



THE PONTIFICAL
ACADEMY
OF SCIENCES



THE PONTIFICAL
ACADEMY OF SOCIAL
SCIENCES



DICASTERIUM
DE CULTURA ET EDUCATIONE

WORKSHOP ON

JUBILEE OF KNOWLEDGE: BRAIDING SCIENTIFIC AND INDIGENOUS KNOWLEDGE IN THE CHERISHING OF OUR COMMON HOME

*Societal Transformation and Integral Human Development
through Education for Climate Resilience*



30 October 2025
Casina Pio IV, Vatican City

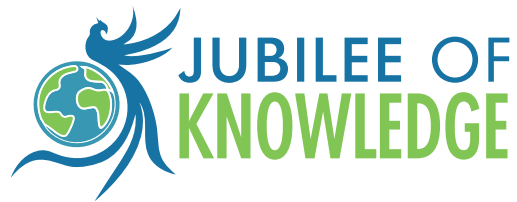


Science and technology influence the way we live in the world, even affecting how we understand ourselves and how we relate to God, how we relate to one another. But nothing that comes from man and his creativity should be used to undermine the dignity of others. Our mission – your mission – is to nurture a culture of Christian humanism, and to do so together. This is the beauty of the “network” for all of us.

Faced with cultural changes throughout history, the Church has never remained passive; she has always sought to illuminate every age with the light and hope of Christ by discerning good from evil and what was good from what needed to be changed, transformed, and purified.

Today we are in a culture where the technological dimension is present in almost everything, especially as the widespread adoption of artificial intelligence will mark a new era in the lives of individuals and society as a whole. This is a challenge that we must face: reflecting on the authenticity of our witness, on our ability to listen and speak, and on our capacity to understand and to be understood. We have a duty to work together to develop a way of thinking, to develop a language, of our time, that gives voice to Love.

*Address of the Holy Father Leo XIV
to Representatives of the Media
Audience Hall
Monday, 12 May 2025*



**JUBILEE OF KNOWLEDGE:
BRAIDING SCIENTIFIC AND INDIGENOUS KNOWLEDGE
IN THE CHERISHING OF OUR COMMON HOME**

*Societal Transformation and Integral Human Development
through Education for Climate Resilience*

This conference brings together leading scientists, social scientists, Indigenous knowledge holders, educators, and youth to explore how braiding scientific and Indigenous knowledge can drive societal transformation and integral human development, locally and globally, primarily through education for climate resilience, using the hitherto presented method for Climate Resilience: MAST, that is, Mitigation, Adaptation and Societal Transformation.



Programme

08.30-08.40	OPENING WELCOME: Prof. Joachim von Braun PAS President Prof. Sr. Helen Alford PASS President
08.40-10.10	SESSION 1: BRAIDING SCIENTIFIC AND INDIGENOUS KNOWLEDGE FOR THE MITIGATION OF CLIMATE CHANGE Chair: Prof. Christina Christie
08.40-08.55	<i>Healing Humanity's Carbon Story: The Academies' initiatives of Science & Indigenous Knowledge</i> Cardinal Peter Turkson PAS/PASS Chancellor
08.55-09.40	<i>An Introduction to the MAST approach, and Science and Indigenous Peoples' Knowledge Perspectives in Bending the Warming Curve</i> Prof. Veerabhadran Ramanathan • Chancellor Marcelo Suárez-Orozco • Mr. Sanjib Kumar Chaudhary
09.40-10.10	<i>Bridging Indigenous Knowledge and Science for Health</i> Prof. Ulrich Pöschl • Prof. Ester Innocent
10.10-10.30	Coffee Break
10.30-12.45	SESSION 2: SOCIETAL TRANSFORMATION: ETHICAL, SCIENTIFIC AND INDIGENOUS PERSPECTIVES Chair: Dr. María Dolores Sánchez Galera
10.30-11.00	<i>Religion and Societal Transformation</i> Archbishop Dr. Antje Jackelén • Prof Fr. Michał Paluch OP
11.00-11.30	<i>Philosophical and Evolutionary Perspectives on Development and Societal Transformation</i> Prof. Edward De Robertis • Prof. Michaela Massimi
11.30-12.00	<i>Holistic Innovation in Water and Food Systems</i> Dr. Ora Marek-Martinez • Prof. Cecilia Tortajada
12.00-12.30	<i>Ancestral Wisdom and Artificial Intelligence for Societal Transformation</i> Dr. Vian Sharif • José Manuel Sauna Mamatacan
12.30-12.45	<i>Migration and Societal Transformation</i> Prof. Fr. Aldo Skoda CS
12.45-14.00	Lunch at the Casina Pio IV

14.00-15.30	SESSION 3: BRAIDING SCIENTIFIC AND INDIGENOUS KNOWLEDGE IN ADAPTING TO CLIMATE CHANGE Chair: Prof. Ewine van Dishoeck
14.00-14.30	<i>Indigenous Knowledge and Science-based Innovation for Adaptation</i> Mr. Stanley Kimaren Ole Riamit • Prof. Mohamed Hassan
14.30-15.00	<i>Indigenous and Science-based Responses to Habitat and Resource Adaptation Challenges</i> Prof. Hans Joachim Schellnhuber • Amb. Hindou Oumarou Ibrahim
15.00-15.30	<i>Braiding Indigenous and Scientific Knowledge in Adaptation and Building Resilience</i> Mrs. Agnes Leina Il'laramatak • Dr. Josep Garí
15.30-16.00	Coffee Break
16.00-19.30	SESSION 4: EDUCATION FOR CLIMATE RESILIENCE AND SOCIETAL TRANSFORMATION Chair: Chancellor Marcelo Suárez-Orozco
16.00-16.15	<i>Education for Addressing the 2030 Agenda</i> Prof. Gustavo Beliz
16.15-16.45	<i>Lifting Student Voices in a Time of Crisis</i> Chair: Ms. Ananya Gupta with Mr. Carlos Emiliano Bautista Reyes • Mr. Calisto Ochieng • Mr. Ludolphe Hessou
16.45-17.20	<i>Engaging Students in a Sustainability Curriculum</i> Prof. Christina A. Christie • Prof. Carola Suárez-Orozco • Dr. Georgia Ann Lazo with intervention from Ms. Victoria Moebus
17.20-17.50	<i>Science Education and Indigenous Knowledge: Climate Literacy for all -- From Laudato Si' & Paris Agreement to Implementation</i> Prof. Vanderlei S. Bagnato • Prof. Pierre Léna
17.50-18.20	<i>Teaching & Learning for Building Climate Resilience</i> Prof. Noelani Osegawara • Prof. Octaviana Trujillo
18.20-19.00	<i>Teacher Training for Climate Resilience</i> Ms. Audrey Borr • Prof. Claudia Robles Discussion
19.00-19.30	CLOSING SESSION: LESSONS AND WAYS FORWARD Prof. Joachim von Braun • Prof. Sr. Helen Alford
19.30-21.00	Dinner at the Casina Pio IV

List of Participants

Prof. Sr. Helen Alford

President
The Pontifical Academy of Social Sciences
United Kingdom

Prof. Joachim von Braun

President
The Pontifical Academy of Sciences
Germany

H.Em. Cardinal Peter K.A. Turkson

Chancellor
The Pontifical Academies of Sciences and Social Sciences
Vatican City

Msgr. Dario E. Viganò

Vice Chancellor
The Pontifical Academies of Sciences and Social Sciences
Vatican City

Prof. Vanderlei S. Bagnato

Professor
USP-Brazil/TAMU-USA
PAS Academician
Brazil

Prof. Gustavo Beliz

Technological Innovation Law; Economic
and Social Development, Technology and Innovation
PASS Academician
Argentina

Ms. Audrey Borr

Trainer, project coordinator
University of Lorraine / House for science (France)
France

Prof. Chien-Jen Chen

Distinguished Professor
PAS Academician
Taiwan

Prof. Christina Christie

Wasserman Dean of the
School of Education and Information Studies at UCLA
United States of America

Rev. Fr. Richard D'Souza

Director, Specola Vaticana
Vatican City

Prof. Edward De Robertis

Distinguished Research Professor
University of California, Los Angeles
PAS Academician
United States of America

Dr. Josep Garí

Head of Climate, Forests and Land
UNDP
Switzerland

Ms. Jennifer Gross

Founder & President
Blue Chip Foundation
United States of America

Ms. Ananya Gupta

High School Student
University of California Los Angeles (UCLA)
United States of America

Prof. Mohamed Hassan

President
Sudanese National Academy of Sciences
PAS Academician
Sudan

Mr. Ludolphe Hessou

Student
School of Education and Information Studies at UCLA
France

Archbp. Dr. Antje Jackelén

Archbishop emerita / Senior Advisor
Church of Sweden / Lund University
Sweden

Mr. Sanjib Kumar Chaudhary

Author
Global Voices
Nepal

Dr. Georgia Ann Lazo

Associate Dean UCLA Partnership Schools
University of California Los Angeles UCLA
United States of America

Dr. Agnes Leina

Executive Director
Il'lamatak Community Concerns
Kenya

Prof. Pierre Léna

Professor Emeritus
Observatoire et Université de Paris
PAS Academician
France

Mr. José Manuel Sauna Mamatacan

Lider en el proceso de comunicación de saberes ancestrale
Mexico

Dr. Ora Marek-Martinez

Associate Vice-President / CO-Principal Investigator
Northern Arizona University / Center for Braiding
Indigenous Knowledges and Science
United States of America

Prof. Michela Massimi

Professor of Philosophy of Science
University of Edinburgh
United Kingdom

Dr. Juergen Mittelstrass

Professor
University of Konstanz
PAS Academician
Germany

Prof. Victoria Moebus

Professor
Geffen Academy at UCLA
United States of America

Mr. Calisto Ochieng

Manager, Strategic Partnerships and Fundraising
World Organization of the Scout Movement
Kenya

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School of Education and Information Studies at UCLA
United States of America

Prof. Carola Suárez-Orozco

Professor in Residence
Harvard Graduate School of Education
United States of America

Dr. Marcelo Suárez-Orozco

Chancellor
University of Massachusetts Boston
PASS Academician
United States of America

Amb. Hindou Oumarou Ibrahim

President
AFPAT
United States of America

Fr. Michał Paluch OP

Professore ordinario
Pontifical University of St. Thomas
Aquinas "Angelicum"
Italy

Prof. Ulrich Pöschl

Director
Max Planck Institute for Chemistry
Germany

Ms. Nithya Ramanathan

Witness
United States of America

Prof. Veerabhadran Ramanathan

Distinguished Research Professor
University of California at San Diego
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Mr. Carlos Emiliano Bautista Reyes

Geffen Academy at UCLA
High School Student
United States of America

Mr. Stanley Kimaren Ole Riamit

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Prof. Claudia Robles

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Innovation in Science Education (INNOVEC)
Mexico

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Senior Research Advisor
Dicastery for Integral Human Development
ITALY

Dr. Vian Sharif

Founder & President
NatureAlpha
United Kingdom

Prof. Hans Joachim Schellnhuber

Director General
International Institute for Applied Systems Analysis (IIASA)
PAS Academician
Austria

Prof. Wolf J. Singer

Distinguished Physiology Professor and Researcher
PAS Academician
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Prof. Fr. Aldo Skoda

Director
Scalabrini International Migration Institute
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Associate Research Professor
Institute of Traditional Medicine-Muhimbili
University of Health and Allied Sciences
Tanzania

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PAS Academician
Scotland

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Professor Emeritus
Northern Arizona University
United States of America

Prof. Ewine van Dishoeck

Professor and Researcher
Leiden University, Netherlands
PAS Academician
The Netherlands

OTHER DELEGATES**Mrs. Ana De Robertis**

USA

Mrs. Liv'Andrea Knoki

United States of America

Mrs. Shaohua Léna

France

Ms. Carina Pöschl

Germany

Mrs. Abda Elmahdi

Sudan

Mr. Chen-Shun Li

Taiwan

Mr. Ting-Han Lin

Taiwan

Dr. Andrea Pöschl

Germany

Mrs. Girija Ramanathan

USA

GENERAL INFORMATION

- › Dress code is business attire.
- › Accompanying persons are invited to the entire event including the meals.
- › Please remember to bring a valid ID.
- › In case of any problems, please call the Academy on +39 0669883195 or +39 0669881441.
- › On travel days, the mobile phone number +393420026216 will be available.
- › Security: Invites are strictly personal. Please remember to bring a valid ID. Dress code is business attire.
- › Please refer to www.pass.va and www.pas.va for further information on the Academies, Academicians, and current and past events.

Access instructions to the Vatican and the Casina Pio IV

- › Your name is already communicated to the Vatican Security. The Security at the gate will check your Identity and let you in. If you are willing to bring someone in, kindly let us know, and we shall add their name on the list.
- › You can come through the closest entrance called Perugino (Via della Stazione Vaticana, no number, it's a very short street). Instructions to the Casina Pio IV, headquarters of the Pontifical Academy of Sciences, can be found in the following link:
- › <http://www.casinapioiv.va/content/accademia/en/about/contacts.html>
- › For all eventualities the telephone numbers of the Academy are the following: 06 69883195 or 06 69883451. A Mobile number is also available +39 3420026216



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