Federal Ministry
Republic of Austria
Sustainability and Tourism

SUMMARY

R20AWS Breakout Session

PLASTIC POLLUTION & HEALTH: Strategies for a Circular Economy

Background

Plastic as a material offers a wide range of benefits. It is waterproof, lightweight, transparent and hermetic: four characteristics that make it advantageous to many industries, notably commerce. Nevertheless, due to the colossal increase in production of this non-biodegradable material, it currently poses a serious threat to both our ecosystem and our health. Unlike organic material, it does not decompose easily, instead remaining in the environment for hundreds, sometimes thousands, of years before disintegrating into tiny nanoparticles.

In recent years, these microplastics (particles smaller than 4.75 millimetres in diameter) have been detected in our drinking water and food chain, as well as the human body. The exact effects that these synthetic particles have on our bodies and the ecosystem, remain the subject of on-going research. Meanwhile, wind and ocean currents continue circulating the particles to every corner of our planet. Plastic is already causing severe damage to wildlife even before the decomposition process begins breaking it down into smaller particles. Countless species, such as seabirds, turtles, fish and whales, are ingesting pieces of plastic and dying as a result.

Plastic pollution is quickly becoming one of the main challenges of our century. Since the 1950s, an estimated 8.3 billion tons of plastic has been produced, while only nine percent of this has been recycled. The majority of it continues to be burned, dumped in landfill sites or thrown directly into the natural environment. Around 8 million metric tons of plastic is swept into the ocean annually - the equivalent of one garbage truck every minute. Recent studies predict a grim future in which, by 2050, there will be more waste plastic in the sea (by weight) than fish.

Higher-income countries tend to generate more plastic waste per person. However, due to effective waste management systems, their mismanaged waste and impact on the oceans are relatively low. Instead, a recent study estimates that more than a quarter of the plastic in our oceans may originate from just ten rivers, eight of them in Asia. This makes the improvement of waste management systems across the world another important challenge in the fight against plastic pollution.

Outcomes

We know that new strategies to cut down on plastic waste are urgently needed to avoid further and irreparable damage to both our ecosystems and our health. It's imperative that we rethink our way of life and leave our current attitudes to disposability behind us. By fostering a circular economy we could end the enormous export of waste to developing countries, whilst simultaneously creating profit from previously discarded material. Finding sustainable alternatives to plastic represents another significant challenge we currently face.

Responsibility of all: consumers, producers, governments

- Each of us can contribute by making small changes to our buying habits, increasing pressure on companies and governments to reduce the amount of plastics used, particularly in packaging.
- Producers should be encouraged to become increasingly resource efficient (reducing material input and improving recycling rates) and should set measures along the whole value chain to foster a circular economy
- Win-win situations for all stakeholders are key to the implementation of holistic approaches.

Awareness & Communication: How to break down complex topics to simple messages

- There remains an enormous gap between "lazy, unaware consumers" and "well informed, responsible customers" who understand the impact of their behaviour.
- In order to swiftly change perceptions and mind-sets we need alternative, simple solutions that are attractive to the majority of the public.
- Communication through young role models and influencers: In the last month we observed that when children focus on a topic, they can influence and have an impact on older generations. The other way around appears less effective.
- At the end of the day the central message must be: It´s cool to protect the planet.

Not new but still true: "Act local, think global"

- Reduce transportation through implementing more local recycling processes to close local material circles.
- Europe used to export waste to other countries such as Malaysia and China, but these countries have recently announced a halt to these imports, declaring that plastic waste is a hazardous material. Europe currently faces an opportunity to deal with its own waste and has to act in a more local way.

Role models & Solutions

- Best practice example from Sweden: Implementation of the public procurement law leads to reduce the demand of non-environmentally friendly products, substances, materials…
- Best Practice Example: Sodastream combines marketing with awareness campaigns to encourage their customers to eliminate plastics from their daily routines.
- Solutions & Trends: To (re)design products which can be reused or increase refillable systems.
- Waste to Energy: Borealis recently launched a project that turns waste into fuels.
- Financial solution: Initiate soft loans to fight plastic pollution

Policy recommendations

- New policy solutions and quick implementation of these policies are crucial for turning the economy into a circular economy.
- We need more enforcement and policy control. A legal framework by itself is not enough. If every rule is to be followed, we have to design clear and detailed guidelines.
- The negative impacts of fossil products on social and ecological dimensions have to be evaluated and priced accordingly
- Increasing the price of plastic products may be more effective than banning products (Incentives vs. Prohibiting).
- It´s very difficult for politicians to reach out to the younger generation. Nevertheless, politicians should take pollution seriously and act as role models themselves.