

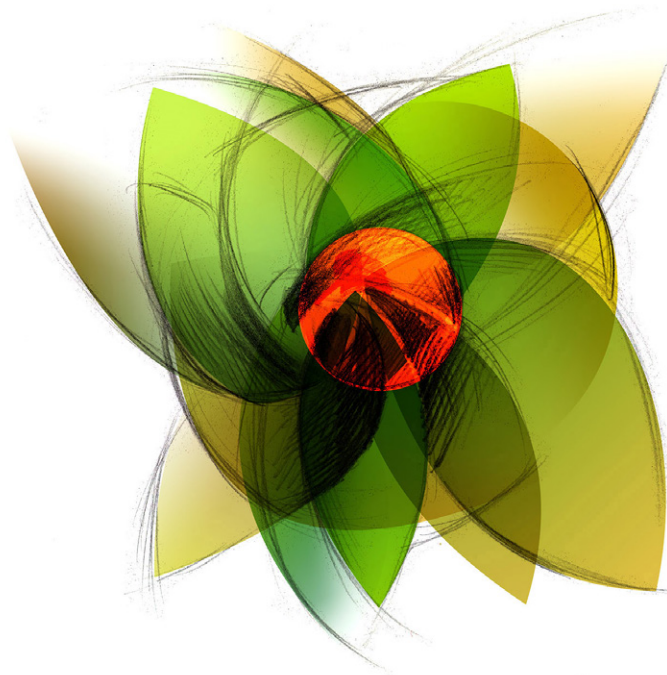


The Pontifical  
Academy of Sciences



DISCUSSION ON THE SUSTAINABLE DEVELOPMENT GOALS:

# Climate Change and New Evidence from Science, Engineering, and Policy



**27 May 2019**  
Casina Pio IV | Vatican City



### **Climate as a common good**

*The climate is a common good, belonging to all and meant for all. At the global level, it is a complex system linked to many of the essential conditions for human life. A very solid scientific consensus indicates that we are presently witnessing a disturbing warming of the climatic system. In recent decades this warming has been accompanied by a constant rise in the sea level and, it would appear, by an increase of extreme weather events, even if a scientifically determinable cause cannot be assigned to each particular phenomenon. Humanity is called to recognize the need for changes of lifestyle, production and consumption, in order to combat this warming or at least the human causes which produce or aggravate it. It is true that there are other factors (such as volcanic activity, variations in the earth's orbit and axis, the solar cycle), yet a number of scientific studies indicate that most global warming in recent decades is due to the great concentration of greenhouse gases (carbon dioxide, methane, nitrogen oxides and others) released mainly as a result of human activity. As these gases build up in the atmosphere, they hamper the escape of heat produced by sunlight at the earth's surface. The problem is aggravated by a model of development based on the intensive use of fossil fuels, which is at the heart of the worldwide energy system. Another determining factor has been an increase in changed uses of the soil, principally deforestation for agricultural purposes.*

### **El clima como bien común**

*El clima es un bien común, de todos y para todos. A nivel global, es un sistema complejo relacionado con muchas condiciones esenciales para la vida humana. Hay un consenso científico muy consistente que indica que nos encontramos ante un preocupante calentamiento del sistema climático. En las últimas décadas, este calentamiento ha estado acompañado del constante crecimiento del nivel del mar, y además es difícil no relacionarlo con el aumento de eventos meteorológicos extremos, más allá de que no pueda atribuirse una causa científicamente determinable a cada fenómeno particular. La humanidad está llamada a tomar conciencia de la necesidad de realizar cambios de estilos de vida, de producción y de consumo, para combatir este calentamiento o, al menos, las causas humanas que lo producen o acentúan. Es verdad que hay otros factores (como el vulcanismo, las variaciones de la órbita y del eje de la Tierra o el ciclo solar), pero numerosos estudios científicos señalan que la mayor parte del calentamiento global de las últimas décadas se debe a la gran concentración de gases de efecto invernadero (dióxido de carbono, metano, óxidos de nitrógeno y otros) emitidos sobre todo a causa de la actividad humana. Al concentrarse en la atmósfera, impiden que el calor producido por los rayos solares sobre la superficie de la tierra se disperse en el espacio. Esto se ve potenciado especialmente por el patrón de desarrollo basado en el uso intensivo de combustibles fósiles, que hace al corazón del sistema energético mundial. También ha incidido el aumento en la práctica del cambio de usos del suelo, principalmente la deforestación para agricultura.*

Pope Francis, *Laudato Si'*, n. 23.

## Concept Note

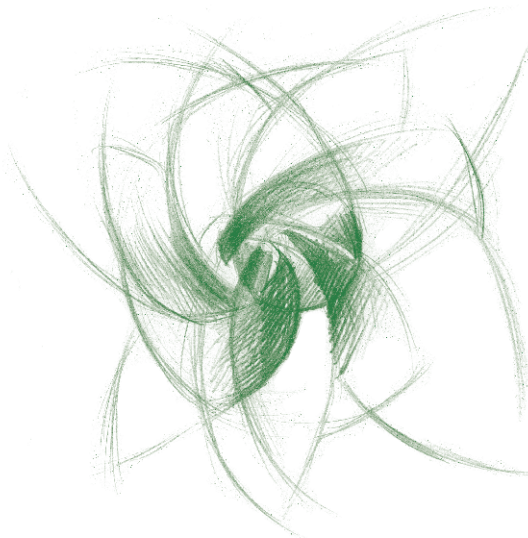
Climate change is much more than an environmental problem. It is one of the most important challenges humanity faces today, threatening gains in global development achieved in several decades as well as further progress in raising living standards and reducing poverty. Moreover, the effects of climate change stretch far beyond humanity, remaining a looming threat over all species and ecosystems at large.

### Objectives

In line with Pope Francis' Encyclical *Laudato si'* and the Pontifical Academy of Sciences' efforts in recent years to raise awareness of the climate crisis, the main objective of the meeting is for climate experts and finance ministers to present and discuss new data and enhance awareness on climate change and sustainable development.

In the context of the recent launch of the Coalition of Finance Ministers for Climate Action, co-chaired by Chile and Finland, discussions taken place during this meeting should provide additional perspective for Finance Ministers to consider in their efforts to strengthen collective action on the matter.

More specifically, the Coalition recently endorsed the Helsinki Principles, a set of six common principles that foster climate action, especially through the use of fiscal policy. Leading up towards COP25 that will take place in Chile this December, discussions may support work geared towards the Santiago Action Plan, a set of concrete actions that will be taken to make tangible progress to tackle climate change.



# Programme

MONDAY, 27 MAY 2019	
9:00	Welcome <b>H.E. Msgr. Marcelo Sánchez Sorondo</b>   <i>Chancellor of the Pontifical Academy of Sciences</i> <b>Jeffrey Sachs</b>   <i>SDSN</i> <b>Min. Felipe Larraín</b>   <i>Ministry of Finance, Chile</i>
9:15	<b>President Maria Fernanda Espinosa</b>   <i>President of the UN General Assembly</i>
9:30	Helsinki Principles on Climate Change <b>Min. Felipe Larraín</b>   <i>Minister of Finance, Chile</i>
9:45	Update on Climate Risks <b>Dr. Jim Hansen</b>   <i>Earth Institute, Columbia University</i>
10:05	Update on Decarbonization Pathways <b>Dr. Christian Breyer</b>   <i>LUT University</i> <b>Dr. Jim Williams</b>   <i>Energy Systems, University of San Francisco Director, Deep Decarbonization Pathways Project</i>
10:35	Update on National Low-Emission Strategies <b>Dr. Jeffrey Sachs</b>   <i>SDSN, CSD, Columbia University</i>
10:55	Coffee break
11:20	<i>Laudato Si'</i> and the Ecological Crisis <b>Cardinal Oscar Rodriguez Maradiaga</b>   <i>Catholic Church from Honduras</i>
11:35	Open Discussion: Finance Ministers, GCF, IMF, IADB, other organizations
13:00	Audience with His Holiness Pope Francis
14:00	Lunch at the Casina Pio IV
15:30	Open Discussion and Concluding Remarks
16:30	Next Steps: Increasing ambition leading up to COP25 UN Special Session, COP25, Santiago Principles of Action
17:30	Adjourn









## MEDIA ENQUIRIES



Journalists and media operators who wish to participate must apply, no less than 24 hours before the event, through the Holy See Press Office online accreditation System available at: [press.vatican.va/accreditamenti](http://press.vatican.va/accreditamenti)



I giornalisti e gli operatori media che intendono partecipare devono inviare richiesta, entro 24 ore dall'evento, attraverso il Sistema di accreditamento online della Sala Stampa della Santa Sede, all'indirizzo: [press.vatican.va/accreditamenti](http://press.vatican.va/accreditamenti)



Los periodistas y gráficos que deseen participar deben enviar una solicitud, al menos 24 horas antes del evento, a través del Sistema de acreditación online de la Oficina de Prensa de la Santa Sede, a esta dirección: [press.vatican.va/accreditamenti](http://press.vatican.va/accreditamenti)

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