

Uppsala, 2023-01-23

**Dear President von der Leyen, dear President Metsola, dear President Michel.**

We, the undersigned, wish to express our deep concern regarding the “Scientist Letter on the need for climate smart forest management” sent to you on October 27<sup>th</sup>, signed by 500 persons connected to various institutions for research and higher education in the European Union. In the letter it is erroneously argued that “increasing the share of EU-forests under protection is not suitable to support Europe's climate protection policy” and “has no further benefits for biodiversity”. These statements reveal that the authors of the letter are either unaware of, or even purposefully deny, fundamental and well-known facts about the role and importance of restoring and protecting forest ecosystems for climate and biodiversity.

The IPCC concludes that *“Safeguarding biodiversity and ecosystems is fundamental to climate resilient development, in light of the threats climate change poses to them and their roles in adaptation and mitigation (very high confidence).”* [1]. Again, according to the IPCC, 30-50% of land and oceans need to be restored and protected to ensure the continued functioning and integrity (ref. 1, p. 32) of species and ecosystem services.

The authors of the letter seem to have misunderstood the concept of carbon debt, and confuse carbon stocks with carbon flows. Forests are important for mitigating climate change not because of the speed of carbon uptake as the trees grow, but because of the amount of carbon that is already stored in living biomass, dead biomass and, particularly in boreal forests, in soil [2]. Harvesting reduces the amount of stored carbon and therefore increases the amount of carbon dioxide in the atmosphere. Any claim of the contrary is simply wrong and is an expression of either ignorance or sowing doubt with the purpose to protect business interests. It is common practice for some industries to engage researchers in this manner, as pointed out by Tomas Valetti, the former Chief Competition Economist of the European Commission [3].

Although carbon uptake is faster in managed forests or timber plantations than in natural forests, even natural forests continue to accumulate carbon [4]. In contrast, managed forests have a much lower carbon stock, because approximately half of the carbon that could be stored in a mature forest, is in the atmosphere instead. All carbon uptake in managed forest is therefore a payback of the historical carbon debt.

It is correct that wood products store carbon for some time, but this does not mean that the amount of carbon stored away from the atmosphere increases if trees are cut down and turned into wood products. In particular because only a small fraction (about 10% in Sweden, for instance [5]) of trees felled ends up in wood products, the remainder becoming energy, pulp products or are left as residues, all of which shortly return their carbon stocks to the

atmosphere in the form of carbon dioxide after burning or decomposition. State-of-the-art models show that a quick decrease of harvesting yields the largest climate benefits [6].

The facts regarding biodiversity are equally simple: The lack of old trees, dead trees, and decaying wood in forests managed for timber production make them unsuitable for a large portion of the flora, fauna and funga of natural forests. The lack of biodiversity is also what makes the trees susceptible to outbreaks of insects whose natural predators are not present at natural levels in the monoculture timber plantations that have replaced natural forests over vast expansions in Europe.

Protection and restoration of natural forests is beneficial both for the climate and for biodiversity [1]. Therefore, there is a trade-off between, on one hand, conservation of biodiversity and addressing climate change and, on the other hand, the short-term economic gain provided by logging. We, the undersigned, think that the former should prevail. Therefore, we urge the commission to take immediate steps to drastically reduce logging throughout the EU.

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246. Marcelina Zimny, Assistant Professor, Białowieża Geobotanical Station, Faculty of Biology, University of Warsaw, Poland
247. Victor Briz PhD., Ramón y Cajal Senior Researcher, Centro Nacional de Sanidad Ambiental, Instituto de Salud Carlos III, Madrid, Spain.
248. Paulo Horta, Centro de Ciências Biológicas, Universidade Federal de Santa Catarina, Florianópolis, Brazil.
249. Piotr Chibowski, MSc, Faculty of Biology, University of Warsaw, Poland
250. Liane Koker, PhD, Karlsruhe Institute of Technology, Germany
251. Alba Domi, MSCA Postdoctoral Fellow, Erlangen Centre For Astroparticle Physics, Germany
252. Roberto Simonini, PhD, Associate Professor, University of Modena and Reggio Emilia, Italy
253. Iza Wyszomirska, MSc. University of Warsaw, Poland
254. Valerie Pruegger, Ph.D., University of Calgary, Canada
255. Karen Liljebjelke DVM, PhD, Faculty of Veterinary Medicine, University of Calgary, Alberta, Canada
256. Ambreen Munir, M.Phil, Quaid-i-Azam University, Islamabad, Pakistan.
257. John Terborgh, Phd, Professor Emeritus of Environmental Science, Duke University, Durham, NC, U.S.A.
258. Raquel Jiménez-Melero, Senior Lecturer in Ecology, Universidad de Jaén, Spain
259. Jasper A.J. Eikelboom, Postdoctoral Researcher in Wildlife Ecology and Conservation, Wageningen University & Research, Netherlands
260. Tomáš Lepeška, Associate Professor, Faculty of Ecology and Environmental Sciences, Technical University in Zvolen, Slovakia
261. Rémi Dufлот, Senior researcher, University of Jyväskylä, Finland
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263. Vladimír Kunca, Professor, Faculty of Ecology and Environmental Sciences, Technical University in Zvolen, Slovakia
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266. Ľudmila Černecká, Institute of Forest Ecology SAS, Zvolen, Slovakia

267. Magda Sindičić, Associate Professor in wildlife management, Faculty of Veterinary Medicine University of Zagreb, Croatia
268. María Triviño, Senior researcher, University of Jyväskylä, Finland
269. José M. Rey Benayas, Full Professor, University of Alcalá, Spain
270. Rudolf Midriak, Professor emeritus, Banská Bystrica, Slovakia
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272. Aleksí Lehikoinen, senior curator, University of Helsinki, Finland
273. Lluís Brotons, Research scientist, CSIC-CREAF, Spain.
274. Francesca Badaracco, Postdoctoral researcher, Istituto Nazionale di Fisica Nucleare, sezione di Genova, Italy
275. Claudio Morana, Full Professor, University of Milano-Bicocca, Italy
276. Ricardo Faustino de Lima, Researcher, Faculty of Sciences, University of Lisbon, Portugal.
277. Hans-Peter Schmidt, Director of Ithaka Institute for Carbon Strategies, Switzerland
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279. Joannès Guillemot, Researcher, Cirad, Montpellier, France.
280. Danilo Russo, Professor of Ecology, University of Naples Federico II
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282. Alfredo Romero-Muñoz, PhD, Postdoctoral researcher, Humboldt University Berlin
283. José M. Torres-Ruiz, Research Scientist, INRAE Clermont-Ferrand, France.
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285. Laura Concostrina-Zubiri, Postdoctoral researcher, IHCantabria, University of Cantabria, Spain
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287. Jose Manuel Álvarez-Martínez, PhD, Researcher, Instituto de Hidráulica Ambiental de la Universidad de Cantabria IHCantabria, University of Cantabria, Spain
288. Martin Mikoláš, PhD, Researcher, Czech University of Life Sciences, Faculty of Forestry and Wood Sciences, Prague, Czech Republic
289. M. Belén Hinojosa, Associate Professor, Department of Environmental Science and Biochemistry, University of Castilla-La Mancha, Spain.
290. Paloma Ruiz Benito, Associate Professor, Department of Life Sciences, University of Alcalá, Spain.
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299. Dr Jorge Curiel Yuste, Ikerbasque Research Professor, BC3-Basque Centre for Climate Change, Scientific Campus of the University of the Basque Country, Spain
300. Pascal Mirleau, PhD, Assistant Professor, Ecology and microbial ecology, Aix Marseille Université, France
301. Roberto Cazzolla Gatti, Associate Professor, University of Bologna, Italy
302. Jordi Martínez-Vilalta, Professor of Ecology at the Autonomous Univ. Barcelona & Researcher at CREAM, Spain.
303. Mario Díaz, Professor, National Museum of Natural Sciences, Spanish Research Council, Spain
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307. Miguel Angel Esteve Selma. Full Professor of Ecology. University of Murcia, Spain
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309. Alberto Vilagrosa. Senior researcher. CEAM & Dept Ecology, Univ Alicante, Spain.
310. Cécile Albert, Researcher, Centre National de la recherche Scientifique, Aix-Marseille université, France
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315. Marion Jourdan, Researcher, INRAE SILVA Nancy, France
316. Clelia Sirami. Researcher, INRAE DYNAFOR. France.
317. Isabelle Chuine, Researcher, CNRS, CEFE, France

318. Valéria Romano. Researcher, Institut de Recherche pour le Développement, Institut Méditerranéen de Biodiversité et d'Ecologie, France
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320. Hervé Mbaya Mumpunga, PhD in International and African Environmental Law/Community forestry, research professor, University of Lubumbashi DRC.
321. Elena Tena López, Doñana Biological Station- CSIC, Spain.
322. Elie Gaget, PhD, Postdoctoral researcher, University of Turku, Finland
323. Victor Danneyolles, PhD, Postdoctoral Researcher, Université du Québec à Chicoutimi, Canada
324. Maxime Cailleret, Researcher, INRAE, Aix-Marseille Université, UMR RECOVER, France
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326. Isabelle Maréchaux, Researcher, INRAE, AMAP, Montpellier, France
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337. Javier Cabello, Full Professor of Biodiversity and Ecosystems, University of Almería, Spain.
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339. Jean-Louis Martin, Emeritus Senior Scientist, CNRS, CEFE, Montpellier, France
340. F. B. Vincent Florens, PhD, Associate Professor of Ecology, University of Mauritius, Mauritius
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346. Hans D. Knapp, Prof. Dr., Succow Foundation, Greifswald, Germany



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353. Beatriz Duguy Pedra, Full Professor, Universitat de Barcelona, Spain
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365. Susana Gómez-González, Associate Professor, Department of Biology, University of Cádiz, Puerto Real, Spain.
366. Stephan Hättenschwiler, researcher in ecology, CEF, CNRS, Montpellier, France.
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370. Papuga Guillaume, Dr, lecturer in plant ecology and conservation at the University of Montpellier, France
371. Natalie Uomini, Senior Scientist, Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany

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373. Beatriz Rumeu, Postdoctoral Researcher, Department of Biology, University of Cádiz, Puerto Real, Spain.
374. Daniela Poli, Full Professor, Urban and Regional Planning, Department of Architecture, University of Florence
375. Patrizia Menegoni, Researcher in ecology, ENEA National **Agency** for New Technologies, Energy and Sustainable Economic Development, Rome, Italy.
376. František Máliš, Associate Professor in Forest Ecology and Management, Faculty of Forestry, Technical University in Zvolen, Slovakia
377. Alessandro Bottacci, past director of National Parc of Foreste Casentinesi, Monte Falterona e Campigna, Gruppo Unitario Foreste Italiane, Ordinary member of Italian Academy of Forest Sciences
378. Sandra Lavorel, Laboratoire d'Écologie Alpine, CNRS, Université Grenoble Alpes, France
379. Jan Šebesta, PhD, researcher, Mendel University in Brno, Faculty of Forestry and Wood Technology, Brno, Czech Republic.
380. Branko Zevnik, PhD, Professor, University of Cologne, Germany
381. Elena Granda, Assistant Professor in Ecology. Department of Life Sciences, University of Alcalá, Spain.
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386. Małgorzata Witeska, Professor, Warsaw University of Life Sciences - SGGW, Warsaw, Poland
387. Åsa Kasimir, Associate Professor, of Earth Sciences, Gothenburg university, Sweden
388. Mark D. Johnson, Associate Professor of Earth Sciences, Gothenburg University, Sweden
389. Leif Klemedtsson, Professor of Earth Sciences, Gothenburg University, Sweden
390. Louise C. Andresen, Docent in Ecosystem Science; Department of Earth Sciences, University of Gothenburg Sweden
391. Massimo Blonda, former Senior Researcher, IRSA CNR Bari, Italy.

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393. Mauricio Fuentes, PhD. Research Assistant, Earth Sciences, University of Gothenburg.
394. Joaquim S. Silva, Professor of Fire Ecology at the Polytechnic of Coimbra, Portugal
395. Susana C. Gonçalves, Researcher, Centre for Functional Ecology, Department of Life Sciences, University of Coimbra, Portugal.
396. Filipa Coutinho Soares, Postdoc Researcher, CESCO - Centre d'Écologie et des Sciences de la Conservation, MNHN CNRS SU, FRANCE
397. Jorge Moreira, Researcher, Centre for Functional Ecology, Department of Life Sciences, University of Coimbra, Portugal.
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399. Mateusz Iskrzyński, Systems Research Institute, Polish Academy of Sciences, Poland
400. Filipa Cunha-Saraiva, Researcher, Centre for Functional Ecology, University of Coimbra, Portugal
401. Bernd Ensing, Associate Professor of Chemistry, University of Amsterdam, The Netherlands
402. Jaana Bäck, Professor in Forest Sciences, University of Helsinki, Finland
403. Minna Pappila, Docent in forest and biodiversity law, Senior researcher, Finnish Environment Institute, Finland
404. Diogo Guedes Vidal, Researcher, Centre for Functional Ecology, Department of Life Sciences, University of Coimbra, Portugal.
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411. Timo Vesala, Professor of Meteorology, University of Helsinki, Institute for Atmospheric and Earth System Research, Finland

412. Janina Konarska, PhD in Physical Geography, Postdoctoral researcher, Department of Earth Sciences, University of Gothenburg, Sweden
413. Szymon Malinowski, professor of Earth Sciences, Faculty of Physics, University of Warsaw, Poland
414. Mika Järvinen, professor of Energy Technology, Aalto University, Finland
415. Anna Lintunen, PhD in Forest sciences, Adjunct professor, Research coordinator, University of Helsinki, Finland.
416. Ana Mendonça, CFE - Centre for Functional Ecology: Science for People & the Planet, University of Coimbra, Portugal
417. Christopher M Raymond, Professor Sustainability Science, University of Helsinki, Finland
418. Laura Fernández de Uña, Postdoctoral researcher, CREAM, Spain
419. Ulrika Ervander, PhD student department of earth sciences University of Gothenburg
420. Iryna Herzon, Adjunct professor, university lecturer, Faculty of Agriculture and Forestry. University of Helsinki, Finland
421. Per Wedel,, Emeritus Associate Professor, quaternary geology University of Gothenburg,Sweden.
422. Elina Oksanen, Professor, University of Eastern Finland, Finland
423. Raul Rosenthal, researcher of sustainable forestry, University of Tartu, Estonia
424. Asko Lõhmus, professor of Conservation Biology, University of Tartu, Estonia
425. Hélia Marchante, Professor of Botany, Conservation Biology and Invasive Species Management at the Polytechnic of Coimbra, Portugal
426. Aveliina Helm, Professor of Restoration Ecology, University of Tartu, Estonia
427. Evelyn Uuemaa, Associate Professor of Geoinformatics, University of Tartu, Estonia
428. Ivika Ostonen, Professor of Root Ecology, University of Tartu, Estonia
429. Triin Reitalu, Researcher of Restoration Ecology, University of Tartu, Estonia
430. Ramon Casimiro-Soriguer, Assistant Professor, Department of Biology, University of Cádiz, Puerto Real, Spain.
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432. Anna Kujawa, Polish Mycological Society, Warsaw, Poland
433. Tsipe Aavik, Associate Professor of Macroecology, University of Tartu, Estonia
434. Álvaro Fernández-Llamazares, postdoctoral research fellow, Institut de Ciència i Tecnologia Ambientals (ICTA), Autonomous University of Barcelona (UAB), Barcelona, Spain.
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436. Gellert Balazs Karvaly, adjunct professor, Department of Laboratory Medicine, Semmelweis University, Budapest, Hungary

437. Taklis Chris, Conservation Biologist, BiodiversityGR, Greece
438. Tobias Naaf, Scientist, Leibniz Centre for Agricultural Landscape Research (ZALF), Muencheberg, Germany
439. Steve Sheffield, Professor of Biology, Bowie State University, Bowie, MD, USA.
440. Nicolaos KOMBLAS, Lawyer, Patras, GREECE
441. Christina Kassara, freelance Biologist (PhD), Greece
442. Afroditi Kardamaki, freelance Biologist, Greece
443. Angelos Tsikas, Forester/Forest Entomologist, freelancer, Greece
444. Petar Žutinić, Assistant Professor, Department of Biology, Faculty of Science, University of Zagreb, Croatia
445. Vasiliki Lappa, Forester, Department of Forestry, Agricultural University of Athens, Greece
446. Timm Döbert, Postdoctoral Fellow, Department of Earth and Atmospheric Sciences, University of Alberta, Canada
447. Juan Manuel Medina-Sánchez. Professor of Ecology. Department of Ecology. University of Granada, Spain
448. Lot Amoros Oliver Researcher of Ecology, University of Granada
449. Mari-Liis Viljur, postdoctoral researcher of forest ecology, Estonia.
450. Axel Hochkirch, Professor for Biodiversity and Conservation, Department of Biogeography, Trier, and Chair of the IUCN SSC Invertebrate Conservation Committee, Germany
451. Tony Robillard, Professor, Institut de Systématique, Evolution, Biodiversité (ISYEB), Muséum national d'Histoire naturelle, Paris, France
452. Hendrik Devriese, Scientific Associate, Institut Royal de Sciences Naturelles de Belgique, Brussels, Belgium
453. Tim Gardiner, Biodiversity Technical Officer and Research Scientist, Environment Agency, United Kingdom
454. Jean-Christophe Vié, DVM, PhD, Director General, Fondation Franklinia, Geneva, Switzerland.
455. Sérgio Henriques, Invertebrate Conservation Coordinator of the Global Center for Species Survival at Indianapolis Zoo, Co-chair of the IUCN SSC Spider and Scorpion Specialist Group and chair of the Conservation, Sustainability and Land Management Section at the Indiana Academy of science
456. Josip Skejo, Assistant - Lecturer at the Department of Biology, Faculty of Science, University of Zagreb, Zagreb, Croatia
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469. Peter Edwards, PhD, Senior Researcher, Manaaki Whenua-Landcare Research, Wellington, New Zealand
470. Nayden Chakarov, PhD, Assist. Professor, Dept. of Animal Behaviour, Bielefeld University, Germany
471. Jano Topercer, PhD, Senior Researcher, Raptor Protection of Slovakia, Slovak Republic
472. Nevena Ivanova, PhD, Senior Researcher, Institute of Biodiversity and Ecosystem Research - Bulgarian Academy of Science, Sofia, Bulgaria
473. Filippo M. Buzzetti, PhD Entomologist, Fondazione Museo Civico di Rovereto, Italy
474. Sebahat K. Ozman-Sullivan, Professor, PhD, Ondokuz Mayıs University, Faculty of Agriculture, Department of Plant Protection, Turkey; Chair of the IUCN SSC Mite Specialist Group
475. Pavel Stoev, Professor of Zoology, Director of the National Museum of Natural History, Bulgarian Academy of Sciences, Bulgaria
476. Thomas Zuna-Kratky, Researcher, Ingenieurbüro für Landschaftsplanung, Vienna, Austria
477. Paolo Fontana, president of World Biodiversity Association, Verona, Italy

478. Michael J. Samways, Emeritus Distinguished Professor, Department of Conservation Ecology and Entomology, Stellenbosch University, South Africa
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487. Dr Keith Alexander, Hon Specialist Adviser to IUCN on Saproxyllic Beetles
488. Evgeny Shcherbakov, Researcher, Lomonosov Moscow State University, Russia
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498. Manfred Großmann, Head of Hainich National Park, Germany
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500. Hasan Rahmani, PhD, Research Scientist, Agriculture Victoria Research, Australia
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