



ARTIFICIAL INTELLIGENCE AND GEOSPATIAL REVOLUTION TO AVOID A BOILING AMAZON

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SESSION 2



María Elena Gutiérrez
ACCA

Deforestation and global warming, driven by the use of fossil fuels, threaten water supplies, food resources and ecosystems, affecting not only the Amazon, but also the coast and mountains of Peru. It is necessary that the academic community and politicians collaborate for rapid and effective actions, essential to recover and protect our biodiversity.



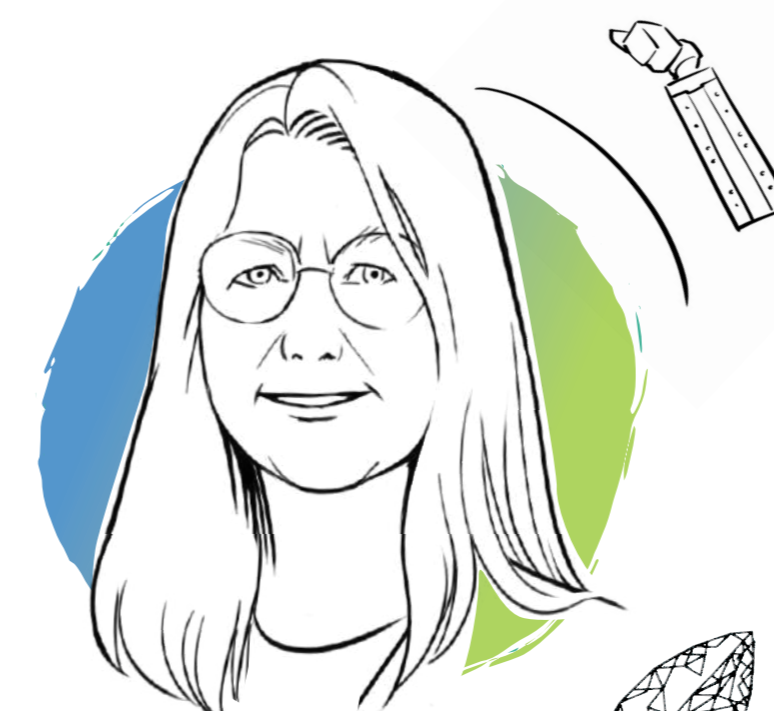
Thomas E. Rhodes
USAID/PERU

Achieving the Paris goals requires global collaboration. The urgency is real; we use AI and new geospatial technologies to predict and reduce environmental risks. USAID is committed to working with local and international allies on climate adaptation and mitigation. Through SERVIR-Amazonia and its collaboration with NASA, we take advantage of geospatial information to improve environmental monitoring and decision making. AmazonTEC guides us in understanding the potential of these tools, and the need for strong alliances to protect the Amazon.



Andreas Dahi Jorgensen
NICFI

We want to bring a clear message to the COP "we will not be able to meet the Paris goals if we do not stop deforestation in the Amazon, protecting nature is a joint effort, the world needs to wake up and join this cause. At NICFI we work directly supporting carbon markets and expanding the value chains of indigenous communities and fighting predators, as well as improving technology to monitor and supervise forests".



Rebecca Moore
Google Earth Engine

THIS IS A MOMENT OF REVOLUTION.

WE REACH INFLECTION POINTS WHERE DATA, TRANSFORMED INTO KNOWLEDGE, CAN GUIDE MORE INFORMED DECISIONS.

The massive amount of unanalyzed data is a challenge, but thanks to initiatives like Google Earth Engine and accessible policies, more than 100,000 users can access data in the cloud, enabling real changes in decision-making, especially in the protection of territories indigenous people and the prevention of deforestation.

MORE THAN 100,000 USERS USING GOOGLE EARTH ENGINE



Fabiola Muñoz
ENVIRONMENTAL SPECIALIST
Moderator

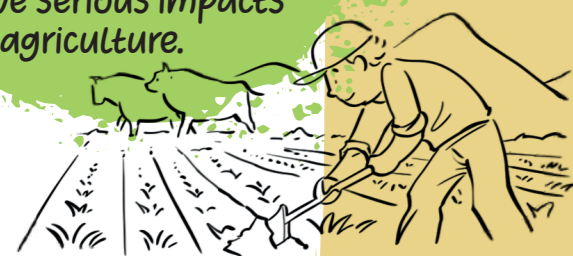
WE NEED TO EMPLOY BOTH ARTIFICIAL INTELLIGENCE AND HUMAN INTELLIGENCE.

DEFORESTATION WEAKENS AMAZON RESILIENCE, AFFECTS RIVERS AND ECOLOGICAL INTERACTIONS. THE IMPLEMENTATION OF TECHNOLOGIES AND CHANGES TO CONSUMPTION PATTERNS IS CHALLENGING.

The Amazon faces serious consequences: cities with record temperatures, delayed rains and risks of fires. Immediate action is needed to avoid severe impacts and irreversible loss.

1984

50% of precipitation is recycled in the Amazon, so deforestation would have serious impacts on agriculture.



Foster Brown
WOODWELL CLIMATE RESEARCH CENTER



Matt Finer
MAAP



Some of the highest carbon reserves can be seen through Planet 3m resolution satellite images.

Two tipping points:

1. THE CHANGE FROM THE RAINFOREST TO A SAVANNAH. With 25 – 30% deforestation, the rainforest recycling system will be in danger

2. CARBON. The northeast of Brazil's rainforest is emitting more carbon while the rest of the Amazon continues to store carbon. If the pattern of deforestation continues, the Amazon would change from being a sink to being a source of carbon emissions.



NISAR, NASA'S 2024 MISSION, WILL DETECT CHANGES IN BIOMASS AND SURFACE TO COMBAT CLIMATE CHANGE.

Overcoming the challenge of cloud cover, NISAR will provide cloud-free images every 12 days, penetrating the Amazon canopy. It will be available through its own applications that will facilitate learning and data sharing.

A massive volume of 4.4 terabytes of data is expected, a serious challenge!



Naiara Pinto
NASA



Karina Pinasco
SDSN AMAZONIA

We need tools that highlight and encourage positive actions to move towards a sustainable future in the Amazon region.

Climate action is extremely important for Amazonian countries, not only because of our rich biodiversity but also because of the political context.

TECHNOLOGY IS ESSENTIAL TO IDENTIFY SOLUTIONS, ALLOWING US TO RECOGNIZE AND VALUE THOSE WHO ARE CONTRIBUTING POSITIVELY.



Carmen Josse
ECOCIENCIA FOUNDATION

Technology is not a substitute for policy implementation. We require leaders to modify their decisions to the pace and precision of available technological evidence.

There is often a gap between the evidence and available information, which is not always considered official or adequately incorporated into policymaking and law enforcement.

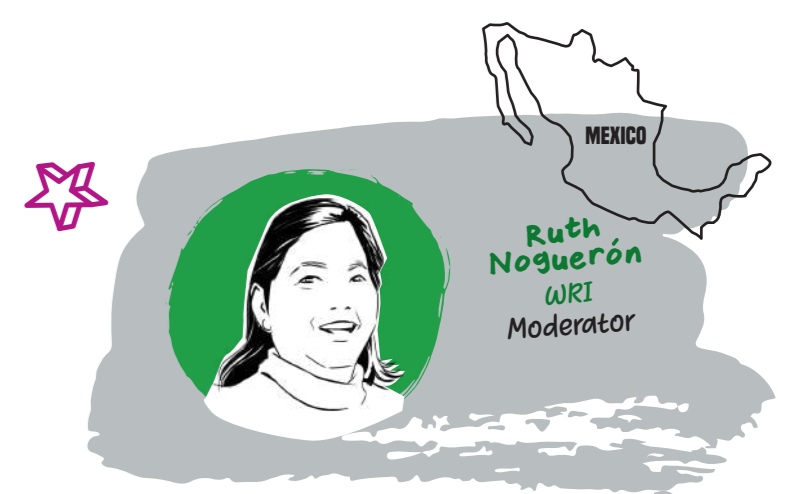


We live in an era of unprecedented access to information and technology. It is essential to articulate innovations and create alliances or coalitions between various organizations, companies, academia and, more broadly, the private sector to confront climate change.

While we enjoy abundant access to information and technology, the key lies in the ability to interpret, coordinate innovations and foster collaborations across multiple sectors.



Jose Leandro Fernandez
CIAT/CGIAR



Ruth Noguera
WRI
Moderator

We have problems with perceptions about climate change in Bolivia, it is important to consider the scale that this information generates in order to make decisions at local and national government levels.



Marcos Terán
ACEEA

INFORMATION MUST REACH LOCAL POPULATIONS; IT IS IMPORTANT TO DEVELOP BRIDGES TO ADDRESS THIS TYPE OF INFORMATION.



Science and technology are fundamental, but the challenge lies in linking them with concrete decisions. In northern Venezuela, we face technological limitations and government challenges that limit the ability to obtain direct information.

Despite scientific advances, it is essential to strengthen local operators and decision makers for more equitable and effective progress.



Francisco Dallmeier
SMITHSONIAN INSTITUTE



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