







Report

The second High-Level Meeting (2HLM) of the Global Alliance on Circular Economy and Resource Efficiency (GACERE) took place online on 2 March 2022 as a side-event of the resumed fifth session of the United Nations Environmental Assembly (UNEA 5.2). The High-Level meeting was hosted by Tsuyoshi Michael Yamaguchi, Minister of the Environment, Japan, Gerd Müller, Director General of the United Nations Industrial Development Organization (UNIDO) and Inger Andersen, Executive Director of the United Nations Environment Program (UNEP).

The 2HLM was dedicated to exploring the connections between circular economy and biodiversity, in line with the theme of UNEA 5.2 - "Strengthening Actions for Nature to Achieve the Sustainable Development Goals". On the occasion of the 2HLM, the third working paper of GACERE, *Circular Economy and Biodiversity*, was launched. Several high-level representatives of GACERE members took part in the discussions. Representatives from industry, youth organizations, and professionals involved in the sectors in focus were also invited to the discussion. The dialogues were conducted and moderated by Tim Nixon, Founder and former Chief of Thomson Reuters Sustainability.

The agenda and biographies of speakers are annexed.

Welcome and Opening Remarks



Tsuyoshi Michael Yamaguchi, Minister of the Environment of Japan, opened the event and welcomed all participants. He thanked UNIDO and UNEP for co-hosting the event. He started his intervention by presenting the three threats the environment is facing on a global scale: climate change, biodiversity loss and environmental pollution. Circular economy has a crucial role to play in reducing the pressure on biodiversity and reversing its decline. Minister

Yamaguchi then announced the launch of the new GACERE Working Paper, *Circular Economy and Biodiversity*, born from the collaboration of all GACERE members, which provides useful guidance for policy making. The Minister then presented some of the most prominent initiatives Japan is undertaking, such as the 2018 vision "Circular and Ecological Economy" to develop self-reliant and decentralized societies by circulating regional resources, the 2021 "Plastic Resource Circulation Act" to improve the life cycle of plastic products, and the "Circular Economy Roadmap", this year, to step up all the previous efforts in this regard. Finally, he promised continued collaboration with other GACERE members and strategic partners and expressed his hope that this 2HLM could bring insightful perspectives for the debate.



Gerd Müller, Director General of UNIDO, warmly welcomed all participants and thanked the Ministry of Environment of Japan and UNEP for co-hosting the event. He opened the meeting by underlining the crucial role of nature in providing resources for all societies and businesses, without exceptions. In this regard, the linear economy is no longer a viable solution, and circular economy practices are fundamental enablers of long-lasting change. Circular economy solutions are practical and actionable, improve business competitiveness, create new

green jobs and regenerate nature at the same time. As new generations are continuing to promote more sustainable consumption patterns, the Director General stressed that it has become indispensable to incentivize regenerative agricultural, forestry and food value chains, sustainable buildings and infrastructure, and more circular textile solutions. He provided an overview of some positive examples developed at UNIDO, such as methodologies for the valuation of ecosystems, water stewardship initiatives, resource efficiency projects for small and medium enterprises around the globe. He concluded by expressing his desire that the work of GACERE can contribute to global just transitions to circular economies.

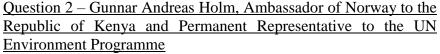
Session 1: Circular economy in the post-2020 global biodiversity framework

Tim Nixon opened the session by explaining the format of the two thematic sessions, which would feature a question-and-answer *tour-de-table* initiated by the moderator, with the possibility for speakers to comment on each other's interventions and mutually ask questions.

<u>Question 1 – Elizabeth Mrema, Executive Secretary of the Secretariat of the Convention on Biological Diversity</u>

The post-2020 global biodiversity framework "aims to galvanize urgent and transformative action by Governments and all of society". Could you please update us on how we are doing towards this goal?

Elizabeth Mrema confirmed that the work is ongoing to galvanize urgent and transformative action in this regard. She warned that all stakeholders must be engaged to make the post-2020 global biodiversity framework effective. In particular, she mentioned the great work done by the co-chairs in involving indigenous people, youth, women, local communities, financial institutions, businesses. All must collaborate towards a common goal, as our planet is unique and is shared among all of us.



From an energy/environment perspective, what would you add in terms of the most important next steps on "transformative action"?

Gunnar Andreas Holm reminded participants of the long-term perspective of shifting from a linear economy consumption model to a circular economy, where scaling up sustainable solutions that are

already out there is key. Therefore, sustainability does not mean "sitting in cold living rooms"

but "finding another way to heat them". As we are part of the nature, working sustainably means integrating an ecosystems perspective into our solutions. In conclusion, the Ambassador commended the evidence-based approach that GACERE has adopted, and the positive impact this may have in guiding policymaking.



Question 3 – Mohamed Bakarr, Lead Environmental Specialist, The Global Environment Facility (GEF)

Since 1992, the GEF has provided close to \$20.5 billion in grants and mobilized an additional \$112 billion in co-financing for more than 4,800 projects in 170 countries. Please tell us about where you are seeing a return on this investment in terms of emerging circularity that is scalable and potentially impactful over the next 5 years?

Mohamed Bakarr informed the audience that the GEF has had a longterm focus on circular solutions, channelling its efforts in eliminating

unnecessary plastics, green chemical processes for alternative materials, innovative reuse and recycle processes and systems. GEF funding aims to catalyse avoidance of 4 million tons of plastics, an approach that can have a tremendous impact on biodiversity. Despite the relatively young portfolio, the idea is to help not only countries, but also the private sector — and particularly some businesses such as textile, construction, electronics — mobilize resources to foster the adoption of circular solutions. Mohamed Bakarr is convinced that the first results obtained from Nigeria and Ethiopia, although not yet conclusive, will indicate the scalability of such solutions.

Gunnar Andreas Holm came in to point out that throughout the years, many ideas that seemed to lack the scalability potential were actually achieved, so it is crucial to understand which factors made these possible and how to apply the same logic to new ideas. Mohamed Bakarr agreed and underlined the importance of focusing on whole value chains, because all actors along a value chain must share the same vision. Gunnar Andreas Holm exemplified this by briefly illustrating the giveback programmes born after the success of bottle recycling and how this initial idea was able to have a significant impact on waste handling in general. He remarked that the principle of giving value to what is considered "waste" material can be a stimulus to closed-loop approaches in plastics and other sectors, as has already happened with metals.



Question 4 – Rohitesh Dhawan, President and CEO, The International Council on Mining and Metals (ICMM)

Mining and materials will be a crucial enabler of the transition to a lower carbon and circular economy. What does leadership look like in the sector to enable this transition while also achieving our biodiversity imperatives?

Rohitesh Dhawan explained how the transition to a net-zero economy will be very highly mineral and metal intensive: electric vehicles use 4 to 6 times mineral input compared to conventional cars, and wind turbines 9 times as much as an equivalent gas powered plant. The mineral sector demand is set to rise up to 40 times the current level. For this reason, the ICMM is very committed to achieving the targets of the Paris agreement, the hard-to-abate sectors to make such commitments in the first place. Rohitesh Dhawan also reported the industry's

commitment of no net loss to nature, its attention to biodiversity and the twenty-year-old pledge to stop mining in World Heritage Sites. Many examples are already out there: 100%-renewable energy powering, use of 100%-recycled wastewater, circular planning in all phases of mining. Leadership in this sector — concluded Rohitesh Dhawan — means being able to satisfy such a high demand of materials without collateral damage to the people or the environment.



Question 5 – Virginijus Sinkevičius, Commissioner for Environment, Oceans and Fisheries, European Union What 1 or 2 most important concrete actions involving

What 1 or 2 most important concrete actions involving consumers and manufacturers can contribute to reaching biodiversity goals in the textiles sector?

Virginijus Sinkevičius opened his intervention by mentioning the significant progress made by GACERE

since its launch one year earlier, and its role in promoting circular economy as key in the long-lasting growth that characterize the post-pandemic scenario. The last Global Resources Outlook found that 90% of the impacts on biodiversity and water, 50% of greenhouse gas emissions, and 30% of the impacts on human health are linked to the extraction and processing of materials. Solving the climate and biodiversity crisis requires taking less from and giving much more to nature. Virginijus Sinkevičius stressed that the design phase is where we need to act, by designing out wasteful processes and microplastics and incorporating safe chemicals and recycled materials. This is particularly evident in the textile sector, where more than 5.8 tons of textiles are consumed every year in the EU, but less than 1% of all textiles are currently recycled worldwide. The Commissioner presented the EU strategy for sustainable textiles, to be launched at the end of March.



<u>Question 6 – Anita Dongre, Chief Creative Officer, House of Anita Dongre</u>

Please update us on your vision for the role of women to lead our transition to a more circular economy. Where are you seeing specific opportunity?

Anita Dongre observed that it is essential to design having circularity in mind. That is what she does at her House, placing much importance on recycle of textiles, plastics, packaging and water. She also stressed the undisputable role of women in the Indian economy, especially of people from rural areas. The House collaborates with self-operated laboratories, held by women, in various villages of the Indian state of Maharashtra. Anita Dongre pointed out how rural India is a shining example of

circular practices, in that people are used to treasuring all resources and minimizing waste.

Similarly to India, Mamogala Musekene (*see introduction below*) observed that in South Africa there is a flourishing market for second-hand garments, and the value chain related to the reuse of garments contributes both to reaching circularity goals and to creating jobs at the local level. Rohitesh Dhawan drew a parallel between Anita Dongre's point about learning circularity practices from rural India and the efforts the mining industry is making in involving indigenous people, custodians of natural resources, in planning mining interventions.



<u>Question 7 – Swetha Stotra Bhashyam, Global South Focal</u> <u>Point at Global Youth Biodiversity Network</u>

What is the most powerful lever young people have in order to create meaningful change in time to matter on biodiversity and climate?

Swetha Stotra Bhashyam had no doubt in stating that the answer is surely clarity. The clarity to see that the current climate and biodiversity crisis is linked not to the industrial revolution, but to colonialism, patriarchy, racism and many other -isms. Young people understand that a value change is necessary in order to combat these devastating tendencies, and do have the tools to make change happen through innovative thinking and courage. What is necessary is that youth can gain access to decision making, and not just be subject to it passively. People in power must understand that there is no better partner than young people for the creation of transformative change.

Gunnar Andreas Holm thanked Swetha Stotra Bhashyam for her intervention and underlined the importance of involving the youth in the decision making. He also pointed at young people's high awareness as consumers, their intrinsic global approach and outreach, and their ability to communicate with one another from different parts of the world. Elizabeth Mrema commented on the importance of the Global Youth Biodiversity Network as a part of the Convention on Biological Diversity. She also openly welcomed the empowerment of young people, who are strongly pushing older generations to be accountable for the poor state of the planet they are bequeathing, and are convincing politicians and courts to listen and act rapidly.

Swetha Stotra Bhashyam was then asked by Tim Nixon whether efforts are taking the right direction. She confirmed her positive feelings in this regard, but warned the audience that the speed of change may not be sufficient. It is important that all the stakeholders, including the private sector, take part in these dialogues and compromise to significantly accelerate the transformation. Tim Nixon followed up by asking her about the role of businesses and how this sector can involve the youth. Swetha Stotra Bhashyam replied that young people have a general mistrust for the private sector, as it is the one that is benefitting the most from the status quo. Businesses must accept that the system is broken, climate change is here, and profitability can no longer be evaluated with old standards. Transparency is key: if a sector is only able to do little, it is better to be open about its efforts rather than try to greenwash the business as usual. If businesses are struggling to change, then young people can jump in and bring their fresh and innovative viewpoint to help make change happen. Swetha Stotra Bhashyam concluded her intervention stating that young people can indeed be allied of businesses, if the latter are ready to listen to them.

Rohitesh Dhawan commented by reminding that a strong power imbalance has existed for decades between businesses and other stakeholders. Therefore, businesses need to recognize this and amend it by engaging in a fair, transparent, vulnerable and compassionate way. The mind-set that got the world to this point cannot be the same mind-set that will drag it out from the crisis. Swetha Stotra Bhashyam concluded the session by thanking the organizers and the audience for inviting her in representation of young people, as sessions like this are an eye-opener for the possibility to build trust and co-create change.

Session 2: Circular economy & biodiversity: sectoral dialogues

Before beginning the *tour-de-table*, Tim Nixon clarified that session 2 would be divided in two sub-sessions, the first one dedicated to the buildings and construction sector, and the second one to the textile sector.

Sub-session A: Buildings and construction



Question 1 – Mamogala Musekene, Deputy Director General, Department of Forestry, Fisheries and the Environment, South Africa Housing and infrastructure is one of the largest consumers of resources for societal needs, putting tremendous pressure on the environment. What policy measures is the South African government taking to reduce resource consumption in the built environment?

Mamogala Musekene introduced the National Waste Management Strategy, adopted in 2020, which prioritizes demolition and construction waste and it is focused on influencing green public procurement. The South African government aims at minimizing the

amount of waste by ensuring the presence of given percentages of recycled and reused materials in their guidelines, following an eco-design approach.



Question 2 – Thomas Matthias Romm, Architect/Engineer, Romm research, plan, build, Austria

Vienna is considered a "model environmental city" in Europe. What are some of the innovations in the construction sector that are lower carbon, more circular and nature-friendly?

Thomas Matthias Romm highlighted two major aspects of sustainability in the construction sector: the material side and the planning side. On the material side, it is necessary to reduce the carbon footprint of concrete. In a recent research, Thomas Matthias Romm's group was able to reduce it by 30% on regular concrete through interventions in the curing phase of concrete production. Likewise, Denmark has established a roadmap to reduce carbon footprint by 50% within 2030. As for the planning phase, one of the most pressing challenges is the treatment of excavation materials, especially when building on green field: circular soil, which is currently being explored by the City of Vienna, entails the idea of re-using soil for vegetation substrates and cultivation. Similarly, brownfield building must be rethought in order to find new solutions for materials.



Question 3 – Carolyn Jewell, Biodiversity Senior Manager, HeidelbergCement, Germany

Heidelberg Cement is a global player in the industry. How are actions taken by Heidelberg Cement in relation to circular economy linked to protecting nature and meeting the company's commitments on biodiversity?

Carolyn Jewell clarified that HeidelbergCement's strategy is grounded on the evidence that biodiversity is in trouble and actions on the ground are needed immediately. Circular economy sets the framework and the parameters for such actions. Among HeidelbergCement's many initiatives, Carolyn Jewell specifically pointed at waste reduction and alleviation of impact to land. Alternative materials and recycled concrete are already available, and a new recently launched product is able to combine these two by reaching 10% of recycled content and 66% of CO₂ emission reduction in its production. Reduction of waste and avoidance of down-cycling is also essential. In Tanzania, a collaboration with local populations permits using non-recyclable plastics as a fuel for kilns, and ashes as a clinker substitute. This is an example of circular economy in action with the objective of making production cleaner, while supporting business needs.

Thomas Matthias Romm then stated that there is room to act on three different levels. The first level is closing the loops, and this entails moving away from the very low 11.6% rate of use of circular materials with tools such as urban mining. The second level, even harder for architects and planners, is to do more with less: input rates are three times higher than output rates, so even with closed loops planners should get used to lower material consumption in general. The third level is the use of renewable resources. As an example of application of such principles, Thomas Matthias Romm mentioned BauKarusell, an initiative that combines recycling demolition materials with the creation of new jobs and the upskilling of workers.

Carolyn Jewell stressed the importance of innovative partnerships to involve all actors in the urban environment. In Sweden, HeidelbergCement is using material coming from the construction of a tunnel to create aggregate. Nitrogen is present in high quantities because of explosives, and wetlands are used to clean the water, while offering a good habitat for several species, within a nature-based approach. All the actors must then act together in order to make such solutions possible.

Mamogala Musekene reinforced the crucial role of eco-design for guaranteeing a longer permanence of products in the economy. Industry must also collaborate and come up with standards. In South Africa, a certification and incentive system supervised by the Green Building Council is yielding significant results.

Sub-session B: Textile

Tim Nixon introduced the session by providing some scene setting information concerning the textile sector:

- The textile sector is one of the largest consumers of water, accounting for 93 billion cubic meters, as well as a massive CO₂ emitter, more than international flights and maritime shipping combined.
- Fast fashion had a set pattern of consumption and disposal that seemed hard to break, but recently awareness of the impact of clothing choices seems to have improved, with

consumers demanding more circular products and companies implementing circular actions (reuse, recycling, prolonged lifetime, sustainably produced fibres, etc.).



Question 1 – Razi Bouzekri, Director of Climate Change, Biodiversity and Green Economy, Morocco

The textile sector is one of the largest consumers of water and emitter of CO₂. What circularity related policy measures is the Moroccan government taking/planning to take to reduce the negative impacts of the textiles sector on the environment, particularly on biodiversity and climate change?

Razi Bouzekri told the audience about the effort Morocco is undertaking in order to promote circularity across industrial sectors. The national

strategy for sustainable development sets targets to achieve a transition to a green and inclusive economy by 2030. The concept of extended producer responsibility has been included in the framework of the national waste management law. Within the framework of technical development and cooperation programmes, Morocco is currently working with UNIDO, for example, to build a textile waste ecosystem and identify business models and partnerships conducive to the creation of such an ecosystem. Private sectors representatives are involved in a public-private partnership for promoting the emergence of circular value chains for various products, including in the textile sector.



<u>Question 2 – Khalid Kairouch, Director for Quality and Sustainable Development, Evlox, Morocco</u>

You are one of our private sector representatives in this session. Why is it so important to implement circular actions in the textile sector from a sustainability perspective? And what is your company doing in this area?

Khalid Kairouch underlined that the textile industry is one of the major consumers of water and water polluters. This starts from agriculture and goes all the way to the last stages of clothes manufacturing, packaging, and transport between sites. Recycling some of the waste and end-of-life clothing helps preserve the environment, with the following benefits:

- Reduced consumption of raw materials and therefore a lower need to produce natural or synthetic fibres.
- A lower need for agricultural land. This helps preserve forests and regenerate an environment conducive to the return of wildlife.
- Reduction of the need to cut trees and therefore more habitats for wildlife.
- Less energy and lower impact on climate change.
- A lower use of pesticides and insecticides. This helps preserve lands and microorganisms.
- A lower amount of micro-plastics released into rivers and oceans, which leads to a lower impact on marine wildlife.
- Reduced amounts of landfilled waste.

As part of the UNIDO Switchmed program, Evlox has launched two very important projects:

- The first is to align management of chemicals with the ZDHC standard for more rational management, oriented towards a strict minimization of their environmental impact.
- The second is the creation of an ecosystem to close the loop by recovering textile waste in the manufacturing process. This is supported by European experts to develop an optimized process from the collection of the material up to the finished product.



Question 3 – Caroline Nelson, Country Manager/CEO, H&M, South Africa

Circularity in the textiles value chains is essential. What circularity actions is H&M taking to reduce the impact of the textiles sector on the environment, particularly along its supply chain in South Africa?

Caroline Nelson informed the audience about H&M's vision to lead the change towards climate-positive

fashion, with the ambitious objective of being climate positive by 2040. While no large-scale production is present in South Africa, there is still the possibility to tackle the reduce/reuse/recycle/upcycling aspects of the value chain. Taking inspiration from H&M's existing global takeback programme for garments, a specific project has targeted township communities in collaboration with Clothes for Good, a social enterprise that helps local women to get out of poverty by selling garments collected at H&M's stores. This programme has a strong impact on particularly marginalized communities, because 56 of these mothers also have children with disabilities. The unsold part of garments is then used to produce toys for children with disabilities and the leftovers are re-used in other sectors, such as the motor industry and bed manufacturing.

Caroline Nelson was then asked by Tim Nixon why it is so important for companies to have a strategy for long-term public goals for decarbonisation and pollution reduction. She underlined that H&M is a massive player in the fashion industry, and as such it cannot avoid to initiate an intervention in this field. The necessity to radically transform the way businesses act is dictated by a desire to be around for much longer, as a company and as individuals. Furthermore, bigger-picture goals will help companies set specific targets and frame single projects and initiatives by measuring their contribution to broader goals.

Khalid Kairouch concluded the session by launching an appeal to the Moroccan government concerning the importance of waste valorisation at the local level, with the reduction of export to other countries.

Closing Remarks

Inger Andersen, Executive Director of UNEP, expressed her deep appreciation for the fruitful event, thanked Minister Yamaguchi for leading its organization, and sent her wishes to all GACERE members. She also greeted and warmly welcomed Gerd Müller, the newly appointed



Director General of UNIDO. Inger Andersen underlined the disastrous repercussions of biodiversity loss, involving the destruction of half of the world's forests in the last fifty years and one million species facing extinction. While these numbers have been repeated several times, they should never fail to shock us and make us understand that the current trajectory is not sustainable on the long term. We need to account for our impacts while at the same time contributing to the creation of prosperous economies and to the eradication of poverty. Materials that enter the built environment, the mobility sector, or fashion and food industry must all be designed to be reused and recycled. This will allow reducing

drastically emissions and tackling the triple planetary crisis. Inger Andersen concluded by stating that all our endeavours in this regard, from the Kunming Declaration to the agreements on plastic waste to be approved shortly in UNEA, are cornerstones of the strategy to change. However, all actors, including countries, industry and consumers, must double their efforts and intensify their work, in order to be remembered as promoters of new and cleaner products, rather than be associated with yesterday's polluters. Recalling the UN Secretary General's words, Inger Anderson pointed out that humanity is bound to choose between a breakdown and a breakthrough: she urged the audience not to squander the immense opportunity to break through represented by circular economy.

Inger Andersen's full speech '' Nature is circular. Our economies should be too'' is available at: https://www.unep.org/news-and-stories/speech/nature-circular-our-economies-should-be-too

Tim Nixon thanked all the panellists, speakers and the audience for their active participation and concluded the event.

The full event recording is available at: https://www.unep.org/events/online-event/second-high-level-meeting-global-alliance-circular-economy-and-resource

Annex I: Agenda

13:00	Log-on
13:15-13:20	Welcome & housekeeping
	Moderator: Tim Nixon, Founder and fmr Chief, Thomson Reuters Sustainability
13:20-13:30	Opening remarks
	 Tsuyoshi Michael Yamaguchi, Minister of the Environment, Japan Gerd Müller, Director General, UNIDO
13:30-14:10	Session 1: Circular economy in the post-2020 global biodiversity framework
(40 min)	Panellists:
	 Virginijus Sinkevičius, Commissioner for Environment, Oceans and Fisheries, European Union Gunnar Andreas Holm, Ambassador of Norway to the Republic of Kenya and Permanent Representative to the UN Environment Programme Elizabeth Mrema, Executive Secretary of Secretariat of the Convention on Biological Diversity Mohamed Bakarr, Lead Environmental Specialist, The Global Environment Facility (GEF) Rohitesh Dhawan, President and CEO, The International Council on Mining and Metals (ICMM) Anita Dongre, Chief Creative Officer, House of Anita Dongre Swetha Stotra Bhashyam, Global South Focal Point at Global Youth Biodiversity Network Duration for each question: 2 minutes
14:10-14:40	Session 2: Circular economy & biodiversity: sectoral dialogues
(30 min)	i) Buildings and construction
	Panellists:
	 Mamogala Musekene, Deputy Director General, Department of Forestry, Fisheries and the Environment, South Africa Thomas Matthias Romm, Architect/Engineer, Romm research, plan, build, Austria Carolyn Jewell, Biodiversity Senior Manager, HeidelbergCement, Germany
	ii) Textiles
	Panellists:
	 Razi Bouzekri, Director of Climate Change Biodiversity and Green Economy, Morocco Khalid Kairouch, Director for Quality and Sustainable Development, Evlox, Morocco Caroline Nelson, Country Manager/CEO, H&M, South Africa
14:40-14:45	Closing remarks
	Inger Andersen, Executive Director, UNEP

Annex II: Co-conveners', moderator's and panellists' short biography

CO-CONVENERS:

Tsuyoshi Michael Yamaguchi (Mr), Minister of the Environment, Japan



Tsuyoshi Michael Yamaguchi is the Minister of the Environment of Japan. He has served for more than 40 years in the public institutions of Japan. Prior to his appointment, he was Chairperson, of the Special Committee on North Korean Abductions. He also served as Deputy Chairperson of the Election Strategy Committee, and later as Chief Deputy Secretary-General of the Liberal Democratic Party of Japan (LDP). Since 2002, he has been elected six times member of the House of Representatives. Before entering politics, he worked at the Ministry of Foreign Affairs and was appointed First Secretary of the Japanese Embassy in China (1989), Pakistan (1991) and the United Kingdom (1993). Yamaguchi holds a Master's and a Doctoral Degree from the School of Advanced International Studies of the Johns Hopkins University.

Gerd Müller (Mr), Director General, United Nations Industrial Development Organization



Gerd Müller is Director General of the United Nations Industrial Development Organization, headquartered in Vienna, Austria. Prior to this appointment at the end of 2021, Müller was Germany's Federal Minister for Economic Cooperation and Development, a post he had held since December 2013. During this time, key focus areas of his work included implementing the 2030 Agenda for Sustainable Development, the Paris Agreement on climate action, the Convention on Biological Diversity, and the Beijing Declaration on gender equality. In the year 2013, Müller served as Germany's representative at the World Bank's Board of Governors. From 2005 to 2013, he was Vice Minister at the Federal Ministry of Food, Agriculture and Consumer Protection in charge of international relations, development projects and world food affairs.

Inger Andersen (Ms), Executive Director of the United Nations Environment Programme (UNEP)



Inger Andersen is Under-Secretary-General of the United Nations and Executive Director of the United Nations Environment Programme, headquartered in Nairobi, Kenya. Between 2015 and 2019, Andersen was the Director-General of the International Union for Conservation of Nature (IUCN). Andersen has more than 30 years of experience in international development economics, environmental sustainability, strategy and operations. She has led work on a range of issues including agriculture, environmental management, biodiversity conservation, climate change, infrastructure, energy, transport, and water resources management and hydro-diplomacy. Between 1999 and 2014, Inger Andersen held several leadership positions at the World Bank including Vice President of the Middle East and North Africa; Vice President for Sustainable Development and Head of the CGIAR Fund Council. Prior to her 15 years at the World Bank, Andersen worked 12 years at the United Nations, first on drought and desertification, beginning with the UN Sudano-Sahelian Office. In 1992, she was appointed UNDP's Water and Environment Coordinator for the Arab

Region. Andersen holds a Bachelors from the London Metropolitan University North and a Master's in Development Economics from the School of Oriental and African Studies, University of London.

MODERATOR:

Tim Nixon (Mr), Founder and fmr Chief, Thomson Reuters Sustainability



Tim Nixon is founder of Reuters Sustainability Publishing and thought-leadership platform. He is contributor to Reuters Sustainable Business and serves as judge for the Reuters Sustainable Business Awards. He is member of the CEO Investor Forum, CEO of Signal Climate Analytics and serves as Senior Advisor to the UNEP Science-Policy-Business Forum. Tim has spent his career building change-leading sustainability products and initiatives.

SESSION 1: Virginijus Sinkevičius (Mr), Commissioner for Environment, Oceans and Fisheries, European Union



Virginijus Sinkevičius is the present Commissioner for the Environment, Oceans and Fisheries, at the European Commission. Virginijus Sinkevičius was from 2017 to 2019 Minister of Economy, and before he was leading the Committee of Economy at the Parliament of Lithuania. Mr. Sinkevičius was elected to the Parliament in October 2016. Prior, he was a Team Lead for Regulatory Affairs at Invest Lithuania. Sinkevičius holds a BA in International Relations and Affairs from Aberystwyth University and a Master's degree in European International Affairs from Maastricht University.

Gunnar Andreas Holm (Mr), Ambassador of Norway to the Republic of Kenya and Permanent Representative to the UN Environment Programme



Gunnar Andreas Holm is the Norwegian Ambassador to Kenya, Somalia and Seychelles and Permanent Representative to UNEP and UN-HABITAT from September 2021. Prior to taking up his current position, he was the Ambassador to Ghana (2017-2021) and to South Sudan before that (2016-2017). He has had an extensive career in the Norwegian Foreign Ministry spanning close to three decades and has served in several posts abroad including, Minister Counsellor at the Royal Norwegian Embassy in South Sudan (2014-2016), Counsellor at the Royal Norwegian Embassy in Pretoria (2008-2011) and in a variety of posts at headquarters including: Acting Special Envoy and Policy Director for Sudan/South Sudan (2013-2014), Senior Advisor for European Department (2006-2008), Senior Advisor for Horn of Africa (2005-2006), Acting Assistant Director General in the Section for East & Southern Africa (2005) and Section for Southern & Western Africa (2004). Gunnar Andreas Holm holds a Master's in Social Anthropology from the University of Oslo.

Elizabeth Mrema (Ms), Executive Secretary of the Secretariat of the Convention on Biological Diversity



Elizabeth Mrema is the Executive Secretary of the Convention on Biological Diversity. She has worked with the UN Environment Programme for over two decades and was the Director of the Law Division which is responsible for international environmental governance as well as multilateral environmental agreements (MEAs). Prior to joining the Law Division in June 2014, she was Deputy Director of the Ecosystems Division in charge of coordination, operations and programme delivery from 2012 and for one year served as Acting Director to the Division. In addition, in 2018 she was Acting Director of the Corporate Services Division. From 2009-2012 she was Executive Secretary of the Convention on the Conservation of Migratory Species of Wild Animals. Her work at UNEP has focused on development, implementation and enforcement of environmental laws including MEAs at national, regional and international levels.

Mohamed Bakarr (Mr), Lead Environmental Specialist, The Global Environment Facility (GEF)



Mohamed Bakarr joined the GEF as Senior Environmental Specialist with a primary focus on Land Degradation and Sub-Saharan Africa. He has nearly two decades experience working on various aspects of integrated natural resource management including agroforestry land use, biodiversity conservation, and ecological restoration in the tropics. Although focused mainly on Sub-Saharan Africa, his geographical experience extends across parts of Southeast Asia and Latin America. Prior to joining the GEF, he worked for seven years in several capacities at Conservation International, including most recently as Executive Director of the Center for Applied Biodiversity Science; and four years at the World Agroforestry

Center (ICRAF) in Nairobi, Kenya as Director of Strategic Initiatives (Assistant Director General). Mohamed Bakarr holds a Bachelor's degree from Njala University in Sierra Leone, and a Masters and PhD in Tropical Ecology from the University of Miami, Coral Gables, Florida.

Rohitesh Dhawan (Mr), President and CEO, International Council of Mining and Metals



Rohitesh was appointed CEO of ICMM in April 2021. His career has been at the intersection of sustainability, resources and geopolitics and his prior roles have included Managing Director for Energy, Climate & Resources at Eurasia Group and Global Head of Sustainability for the Mining Sector at KPMG. Ro is a Fellow and faculty member of the Africa Leadership Initiative, a Raisina fellow at the Asian Forum on Global Governance and a member of the Advisory Board of Concordia. He also serves on the expert panel on climate change for the UK government's Partnering for Accelerated Climate Transitions (PACT) programme and has been named one of South Africa's climate change leaders for his work with the country's mining industry. He is also Chair of the Board of Trustees of the BecomingX Foundation which strives to create a world in which all young people can realise their full potential. He holds a Masters of Science in Environmental Change & Management from the University of Oxford in the UK, and a Bachelor of Commerce in Economics from Rhodes University in South Africa.

Anita Dongre (Ms), Chief Creative Officer, House of Anita Dongre



A trailblazer, Anita Dongre has been at the forefront of Indian fashion for over 20 years, having created one of the most successful fashion houses in India which today through it's brands Anita Dongre Couture, AND and Global Desi employs close to 2,500 people directly and provides employment opportunities to thousands more indirectly. A vegetarian and animal-lover and activist, she lives her personal philosophy through conscious efforts as a designer and works strongly towards sustainability and women empowerment.

Swetha Stotra Bhashyam (Ms), Global South Focal Point at Global Youth Biodiversity Network



Swetha Stotra Bhashyam is the Global South Focal Point of the Global Youth Biodiversity Network (GYBN). GYBN is a youth network of more than 1 million members, 550 member organizations, and 40 regional and national chapters, and is the official youth constituency to the Convention on Biological Diversity. Swetha Stotra Bhashyam is a budding wildlife biologist from India. She holds a master's degree in wildlife biology and conservation. She has dedicated the past 9 years of her life to working with several grassroots and international organizations in helping to conserve biodiversity. She joined the Global Youth Biodiversity Network in 2012 and has been working on policy issues under the Convention on Biological Diversity since then. Swetha has helped mobilize a vibrant movement for biodiversity within the youth community and has led in the effort to coordinate the creation of over 40 GYBN regional and national chapters. In the future, Swetha hopes to channel her energy into working on international projects that are meaningful and impactful on the ground.

SESSION 2: Mamogala Musekene (Ms), Deputy Director General, Department of Forestry, Fisheries and the Environment, South Africa



Mamogala Musekene is a Professional Natural Scientist, currently serving as Deputy Director General, Department of Forestry, Fisheries and the Environment of South Africa. She has extensive experience vis-à-vis the environmental regulation within the public sector, most of which spent at leading and managing water resources. She has proven leadership in policy development and implementation on environmental management matters from policy support in integrated waste management to recycling economy, implementation of extended producer responsibility schemes, promotion of the establishment of micro, small and medium enterprises (MSMEs) and cooperatives in the waste sector. Her role also includes the strategic management of environmental impacts of chemicals.

Thomas Matthias Romm (Mr), Architect/Engineer, Romm research, plan, build, Austria



Thomas Romm is an architect and is the co-founder of BauKarussell, a Viennese environmental award-winning company that works in the dismantlement sector, following principles of recyclability of materials and urban mining. He has more than 20 years of experience as an architect in the field of circularity. Since 15 years he is a consultant for green public procurement. He has had collaborations with several engineering and architecture studios: between 2003 and 2013 he was active with Robert Korab in urban planning and project development, and since 2011 he has worked with Ronald Mischek ZT in the logistic planning of large-scale urban development areas including the demolition of a volume from 2 million cubic meter. He was invited to publish his concepts for circular construction and urban mining in MANUAL OF RECYCLING. Previously, he was managing director for software development in BIM based building physics at A-NULL EDV GmbH. Since 2017 he is a lecturer at the Vienna Academy of Fine Arts and at the Montanuniveristät Leoben at the platform for recyclable product and ecodesign. Romm got his Master's degree in Architecture with a thesis on recyclable housing in 2000. He studied at the TU Wien and TU Berlin.

Leila Benali (Ms), Minister of Energy Transition and Sustainable Development, Morocco



Leila Benali is the Minister of Energy Transition and Sustainable Development of Morocco. Previously, she had been Chief Economist of the International Energy Forum (IEF) since March 2021. In December 2019, Benali was appointed as a member of the Special Commission on the Development Model (SCDM). Since September 2018, she has been a member of the Fossil Energy Expert Group at the UN. Benali is a graduate of the Mohammadia School of Engineering (Morocco) and the Ecole Centrale Paris, and holds a PhD in Electrical Reforms from the Science Po Paris Institute. She also holds a Master of Advanced Study in Political Science and a PhD in Energy Economics Summa Cum Laude. Leila Benali was also Director for the Middle East and Africa at IHS, an international security and energy research and consulting firm, a professor at Sciences Po, and an industrial engineer at Schlumberger. Benali has contributed to the publication of numerous articles and books on energy, reforms and sustainable wealth.

Carolyn Jewell (Ms), Global Biodiversity Senior Manager, HeidelbergCement



Carolyn Jewell is the Global Biodiversity Senior Manager at HeidelbergCement, where her role includes developing and implementing a Company-wide strategy for biodiversity, thereby maintaining HeidelbergCement's leadership position in biodiversity management. She is active on Industry biodiversity working groups at European and Global level, and engages with a number of business and biodiversity initiatives. Prior to joining HeidelbergCement in 2016, she managed the Nature After Minerals partnership programme between RSPB and Natural England which afforded the opportunity to gain valuable experience in mineral site restoration and stakeholder engagement. She holds a PhD in Ecology, with her academic work focusing on insects and their responses to climate change and habitat management regimes.

Khalid Kairouch (Mr), Director of Quality and Sustainable Development, EVLOX



Khalid Kairouch is the Director of Quality and Sustainable Development at EVLOX (a Denim maker since 1846). He has more than 25 years of experience in the field of quality management and sustainable practices. He joined EVLOX (at the time, Tavex) in 1995 in its Moroccan facilities. There, he led several projects for certification and continuous improvement in terms of quality and environment. He then spent a period of 5 years as a Quality Manager at Renault. In 2014, he returned to EVLOX. Following the evolution of fashion and the trend towards sustainable products, Kairouch has contributed to catalysing the changes and strengthening the orientation of Evlox projects in this direction. In this context, he has had an active collaboration with UNIDO and the EU, leading the projects connected to the SWITCHMED initiative, focusing specifically on the impact of chemicals on the environment and the creation of an ecosystem for the recovery of post-industrial waste in Morocco. Khalid Kairouch holds a degree in physics and textile engineering.

Caroline Nelson (Ms), Country Manager/CEO, H&M, South Africa



Caroline Nelson is the CEO and Country Manager for H&M South Africa, responsible for overall strategy, Sales, People, Operations, Sustainability & Expansion of the South African organization. She is currently in charge of the management of H&M 27 stores and over 900 local employees in South Africa. Nelson has worked with the H&M Group for fifteen years across varying roles in the United States while also supporting expansion into Central & South America and New Zealand. She is currently based in Cape Town where H&M's South African Head Office is based. Caroline Nelson's background is Applied Languages. She studied at the Technological University of Dublin.