



75TH CAIRO CLIMATE TALK REPORT

# Fragile Ecosystems & How to Protect Them: New Forests & How to Grow Them

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1 JUNE 2021 // PREPARED BY LILLY VON STACKELBERG

*On the 1st of June the Cairo Climate Talks (CCT) hosted their 75th panel discussion in which experts from Germany and Egypt discussed how planting new forests, strengthening existing ecosystems and protecting biodiversity are vital steps towards reaching true sustainability.*

Protecting our climate and planet is closely tied to the wellbeing of forests, as they act as carbon storage, vital oxygen to the planet's ecosystems, and home for much of the world's biodiversity. Additionally, forests "provide means of livelihoods for more than 1.6 billion people" Dr. Ayman Hamada, Head of Central Department of Biodiversity, emphasized in his opening remarks on behalf of the Ministry of Environment.

Ambassador Dr. Cyrill Nunn, opened the event on behalf of the German Embassy saying "2021 is a pivotal year in the climate negotiations and we are expecting an important movement of more ambitious climate commitments in the run-up to COP26 in Glasgow." He stressed that "protecting biodiversity is a very important aspect to preserving a healthy planet for future generations. Here in Egypt, and all over the world, planting new trees can undo environmental degradation such as desertification, offer agricultural biodiversity, and increase air quality."

Dr. Nunn also highlighted the little-known fact, that originally the concept of sustainable forestry was formulated in 1713 by German forester Hans Carl von Carlowitz. Carlowitz described the concept of managing a forest by supporting its ability to fully regenerate. Sustainability therefore is in its essence about protecting the natural resilience and resistance of ecosystems as Hany El Kateb, Presidential Advisor & Senior Scientist at Technische Universität München (TUM), affirmed. Dr. Nunn and Dr. Ayman both stressed that as we are nearing the 2030 milestone of the Sustainable Development Goals (SDGs) global efforts to support the restoration and protection of millions of forests around the world are increasing.

**ECOSYSTEMS, WHEN LEFT UNDISTURBED BY HUMANS, ARE SELF-SUFFICIENT AND HIGHLY PRODUCTIVE, PROF. HANY POINTED OUT, UNLIKE HUMANS, THEY DO NOT DEplete BUT MAINTAIN WHAT SUSTAINS THEM, ADDING THAT WE SHOULD LEARN FROM THEM.**

As Dr. Ayman mentioned, the safeguarding of vital ecosystems and biodiversity hubs, like the coral shores of the red sea, are on the priority list of the Egyptian government, with Egyptian Minister of Environment, H.E. Dr. Yasmine Fouad, being the president of the UN's Convention of Biological Diversity (CBD) Conference of Parties (COP). Recent initiatives all over Egypt encourage the protection of ecosystems while also creating economic opportunities, such as recent ecotourism initiatives. This highlights, how economic and environmental sustainability can and should be tackled together. Dry desert climate, water shortage, and increasingly saline soil however pose many challenges to Egypt. But while afforestation might seem like an odd theme for Egypt, since more than 95% of its land is considered desert, it seems to have promising potential.

Due to the good climate in Egypt, the annual growth of trees far exceeds their German counterparts, Egyptians got lucky Prof. Hany recalls a German professor saying, they will still be alive to see the forests they have grown. Forests could therefore quickly be turned into climate change mitigation and economic opportunity. Dr. Hany himself has first-hand experience, as he helped set up the Serapium forest in Ismailia, which uses wastewater to reclaim land from desertification by growing forests. During his talk he shared images of the project, illustrating how quickly desert was turned into lush greens in this German-Egyptian collaboration (the slides can be seen on the video recording of the event [here](#)). He strongly advocated for increased investment in and collaboration on forestry projects in Egypt as it would tackle a wide array of issues.

Dr. Ayman Hamada cautioned that the introduction of new ecosystems has to be managed with care, as not to disturb the natural balance of systems. While he agreed on the great potential of new afforestation projects, he is also looking to protect the existing ones by creating policy frameworks. Forests in Egypt exist as the Egyptian experts agreed, but a clear definition on what a forest is does not. Mangroves are known and common, but what plants are considered as forests? Are Mangroves forests, and what about shrubs?

The question on introducing new biotic factors to existing ecosystems and how to choose them is one Barbara Ral, Climate Protection Manager and Free Certified Biologist, has been exploring as a biologist and working on her own forest transformation system. Based in Brandenburg, she is familiar with dry, sandy lands and has seen the impact of forest fires and forest degradation due to parasites. She chose the seedlings carefully, to tackle different aspects of sustainability; big-leafed trees to stop fires from spreading and giving shade to let the soil store water, other trees that grow fast and can be sold for profit to increase economic sustainability, and trees that give home to many species, insects and bees and increased biodiversity.

**“YOU CAN REALLY FEEL THE DIFFERENCE WHEN YOU WALK THROUGH THE FOREST, IT IS COLDER AND WETTER (...) IT IS GREAT TO SEE HOW MANY BIRDS AND INSECTS AND OTHER ANIMALS MOVED TO THIS SMALL FIELD, THERE IS A LOT OF BIODIVERSITY IN THIS AREA” - BARBARA RAL**

While forests are often called the lungs of the planet, not only acting as a vital source of oxygen, but also binding and storing CO<sub>2</sub>. Less well known might be the importance of the forest ground; moderator of the event Farah Kamel, pointed out how the soil quality is just as important of a player. The deciduous trees (broad-leafed trees that change with seasons) that Barbara Ral has planted in her forest, make for better soil that is able to keep humidity and water, and gives space for microbes and fungi who live in symbioses with trees. High soil quality is therefore a vital aspect in achieving better air and forest quality.

The panelists agreed that existing ecosystems should be sustained where possible but transformed where needed in order to adapt to changing environmental and climate conditions. However, a close management and consideration of social and environmental sustainability must be given at all times, and especially when growing new forests.

Dr. Ayman Hamada has 24 years of experience with the EEAA working on protected areas and biodiversity management: including wildlife monitoring, conservation and sustainable use. Including in the PA of St. Catherine and has worked on establishing the first Community based Natural Resource Management program in Egypt. He currently serves as National Focal Point for the Agreement on the conservation go African-Eurasian Waterbirds who's Conservation Award Ayman received on behalf of Egypt in 2018.

**DR. AYMAN HAMADA**

HEAD OF CENTRAL  
DEPARTMENT OF  
BIODIVERSITY AT MINISTRY  
OF ENVIRONMENT

**BARBARA RAL**

CLIMATE PROTECTION  
MANAGER | FREE  
CERTIFIED BIOLOGIST

Barbara Ral is a biologist an innovator and entrepreneur. She Founded ZebraFilter in 2015 a company based on her patented lake water filtration system that uses biological processes to remove bacteria. For 6 years she served in the District of Potsdam-Mittelmark as head of Climate Protection Management. She is now self-employed as an independent biologist and has started 2 forest system transformation projects on private land which she now offers tours and activities of in order to communicate lessons learned.

Prof. Hany El Kateb is a Member of Egypt's Presidential Advisory Council of Scientists and Experts. He is a Senior Scientist at the Technical University in Munich and leads the Egyptian Scientific Centre for Innovation, a multi-disciplinary team of scientists and experts that support the development of Egypt. The bulk of his research and interventions have been in land use, forestry, resource management and agribusiness. He has designed Projects for land rehabilitation and forest management in Africa, Asia and South America, initiated the development of sustainable forestry in desert lands in Egypt using sewage water and established cooperation between the Egyptian Government and the Bavarian State.

**PROF. HANY EL KATEB**

PRESIDENTIAL ADVISOR &  
SENIOR SCIENTIST AT  
TECHNISCHE UNIVERSITÄT  
MÜNCHEN (TUM)

## BACKGROUND INFORMATION:

**Cairo Climate Talks** are conceived, organized and hosted as a cooperation between the German Embassy in Cairo, the Egyptian Ministry of Environment, the German Academic Exchange Service (DAAD) and the German Corporation for International Cooperation (GIZ).



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