva and IHEID. Active within BPW since 1991, she has held numerous leadership roles at national, regional, and international levels, including twice serving as Regional Coordinator for Latin America. Her work centres on advancing women's legal rights, leadership, and economic participation as drivers of sustainable development and peace.

Panel Presentations



Dr. Alena Lohrmann is a postdoctoral researcher for the Chair of Energy Systems Analysis at ETH Zürich, Switzerland. She received her doctoral degree from LUT University in Lappeenranta, Finland. She also holds bachelor's and master's degrees in engineering and technology in the fields of thermal power engineering and heat engineering. Her research interests include energy system analysis, water footprint assessment, and machine learning for energy modelling. Her current research is focused on the water footprint assessment of energy systems as well as water- and energy-intensive technologies in order to ensure access to affordable, reliable, sustainable and modern energy for all.



Ruth A. Richardson is an international advocate for women's rights, gender equality, climate justice, and human dignity. Born in Aruba and based in the Netherlands, she combines technical expertise in water management and ecosystems at the Dutch Ministry of Infrastructure and Water Management with high-level global advocacy. As Secretary-General of the International Network of Liberal Women (INLW), she drafts resolutions, shapes policy and represents INLW at the United Nations and the European Parliament's FEMM Committee. As has advanced gender-responsive approaches in key global frameworks, including COP26, the Sendai Framework and the UNECE Water Convention. Her work consistently bridges policy and practice, keeping gender equality, climate resilience and human rights at the heart of global decision-making.



Panel Presentations (continued)



Mariia Anapreichyk holds a Master's degree in International and European Law from the University of Geneva and serves as a legal advisor and a member of the ALLATRA Global Research Center, a think tank contributing to interdisciplinary research on climate change and environmental challenges. She is engaged as a Research and Advocacy Assistant with the Women's Federation for World Peace International, supporting initiatives related to human rights, sustainable development, and international cooperation. Her professional experience includes work with law firms and notarial offices in Ukraine and Switzerland, with a focus on legal analysis and advisory practice. Mariia is also actively involved in the study of micro- and nanoplastics in water and their effects on human health, as well as in raising awareness of this emerging global challenge.

Moderation



Sheerah Kim specializes in trustworthy AI adoption in the Swiss public sector at Intersections. Formerly Head of ICT at a city administration, she understands how to navigate the challenges of sovereign digital transformation. She is a seasoned facilitator and moderator on multi-stakeholder dialogues at international conferences, including the Swiss IGF and NGO CSW. As a board member at OneGov.ch, she promotes open source and community-driven developments. She is the Co-President of BPW Club Zurich, UN Representative for the International Federation of Business & Professional Women in Geneva and served as Communication Officer of BPW Europe 2021-2024. She holds a Bsc in Business Administration and a CAS in Digital Ethics from HWZ Zurich.

Written Input (Report and Key Findings from CSW70)



Pascale Muylaert, Dr Juris, MBA, is a Strategy Consultant and former international Director with over 40 years of experience, who championed gender equality at Board level throughout her career. She firmly believes that true diversity is a right, a necessity and a benefit for all. As Soroptimist Representative to the UN in Geneva, she actively advocates for the Human Rights of Women and Girls, contributing to the Beijing +30 review, UNECE processes, Special Rapporteur requests and NGO CSW Geneva. She co-authored the Environment background document for the Beijing +30 UNECE review and organised CSW69 events on climate change and women's health. She engages with key environmental forums, including the Geneva Environment Network and the 2025 Ocean Conference.



Report and Key Findings from CSW70 on Water & Women Panels

Author: **Pascale Muylaert**, UN Representative of Soroptimist International, Member of UNECE Task force at NGO CSW Geneva

“At the CSW70 in New York, we illustrated that grassroots projects not only fix water issues but also build women community leaders in Kenya, Malaysia, India, and Asia Pacific. And the government of Brazil shared a top-down/bottom-up environmental governance structure using Indigenous knowledge that should inspire other member states. Soroptimist International calls on feminist and environmental NGO’s to cooperate at any major multilateral opportunity to build the structures and conditions that will deliver more women water leaders at every level of water governance.”

- Water issues are much **wider than WASH (Water, Sanitation and Hygiene)** but often get reduced to only that. This blinds other water related issues, such as pollution of rivers and oceans, sea level rise, biodiversity loss and the plights of climate refugees.
- Many grassroots projects by feminist NGOs reflect this historic focus: most address **water access & hygiene to secure broader rights like education and safety**. But not many start at the root causes such as pollution and environmental impact. It is important to educate everyone about the wider issues, so they can strive to improve the causes water scarcity.
- Soroptimist International projects that start with securing safe water access often **result in further benefits for the women involved, i.e. like food security, income generation and even learning to become welders**. This leads to **empowerment of the women in the affected communities**. Purposefully encouraging & rewarding women leadership is therefore key when designing and funding grassroots projects.
- Madame Fatema Yousef, acting DPR UAE, confirmed the importance of **women leadership in Water will be one of the topics addressed at the 2026 Water Conference** it is co-hosting in December 2026. We are calling on feminist and environmental NGO’s to cooperate at this conference and any other major **multilateral opportunities** to build the conditions that will deliver more women water leaders at every level of water governance.



Notes from the Side Event, 21 April 2026

Diana Barragán - Opening

The strong coalition of this event reflects the very essence of what we aim to achieve: partnership, collective action, and shared responsibility. Yet, significant gaps remain between commitment and reality. Policies cannot be credible or effective if those most directly affected are excluded from participation. The challenges related to water highlight the deep intersections between Sustainable Development Goals SDG 6 on clean water and sanitation, SDG 5 on gender equality, and SDG 16 on peace, justice, and strong institutions. Access to water is not only a development issue, it is a matter of health, economic opportunity, dignity, and stability. When access is unequal, vulnerability increases. Empowering women economically, socially, and institutionally is a key pathway toward a more peaceful and sustainable world. Women should not be viewed as victims, but as experts and agents of change. Strengthening partnerships, in line with SDG 17, is essential to highlight the role of women, share concrete experiences, and accelerate progress. Through inclusive and collaborative efforts, we can build a more peaceful and equitable world.

Alena Lohrmann - Panel Presentation

Water impacts are often the missing piece in energy system analysis, despite its critical role and growing vulnerability under climate change. While much attention is paid to carbon emissions, the impact of CO₂ on water systems remains insufficiently integrated into energy planning¹. In Europe, approximately 55% of total water withdrawals are used for power generation, including hydro-power, thermal plants, solar photovoltaic (PV), concentrated solar power (CSP), and bio-energy. This highlights the deep interdependence between water and energy systems.

The pressure on water resources is already significant. Around 35% of active thermal power capacity depends on water withdrawn from rivers and lakes experiencing high or extremely high water stress². In some cases, power plants are forced to shut down due to insufficient water availability³. This raises a critical issue: there is simply not enough water to meet the needs of the population and simultaneously the demand from the energy sector. Yet, water use by power plants remains poorly reported, making it difficult to assess the true scale of competition with other sectors.

¹ Article: *Global energy-related CO₂ emissions hit record high*, Reuters, March 2024, [link](#)

² Source: Lohrmann, A., Farfan, J, *Go with the flow: a new approach to levelized cost estimation to account for water use in power generation*. Book of Abstracts: 10th International Conference on Smart Energy Systems. Aalborg Universitet. 2024

³ Article: *France and Switzerland shut down nuclear power plants amid scorching heatwave*, Euronews, July 2025, [link](#)



Globally, the power sector consumed approximately 88 km³ of water in 2020⁴, this is equivalent to filling 35 million Olympic-sized swimming pools⁵. Thermal power generation accounted for about 22%. Despite the growth of “water-free” renewable technologies like wind and solar PV, projections suggest that water demand in the power sector will continue to rise. A review of 10+ global energy transition scenarios (including those from the EIA, BloombergNEF, and IRENA) indicates that water demand could increase by at least 11% by 2050⁶. This increase is largely driven by the expansion of hydro-power, often in regions already facing significant water stress.

Water use linked to energy is not limited to large-scale infrastructure, it also permeates everyday life. For instance, average mobile phone usage in Europe indirectly consumes about 3 liters of water per person per day, primarily due to energy use rather than manufacturing or direct consumption. In fact, up to 90% of an individual’s water footprint is tied to energy use, not manufacturing or direct water consumption. Therefore, energy technology choices strongly influence water-related risks across value chains.

Climate change further complicates this relationship. Climate change is fundamentally a water challenge. It alters precipitation patterns, reduces the reliability of water resources, and intensifies droughts, making water an increasingly binding constraint for energy systems worldwide. In this sense, climate change is fundamentally a story of water change.

Finally, the social dimension of water and energy challenges must not be overlooked. Women are often disproportionately affected by water scarcity, yet they remain underrepresented in scientific research and decision-making processes, including in leading technical institutions. This gap matters because addressing water and energy challenges requires not only technical solutions but also inclusive and socially informed approaches.

Ruth Richardson - Panel Presentation

Video Link: [WaterAid Nederland](#)

In the video, women in Africa are walking long distances to collect water for their families. Their daily efforts highlight both their resilience and the structural inequalities they face. Despite their central role in water provision, many communities still lack sufficient access to safe water, and state support often remains inadequate. In this context, access to water is not only a basic need but also a matter of empowerment.

Women’s organizations play a crucial role in bridging the gap between policy and practice in water management. Although women are still underrepresented in decision-making processes, these organizations ensure that policies are translated into concrete actions at the

⁴ source: *Water Resources Institute (WRI) (2021). AQUEDUCT Water Risk Atlas*. [link](#)

⁵ Lohrmann, A., Farfan, J., Lohrmann, C., Kölbl, J. and Petterson, F. (2023). *Troubled waters: Estimating the role of the power sector in future water scarcity crises*. *Energy*, 282: 128820.

⁶ Lohrmann, A., Farfan, J., Lohrmann, C., Kölbl, J. and Petterson, F. (2023). *Troubled waters: Estimating the role of the power sector in future water scarcity crises*. *Energy*, 282: 128820.



community level. They bring local knowledge and lived experiences into governance, while also holding institutions accountable for inclusive and effective implementation. Without their involvement, policies risk remaining mere declarations with little real impact.

The role of women in water management is closely linked to the achievement of the Sustainable Development Goals, particularly SDG 6 (Clean Water and Sanitation) and SDG 5 (Gender Equality). Addressing today's water challenge, intensified by climate change, population growth, and increasing pressure on natural resources, requires moving beyond recognition toward concrete action. We can no longer afford to exclude half of the world's knowledge, experience, and leadership from decision-making processes.

This calls for intentional and sustained efforts. Strengthening gender equality in water governance means supporting women's networks, promoting their leadership, and systematically integrating gender perspectives into both policy and practice. Bridging the gap between policy and implementation remains a major challenge, and this is precisely where women's organizations are indispensable.

Moving from solutions to action requires actively involving women's organizations in the design and implementation of policies, investing in their capacities and long-term sustainability, and embedding gender-responsive approaches as a standard in water governance frameworks.

Ultimately, we cannot effectively bridge policy and practice in water management without the leadership of women's organizations. Achieving SDG 6 is inseparable from achieving SDG 5, they must advance together. The urgency is clear: meaningful action must be taken now, before it is too late.

Mariia Anapreichyk - Panel Presentation

Water is the foundation of life, health, and sustainable development. Every cell in our body depends on it. Without water in a living organism, neither metabolism, nor the functioning of organs, nor life itself is possible. Therefore, ensuring access to safe drinking water represents one of the key tasks of the global agenda.

According to the United Nations, over the past decades more than 2 billion people have gained access to improved sources of water⁷. This reflects coordinated efforts by states, international organizations, and the scientific community.

Traditionally, water quality assessment is based on microbiological and chemical parameters, including the presence of bacteria, viruses, and toxic substances⁸. Accordingly, existing control systems are primarily focused on those indicators that can be measured within the framework of existing methodologies.

⁷ WHO/UNICEF's Joint Monitoring Program (JMP) report on "Progress on household drinking water, sanitation and hygiene" over the period 2000-2024.

⁸ Guidelines for drinking-water quality, 4th edition, incorporating the 1st addendum, [link](#)



However, in recent years, scientific research has increasingly pointed to a factor that previously remained outside proper attention: micro- and nanoplastics. Plastic does not disappear, it breaks down into increasingly smaller particles⁹. This is microplastics, visible like sand or dust. Nanoplastics: particles smaller than a cell, invisible to a conventional microscope.

Modern optical imaging techniques have revealed between 110,000 and 370,000 plastic particles, predominantly microplastics, in one liter of water from plastic bottles¹⁰. Plastic particles have also been found in water from glass bottles, as well as in tap water. These particles are found in various components of the environment. According to available data, plastic particles were found in 83% of 159 samples of tap water¹¹. This situation is further aggravated by the deterioration of infrastructure, however the key factor is the scale of environmental contamination by micro- and nanoplastics.

Each year, about 11 million tons of plastic enter the World Ocean, including rivers and lakes¹².

By interacting with water at the molecular level, micro- and nanoplastics may alter heat exchange processes, potentially contributing to climate instability. But this is not only an environmental issue. It is directly a human health issue. Micro- and nanoplastics are not inert. Their surface is active: they can accumulate electrostatic charge, bind chemical substances, and act as carriers within the human body¹³. Due to their size, they can cross biological barriers-including the intestinal barrier, the blood-brain barrier¹⁴, and the placenta-and even enter cells, where they may affect mitochondria, proteins, and DNA¹⁵. This brings us to one of the most sensitive areas: reproductive health and the development of future generations. According to the World Health Organization, about 17.5% of adults worldwide face fertility disorders- nearly one in six people¹⁶. At the same time, microplastics have already been detected in human sperm, in ovarian follicular fluid, in the placenta, and in breast milk. This means exposure begins before birth. During embryonic development, even minimal impact can have long-term consequences. Possible links are being studied with preterm birth, low birth weight, and developmental disorders.

⁹ Yu, R.-S. & Singh, S. *Microplastic Pollution: Threats and Impacts on Global Marine Ecosystems*. *Sustainability* 15, 13252 (2023), [link](#).

¹⁰ N. Qian, X. Gao, X. Lang, H. Deng, T.M. Bratu, Q. Chen, P. Stapleton, B. Yan, & W. Min, *Rapid single-particle chemical imaging of nanoplastics by SRS microscopy*, *Proc. Natl. Acad. Sci. U.S.A.* 121 (3) e2300582121 (2024), [link](#).

¹¹ Kosuth, M., Mason, S. A. & Wattenberg, E. V. *Anthropogenic contamination of tap water, beer, and sea salt*. *PLoS ONE* 13, e0194970 (2018), [link](#).

¹² ALLATRA IPM, in scientific collaboration with the Bolivian Catholic University San Pablo, Juan Misael Saracho Autonomous University - UAJMS, Department of Research, Science and Technology) and the international project Creative Society. "Nanoplastics In The Biosphere From Molecular Impact To Planetary Crisis", [link](#).

¹³ Casella, C. & Ballaz, S. J. *Genotoxic and neurotoxic potential of intracellular nanoplastics: A review*. *Journal of Applied Toxicology* 44, 1657–1678 (2024), [link](#).

¹⁴ *Micro- and Nanoplastics Breach the Blood–Brain Barrier (BBB): Biomolecular Corona’s Role Revealed*, [link](#).

¹⁵ ALLATRA IPM, in scientific collaboration with the Bolivian Catholic University San Pablo, Juan Misael Saracho Autonomous University - UAJMS, Department of Research, Science and Technology) and the international project Creative Society. "Nanoplastics In The Biosphere From Molecular Impact To Planetary Crisis", [link](#).

¹⁶ World Health Organization. *1 in 6 people globally affected by infertility*. (2023), accessed 1 May 2025, [link](#).



The problem of micro- and nanoplastic pollution acquires particular significance in the context of reproductive health and the development of future generations.

It should be emphasized that the boundaries of current scientific knowledge in this area are still being formed. Methods of measurement are still under development, and quantitative risk assessment remains a subject of scientific discussion. At the same time, the absence of complete certainty does not mean the absence of a problem, but indicates the need for its further study. And it is precisely now that it is especially important to ask the right questions. It is a 21st century challenge. We estimated, that the window of opportunity for substantial progress is several years, not decades.

Existing regulations do not take this into account, creating a legal gap and failing to ensure full protection of human health. This is no longer only about access to water, but about access to water that is safe for future generations.

First, we lack unified European standards for monitoring particles under 10 microns. Each research group uses its own methods, its own classification criteria. Therefore, we cannot compare data from different countries, we cannot create a comprehensive picture of nanoplastic distribution across Europe. Imagine if each country measured temperature using its own scale. These standards must be developed.

We also lack standardized protocols for studying health impacts. We have no unified methodology for assessing the effects of nanoplastics on the human body. Without unified protocols, we cannot obtain reliable, reproducible results for making informed decisions.

European representatives could consider proposing a UN protocol for MNP neutralization at the next climate summit. They could also initiate the creation of an international research coalition with EU participation.

Panel and interactive session (Moderator: Sheerah Kim)

Question 1 to Alena Lohrmann: What data do you need for your research to address the issue and the critical water energy nexus? How can women's organizations support your work?

A. Lohrmann: There is a strong need for support to establish standards in this area, as current assumptions remain too broad and insufficiently defined. The booming industry, AI data centers, are particularly concerning, as many operators do not report their water usage or disclose how much water they require. As a result, it is difficult to assess how much water is being withdrawn from society. Establishing clear standards at the policy or European level would help ensure a fair balance, guaranteeing that populations retain adequate access to water.



Question 2 to Ruth Richardson: How was the response of the women leadership within this network, but also did you face any resistance?

R. Richardson: The response has been very positive, with strong enthusiasm for the women’s network within the ministry. The goal is to increase access to education, mentoring, and leadership opportunities, while also expanding initiatives internationally, particularly in Africa and South America, through projects such as educating in water pumps, building water pumps, and also integrating the policy and practice for gender. With the arrival of a new minister who supports integrating gender into public policy, these issues are now a priority again. The aim is to better train women, especially young girls, in water management and technology, while raising funds to support countries, which are the most affected by poverty.

Question 3 to Mariia Anapreichyk: It seems like that we need to redefine what “safe water” means going forward? Could you share other examples of your other projects and initiatives at Women’s Federation of World Peace International?

M. Anapreichyk: The issue is not only about redefining the concept of safe water. It is also about neutralizing the electrostatic charge of nanoplastics, through which they interact with water molecules and cause harm. The same applies to the human body: when these charged particles penetrate cells, they disrupt the functioning of mitochondria and DNA. As for initiatives and projects, it is worth highlighting water-related programs by the Women’s Federation of World Peace International in the Philippines, advocacy training sessions, humanitarian actions around the world, active participation in the Human Rights Council, and the organization of numerous side events.

Sheerah Kim - Closing

I want to leave us with three things to do:

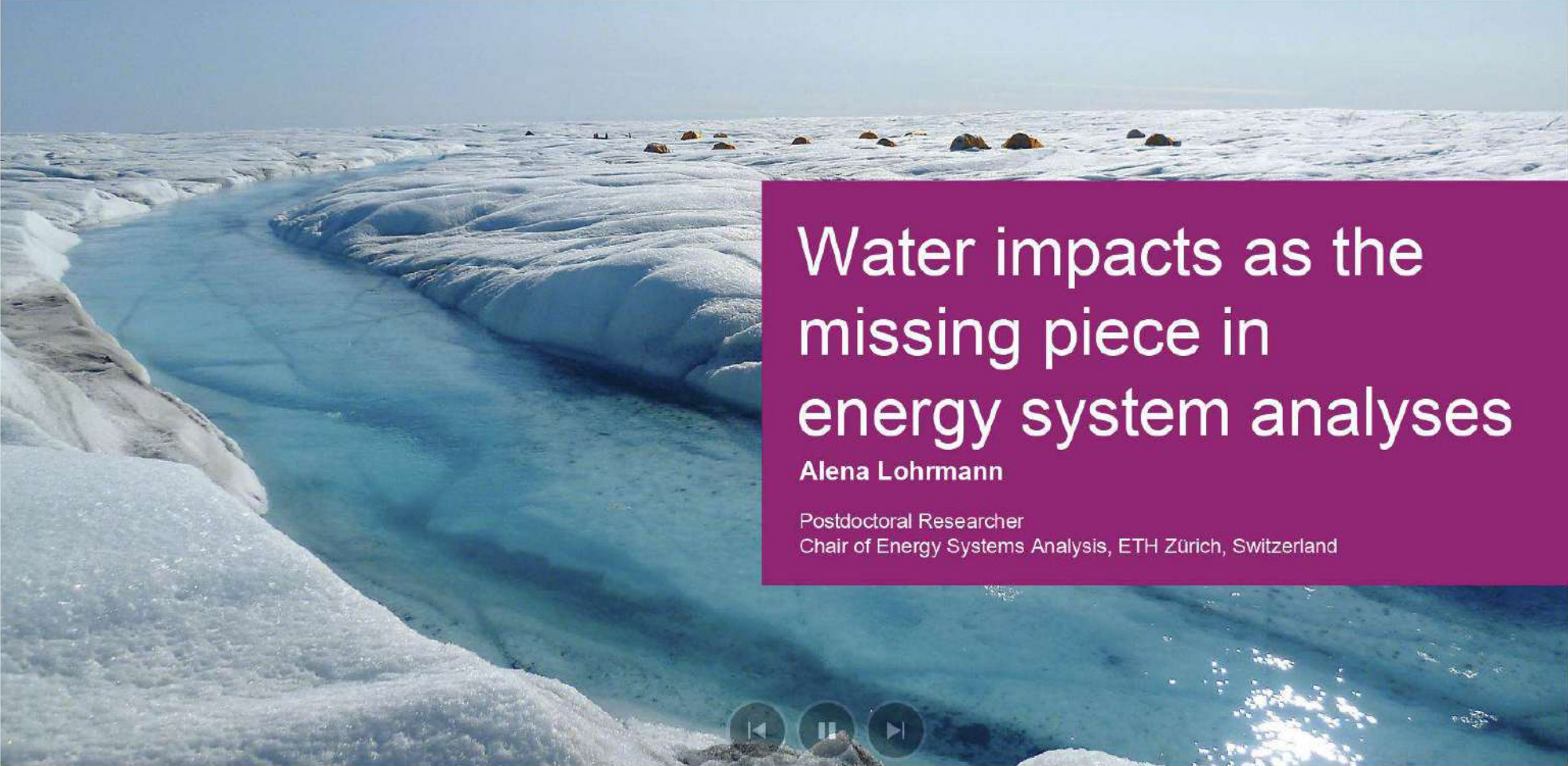
First: connect. Exchange contacts with at least one person in this room you did not know before today for example on LinkedIn. If you’re an ECOSOC accredited women’s organization, you may consider becoming a member with the NGO CSW Geneva.

Second: commit. Think about one concrete action your organization can take to advance women's leadership in water governance before the end of this year or even for the 2026 UN Water Conference agenda.

Third: amplify. Take the voices you heard today back to your networks, your governments, your communities. We will share the notes and executive summary post-event. If you’d like to receive them, please connect with us.

On behalf of our speakers, the International Federation of Business and Professional Women, NGO CSW Geneva and all organizations that participated, thank you for being here.





Water impacts as the missing piece in energy system analyses

Alena Lohrmann

Postdoctoral Researcher
Chair of Energy Systems Analysis, ETH Zürich, Switzerland





Ministry of Infrastructure
and Water Management

Role of Women's Organizations in Bridging Policy and Practice in Water Management

Ruth A. Richardson

Founder of the Women's
Network VIEW at the Dutch
Ministry of Infrastructure and
Water Management

*Secretary General at The International
Network of Liberal Women*



Role of Women in Water Management

- [Water Justice Fund](#)



Role of Women's Organizations in Bridging Policy and Practice in Water Management

Women are on the frontlines of water management

- Households
- Communities
- Implementation on the ground

Women's organizations bridge policy and practice

Yet, women remain underrepresented in leadership

Not just equality — effectiveness





Women's organizations are essential because they:

- Translate policy into action at the community level
- Bring local knowledge and lived experience into decision-making
- Hold institutions accountable for inclusive implementation
- Without them, policies risk remaining words on paper.





Role of Women in Water Management SDGs & Urgency

- Achieving SDG 6 (**Clean Water and Sanitation**) and SDG 5 (**Gender Equality**), while building climate-resilient systems, requires us to move from recognition to action.
- **Water challenges** are becoming increasingly complex — driven by climate change, population growth, and rising pressure on natural resources.
- We simply cannot afford to exclude half of the world's **knowledge, experience, and leadership**.



5 GENDER EQUALITY

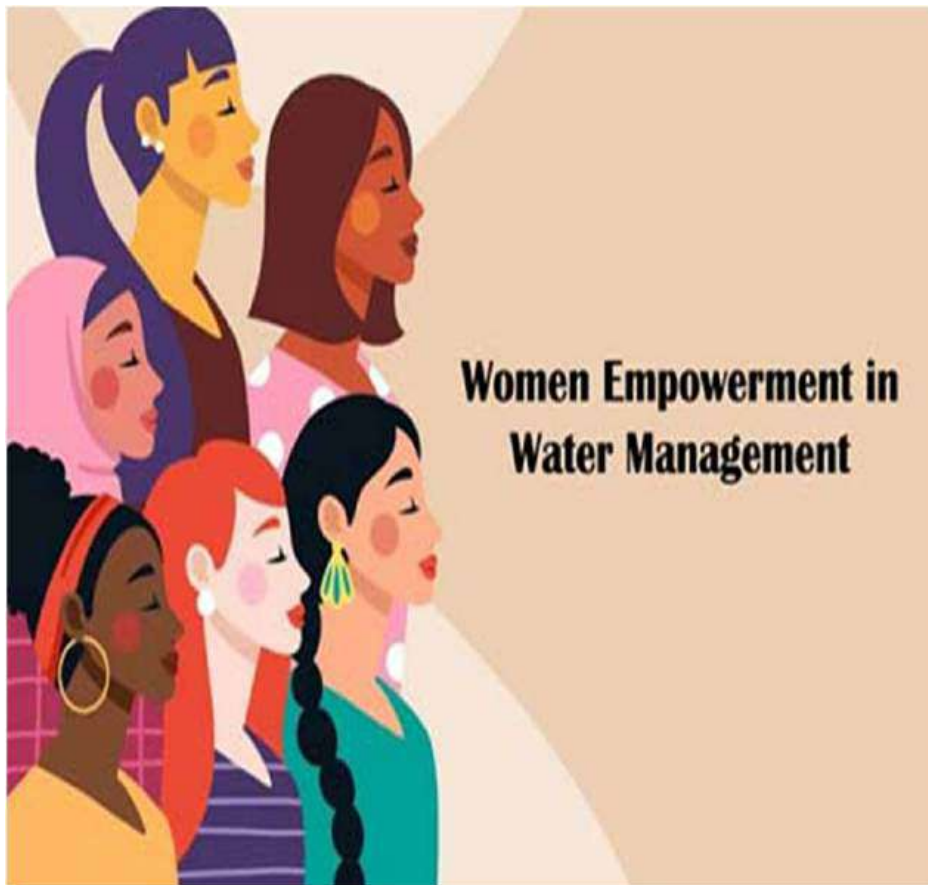
SDG 5 EXPLAINED

ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS



Role of Women in Water Management

Our perspective calls for intentional action



We strengthen gender equality by:

- **Supporting women's networks**
- **Promoting leadership**
- **Integrating gender into policy and practice**
- Bridging policy and practice remains a challenge - this is where women's organizations are essential.



Role of Women in Water Management From solutions to action

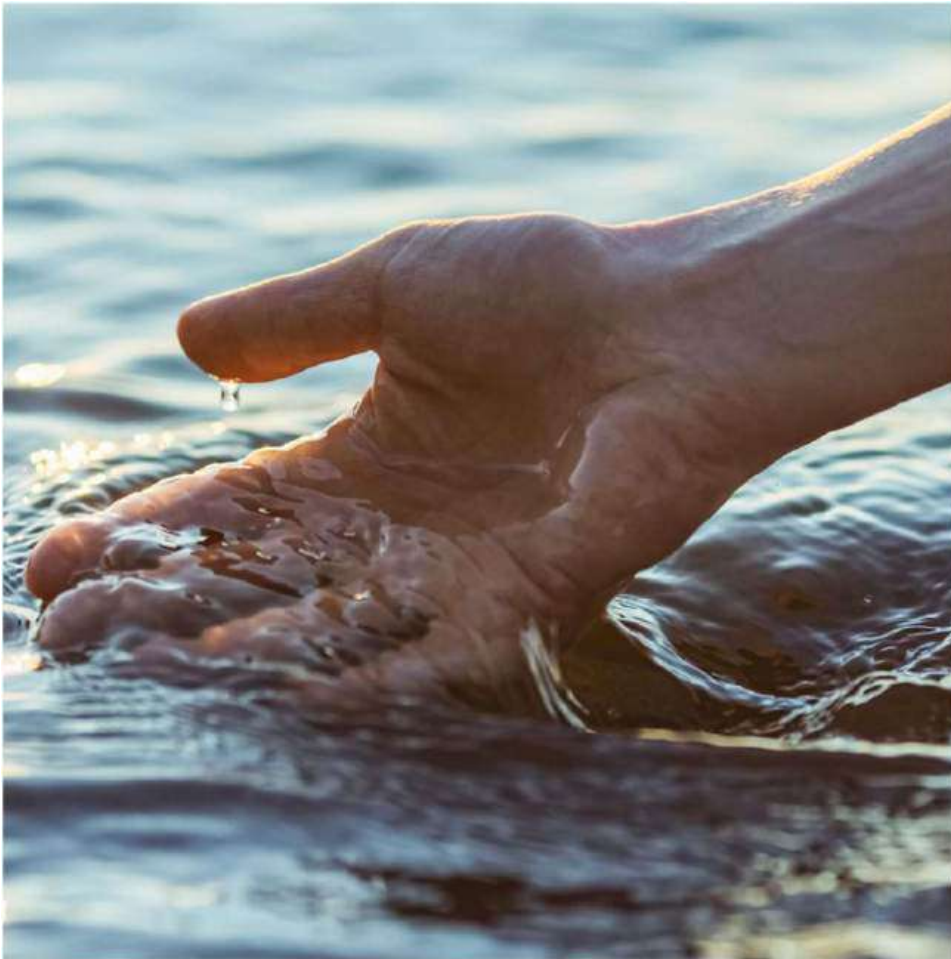
This means:

- Actively including women's organizations in policy design and implementation
- Investing in their capacity, leadership, and long-term sustainability
- Embedding gender-responsive approaches as a standard in water governance





Closing



- We cannot bridge policy and practice in water management without the leadership of women's organizations
- We will not achieve SDG 6 without SDG 5 —they must advance together
- Thank you for your attention



WATER AS THE BASIS OF LIFE — AND WHAT WE MEAN BY “SAFE WATER”

21 April 2026

ALLATRA
GLOBAL RESEARCH CENTER



INTERNATIONAL FEDERATION OF
BUSINESS AND PROFESSIONAL WOMEN



WOMEN'S FEDERATION
FOR WORLD PEACE INTERNATIONAL



THE CHURCH OF
JESUS CHRIST
OF LATTER-DAY SAINTS





When Science Meets
Reality: Women
Recognizing the Urgency
of the Issue

By 2024, 89 countries had already achieved >99% coverage of at least basic drinking water services

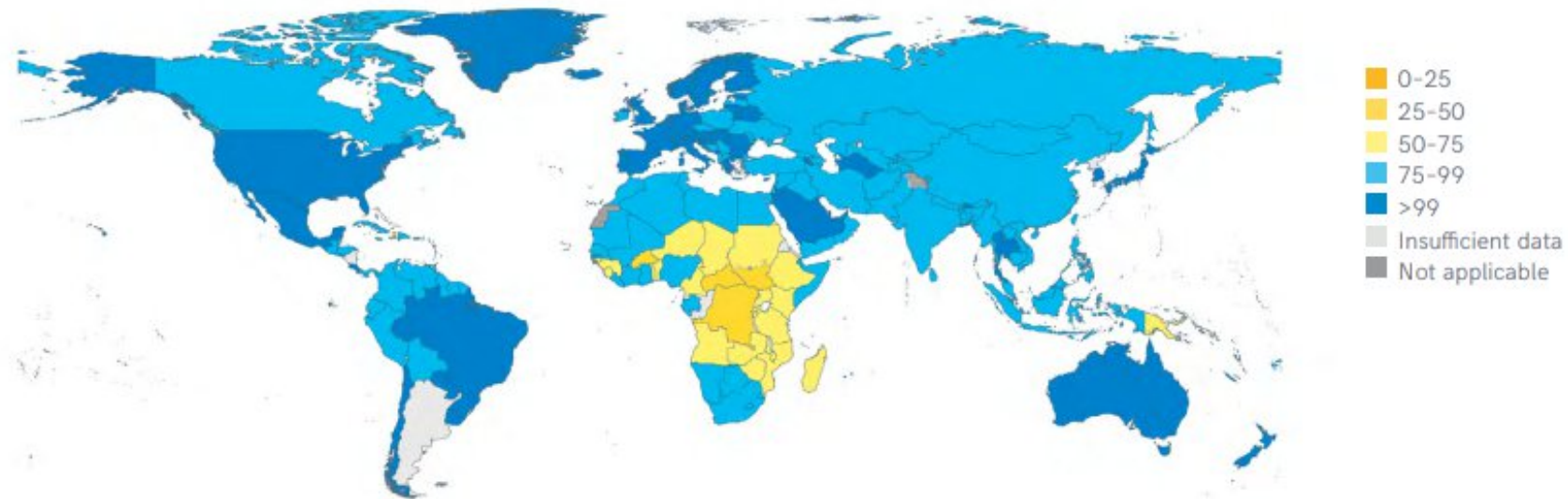


FIGURE 25 Proportion of population using at least basic drinking water services, 2024 (%)

Source :WHO/UNICEF's Joint Monitoring Program (JMP) [report](#) on "Progress on household drinking water, sanitation and hygiene" over the period 2000-2024.

We Measure What We Can See

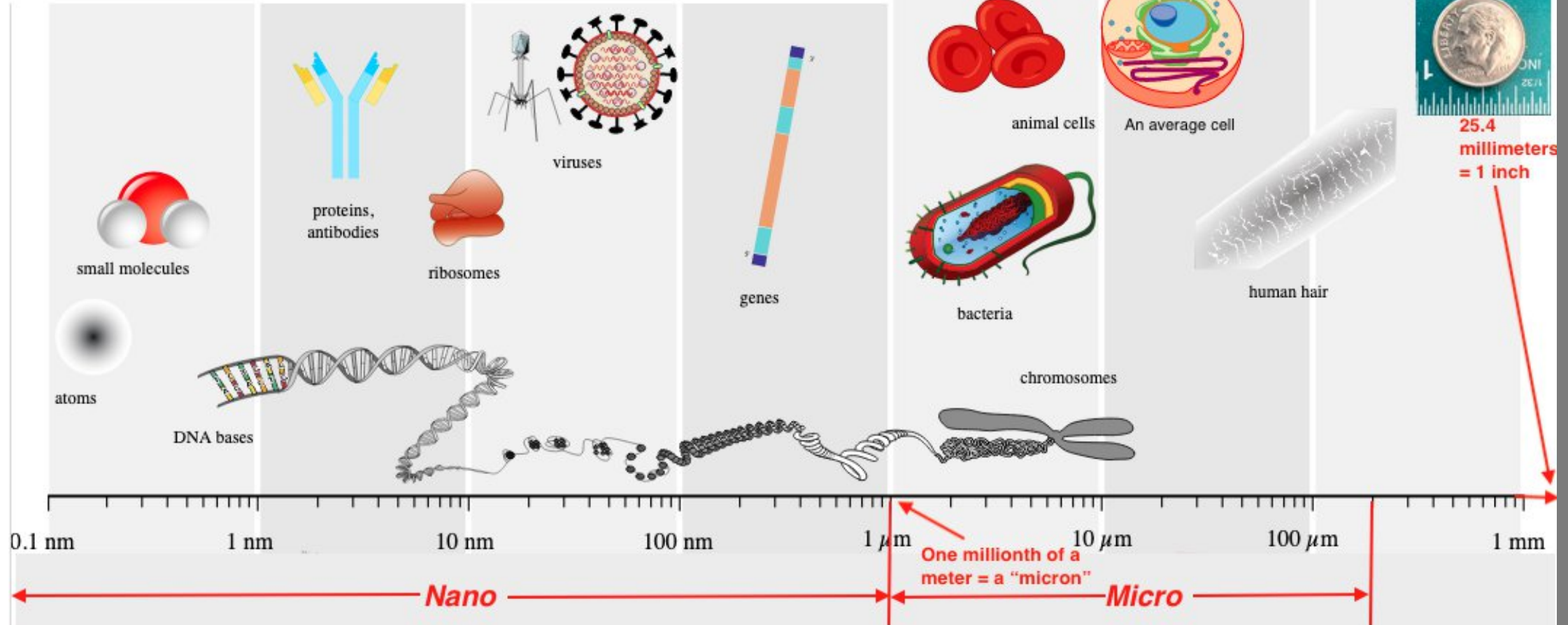
But what about:

- Microplastics
- Nanoplastics

Guidelines for Drinking-water Quality



The Scale of Things: What's a nano? What's a micro?



This graphic is adapted by Lewis Perdue from a file from the Wikimedia Commons — https://en.wikipedia.org/wiki/File:Biological_and_technological_scales_compared-en.svg — Commons is a freely licensed media file repository

<https://stealthsyndromes.com/?p=4994>



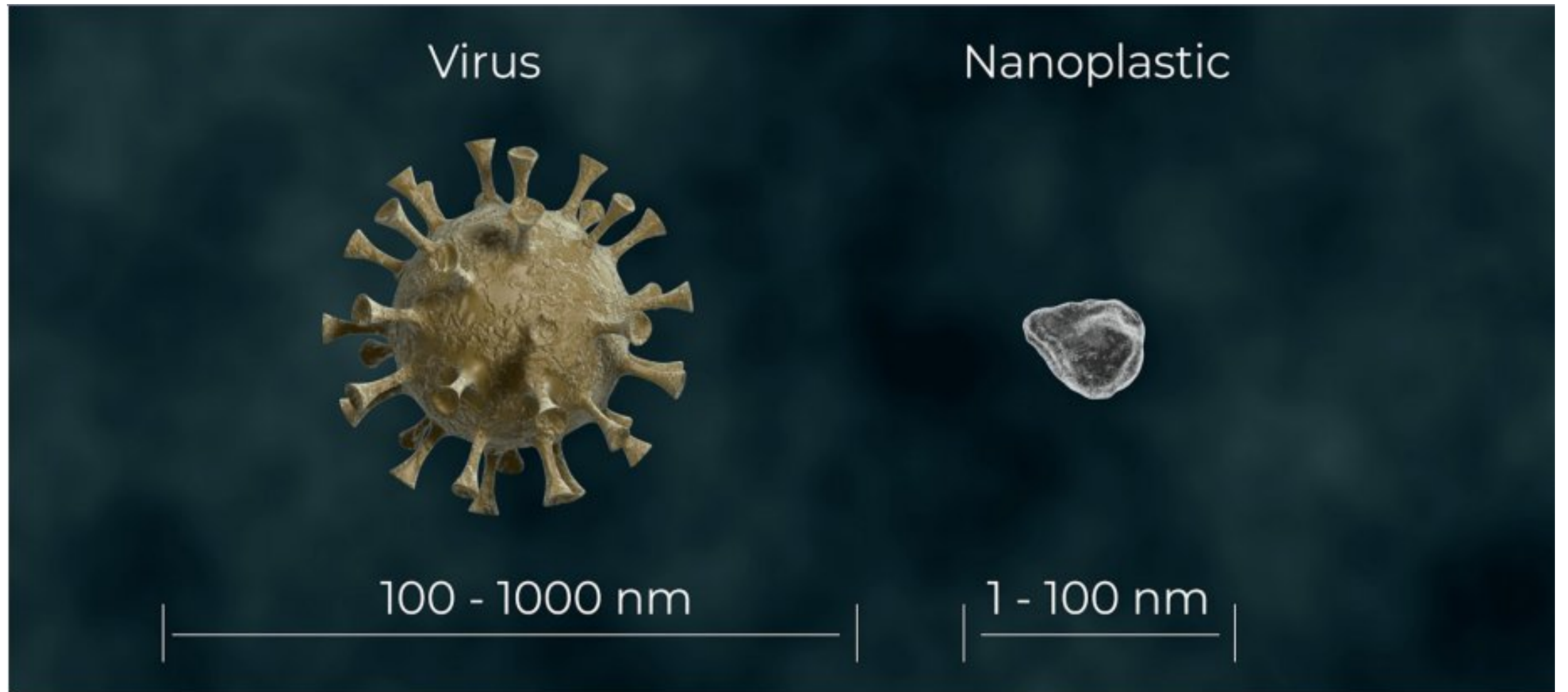
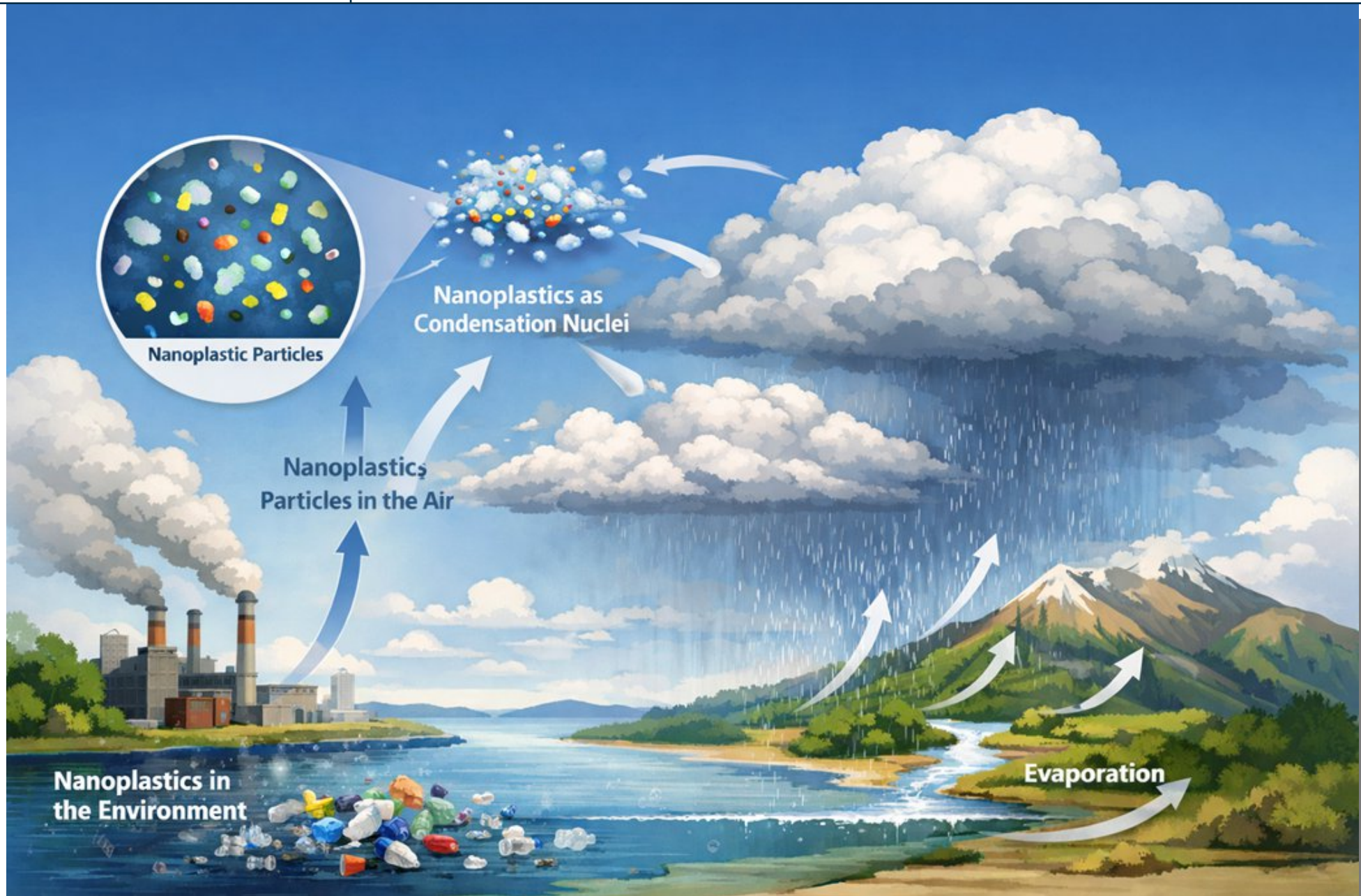
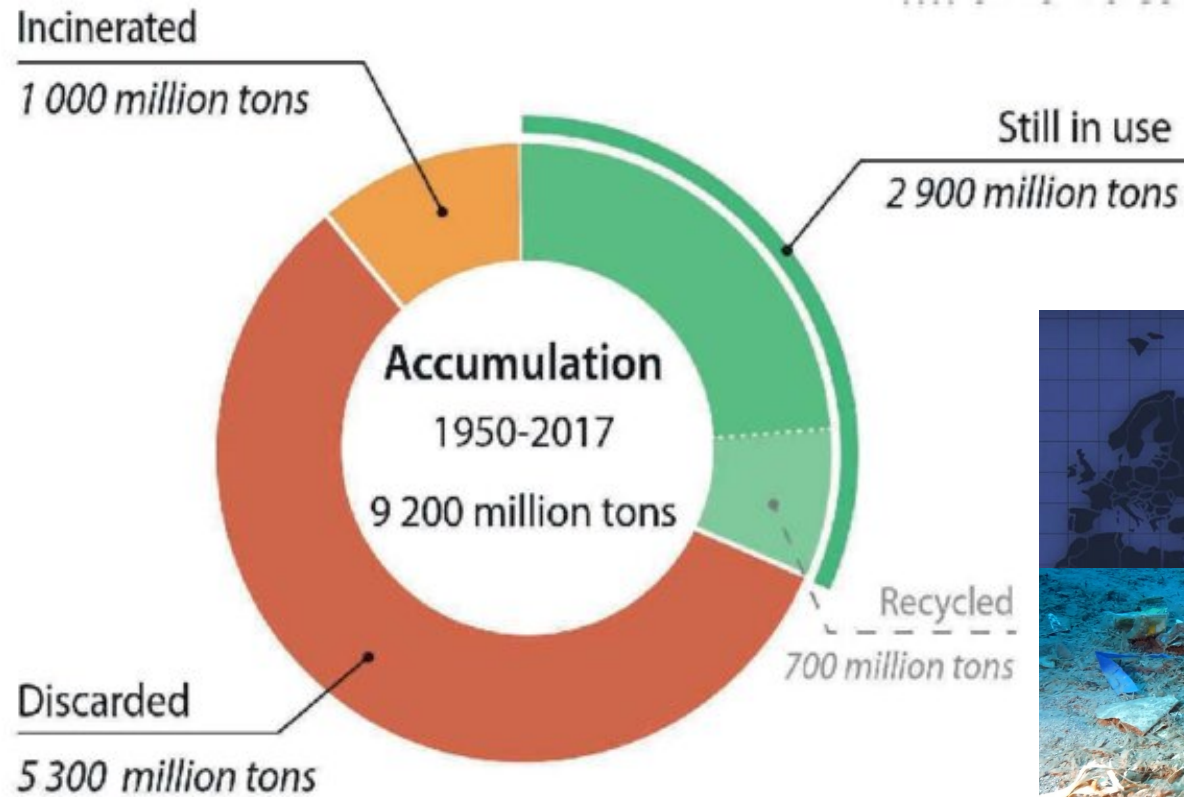


Figure 56: Schematic comparison of sizes of a virus and a nanoplastic particle

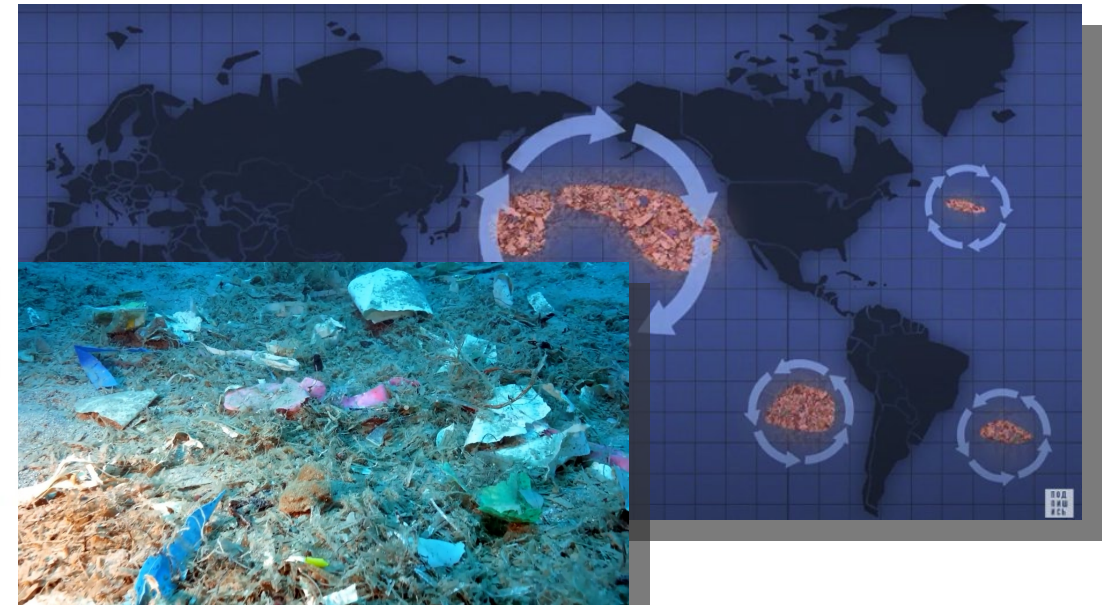


Over 11 billion metric tons of plastic

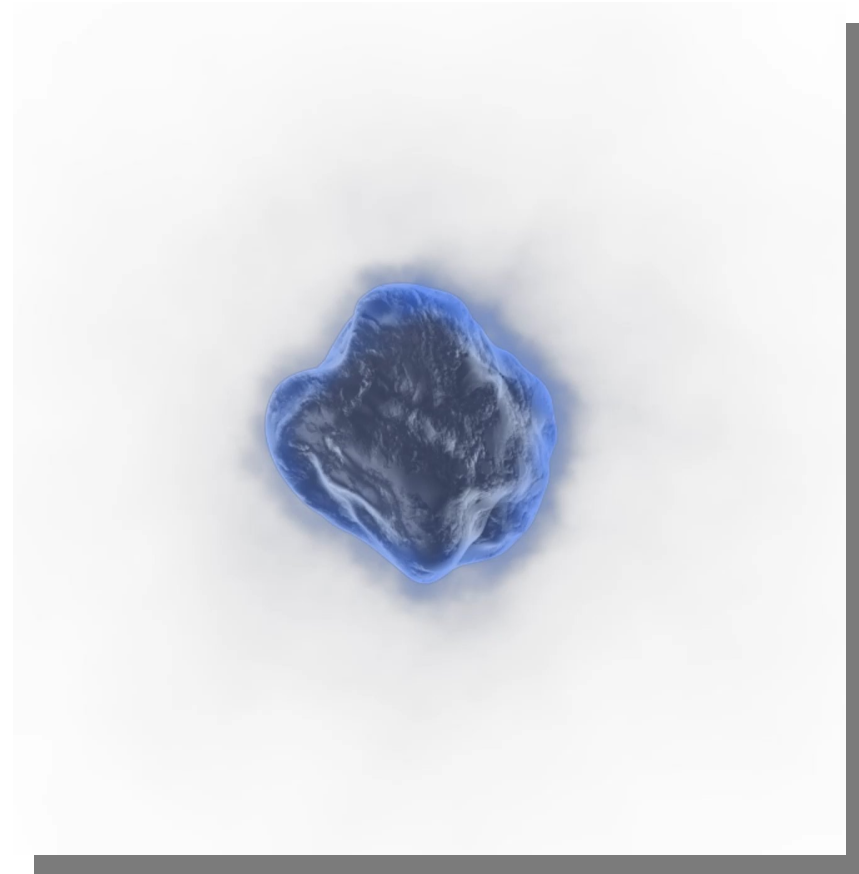
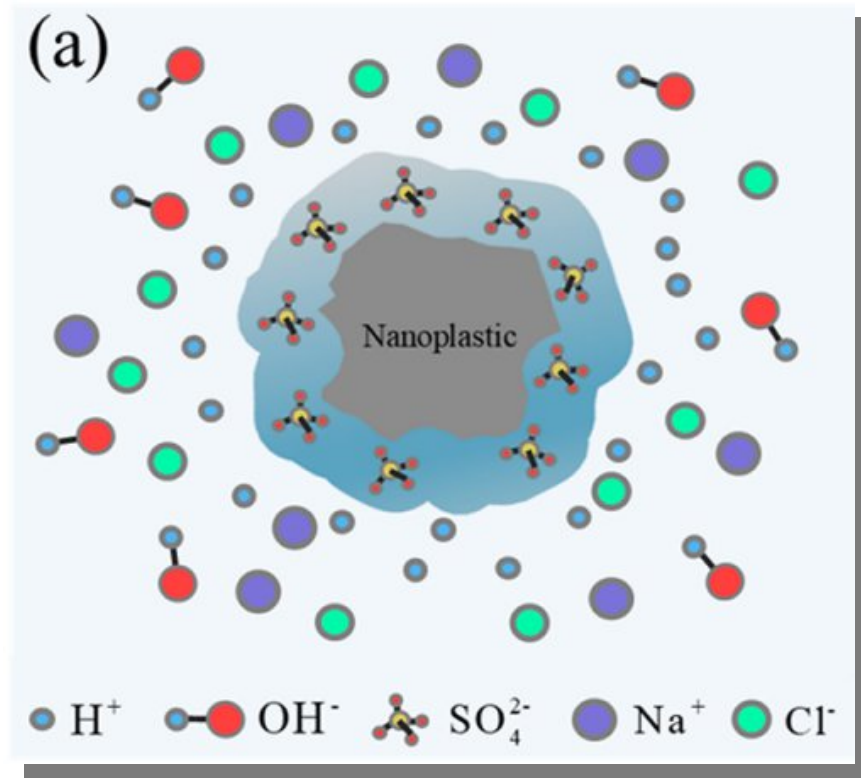


Plastic polymers and social vulnerability: Precious Plastic as a program for sustainable development capable of achieving the pillars of sustainability

Conference Paper Dec 2023 · SDS 2023 - IX SIMPÓSIO DE DESIGN SUSTENT...



The surface charge of micro- and nanoplastics



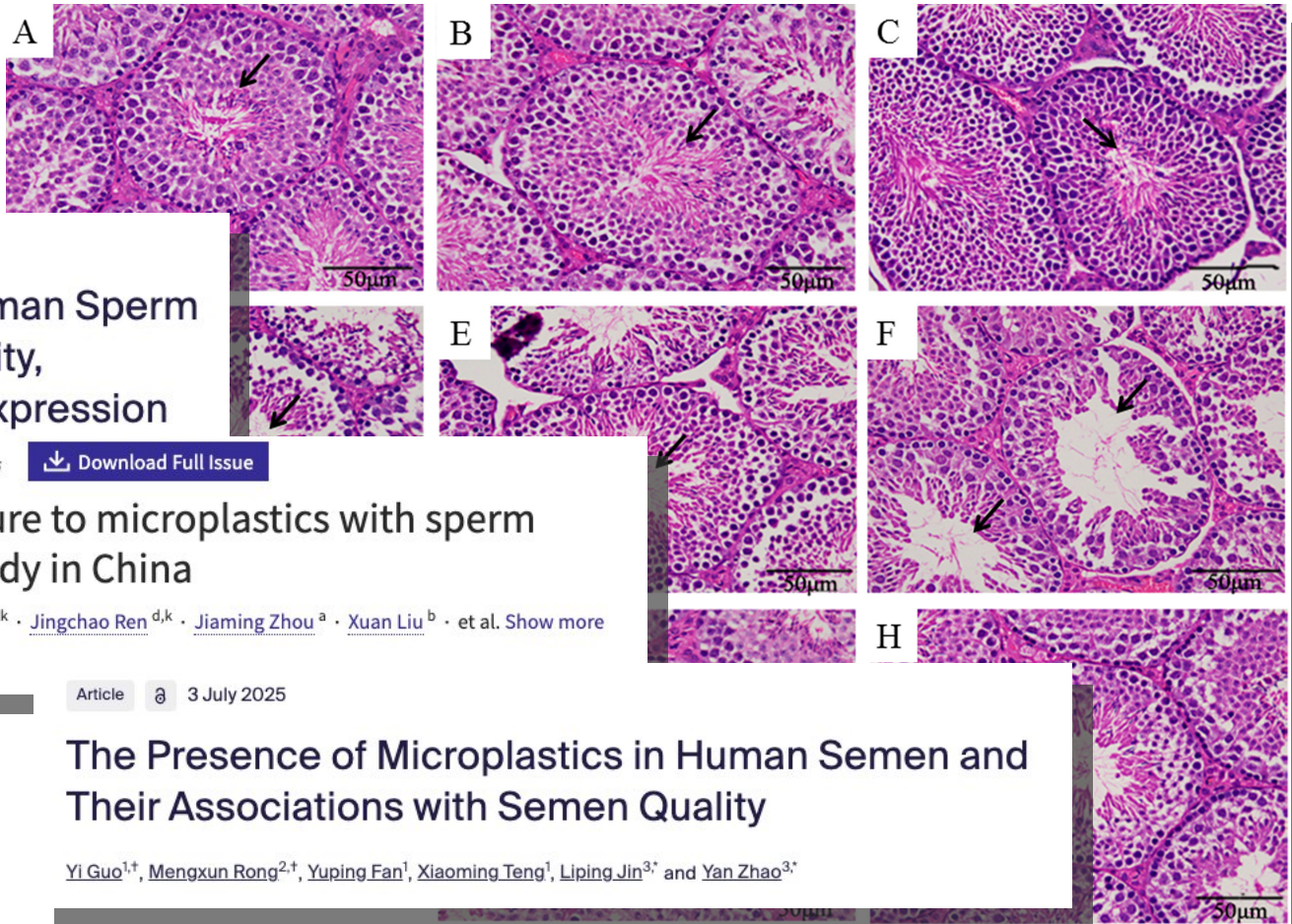
The surface charge of micro- and nanoplastics

- Penetrate cells and cross biological barriers, including the placental and blood–brain barriers
- Bind to DNA, proteins, and cell membranes, disrupting cellular function
- Persist and accumulate within tissues
- Influence the water cycle and heat-transfer dynamics in the oceans.

Micro- and nanoplastics interfere with male fertility



Ecotoxicology and Environmental Safety
Volume 190, 1 March 2020, 110133



Exposure to polystyrene microplastics cause oxidative stress and DNA damage in spermatozoa

Article @ 19 July 2025

Impact of Polystyrene Microplastics on Human Sperm Functionality: An In Vitro Study of Cytotoxicity, Genotoxicity and Fertility-Related Genes Expression

Xiaoman Xi

Filomena Mottola¹, Maria Carai
Nicola Mosca¹, Nicoletta Poter

ARTICLES · Volume 108, 105369, October 2024 · Open Access

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Association of mixed exposure to microplastics with sperm dysfunction: a multi-site study in China

Chen Zhang^{a,k} · Guanghui Zhang^{b,k} · Kuan Sun^{c,k} · Jingchao Ren^{d,k} · Jiaming Zhou^a · Xuan Liu^b · et al. Show more

Affiliations & Notes Article Info

Article @ 3 July 2025

The Presence of Microplastics in Human Semen and Their Associations with Semen Quality

Yi Guo^{1,†}, Mengxun Rong^{2,†}, Yuping Fan¹, Xiaoming Teng¹, Liping Jin^{3,*} and Yan Zhao^{3,*}

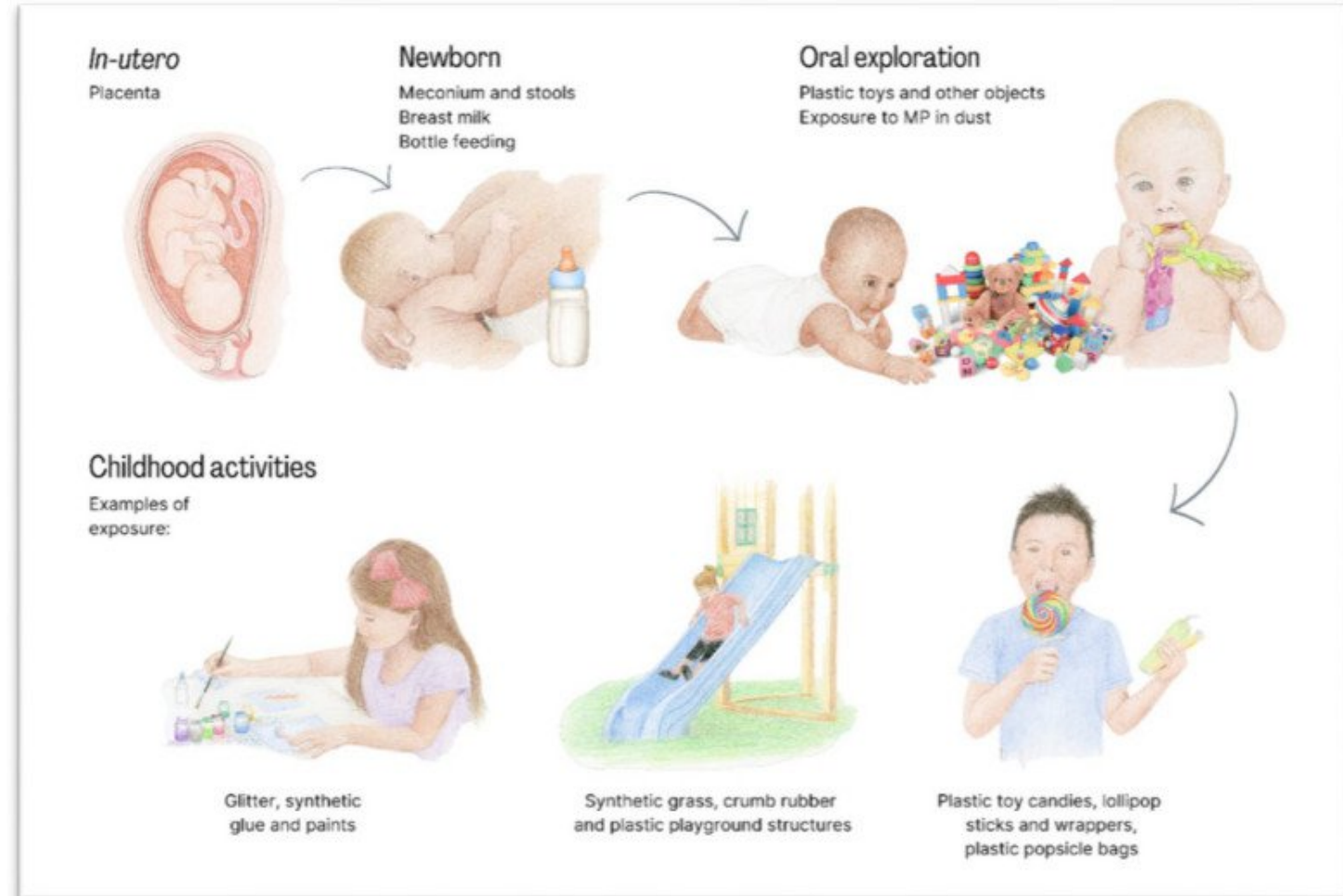
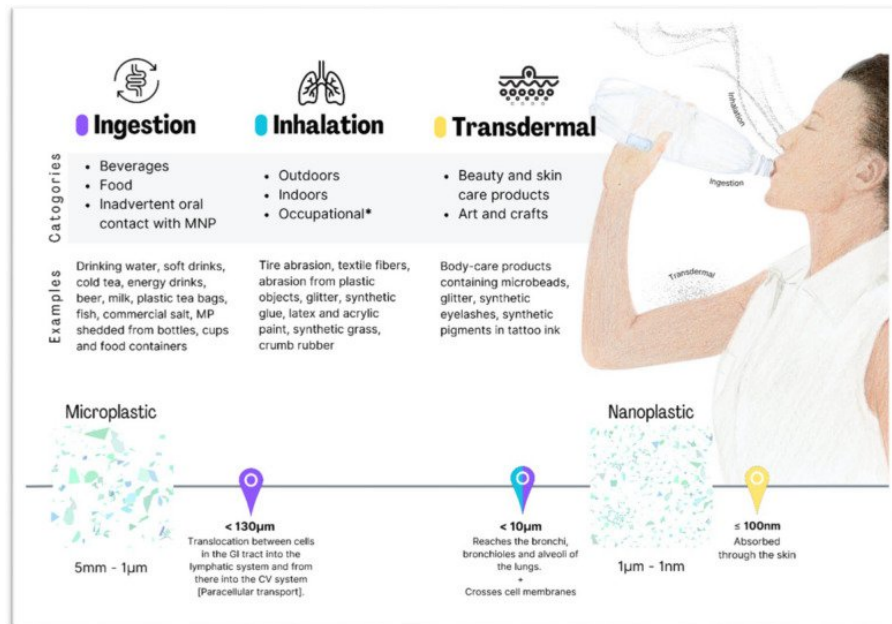
INTEGRATIVE ARTICLE

Open Access



Adverse health effects of exposure to plastic, microplastics and their additives: environmental, legal and policy implications for Israel

Ilana Belmaker^{1*}, Evelyn D. Anca², Lisa P. Rubin^{3,4}, Hadas Magen-Molho⁴, Anna Miodovnik⁵ and Noam van der Hal⁶



THE QUESTION

- We cannot clean this up.
- We cannot filter it out.
- We cannot recycle our way out.

So what can we do and can water containing such particles truly be considered safe?

Lack of unified European standards

How small a nanoplastic can be? A discussion on the size of this ubiquitous pollutant

Published online by Cambridge University Press: 03 October 2024

Bárbara Rani-Borges  and Rômulo Augusto Ando

Show author details ▾

Standardization of FTIR-Based Methodologies for Microplastics Detection in Drinking Water: A Meta-Analysis Indeed and Practical Approach

Angélica Geovanna Zea Cobos^{1*}, Jéssica Amón¹, Erika León¹ and Pablo Caballero²

¹ Grupo de Investigación en Biotecnología y Ambiente (INBIAM), Universidad Politécnica Salesiana, Cuenca 010150, Ecuador

² Facultad de Ciencias de la Salud, Universidad de Alicante, 03080 Alicante, Spain

* Author to whom correspondence should be addressed.

Water 2024, 16(22), 3170; <https://doi.org/10.3390/w16223170>

„The lack of a standardized approach for the collection and analysis of microplastics has led to a scarcity of comparable data in the scientific literature“

Lack of standardized protocols for studying health impacts



Environmental Research
Volume 251, Part 2, 15 June 2024, 118535



Review article

The potential impact of nano- and microplastics on human health: Understanding human health risks.

Ewa Winiarska ^a, Marek Jutel ^{a, b}, Magdalena Zemelka-Wiacek ^a

Front. Environ. Sci., 18 June 2025
Sec. Toxicology, Pollution and the Environment
Volume 13 - 2025 | <https://doi.org/10.3389/fenvs.2025.1606332>

A review of microplastic pollution and human health risk assessment: current knowledge and future outlook

Hong Giang Hoang ^{1*} Ngoc Son Hai Nguyen ² Tao Zhang ³
 Huu-Tuan Tran ^{4,5*} Santanu Mukherjee ⁶ Ravi Naidu ^{7,8*}

“...it is crucial to develop standardized methods for collecting and analyzing human samples, which include identifying and quantifying microplastic fibers in human tissues like the lungs and accurately measuring environmental plastic concentrations...”

“...there are currently no standardized methods for assessing the human health risks associated with microplastic exposure...”

European leadership in international cooperation on MNP neutralization



21st century challenge

We estimate, that the window of opportunity for substantial progress is several years, not decades



ACTIVITIES AT THE CONFERENCE: FROM PLENARY SESSIONS TO SIDE EVENTS

Throughout the ten-day conference (October 6–17), ALLATRA representatives actively participated in five plenary sessions and organized or joined several side events.



At the United Nations Social Forum 2025 From left to right: **Ms. Mara Probst**, Human Rights Consultant at WFWPI and Journalist, **Ms. Carolyn Handschin**, President at NGO Committee on the Status of Women, WFWPI, Geneva, **Ms. Mariia Anaprechyk**, Human Rights Expert of the ALLATRA International Public Movement, Human Rights Consultant at WFWPI, **Ms. Naïda Ugan**, Research and advocacy consultant at WFWPI, linguistic expert

Conclusion: Success Depends on
International Scientific and Policy
Cooperation



*Thank you
for your attention*