

## ICABR News

### COMING SUMMER 2021: The 25<sup>th</sup> ICABR Annual Conference

Since its inception in 1997 the ICABR Conference has been a global forum for scholars and practitioners to exchange knowledge on the technological, economic and policy factors that shape bioeconomy innovation.

The 25th ICABR conference will share perspectives on bioeconomy opportunities and challenges as well as provide insights into the interface between innovations and society.

Topics in Summer 2021 (June 29-July 2) will include:

#### *Opportunities for Biological Innovation & Bioeconomy Transformation*

- New private sector start-up firms and innovations in information technology and biotechnology
- New technology regulations and policies to stimulate private innovations; Spillovers to agriculture from COVID-19 research

#### *Policies to Build a Sustainable and Resilient Bioeconomy*

- Innovative types of funding for improving public research and innovation
- Improved regulations to make better use of technologies such as genetic engineering, gene editing and other tools to improve sustainable crop and livestock production and the conversion of biomass to biofuels, energy, plastics, and medicines
- Incentives for carbon-neutrality, carbon sequestration, biosequestration, and movement towards the circular economy

#### *Impacts of Technology Innovations*

- The expansion of biotech into directly consumable food crops
- The roles of innovation in promoting food security
- Bioeconomy innovations to reduce pollution and GHG emissions
- The interplay of institutional and technical change

#### *Post-COVID-19 Economics and Policies of Goods, Supply Chains and Trade*

- Pandemic effects on food prices, food security and hoarding
- Food distribution challenges, local markets, international trade & policy

#### *Risk Assessment and Regulation*

- Domestic regulations, international institutions, agencies, and agreements
- Regulation of GMO coronavirus vaccines and GMO plants
- Regulation for commercialization of GM insects, animals and microbes

#### *Fostering Innovation to Strengthen Resilience in View of Increasing Uncertainty*

- Trends in public, private & public-private research; Innovation ecosystems
- Digital agriculture and the challenges of access and benefits sharing

#### *Social Trust in the Bioeconomy*

- Consumer knowledge and trust in science; Media and perceptions
- The impact of economic nationalism on global innovation systems



#### *ICABR Quarterly: The newsletter of the International Consortium on Applied Bioeconomy Research (ICABR).*

Welcome to the inaugural newsletter of the ICABR. This quarterly publication will share updates on ICABR events (conferences, webinars) and compile resources on upcoming publication opportunities, grants/fellowships, employment openings, and other ways for the ICABR community to engage. We hope you find the *ICABR Quarterly* a useful resource, and thank you all for your contributions to this crucial field.



- Carl Pray, ICABR President

Follow the 25<sup>th</sup> ICABR Annual Conference online at <https://icabr.net/>

*While it is impossible to know what conditions will be at the time of the conference, the organizers are currently planning to hold a hybrid conference, with in-person and online components.*

### COMING FEBRUARY 2021: Building back better – How can public food and agricultural research institutions be strengthened and rebuilt after the COVID-19 pandemic?

Co-Organized by IFPRI and the International Consortium on Applied Bioeconomy Research (ICABR)

February 2, 2021 09:30AM TO 11:00AM EST

Register free: <https://www.ifpri.org/event/virtual-event-building-back-better-how-can-public-food-and-agricultural-research-institutions>

## Recent ICABR Events

### Summary of the 2020 ICABR Annual Conference

The 24<sup>th</sup> ICABR conference (originally planned for Córdoba Argentina) took place virtually in October 2020. The theme of the 2020 conference, “Accelerating Innovations for the Bioeconomy: Applied Research, Policy Change and Economic Growth” emerged from collaborative discussions between the ICABR Board, ICABR members, and international partner institutions including the Inter-American Institute for Cooperation on Agriculture (IICA) in Latin America. With a focus on the latest economics and agribusiness research on innovations for food, agriculture, and biofuels, the conference highlighted the roles of scientific research and public policy in catalyzing the dramatic growth in agricultural productivity that has taken place in several South American countries, and discussed opportunities to spark similar growth in other developing and developed country contexts.



You can find a summary of the plenary sessions at: <https://eventos.iica.int/conferencias/36/prensa>.

Additionally, all sessions were broadcasted live (Spanish and English) and the recordings, along with speakers' presentations are available at: <https://eventos.iica.int/conferencias/36/plenarios>.

### Recordings of the 2020 ICABR Webinar Series

In Summer 2020 the ICABR also co-organised a set of webinars related to the ICABR 2020 conference.

July 31: [Webinar](#) Will COVID-19 Accelerate the Digital Revolution in Agriculture and the Bioeconomy?

July 24: [Webinar](#) Regulation of Biotechnology in Livestock and Plants in Light of COVID-19

July 15: [Webinar](#) Food, Energy and Essential Goods: A New Demand for National Security

July 10: [Webinar](#): COVID-19 and the Bioeconomy

June 12 and June 19: [Webinar](#) Bridging Research and Policy Responses to COVID-19

## Publication Opportunities for the Bioeconomy

### Open Calls for Papers

#### Special Issue "Sustainability in an Agro-Based Bioeconomy: Prospects and Challenges in a Post-Covid Era"

*A special issue of Circular Economy and Sustainability. Sustainability in an agro-based bioeconomy will evolve by incorporating concepts such as smart production with less impact on the environment, as well as by reducing and recycling biowaste. This special issue focuses on the integrated approach for sustained innovation in various areas of agro-based bioeconomy. (Dr. Chetan Keswani, Dr. Alexandros I. Stefanakis, Dr. Ioannis Nikolaou, Guest Editors)*

Deadline for manuscript submissions: 28 February 2021. Submit to this Special Issue via the following link: <https://www.springer.com/journal/43615/updates/18365210>

#### Special Issue "Making the Transition to a Circular Bioeconomy Sustainable and Inclusive"

*A special issue of Sustainability (ISSN 2071-1050). The bioeconomy and the circular economy both aim at defining new and more sustainable production and consumption models, able to reduce the carbon footprint of human activities. To shed new light on how a circular bioeconomy may be achievable, this Special Issue calls for papers investigating the roles of actors involved in the transition. (Dr. Andreas Pyka, Dr. Massimiliano Mazzanti, Dr. Piergiuseppe Morone, & Dr. Stéphane Lhuillery, Guest Editors)*

Deadline for manuscript submissions: 15 March 2021. Submit to this Special Issue via the following link: [https://www.mdpi.com/journal/sustainability/special\\_issues/Making\\_the\\_Transition\\_to\\_a\\_Circular\\_Bioeconomy\\_Sustainable\\_and\\_Inclusive](https://www.mdpi.com/journal/sustainability/special_issues/Making_the_Transition_to_a_Circular_Bioeconomy_Sustainable_and_Inclusive)

#### Special Issue "Justice and Power in Bioeconomy and Biosociety: a Multidisciplinary Perspective"

*A special issue of Forest Policy and Economics (IF 3.099). The policy discourse of bioeconomy calls for transitions from fossil-fuel driven systems of production and consumption to systems based on renewable-materials. It also calls for societal transformations. The editors invite contributions exploring social and environmental justice, power and hegemony, extractivism, discourses and politics in the context of bioeconomy and biosociety transformations. (Dr. Sabaheta Ramcilovik-Suominen, Dr. Helga Puelzl, Dr. Wolfram Dressler, Dr. Markus Kröger, Dr. Mary Mention, & Dr. Juha Hiedanpää, Guest Editors)*

Deadline for manuscript submissions: 30 June 2021. Submit to this Special Issue via the following link: <https://www.journals.elsevier.com/forest-policy-and-economics/call-for-papers/call-for-papers-on-special-issue-justice-and-power-in-bioeco>

### ICABR Quarterly Featured Student Work

Student presenter awards for the 2020 ICABR Annual Conference went to the following:

**Yan Jin** - Wageningen University. *Does Biotechnology Make a Difference?*

**Andreia Camargo Marques Postal** - UNICAMP. *Sugar Energy in Brazil: An Inclusive Expansion?*

**Chelsea Sutherland** - University of Saskatchewan. *Canadian Consumer Insights on Agriculture: Addressing Knowledge Gaps.*

**Paula Micaela Achenbach** - Facultad de Ciencias Económicas – Universidad de Buenos Aires. *Looking for a Double Dividend of a Carbon Tax in Argentina.*

**Kjel Arnston** - University of Alberta. *Public Demand for a Ban in Sub-Therapeutic Antibiotics in Livestock: A Canadian Case*

## Recent Bioeconomy Publications

### Special Issue "Genetically Modified Organisms (GMOs) in Cropping Systems"

A special issue of *Agronomy* (ISSN 2073-4395). This Special Issue of *Agronomy* on "GMOs in Cropping Systems" includes papers related to all aspects of GM crop production. (Dr. Stuart Smyth, ICABR Guest Editor)

View this Special Issue via the following link: [https://www.mdpi.com/journal/agronomy/special\\_issues/GMO](https://www.mdpi.com/journal/agronomy/special_issues/GMO)

### Special Issue "Sustainable Development of the Bioeconomy—Challenges and Dilemmas"

A special issue of *Sustainability* (ISSN 2071-1050). This Special Issue of *Sustainability* on "Sustainable Development of the Bioeconomy—Challenges and Dilemmas" includes studies on new methodologies, technologies, and products; case studies; and field experiments that show a critical approach to the possibilities of developing the sustainable bioeconomy and its specific sectors, including agriculture and food industry. (Dr. Sławomir Kocira, Dr. Agnieszka Szparaga, Dr. Pavol Findura, & Dr. Ewa Czerwińska, Guest Editors)

View this Special Issue via the following link:

[https://www.mdpi.com/journal/sustainability/special\\_issues/Sustainable\\_Development\\_Bioeconomy](https://www.mdpi.com/journal/sustainability/special_issues/Sustainable_Development_Bioeconomy)

### Shaping an Holistic Response to COVID-19: Protecting Food Systems and Rural Producers

It is easy to lose sight of the big picture when called upon to act quickly in response to the human tragedy caused by COVID-19. Even as the crisis unfolds, governments, regional and international organizations, and civil society have leapt into action to ameliorate immediate suffering and prevent the worst effects – and, slowly, to prepare to deal with the long-term consequences. With the upcoming 2021 UN Food Systems Summit, donors and the international development community are already engaged to transform food systems to be inclusive, sustainable, efficient, healthy and in line with the Sustainable Development Goals.

Read this IFAD Report by ICABR Secretary General Sara Savastano via the following link: <https://www.ifad.org/en/web/latest/blog/asset/41863743>

## Bioeconomy Educational Materials

WUR now offers several Massive Open Online Courses (MOOCs) on various aspects of Bioeconomy (<https://www.edx.org/school/wageningenx>):

- <https://www.wur.nl/en/Research-Results/Themes/theme-biobased-economy.htm>
- <https://www.wur.nl/en/Education-Programmes/master/MSc-programmes/MSc-Biobased-Sciences.htm>

## Bioeconomy Awards & Fellowships

### Bioeconomy Awards

#### Symposium on Biomaterials, Fuels and Chemicals (SBFC)

#### Bioeconomy Leadership Award

The "Bioeconomy Leadership Award" is given on behalf of the SBFC to a company or NGO that has significantly advanced the development of a renewable resource-based fuels and chemicals economy. This award recognizes sustained leadership excellence in enabling commercialization of biomass conversion technologies for fuels and chemicals production.

Details: <https://www.simbhq.org/sbfc/sciprogram/awards/bioecon/>

### Bioeconomy Fellowship Opportunities

#### University of Göttingen has openings for 15 Doctoral Researchers and 1 Postdoctoral Researcher in Sustainable Food Systems

The Research Training Group (RTG) 2654 "Sustainable Food Systems" is funded by the German Research Foundation (DFG). Application deadline is 15 February 2021. Details: <https://www.uni-goettingen.de/de/636456.html>

#### Research Experiences for Undergraduates (REU) Site at the University of Vermont: Crop Diversity and Food and Income Security in East Africa

Each summer from 2021-2023 eight undergraduate students from U.S. institutions representing diverse backgrounds will be provided fully funded summer research fellowships to conduct interdisciplinary research on links between on-farm crop diversity – at local and regional scales – and livelihood outcomes among smallholder farm households in East Africa. Partners include the University of Vermont, Sterling College, and Bioversity International. Application deadline is 28 February 2021.

Details: <https://www.uvm.edu/cals/cdae/reu-in-uganda>

**Call for Contributions: Bioeconomy awards, fellowships, and employment opportunities for the next edition of ICABR Quarterly**

The COVID-19 crisis has underlined that connectivity across the international development community is crucial. The *ICABR Quarterly* provides a platform for the ICABR network to share news of fellowships, awards, and other short- and long-term opportunities for bioeconomy scholars and practitioners. Email [icabr2021@conftool.com](mailto:icabr2021@conftool.com) with any opportunities you wish to share. We will post them on ICABR's website and include them in the next newsletter.

- Sara Savastano, ICABR Secretary General





## Careers in the Bioeconomy

### Academic Positions

Nature Biotechnology maintains a diverse Careers and Recruitment page at the following weblink:  
<https://www.nature.com/nbt/articles?type=careers-and-recruitment>

### Other Career Opportunities

The USDA-funded Sustainable Bioproducts and Bioenergy Program is providing a diverse group of college students and high school science teachers with the knowledge, experience, and interdisciplinary tools necessary to advance the United States' bioeconomy using plant-based and renewable bioproducts: <https://research.cnr.ncsu.edu/sites/sustainablebioproducts/program/>

### Short-term Positions / Consultancies / Contracts

The [Research and Impact Assessment Division](#) of [IFAD](#) is looking for the following positions;

Under the Impact Assessment Cluster, a **Vacancy for a Senior Economist P4 Position (VA # 1993)**  
 The deadline for applying is February 24, 2021. Information to apply online is available at this [link](#)

Under the Data Use Cluster in IFAD's Research and Impact Assessment, **3 Professional positions** for the *50x2030 Initiative*:

- [P-4 Senior Technical Specialist](#)
- [P-3 Technical Specialist](#)
- [P-2 Technical Analyst](#)

*50x2030 Initiative to Close the Agricultural Data Gap* is a \$500 million initiative to address the problem of agricultural data availability and use. IFAD, the Food and Agriculture Organization (FAO), and the World Bank are the three implementing agencies to execute the work under the Initiative. IFAD leads the Data Use Component and all activities under it. The three project staff members will support an array of activities related to strategic planning, project design and management, partnership development and coordination, and more. Interested candidates can apply to the various positions through the IFAD Jobs Portal: <http://www.ifad.org/job>.

Please share other opportunities with the ICABR community by emailing [icabr2021@conftool.com](mailto:icabr2021@conftool.com)

## ICABR Board

### Executive Members of the ICABR Board



[Carl Pray](#)

ICABR PRESIDENT  
RUTGERS UNIVERSITY



[Sara Savastano](#)

ICABR SECRETARY GENERAL  
IFAD



[Justus Wesseler](#)

ICABR PRESIDENT ELECT  
WAGENINGEN UNIVERSITY

### ICABR Council Members at Large



[Regina Birner](#)

UNIVERSITY OF HOHENHEIM



[Travis W. Reynolds](#)

UNIVERSITY OF VERMONT



[Stuart Smyth](#)

UNIVERSITY OF SASKATCHEWAN



[José Maria da Silveira](#)

UNICAMP



[Pasquale Lucio Scandizzo](#)

FONDAZIONE UNIVERSITARIA  
ECONOMIA TOR VERGATA



[David Zilberman](#)

UNIVERSITY OF CALIFORNIA  
BERKELEY

**NOTICE - CALL FOR NOMINATIONS OF ICABR BOARD MEMBERS:** The ICABR will hold elections for new and continuing Council Members at Large in Summer 2021. Nominations (including self-nominations) can be submitted via email to [icabr2021@conftool.com](mailto:icabr2021@conftool.com). We particularly encourage ICABR members from low- and middle-income countries and from groups underrepresented in the bioeconomy sciences to consider service on the ICABR Board.

## About ICABR

The Consortium was established to bring together international scholars in the field of bioeconomy studies – its partners come from across the globe and include leaders in agricultural and economic development, natural resources management, environmental policy, risk communication and other fields. The overarching aims of the ICABR include:

- (a) contribute to the advancement of knowledge and understanding of nature and human behavior in the field of economics and biological sciences with special regard to natural resources, agriculture and the bioeconomy;*
- (b) encourage and improve communication between teachers, researchers and students in the advancement of knowledge and understanding of nature and human behavior in the field of economics and biological sciences with special regard to natural resources, agriculture and bioeconomy; and*
- (c) develop and encourage cooperation between university level teaching institutions and research institutions.*

### For more information:

Please visit the ICABR website at <https://icabr.net/>

Or contact [icabr2021@conftool.com](mailto:icabr2021@conftool.com) for more information.

### ICABR and the Circular Economy

David Zilberman, University of California Berkeley  
ICABR Board Member

The notion of circularity, with emphasis on reuse of materials and processes of birth, death, and regeneration, has been recognized throughout history. Scientists model water cycles, nitrogen cycles, and many more patterns of cyclical behavior. However, traditional economic models have tended to emphasize static systems, where inputs produce outputs, subject to preferences and technologies. The notion of externalities and the fields of environmental and resource economics have emphasized the importance of controlling residue products, and emphasized dynamic considerations, distinguishing between renewable and non-renewable resources, and developing policies to address resource depletion and extinction.



The ICABR was born as a result of a merger of two research agendas, one interested in the new technologies in genetic engineering and the other in valuing and managing biodiversity. The two are closely related because new biotechnology capacity increases the value of biodiversity, and understanding how to assess and manage this value has been a big challenge. The bioeconomy, which is the focus of the ICABR, has a strong element of circularity. The bioeconomy emphasizes using renewable biological resources and processes to produce commercial products, has a strong emphasis on sustainability, and most of all, emphasizes technologies that create new values from raw and sometimes “waste” materials. One theme that emerges from our research on biotechnology is its value in enhancing input use efficiency, namely, reducing the waste associated with production systems, for example, increasing yields by reducing pest damage, as well as increasing the productivity of other inputs, such as water and fertilizer. Biotechnology also provides new avenues to recycle waste products and reduce the environmental footprint of agriculture.

Research presented in our meetings includes creative applications of life cycle analysis, especially in the context of biofuel, as well as efforts to integrate this methodology within decision-making frameworks. The recent emphasis of value chain analysis recognizes the dynamic nature of economic systems, including processes of innovation, research, development, production, processing and marketing, that aim to maximize value and reduce residue subject to policies and regulations. Our agenda recognizes the diversity of human societies and the heterogeneity of biophysical systems, leading to differentiated policy agendas for developing and developed countries, and varying technology prescriptions for different contexts. Yet, we also recognize some global challenges unify all of us, and the importance of contributing to international agreements to address these global challenges.

Our research suggests policies that recognize the circularity of living systems can enhance our quality of life and sustain the environment. Our major challenge is identify effective policies, refine them, and inform decision making so they become politically feasible.

