Web 57DHYAFZZFLTC April 10 2026 Scientist letter to Intergovernmental Panel on Climate Change

Subject of the Letter from Scientists Biomass from Forests cannot be regarded as carbon neutral Scientist letter to the IPCC on the topic of carbon accounting for forest bioenergy Scientist letter to the Intergovernmental Panel on Climate Change IPCC on the topic of carbon accounting for forest bioenergy READ THE LETTER REGISTER YOUR INTEREST To Chair Jim Skea and members of the Intergovernmental Panel on Climate Change IPCC We the undersigned scientists express our grave concern at the presence of carbon accounting loopholes within IPCC guidelines The separation of carbon accounting between land and energy sectors continues to allow countries to claim reductions in carbon dioxide emissions that are not reflected in real emissions across the whole life cycle This has led to a widespread dependency on bioenergy as a renewable energy despite its negative effects on atmospheric concentrations of carbon dioxide As we detail below there have been repeated calls for change from the scientific community and civil society As we move forward to IPCC meetings in Rome the UNFCCC meetings SB sixty four and COP thirty one and beyond we call on the IPCC to provide governments and policy makers with clear comprehensive guidelines on carbon accounting for forest biomass harvesting and burning The net emissions of bioenergy projects must be fully accounted for and the overall effects on atmospheric concentrations of carbon dioxide must be transparent As you are aware the annual emission of millions of tons of C O Two from biomass burning is legitimized via rules originating within the Kyoto Protocol These rules allow biogenic emissions at the point of combustion to be counted as zero in the energy sector This is because it is assumed that these emissions should not be double counted or counted again since they should have already been accounted for in the land sector At the same time it is often argued that biomass is carbon neutral since regrowth of the biomass harvested is assumed to balance out the carbon released However many studies have shown that it may take decades to centuries for carbon released from harvested biomass to be reabsorbed As a result net emissions go uncounted and biomass from forests cannot be regarded as carbon neutral The inherently high emissions from biomass combustion lead to an increase in atmospheric C O Two levels that persist until the harvested carbon is reabsorbed Until that carbon payback period is passed studies show this to be a long term process taking seventy five to over one hundred years there may be no net reduction in emissions compared to burning fossil fuels These periods contrast with the short time frames in which we must act to avoid crossing planetary tipping points The amount of carbon in the atmosphere will increase as the industry continues to burn forest biomass at the current or increased rate and even if fossil fuels are replaced by biomass This trend is exacerbated as existing forest sinks turn into sources and the carbon sinks of countries are reducing as forests are logged In short burning forest biomass increases atmospheric C O Two whilst contributing to the reduction of land based carbon sinks and biodiverse forests It is cause for alarm then that global forest bioenergy use is

expected to triple between twenty twenty one and twenty thirty In the EU use of imported and domestic forest bioenergy is forecast to increase by nearly fifty percent between twenty twenty and twenty fifty Meanwhile use of biomass pellets for power generation has been increasing in Asia for example in twenty twenty three South Korea imported three point one million tons and Japan Two point eight million tons The IPCC stands in a position of crucial influence and power on this matter Although governments are free to decide not to burn biomass as long as accounting loopholes remain forest bioenergy will be viewed by energy companies and governments as a climate solution and the problem will persist or worsen IPCC reports and documents deeply influence policy making and ultimately the use and management of forests and biomass IPCC scientists have a unique obligation to use their expertise to ensure that the clearest and most irrefutable facts are presented in a manner which does not leave room for loopholes The IPCC Task Force on National Greenhouse Gas Inventories twenty twenty four states that IPCC Guidelines do not automatically consider or assume biomass used for energy as carbon neutral even in cases where the biomass is thought to be produced sustainably The IPCC goes on to say that conclusions cannot be made about the sustainability or carbon neutrality of bioenergy Despite the depth and breadth of the existing scientific evidence and the stated position that the carbon neutrality of biomass is debatable the guidelines nevertheless allow countries to count biomass emissions as zero This is the latest expression of concern about bioenergy accounting in a long list of peer reviewed papers commentaries and letters from scientists and policy experts Questions and recommendations were raised for instance in Energy Policy in Twenty Twelve and in Global Change Biology Bioenergy in twenty nineteen a letter was sent by Two hundred scientists to the US Congress in twenty twenty and another letter was sent to international leaders in twenty twenty one The IPCC literature has already pointed to the unintended consequences of reporting protocols for instance within AR five Climate Change and Land sections Two point six point one point Two and Two point six point one point five and six point five zero Cross Chapter Box seven concludes that one of the complications in assessing the total GHG flux associated with bioenergy under UNFCCC reporting protocols is that fluxes from different aspects of the bioenergy life cycle are reported in different sectors and are not linked Thus the whole life cycle GHG effects of bioenergy systems are not readily observed in national GHG inventories As a result life cycle emissions impacts from bioenergy are subject to large uncertainties and could be incompatible with net zero emissions in some contexts Chapter 7 Despite the rapid growth in bioenergy and the literature on the questionable role of bioenergy in climate change mitigation AR six surprisingly did not address this issue further even omitting existing references to the issues of carbon debt and pay back in the literature This blind spot is in contrast with the IPCC call for immediate rapid and large scale reductions in greenhouse gas emissions Ensuring that emissions from bioenergy are properly accounted for must be high on the list of priorities for achieving this aim There are a number of opportunities for the IPCC to put out clear information and to work on this issue both informally and formally As you know the IPCC is currently working on and or planning several reports

These include the Greenhouse Gas Inventory Methodology zero report covering Carbon Dioxide Removal Technologies Carbon Capture Utilization and Storage for National Greenhouse Gas Inventories the CDR report due to be published in twenty twenty seven the Methodology Report on Inventories for Short lived Climate Forcers the SLCF report also due to be published in twenty twenty seven and the Seventh Assessment Report AR seven the final synthesis report due to be published in twenty twenty nine As IPCC scientists meet in Rome this April to discuss progress on the CDR and SLCF reports we urge you to review mentions of forest bioenergy and to ensure that the proper accounting of carbon is no longer pushed from land to smokestack and back again without resolution We encourage IPCC members to propose discussion of bioenergy carbon accounting at the UNFCCC intersessional meeting in Bonn in June twenty twenty six and to work towards the development of official guidelines which dispel the confusion around this issue We recognize that the Seventh Assessment Cycle is planned with activities until twenty thirty We strongly urge IPCC members to take the opportunity within already planned meetings and writing processes to tackle the issues which we outline here and to plan to continue to do so well beyond this Cycle Yours sincerely Signatories Sir Robert Watson FRS former Chair of IPCC IPBES and GEO seven USA Michael Norton Professor Environment Director European Academies Science Advisory Council EASAC twenty thirteen to twenty twenty five United Kingdom András Báldi MAE MHAS European Academies Science Advisory Council EASAC Environment Steering Panel Co Chair Hungary Lars Walløe Professor Emeritus former CoChair of the European Academies Science Advisory Council EASAC Environment Steering Panel Norway Thomas Elmqvist European Academies Science Advisory Council EASAC Environment Program Director Sweden Christina Moberg Professor Emeritus KTH Royal Institute of Technology Sweden Suk Hwan Hong Professor Pusan National University South Korea Sue Grayston Professor Emeritus Faculty of Forestry and Environmental Stewardship University of British Columbia Canada Cindy Prescott Professor Emeritus Faculty of Forestry and Environmental Stewardship University of British Columbia Canada Kenichi Oshima Professor Department of Policy Science Ryukoku University Japan Jusen Asuka Professor Emeritus and Specially Appointed Professor Tohoku University Japan Karen Holl Distinguished Professor Environmental Studies Department University of California Santa Cruz USA Luiz Marques Retired Associate Professor State University of Campinas Brazil Daniel Kammen Bloomberg Distinguished Professor of Energy and Climate Justice Johns Hopkins University USA Rachel Holt PhD forest ecologist British Columbia Canada Dave Daust MSc RPF independent landscape analyst British Columbia Canada Karen Price PhD independent forest ecologist British Columbia Canada Register Your Interest Scientists interested in adding their names to future versions of this letter can register below Registrants will be contacted at a later date to confirm