



ACCADEMIA NAZIONALE DEI LINCEI

International Conference  
**Global Forest and Tree Restoration**

Rome, 11 - 12 October 2022

UNDER THE HIGH PATRONAGE OF



*Presidenza della Repubblica Italiana*

AND WITH THE PATRONAGE OF

*MINISTERO DELLE POLITICHE  
AGRICOLE, ALIMENTARI E FORESTALI*

*MINISTERO DELLA  
TRANSIZIONE ECOLOGICA*

KNOWLEDGE PARTNERS



## Rationale

The G20 Summit which took place in Rome on 30-31 October 2021, and the UN Climate Change Conference (COP26), held in Glasgow on 20 October 2021, solemnly and authoritatively reaffirmed the fundamental role of trees, forests and forest conservation in the protection of the global environment. The commitment made by G20 nations to encourage the development of afforestation, focusing on the most degraded ecosystems around the world, marks a significant recognition for the forest sector but is also a crucial engagement and a substantial responsibility to effectively move towards this goal.

It is widely recognized that the carbon entrapping by terrestrial ecosystems plays a fundamental role in the mitigation of climate change, as it removes approximately 27% of total human emissions from the atmosphere, accumulating it in wood and soil.

The Paris Agreement had already acknowledged this essential role and the need to increase the contribution of forest ecosystems to climate change mitigation, in addition to the other fundamental ecosystem services they offer. Furthermore, large-scale global forest conservation and afforestation would contribute - especially in contexts with high levels of youth unemployment and poverty - to creating jobs, drawing attention to nature conservation and promoting a more equitable social balance, resulting in improved global health conditions, greater political stability, and a more effective and proper containment of migratory pressures.

The implementation of this important program implies the support of solid scientific evidence to put into effect technical aspects, to recognize and address critical bottlenecks, such as the capacity to produce proper quantities of certified high quality nursery material, precise identification of areas, potentially susceptible to priority reforestation and environmental restoration, agreement with local communities in order to avoid trade off and conflicts with other ecosystem services. Moreover, the involvement of the private sector and local communities, as well as the creation of a strong public-private partnership, will be crucial for the success of such a large environmental and social program.

A number of projects are at different stages of progress in different parts of the world, promoted by governmental and private organizations and foundations. The planning and guidance of a great and ambitious worldwide program for the conservation of natural forests, the regeneration of degraded ecosystems and the planting of new trees, as foreseen in art. 19 of the G20 Rome Leaders' Declaration, require a concerted scientific, technical, and financial effort.

The Conference aims at analyzing the state of knowledge and experiences and at laying down the foundation for this wide international effort.

**THE ACCADEMIA NAZIONALE DEI LINCEI** ([www.lincei.it](http://www.lincei.it)) is a self-governing fellowship of distinguished scientists. Its members are drawn from all areas of science. The Academy's fundamental purpose, reflected in its founding Charters of the 1603, is to recognise, promote, and support excellence in science, and to encourage the development and use of science for the benefit of humanity.

# PROGRAMME

## Tuesday, 11 Oct.

9:00 Welcome addresses:

Roberto ANTONELLI (President of the Accademia Nazionale dei Lincei)

Maria Helena SEMEDO (Deputy Director-General of FAO)

Carlo PAPA (Managing Director of Enel Foundation)

9:30 Introduction:

Giorgio PARISI (Vice President of the Accademia Nazionale dei Lincei, Nobel Laureate in Physics 2021), *Scientific and environmental challenges*

Giuseppe SCARASCIA MUGNOZZA (Accademia Nazionale delle Scienze detta dei XL, University of Tuscia) - Danilo MOLLICONE (FAO), *Forests of the World*

10:30 Coffee break

### 11:00 **Session 1 - Scientific evidence**

**Chairs:** Marco MARCHETTI (Accademia Italiana di Scienze Forestali, University of Molise)  
Paola BONFANTE (Lincei Fellow)

Ernst-Detlef SCHULZE (Max Planck Institute for Biogeochemistry), *Forests and climate mitigation*

Werner KURZ (Canadian Forest Service), *Forests, climate change and risks for their mitigation potential*

Lourens POORTER (Wageningen University), *Forests, biodiversity and restoration*

Gemma CALAMANDREI (Istituto Superiore di Sanità), *Forests and health, One Health paradigm*

13:00 Lunch break

14:00 Jean-François BASTIN (University of Liège), *Forests and ecosystem restoration potentials*

Shive Prakash RAI (Banaras Hindu University), *Impact of forest cover on hydrogeological processes, emerging challenges and future prospects: Indian perspectives*

Julia ZANIN SHIMBO (MapBiomias), *Challenges and opportunities for forest restoration revealed by land cover and land use monitoring in Brazil*

Sandro FEDERICI (Head of Technical Support Unit of the IPCC Task Force on National Greenhouse Gas Inventories), *Reforestation as mitigation: the IPCC Guidelines for UNFCCC reporting*

16:00 Coffee break

### 16:30 **Session 2 - Roundtable: Key scientific and socio-economic aspects**

**Chairs:** Giorgio VACCHIANO (University of Milan)  
Michele MORGANTE (Lincei Fellow, University of Udine)

Robert NASI (CIFOR), *Areas for reforestation and environmental restoration*

Thomas HOFER (FAO), *Decade on ecosystem restoration*

Naoko YAMAMOTO (Assistant Director-General, WHO), *Going green for health: the importance of biodiversity and nature conservation for human health and wellbeing*

Michele BOZZANO (Genetic Resources Facility, European Forest Institute), *Genetics and forest reproductive material*

Nicola POCHETTINO (European Investment Bank), *Additionality and impact of a public bank: the EIB contribution to a sustainable forest-based bioeconomy*

18:30 Guided tour to the Villa Farnesina ([www.villafarnesina.it](http://www.villafarnesina.it))

## Wednesday, 12 Oct.

### 8:30 Session 3 - Ongoing initiatives and commitments: lessons and bottlenecks

**Chairs:** Federico MAGNANI (Accademia Nazionale di Agricoltura, University of Bologna)  
Francesco SALAMINI (Lincoln Fellow)

Shirong LIU (Chinese Academy of Forestry), *Lessons and experiences on China's forestation and ecosystem restoration*

Najeeb ALSUBHI (Saudi National Center for Vegetation Cover), *The contribution of the Saudi Green Initiative and the Middle East Green Initiative to the global effort in mitigating and adapting to climate change*

Moctar SACANDE (Great Green Wall, FAO), *FAO's contributions to implementing Africa's Great Green Wall*

Elisabeth PÖTZELSBERGER (European Forest Institute), *Europe*

Dan LAMBE (Arbor Day Foundation), *Everyone wants to plant trees, billions of them. Now what?*

René ZAMORA CRISTALES (World Resources Institute), *Restoration Policy Accelerator: a journey to inspire, innovate and streamline policies to restore 50 million hectares in Latin America and the Caribbean*

11:00 Coffee break

### 11:30 Session 4 - Roundtable: Multilateral initiatives and the potential role of civil society and the private sector

**Chairs:** Francesco FERRINI (Accademia dei Georgofili, University of Florence)  
Paolo SANNELLA (Società Geografica Italiana)

Nicole SCHWAB (Platform to Accelerate Nature-Based Solutions, World Economic Forum), *Scaling private sector investment in ecosystem restoration: lessons learned and opportunities*

Hernán GONZÁLEZ (FAO-GEF Unit), *Engaging civil society and the private sector in international finance mechanisms: the case of the GEF*

Humberto DELGADO ROSA (DG Environment, European Commission), *The EU Forest Strategy to 2030 and its contribution to forest restoration*

Mario BOCCUCCI (UN-REDD Programme Secretariat), *Nature-based solutions: scaling up partnerships and actions on forest*

Yitagesu TEKLE (Circular Bioeconomy Alliance)

13:00 Lunch break

14:00 Dominique BOURRAT (ESG Strategic Independent Advisor), *What are the bottlenecks preventing the private sector and in particular the financial sector from massively investing into ESG impact generation?*

Marco FAVRATO (Innovability, Global Energy & Commodity Management), *Risk and opportunity management*

Lorenzo ORIOLI, Iacopo SINIBALDI (Italy's Ministry of Foreign Affairs, AICS), *Recent and ongoing initiatives of the Italian Cooperation on forests and tree restoration: insights, lessons and hints for the future work of AICS*

Ahamat Mahamat HAGGAR (Great Green Wall), Mahamat Hassane IDRIS (Chad's Ministry of the Environment, Fisheries and Sustainable Development), *Useful forest trees in Chad: *Balanites aegyptiaca*, *Arthrospira platensis*, *Moringa oleifera* and *Acacia senegal**

15:30 **Final session - Organizational and institutional aspects of a Restoration Action Plan: discussion and approval of the recommendations**

**Chairs:** Alessandra STEFANI (Italy's Ministry of Agricultural, Food and Forestry Policies)  
Enrico PORCEDDU (Lincoln Fellow)

17:00 Concluding addresses

17.30 Guided tour to the Botanical Garden of Rome, with presentation of forest restoration activities by the Enel Foundation and cocktail

VENUE OF THE MEETING  
Accademia Nazionale dei Lincei  
Palazzina dell'Auditorio, Via della Lungara 230  
Rome

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